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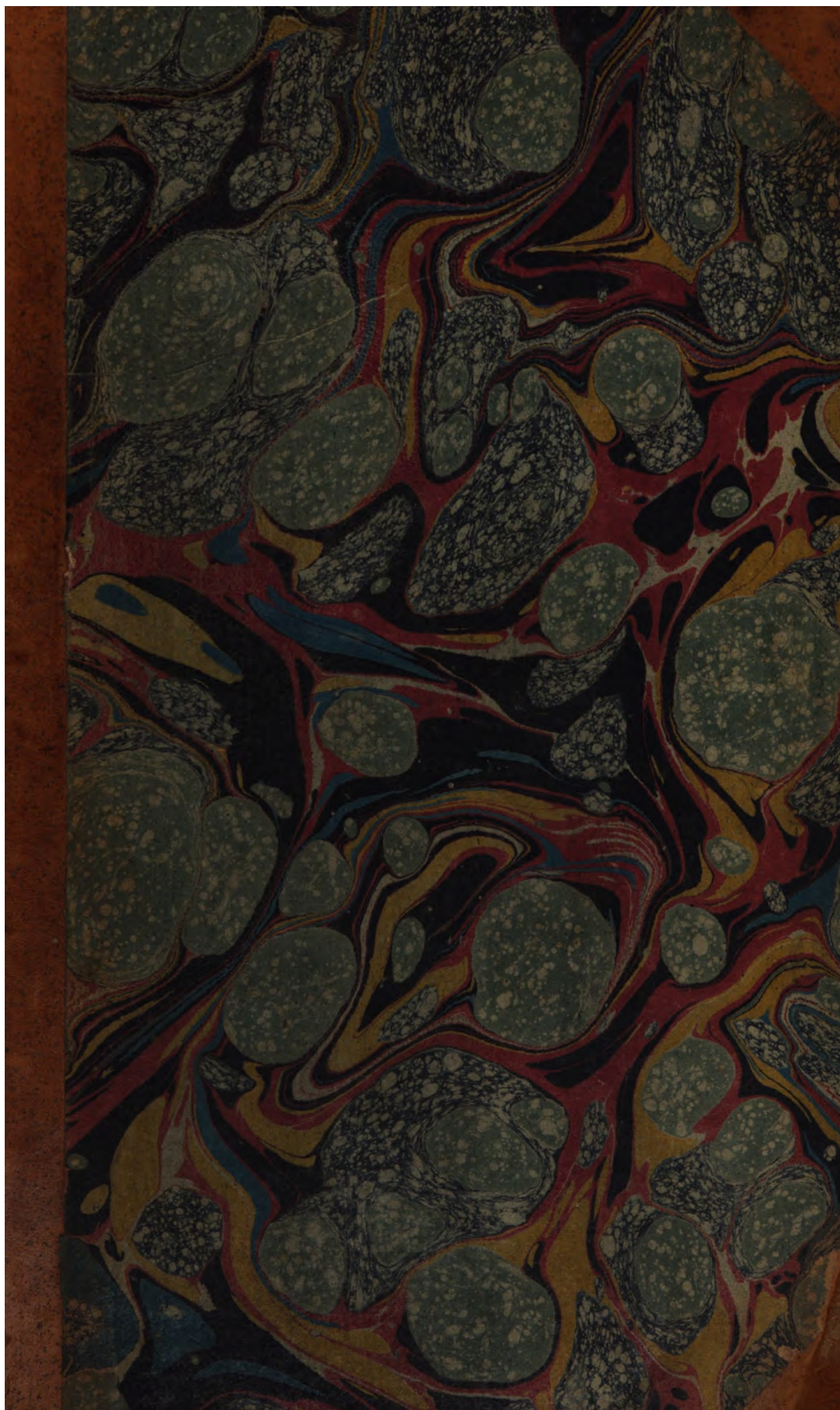
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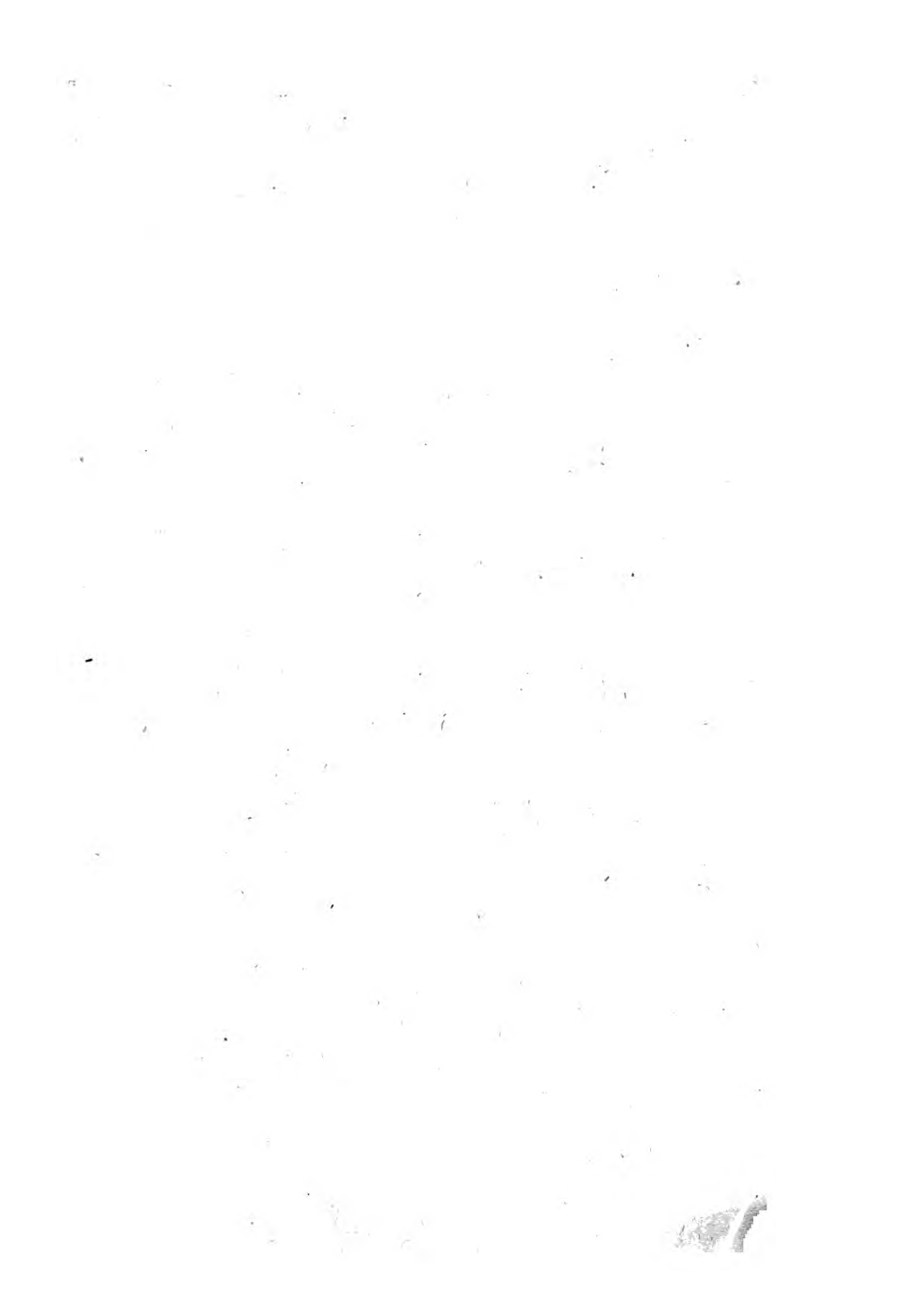


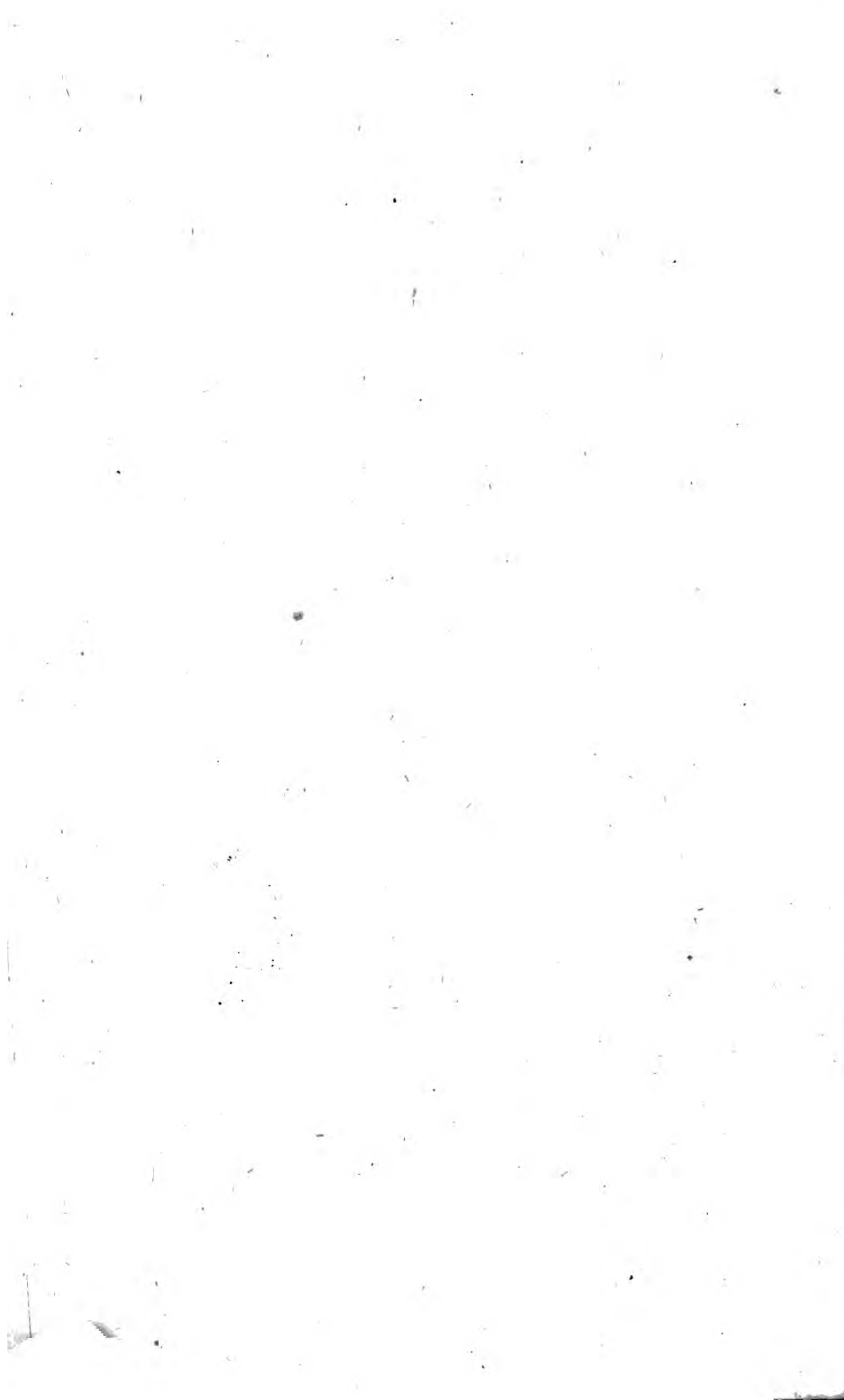
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HISTORICAL SKETCH OF THE PROGRESS OF MEDICINE
IN THE YEAR 1808; BY MR. ROYSTON.

No. 3.

(To be continued Annually.)

Grateful, as I am, to the good Being whose bounty has imparted to me this reasoning intellect, whatever it is, I hold myself proportionably indebted to him, from whose enlightened understanding another ray of knowledge communicates to mine.

JUNIUS.

IF it were possible to trace the progress of science from the earliest times, with the same precision that history has followed the footsteps of the conqueror, or unfolded the causes of national revolutions; a book might be formed that would have strong claims to the attention of mankind. Could the veil be withdrawn that covers, with perhaps designed obscurity, the arts of ancient Egypt; and the mysterious mythology be penetrated, that involves the literature even of Greece; it might become evident that the powers of human intellect had risen in these nations to a height that modern science would not disdain. And in the erudition of the antient world, whether of China, India, Egypt, or Greece, did some genius arise powerful enough to remove the clouds that interpose, possibly many of the discoveries of modern times might be found. Even the Celtic nations, mingled with their wild and awful superstitions, a wonderful knowledge of mechanical powers, or of chemical operations.

There is, however, one department of human knowledge in which the ancients were remarkably defective, if the records of their attainments have not perished, or remain yet concealed in the darkness of symbolical representation. With very few exceptions, the operations of the vital energies

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gies and the laws of nature, seem to have been neglected, or strangely misunderstood, by the sages of antiquity. What is called experimental philosophy is an invention of modern times; and medicine, as a science founded on incontrovertible facts, and a true observance of nature, existed in a state of extreme imperfection till long after the revival of literature; though it might be proved that the physicians of Greece and Rome possessed an extraordinary dexterity in some practical points, intimately combined with a disposition to form groundless theories, and hypothetical systems.

Notwithstanding the obscurity on one hand, and the puerile and fanciful inventions on the other, enough of certainty remains to make it felt, in contemplating the progress that mankind has made toward a knowledge of many arts, as well as the melioration of intellect on subjects peculiarly applicable to mind, that the materials upon which this mechanic dexterity or mental illumination are founded, have been accumulating from age to age; and also that the skill of various periods has, from want of sufficient records, been sometimes entirely lost, and at others imperfectly transmitted. It will too be obvious, that had authentic memorials of knowledge descended with the progress of time, and bequeathed fully the stream of intellect, unobstructed and unimpaired, from generation to generation, that an acmé in science had been attained, of which, perhaps, we have now but a faint image. This defect has been removed by the discoveries of modern times. The learning of distant regions, as it might have been of remote ages, has been made to approximate; and the aggregate of knowledge, like some mighty engine, bears down the barriers that seem for ages to have said, thus far shalt thou go and no farther, and here shall thy inquiries be stayed.

With the advantage of difficulties, once deemed insurmountable, surmounted; enlightened by discoveries of which former ages had not, as far as is known, the slightest intimation; it must be expected that an acquaintance with the operations of Nature is in a state of progression. And notwithstanding much of the knowledge of the early ages of the world may be lost from the want of means that would have multiplied the evidence of its existence, it will be admitted that advances are daily making toward a developement of the whole system of Nature, that promise, at no very distant period, to explain the principles of

of animation, and ascertain, more fully, the laws that govern the actions of vitality.

To methodize, abridge, and occasionally explain this progress of science, has been deemed an advantageous mode of promoting general knowledge; and conducive particularly to the improvement of the practical part of medicine, as rationally founded on an acquaintance with the structure and functions of animal bodies, and extensive views of the laws that govern and direct the operations in the systems of all creatures possessing life.

In a comprehensive designation of the Medical Art, Natural History, Botany, Chemistry, and Experimental Philosophy in many, if not all its branches, as well as Anatomy and Physiology, will be but elementary parts. And a persuasion that the more distinct is the knowledge of these elementary parts possessed by the medical practitioner, the more perfectly will he comprehend morbid phenomena, and feel the duties and claims of an arduous employment, has occasioned some preliminary notice to be taken of them, as subservient to a view of the practical part of medicine.

ANATOMY and Physiology, or a knowledge of the structure and functions of animated Nature, is so essential a part of medical education, and the principles resulting from this knowledge are so fundamentally important, that no collateral acquirements, however brilliant or extensive, can compensate for their absence. To recommend a sedulous application to this branch of elementary knowledge would be superfluous, if in a well written essay in a respectable periodical publication, an endeavour had not been made to seduce the student from this essential object, by a chain of ingenious and plausible arguments. An assumption that a minute knowledge of anatomy leads to a conclusion that the animal body is a mere machine, without any reference to the operations of the principle of vitality, were it true, would be a decisive argument. If in the days of Borelli and Keil this notion of animal mechanism prevailed, the converse is the fact at present; and inquiry is now probably too much employed on the inscrutable essence of the principle of vitality: its operations on the functions, and its controul over animal organization, being used in a vague manner to explain the nature of morbid actions, and the *modus operandi* of medicines. It would be fortunate if the discoverers of remedies, or of scientific principles, were always or often able to retrace
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their knowledge to the obscure hints and lucky circumstances, from whence they are asserted to be commonly derived. But the truth is, that the principles of science, and the efficient practice of arts, have not arisen out of accidents that give no more than loose hints; but are the result of study and reflection, in minds informed and enlarged by an acquaintance with elementary principles, and extensive views of Nature. Certainly both the *materia medica* and the practice of physic have sometimes been indebted to accident for medicinal substances, and their application in diseases; but the judicious employment of remedies has arisen out of an extensive acquaintance with the structure and functions of animals, connected with a knowledge of the properties of the substance employed, the nature and course of morbid derangements, and a nice adjustment of these with the age, temperament, and idiosyncrasy of the patient. Though anatomy has not explained the properties and powers of remedies, without a reference to their effects on the living body;—though it has not taught, abstractedly, that cinchona is a bitter and a tonic, that opium is soporific or stimulant, that mercury cures syphilis, and that antimony is a powerful evacuant; yet it has shewn, by explaining the operations of the animal frame, how to regulate the actions of these powerful substances, and to perceive more distinctly the effects they produce on various parts of the system. It will be admitted, without reluctance, that mere anatomical knowledge does not make the practitioner; but yet is it an essential elementary part of that character. Conjoined with chemistry, botany, a knowledge of the *materia medica*, and the study of the symptoms of disease, anatomy forms the accomplished physician; and, perhaps, it gives the foundation and base of a pyramid, the apex of which terminates in rational practice. Whoever is an anatomist, may make a useful, a rational, and an excellent practitioner:—but he who is ignorant in this essential point, whatever are his other acquirements, will often be confused, irresolute, and hesitating, when he should be prompt and decisive.

Notwithstanding the evident value of this branch of elementary knowledge, the year 1808 has neither been fruitful of anatomical and physiological discovery, or of works, that from this source elucidate the practice of physic and surgery.

A subject of much intricacy even in the apparent and common actions of the frame, and of profound obscurity as to the cause of these actions, has been investigated by
Dr.

Dr. Barclay, in a work on the muscular motions of the human body. The difficulty of treating an abstruse subject with clearness and precision, must always be increased by the compulsory use of a language to which the reader is unaccustomed, and of terms that in every page require a definition. But surely the choice of such a language and of such terms, if a writer means to be understood, is most unfortunate. A few years since Dr. Barclay published an anatomical nomenclature, the terms of which have not become current, but they are adopted into this work. And though the employment of a language peculiar to the author, and which few beside himself will understand, has not entirely suppressed the interest, it has spread an obscurity and gloom over a work calculated to claim the attention of physiologists, by giving a comprehensive view of the structure of the muscular fibre, the nature and laws of irritability, and the simple and combined actions of muscles. If the descriptions, from the singularity of the language in which they are given, want that graphic determination that brings the object before the eye; * if the observations and the opinions are sometimes problematical from a redundancy of scientific refinement; the student, and perhaps the practitioner, may be rewarded with useful information by the perusal of a work, which they must labour to understand.

The extended and general views of Dr. Barclay, are contrasted by the particular application of the ingenuity of Mr. Home in descriptions of the structure, and in illustration of the functions of some individual viscus. In a series of experiments and observations on the functions of the stomach, printed in the *Phil. Trans.* for 1807, and noticed in this Report for that year, Mr. Home believed he had ascertained, that while digestion is going on, there is a separation between the cardiac and pyloric portions, either by means of a permanent or muscular contraction; and that this fact placed the process of digestion in a new light, and led him to consider in what way the quantities of different liquors, which are so often taken into the stomach, can be prevented from mixing with the half digest-

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* The motions of the scapula, as described by Dr. B. are atlantad, sacrad, ster-mesilaterad, dorsa-mesial, rotatory, or combinations of these motions. In moving sternad, it cannot reach the mesial plane; on account of the clavicle, it must follow a direction that is ster-mesi-lateral, and when its basis approaches that plane on the dorsal aspect, compelled by the ribs, it must move in a plane that is dorsa-mesial, &c. &c. &c.

6 *Mr. Royston's Sketch of the Progress of Medicine.*

ed food, and interfering with the formation of the chyle. Pursuing this inquiry, he found that the fluids are principally contained in the cardiac portion, and the food that has reached the pyloric portion is usually of one uniform consistence, so that the fluids, beyond what are necessary for digestion, would appear to be carried out of the stomach, without ever reaching so far as the pylorus. But out of this new light in the process of digestion, a question arose; it was, *how did these superabundant fluids escape from the stomach?* Many circumstances, said Mr. Home, appeared to render it probable that the *Spleen* was the route by which they were conveyed; and this opinion gave rise to two papers in the Phil. Trans. for this year, on the structure and use of that viscus.

In these papers, Mr. Home endeavours to prove by experiment, the truth of a position at first hypothetical. A concurrence of favourable circumstances rendered the Spleen a commodious resort. Its vicinity to the stomach, its texture, and above all its unclaimed services in the animal œconomy, point it out for employment on a variety of occasions. To ascertain, among its other destinations, that it is intended to serve as a reservoir for receiving the superfluous fluid that is taken into the stomach, Mr. Home, or his assistants, put a ligature about the pylorus, and injected a quantity of fluid into the stomach. After some time, part of the fluid had disappeared; there was no visible trace of it in the absorbent vessels; but the Spleen was become turgid, and its cells were found distended with a fluid. To identify this fluid found in the Spleen with the portion remaining in the stomach, an infusion of rhubarb was given to an animal, and after some time, the colouring matter was detected in the cells of the Spleen, though it could not be perceived in other parts of the body. By experiments on the ass, it was also ascertained that a fluid coloured with rhubarb passed from the stomach to the Spleen, when the pylorus was left open. The experiments contained in these papers Mr. Home believes have ascertained,

“ That the spleen is met with in two very different states, one which may be termed the distended, the other the contracted; and that in one its size is double what it is in the other. In the distended state there is a distinct appearance of cells, containing a limpid fluid, distinguishable by the naked eye; in the contracted those only become distinct when seen through a magnifying glass. The distended state takes place when the stomach has received
unusual

unusual quantities of liquids before the animal's death; and the contracted state, when the animal has been kept several days without drink before the spleen is examined.

"That when the pylorus is secured, coloured fluids pass from the cardiac portion of the stomach into the circulation of the blood, and go off by urine; and while this is going on, the spleen is in its most distended state, and the colouring matter is found in its juices, although it is not to be detected in those of the liver. The colouring matter cannot therefore be conveyed to the spleen through the common absorbents of the stomach, which lead to the thoracic duct.

"That when the spleen is in this state, the blood in the splenic vein has its serum more strongly impregnated with the colouring matter, than the blood in the other veins of the body; and when the stomach is kept without liquids, although colouring matter is carried into the system from the intestinal canal by the ordinary channels, no particular evidence of it is met with in the spleen or its veins." The conclusions drawn from these statements are,

"That the liquids received into the stomach beyond what are employed for digestion, are not wholly carried out by the common absorbents of the stomach, or the canal of the intestines, *but are partly conveyed through the medium of the spleen into the circulation of the liver.*

"That if the vessels which communicate between the stomach and the spleen have not been discovered, the foregoing experiments are strongly presumptive of the existence of such vessels.

"That this communication between the cardiac portion of the stomach and the spleen, will explain the circumstances of those who are in the habit of drinking spirituous liquors having the spleen and liver so frequently diseased, and the diseases of both organs being of the same kind.

"That the considerable disease or removal of this organ, (though it is not essential to life, its office being of a secondary nature) must occasion digestion to be disturbed."

Well imagined and correctly performed experiments afford the only certain mode of arriving at truth in the operations of nature; and the uses of the organs of animals ascertained by this means, are established on a basis that philosophy admits to be indisputable. How far Mr. Home has succeeded in this instance will be left to future experimenters to determine; or of what advantage, if he has

succeeded, his discovery will be to pathology, is not very obvious. But let the final result be whatever it may, science is indebted to him for keeping in view this method of inquiry by experiment, and of making deductions from facts.

The direct progress of anatomy is not, perhaps, to be traced farther; but much collateral matter, connected more or less with this subject, has been given to the public. Under the disputed and disputable term morbid anatomy, no inconsiderable portion of talent has been exerted, as will hereafter be noticed; and the history of man generally, or particular modifications of his frame and diseases, have received some illustration from Dr. Jarrold and Dr. Reeve. The *Anthropologia* of the former, the professed object of which is to "remove every unwarranted prejudice against the person of the negro, and to call the attention of parents to those means by which the beauty and strength of their offspring may be improved," contains a series of dissertations on the natural history of man.

The art of medicine, taken in the extensive sense in which we have always been anxious to view it, will include a very large portion of those objects, in every class of nature, which the author of the universe has destined the intellect of man to investigate; and upon many of which, the volumes of this work are largely employed. The gradations of created beings, or the relations they bear to each other, their connections and dependencies, are circumstances of great interest to the medical philosopher; and if Dr. Jarrold's opposition to the opinions of Mr. White on this subject, do not carry with them a full conviction, they lead the mind on to further views and additional investigations. The effect of climate, of habit, of food, on the human frame, is an object of curious research, as explanatory of the external appearances of man. The hazardous question of the origin of the human race from one stock is discussed; and without going very deeply into the inquiry, it is determined that the races of man, however distinguished by peculiarities of form and colour, in the islands of the South Sea, in Lapland, the continent of America, Hindoostan, Tartary, and the polished nations of Europe, have the same individual origin. How these varieties were produced, is a discussion of deep interest to the philosopher; and to the Christian and the Deist, a question of great intricacy and difficult solution. Among the races of men, the most obvious distinguishing peculiarity is the colour of the skin, which varies through every shade from
white

white to black; and the causes of this peculiarity are inquired into at some length. The direct source of colour, or the colouring principle, is asserted to be iron; and in animals and vegetables, the presence of this mineral, under some modification, decides the tint. The presence of light or the sun's rays, are, however, a *sine qua non* of colour; and it is argued that the solar rays, with the assistance of moisture, which is considered as a *mordant*, produce the dark colour of the skin in man. Chemical science, however, will not explain this. That the vital principle is concerned in the production of colour seems very probable. In a living animal, with the aid of moisture, the solar rays deepen the colour; but deprive that animal of life, and the very skin that was made black, will by the same process of moisture and light, be rendered colourless. Whenever the vital principle exists in an active state, seclude the individual from light, and it loses part, or the whole of its colour; but dead matter is bleached by exposure to the action of that sun which would have deepened its hue had it possessed vitality. Matter possessing the vital principle, and exercising the functions of life, has its hues rendered deep, rich, or brilliant, by exposure to the sun's rays; but by the same process dead matter is gradually deprived of colour, and at length becomes white. This is too obvious to require illustration by particular instances; but the mode of action in the principle that influences these facts is not yet explained.

The natural history of man, as exemplified in the effects of habit and locality, is strongly characterized in the view of Cretinism by Dr. Reeve. In the wretched Crétin is seen, not only the human form altered and debased, more than in any other instance, but by external circumstances the mental principle entirely extinguished. Among the Alps of Savoy and Switzerland, there are vallies so deeply embosomed that the breeze is never felt in them; these vallies are exposed to the direct and still more to the reflected rays of the sun: in many of these the effluvia from marshes are very strong, and the atmosphere humid, close, and oppressive. It is among the poor inhabitants of these ill ventilated, hot, and humid vallies, that Cretinism is produced. All the Cretins that I saw, says Dr. Reeve, were in adjoining houses, in the little village *la Batia*, situated in the narrow corner of a valley; these houses being built up under ledges of rocks, and all of them very filthy, very close, and very hot.

The appearances that characterize Cretinism, are weakness

10 *Mr. Royston's Sketch of the Progress of Medicine.*

ness of body, and imbecility of mind. "The enlargement of the thyroid gland, called *goitre*, though not a constant attendant, is a most unsightly feature in the aspect of a Cretin. His head is also deformed, his stature diminutive, his complexion sickly, his countenance vacant, his lips and eyelids coarse and prominent, his skin wrinkled and pendulous, his muscles loose and flabby. The qualities of the mind correspond to the deranged state of the body which it inhabits, and imbecility prevails in all the intermediate degrees, from excessive stupidity to complete fatuity."

To Dr. Reeve science is indebted for this addition to the history of a moral and physical degradation, to which human nature in no other form or circumstance of disease has been condemned. But this has yet left much for the investigation of philosophers, legislators, physicians, and naturalists. The melioration of the condition of man, is, or should be, the great object of intellectual exertion. In Cretinism we see the lowest point to which he can be reduced — weak in body, imbecile in mind. The natural and moral causes producing this have been often sought for, perhaps they have not yet been found. It is even uncertain when this peculiar state of humanity was first observed. As connected with bronchocele, and till very lately it was believed that these diseases had the closest affinity; and that the Cretin was always a goitre, was perhaps known to Pliny, Horace, and Juvenal; but the first writer who described it with the distinctness of natural history, or with the views of a physician, was *Felix Plater*, in his *Praxeos Medica*.* Since this, it has been frequent-
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* The *Prax. Med.* was first published at Basle, 3 vols. 1602; again, 3 vols. 8vo. 1625, and 1656. The last edit. 4to. 1736, with a Preface by Emanuel Koenig. Of those who have written on Cretinism, we are enabled to enumerate Prof. Akerman, Ueber die Cretenin, eine besondere Menschenabart in den Alpen, 8vo. Gotha, 1795 — Fodere, essai sur le Goitre et Cretinisme, Turin, 1794; Paris, 1800. — Coxe's Travels in Switzerland. — De Saussure, and Sir George Staunton.

It is evident that Cretinism is not confined to the Alpine vallies of Switzerland; it has been met with in Tartary; and in the *Reserches Philosophiques sur les Americains*, Cretins are compared with the Blafards of the Isthmus of Darien. An English physician, who travelled through Styria and Carinthia in 1706, describes the inhabitants of these places as very poor, especially in Styria; and great numbers of them *blind and foolish*, their skins of a pale yellow, with large scrophulous tumours filling up all the space of the throat from the chin and upper part of the breast, and weighing some pounds. I examined, says he, the persons and consulted their physicians, and they all agree that the whole of these tumours

ly noticed by philosophers and physicians; and the last of them, Dr. Reeve, was led to the inquiry by the hope of discovering some function for the thyroid gland, more satisfactory than what is commonly alleged. But in this he was disappointed; for it appeared that the disease in the thyroid gland, called bronchocele, was not an essential part of Cretinism, for it often appeared without that disease of intellect, and the Cretin was frequently free from bronchocele.

THE connection that chemistry holds with every branch of science and art, the explanations it has afforded, under the denomination of animal chemistry, of the constituent parts of animal bodies; and the elucidation that respiration, in particular, has received from it, combine to make its discoveries of high importance to the medical practitioner. In the history of the progress of this art, a very few years have sufficed to mark its pre-eminence in Germany and France; but the period, perhaps, has now arrived when Britain is destined to manifest a superiority: and in the brilliant discoveries of Prof. Davy, we hail the dawn of a reputation that will place us above the level of the chemists on the Continent. If the late discovery of the base of alkalies, made by this ingenious chemist, has not an obvious connection with the medical art, it is in itself so striking, affords such numerous analogies, and opens so many new views, that we feel fully justified in giving it a short detail.

In the year 1807 Mr. Davy proved, "in examining the agencies of galvanism in the decomposition of a variety of alkaline and earthy salts, that the formation of all chemical compounds depends on the electrical state of the

mours are substantial flesh, that they are born so, and are incurable. From Cleopritz, at the foot of the mountains, in the space of 150 miles, I saw, he adds, some thousands of these miserable creatures. Though this is to be considered as an historical fact; and the first, perhaps, on Cretinism that appeared in English; yet we cannot subscribe to the opinion of this gentleman, that the cause of this disease was "drinking cold mineral waters on the Alps," notwithstanding he supports his hypothesis by large citations from *Baccius*, a physician of great celebrity at Rome in the 16th cent. who wrote with much learned research on a variety of subjects. Among his works is a folio de *Thermis, Lacubus, Fluminibus Balneis totius orbis*, which passed through many editions; to the last of these was added a chapter de nova methodo *Thermarum explorandarum, deque minera et viribus Fontium Medicatorum*. In the former part of this Note the Memoir of the Count de Maugiron expressly on Cretinism, read to the Roy. Soc. at Lyons about 30 years ago, was overlooked.

12 *Mr. Royston's Sketch of the Progress of Medicine.*

the materials of which they are composed." Curious and important as is this fact, it claims additional attention, as having led to the discovery of another of extraordinary brilliance, and deeply affecting many of the principles of natural science. Following on his researches into the chemical changes produced in substances of known composition by electricity, Mr. Davy concluded that this new method of investigation promised to lead to a more intimate knowledge than had hitherto been obtained, concerning the true elements of bodies. At length, he was able to state, "that in the course of a laborious experimental application of the powers of electro-chemical analysis, to bodies which have appeared simple when examined by common chemical agents, or which, at least, have never been decomposed, it was his good fortune to obtain new and singular results." These new and singular results were a complete decomposition of *potash* and *soda*, and a demonstration that their base is a shining metallic substance closely resembling quicksilver.

In the first attempts which Mr. Davy made to decompose the fixed alkalies, he failed, in consequence of having acted on their aqueous solutions only. But when a small piece of pure potash, moistened a little by the breath, was placed upon an insulated disc of platina, connected with the negative side of a galvanic battery, consisting of 100 plates of 6 inches, and 150 of 4 inches square, in a state of intense activity, and a platina wire, communicating with the positive side, was brought in contact with the upper surface of the alkali, a vivid action soon commenced. The potash began to fuse at both its points of electrization, and small globules having a high metallic lustre, and precisely similar in visible characters to quicksilver, appeared; some of which burst with explosion and bright flame. These globules are the basis of potash. That alkali being composed of this peculiar base and oxygen only; soda, when acted upon in the same manner, exhibited an analogous result. Mr. Davy conceives the bases of the two fixed alkalies to be metals, and he has named one *Potassium*, and the other *Sodium*. The ingenious discoverer of these new metals, found that they could only be preserved and confined, so as to investigate their properties and submit them to experiments, by being immersed in recently distilled naphtha, and that when covered with a thin film of this fluid, their physical properties may be easily examined in the atmosphere.

The discovery of this property in naphtha, enabled Mr. Davy.

Davy to ascertain that when a globule of the base of potash was exposed to the atmosphere, it immediately attracted oxygen, and a white crust formed upon it, which proved to be pure potash. That when the globules were strongly heated, and then suspended in oxygen gas, a rapid combustion with a brilliant flame was produced, and these metallic globules were converted into an alkali, whose weight greatly exceeded that of the combustible matter consumed. That *Potassium*, at 60° Fahr. is only imperfectly fluid; at 70° it becomes more fluid; and at 100°, its fluidity is perfect, so that different globules may be made to run into one. At 50° it becomes a soft and malleable solid, which has the lustre of polished silver, and at about the freezing point of water it becomes harder and brittle, and when broken into fragments exhibits a crystallized texture, of perfect whiteness and high metallic splendour. To be converted into vapour, it requires a temperature approaching to that of red heat: it transmits caloric with great facility, and is a perfect conductor of electricity. Resembling the metals in all these properties, it is, however, remarkably different from any of them in specific gravity. It swims in distilled naphtha whose specific gravity is only .770, water being considered 1,000. Its specific gravity is to that of mercury as 10 to 223. When *Potassium* is introduced into oxymuriatic gas, it burns spontaneously with a bright and red light, and muriate of potash is formed. When thrown upon water, *Potassium* decomposes it with great violence, an instantaneous explosion is produced with brilliant flame, and a solution of pure potash is the result. When a globule is placed upon ice, not even the solid form of the two substances can prevent their union; for it instantly burns with a bright flame, and a deep hole is made in the ice, which is found to contain a solution of potash. Thrown into mineral acids it flames and burns on the surface. In sulphuric acid, sulphate of potash is formed; in nitrous acid, nitrous gas is disengaged, and nitrate of potash formed. When brought in contact with phosphorus, and pressed upon, there is a considerable action: they become fluid together, burn, and produce phosphate of potash. If a globule of *Potassium* is made to touch a globule of mercury about twice as large, they combine with considerable heat; the compound is fluid at the temperature of its formation; but when cool it appears a solid metal, similar in colour to silver. When a globule of this amalgam is thrown into water, it rapidly decomposes it with a hissing noise,
potash

potash is formed, hydrogen disengaged, and the mercury remains free. This basis of potash readily reduces metallic oxides when heated in contact with them; it decomposes common glass by a gentle heat, and at a red heat, effects a change even in the purest vitrefactions.

Sodium, or the base of soda, like that of potash, is white, opaque, and has the lustre of silver. The property of welding, which belongs to iron and platina, at a white heat only, is possessed by this substance at common temperatures. In its more obvious properties it is very similar to the base of potash; but has a greater specific gravity, being to that of water nearly as 9 to 10, while *Potassium* is nearly as 6 to 10. In oxygen gas it produces a white flame, and sends forth bright sparks, occasioning a beautiful effect. In oxy-muriatic acid gas it burns vividly, with numerous scintillations of a bright red colour. In the quantity of $\frac{1}{48}$ it renders mercury a fixed solid, of the colour of silver, and forms an alloy with tin. When amalgamated with mercury, the amalgam will combine with other metals; and there was reason to believe that platina and iron remain in combination with the mercury, even when deprived of the new substance by exposure to the air.

For this short view of the history of a discovery which has attracted the attention of scientific persons in an extraordinary degree; and the concise statement of some of the physical properties of *Potassium and Sodium*, we are chiefly indebted to the ingenious Mr. Parke. Of the probable results from the discovery of these new substances, Mr. Davy himself is, perhaps, the most accurate judge. An immense variety of objects of research, he says, is presented in the powers and affinities of the new metals produced from the alkalies. In themselves, they will undoubtedly prove powerful agents for analysis; and having an affinity for oxygen stronger than any other known substances, they may possibly supersede the application of electricity to some of the undecomposed bodies. In sciences kindred to chemistry, the knowledge of the nature of the alkalies, and the analogies arising in consequence, will open many new views; they may lead to the solution of many problems in geology, and shew that agents may have operated in the formation of rocks and earths which have not hitherto been suspected to exist.

Among the multitude of objects which chemistry embraces, there is no one that should more interest the medical profession than the analysis of mineral waters. From
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the remotest records of time, mineral springs have been considered as natural remedies of great efficacy; and many efforts have been made to illustrate their operation by ascertaining their contents. How awkward have been the means, and how imperfect have been the results, need scarcely be mentioned, when it is known that till the present year, the waters of Cheltenham had not undergone an analysis that could be confided in. From an elaborate examination of the spring originally resorted to at this celebrated place, it is pronounced by Mr. Accum to contain in a gallon of water,

	Grains
Muriate of soda	219,75
Sulphate of magnesia	98,25
———— soda	80,01
Muriate of magnesia	40,00
———— lime	36,00
Carbonate of iron	7,15
Sulphate of lime	85,01
	566,17
	cub. inches
Carbonic acid gas	12,07
Oxygen gas	4,03
Atmospheric air	1,21
	17,31

An anylysis of five other springs that have been more recently discovered in the same place, has been conducted with equal skill and attention.

In the Report of last year it will be seen that considerable attention had been given to states of the atmosphere, as affecting the health of mankind, and comparisons were made between the atmospherical influences of former periods and the present time; as well as attempts to ascertain the degrees of change produced in the air, by processes going on upon the surface of the earth, and the modes and qualities of impregnations so received. If the opinions on these subjects were often problematical, and have since been frequently controverted, it was still satisfactory to see that the subject drew attention, and that this attention promised, by degrees, to clear away the obscurity that hung over it, and that a just sense was taking place of the value and importance of those investigations. Indeed, diseases of the most alarming kinds, contagions and epidemics

epidemics of every denomination, either arise out of some peculiar state of the atmosphere, or depend on some properties in that fluid for their speedy or slow promulgation; so that every inquiry into its laws and history, though it may in some points be obscure, erroneous, or inartificially conducted, must be received by the thinking part of the profession, with an attention that is due to efforts employed on the elucidation of this difficult but important subject. With these sentiments it cannot but be acknowledged, that "a general view of the natural history of the atmosphere, and of its connection with the sciences of medicine and agriculture," compiled with a view to bring into a moderate compass, the whole of the facts and discoveries on this subject, with observations on the causes of epidemics, excited considerable expectations combined with the fullest approbation of the design. But if on a subject of extreme intricacy, embarrassed with a multitude of obscure and uncertain bearings, disturbed by contending opinions, and involved in the approximations and repulsions of old and new theories, the execution should not have fully risen to the point of expectation; still much information has been collected, and many difficulties have been subdued.

There is, however, yet wanted on the natural history of the atmosphere, a work of moderate price, which should clearly state all the known and admitted facts,—shortly, but explicitly giving the history of their discovery, the experiments and the arguments by which they are supported, as well as the objections brought against them;—their effects in arts and sciences, and their particular and general influence on the operations of Nature. Extreme care should be taken that no extraneous matter be admitted into a manual or catechism of this kind, that the relations be concise but perspicuous, that the experiments be so detailed as to admit of being repeated, and that the references be so distinct as to allow of an easy application to the original sources of information. To practitioners in medicine, to gentlemen, and to intelligent farmers, such a manual would probably be very acceptable.

(To be continued in our next, at p. 105.)

Dr. ROBERTON'S ADDITIONAL REMARKS ON STRICTURE.

(Continued from vol. xxi. pp. 321—332.)

MR. HOME, near the beginning of his first volume, endeavours to prove the muscularity of the membrane of the urethra, but seems obliged to take a great deal for granted. Many of his speculations on this part of his subject are certainly objectionable; but as they have no strict relation to my present practical inquiries, I shall not now enter into an examination of them. I may however observe, that if we possessed a completely contractile power of the membrane of the urethra, paralysis of the neck of the bladder would not cause incontinence of urine; since, by the contraction of the urethra, it might be retained. We have then no proof whatever of this membrane possessing any contractile power; and the proofs Mr. Home has attempted to give of this are insufficient, viz. the state of it during the passing of urine and semen, and the effect produced on it by the use of injections in gonorrhœa: for, while the urine passes, the muscles of the penis are generally flaccid, and consequently allow the membrane to be easily distended; but, during the emission of semen, these muscles, being suddenly and violently contracted, compress the membrane lining the urethra, and thus it is, at that time, rendered narrower; and the same effect is produced on these parts during the use of injections. Mr. Home constantly runs into error in this way, as if not aware that the muscles have *any* effect in compressing the urethra.—Having presumed the muscularity of the membrane of the urethra, he proceeds to give the following account of the influence of that membrane in the production of stricture.

“Contraction and relaxation,” says he, (vol. i. p. 19) “are the natural and healthy actions of the urethra; but this membrane, like every other [part of] muscular structure, is liable to a spasmodic action, which produces a degree of contraction beyond the natural; and in that state the canal loses the power of relaxing till the spasm is removed. When this happens it constitutes disease, and is termed a spasmodic stricture.

“While a stricture is in this state, it is only a wrong action of the membrane of the urethra; and if the parts could be examined in their relaxed state, there would be no appearance of disease.

(No, 125.)

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"When a portion of the urethra is disposed to contract beyond its natural easy state, this disposition commonly increases till the part becomes incapable of falling back into a state of complete relaxation, and the canal remains always narrower at that part.

"In this stage it is both a permanent stricture and a spasmodic one. It is so far permanent, that it is always narrower than the rest of the canal; and so far spasmodic, that it is liable to contract occasionally in a still greater degree."

This, in all probability, is the most correct account of the formation of strictures that can be given; indeed, I believe it is in this way that almost every stricture is formed; and that it is only by neglect of them in their early stages, or by harsh and unwarrantable treatment, that they ultimately become of a permanent nature, or require the complete destruction of their substance, before they can be removed; and even after all this, the patient is often not relieved, but obliged to drag out a life of perpetual misery.

Mr. Home himself seems of this opinion in page 23. Speaking of spasmodic strictures, and their effect in the production of permanent ones, he says, "A stricture having arrived at that stage which renders it permanent, does not prevent it from having also a spasmodic contraction. This however, in many instances, is in a less degree after the disease has been of some years continuance, than at a more early period; for we find patients who have been subject to occasional suppressions, afterwards entirely free from them, the disease in its increase having rendered the parts more indolent, and therefore not so readily affected by accidental causes; but when the stricture becomes very small, the occasional suppressions return, and become more serious." To this I would answer, they certainly do; but under the above circumstances, had proper precautions been used, no such serious termination need have been feared. In short, to sanction the frequent use of the caustic, it is absolutely necessary to admit of more or less spasmodic action in all cases, where what is termed permanent stricture is found. This is indeed Mr. Hunter's opinion, but differently moulded by Mr. Home. If by any one it be asserted, that permanent stricture exists, and if, at the same time, he wishes only to prove the existence of spasmodic stricture, it may be urged that it is purely of that nature; and if, on the contrary, it be
contested

contested that it is purely spasmodic, it may be admitted that spasm does exist, but that it is in consequence of a permanent obstruction of the canal, which can only be relieved on the removal of the obstruction.

To prevent repetition, I wish it to be particularly understood, that it is to Mr. Home's practice alone that I object; and of his theories, I shall take notice only when they seem likely to lead to erroneous practical conclusions. Mr. Home, in page 31, makes the following remark. "It will appear evident, that a contraction of any particular part of the canal may be brought on by an unusual or preternatural degree of action in the membrane itself, without any new formation whatever."

It need hardly be stated, that in order to form a contraction of any natural canal, possessing, as I have endeavoured to show, no muscular power, additional substance is absolutely necessary.

"A gentleman," says Mr. Home, in page 52, "in the act of copulation, felt, at the instant the emission should have taken place, considerable darting pain in the urethra, and found afterwards a few drops of blood upon his linen; about an hour after he had occasion to make water, and in preparing to do so, the semen, which should have been emitted, appeared upon his shirt in considerable quantity.

"I was consulted upon the cause of such very unusual and distressing circumstances. On hearing them stated, I informed him that there must be a stricture in the urethra, which *alone* could explain what had happened; this he was inclined to doubt, as he made water very well; but upon passing a bougie, an obstruction was met with just beyond the bulb of the urethra, and upon allowing the bougie to remain with slight pressure against the stricture for a few minutes, it was capable of being passed on to the bladder." Now, all these circumstances are more easily explicable without supposing stricture. During the act of emission, rapid contraction happened in the sphincter vesicæ, which closed the apertures of the vasa deferentia, and when relaxation occurred to allow the passage of the urine, the semen also escaped; and it is in the same manner that semen is often emitted in great quantity immediately after the orgasm. When the bougie was introduced, it had stopped at a small eminence, situated at the under side of the neck of the bladder, which often interrupts the introduction of the staff,

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and having by pressure overcome this, the bougie entered the bladder. Thus the gentleman himself probably judged correctly that he really had no stricture.

In page 56, a case is related, to show the similarity between stricture and gonorrhœa; this seems to be a case neither of stricture nor of gonorrhœa, but simply a temporary spasmodic affection, with which people advanced in life are often affected when they worship the Cyprian goddess.

In page 62, Mr. Home informs us, that strictures cause fatal peritonitis; and this he thinks extraordinary, as there is no immediate communication between the bladder and abdomen. Is not the bladder covered by the peritonæum? And is not absolute contact immediate communication?—It would appear that gentlemen may, for a moment, forget the most obvious facts of anatomy, while they are absorbed in the search after muscles in the crystalline lens.

To proceed. I cannot find, in all Mr. Home's detail of local symptoms of stricture, a single one which I have not seen in cases purely of a spasmodic nature, and which, when attended to in time, I am daily in the habit of removing by the properly regulated use of internal medicines, external applications, and the occasional use of a simple bougie.

The constitutional symptoms of stricture, mentioned by Mr. Home, are principally of a febrile nature, attended with cold, hot, and sweating stages. In respect to this part of the subject I may remark, that I have seldom met with a very violent case of spasmodic stricture, in which, at some period or other of the disease, these occurrences did not take place. I must however admit, that I have never met with the different stages following each other so accurately as those in which Mr. Home has observed these appearances. All this I conceive to be of little importance, and it can surely never be adopted as a diagnostic symptom of the affection. I think these fits of ague, as they are called, may be accounted for in a more rational way. 1st. From matter being lodged about the perinæum, in consequence of previous improper treatment of the affection, which, assisted by the dread into which the patient is thrown by the very thought of having a caustic bougie passed into his urethra, will occasion the cold fit; and, 2dly, from the pain occasioned by the actual application of a caustic bougie wedged into the stricture.

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With respect to the case of stricture, treated as an ague, in p. 66, I think Mr. Home's conclusion erroneous. He says, "I have had a patient under my care, who for three years had this constitutional symptom of stricture, in the West Indies, which was treated in that country as an irregular ague; but not finding himself relieved, he came to this country; and it was discovered (by Mr. H.) that he had strictures in the urethra; upon the removal of which, the ague disappeared, without the use of any internal medicine."

From Mr. Home's mode of relating this case, it is evident that he had no symptom to warrant him to suppose the existence of stricture in the urethra, except those usually found in cases of ague. When we consider that, in all probability, the gentleman lived, while in the West Indies, in some situation where ague might be an endemic disease, and that on his return to England he was removed from the very cause of his complaint, in a few weeks, might he not have been entirely freed from it, without either medicine or caustic?

Mr. Home tells us in another place, that strictures have been mistaken for nervous fever; that they cause inflammation of the tonsils, fauces, &c. In short, it would appear that Strictures cause all the diseases that ever either had existence or were invented by Nosologists.

The cases of irritable urethra, mistaken for stricture, (p. 75) according to the account given of them, appear much better fitted for the application of caustic than many of the cases related in the book. Accidentally, however, a simple bougie was preferred, and proved successful. An injection of oil with a small proportion of tinct. opii might have answered the same purpose.

What is the nature of the action produced by the application of the caustic in those cases of irritable urethra related by Mr. Home, where even he allows that no stricture exists? It must be by an entire destruction of the parts that have become morbidly irritable, and are incapable of resuming their healthy action by any power they themselves possess; or it may not entirely destroy the parts, but only cause an alteration of a more healthy nature to take place in them, by which they are rendered capable of performing their natural functions. To effect this last purpose, without running the risk of entirely destroying the organization of the parts, at least deserves some attention, and I have no doubt of our being able to accomplish our object.

The very earliest stages of stricture, before it has acquired that condensed form which nothing but the application of caustic or an instrument can remove, is certainly the time when surgeons ought to be most active and vigorous in their exertions for its removal. I do not hesitate to say, that it is in these moments a surgeon shows whether he is actuated by the powers of discrimination, by which his applications shall be external or internal, as the particular circumstances of the moment shall require; or if his sole dependence is on one remedy, viz. the lunar caustic, by which indeed he may effect a cure, but in doing so may run many chances of involving his patient in great misery perhaps for the remainder of his life.

Mr. Home, in page 109, in a note, informs us of a physician in London, who certainly carried his aversion to the use of caustic, in the removal of permanent stricture, too far. He was probably as much wedded to one side of the question as Mr. Home to the other. The physician, it is said, left his fortune to a nephew, solely on condition that, altho' the uncle knew him to be affected with strictures, he was not to undergo the burning process for their removal. The nephew complied with these conditions, and Mr. Home says he afterwards died in great misery. "In this case," says he, "it was found after death that the urine, prevented by the stricture from coming forward, had forced its way backward upon the intestine, instead of coming through the perinæum, and the first symptom that gave alarm was that of the fæces coming through the penis with the urine."

By what way urine, prevented from being evacuated in the natural way, could be forced backward into the intestine, and the passage which thus conducted it back, enable not only it but even the fæces to overcome the stricture, and pass off by the penis, is not perfectly clear.

In the very early stages of stricture, while yet there remains a great degree of spasm on the parts, and when, in a great majority of cases, the bougie cannot be introduced without occasioning the most excruciating pain, Mr. Home talks with as much coolness of the *irritation*, as he terms it, which is often brought upon the strictured part, as if he were not aware that he is introducing an instrument in this unprepared state into a canal which, from its morbid state, is so susceptible of the most acute sensation. In page 110, he condemns the principal means, viz. internal medicines, by which these effects were to be obviated,

ated, because, according to his theory, "No internal medicine appears capable of stopping the progress of a stricture." But, and I do not state it in support of any particular theory, I am in the constant habit, especially if applied at the commencement of the affection, by the *properly regulated* use of internal, and the *properly regulated* employment of external applications, of entirely and permanently removing affections of the most violently spasmodic nature, which in all probability would have terminated in permanent strictures. In short, under the existence of these contractions, no man is warranted to use the bougie, without having previously employed other means. According to Mr. Home, the simple bougie, for the distention of contracted parts, is only of temporary benefit; and in the way he proposes, this was the best effect which could be expected to arise from such practice.

That Mr. Home has acquired from practice a degree of dexterity in the application of the caustic, no one will question; and where strictures of a permanent nature actually do exist, I believe there is scarcely any other surgeon who would be so often successful in their removal. But when it is recollected that it is not the manual dexterity alone of one or even two individuals that can establish a doctrine on scientific principles; and that Mr. H. in detailing his own successful treatment of permanent strictures, is addressing himself to many other persons, it is scarcely to be calculated what an immense number of blunders may be made, not only in mistaking the actual existence of stricture, but in the deficiency of others in their dexterity of applying the caustic for its removal. The seat of the disease, as related by him, the nature and shape of the canal, and the uncertainty of the number and site of these strictures; together with the impossibility, in the hands of many, of applying the caustic bougie to the exact spot where the obstruction lies, as well as the probability, considering the escarotic nature of caustic, of destroying every substance to which it is opposed, ought at all times to induce an exertion to prevent a complaint arriving at that pitch of severity when such applications may be necessary, and to occasion a pause before it is applied, when the propriety of those measures cannot actually be demonstrated.

In former periods, the most commonly preferred plans of operating for the removal of permanent stricture, for-

midable as they may appear to some, were, considering the circumstances I have stated, more certain of effecting the exact object which the surgeon had in view, than the modern attempt to apply caustic through a long narrow passage such as the urethra, where nearly the whole extent of the healthy part of that canal may be cauterized as effectually as the part intended actually to be destroyed.

The most approved of these operations were, dissecting down upon the strictured part and cutting it out; the other by making an opening rather anterior to the stricture, and passing a flexible gum catheter through the opening into the bladder. Even Mr. Home allows, that he has frequently seen this operation successfully performed by John Hunter, and no untoward symptom occur.

From this Mr. Home observes, p. 130, that "if the membrane of the urethra, when diseased, is capable of suffering so much injury, without any consequent symptoms of irritation, it cannot be doubted that it will bear with impunity to be touched *in a very partial manner*, several different times with lunar caustic." But shall we say because a man can, without exhibiting signs of the utmost torture, suffer a cut to be made in his finger, that he will bear with impunity to have his whole hand seared over with a red hot iron! The metaphor is just, for according to the present mode of cauterizing the urethra, I have no idea of a partial application of caustic to that part, and it is absolutely disgusting to hear it talked of. Seven inches, or according to the common language, seven and a quarter, must, less or more according to the dexterity of the operator, be injured by such application. If it receives not much mischief from removing the one nearest the orifice, it must be absolutely destroyed before the removal of the second, third, fourth, fifth, or God knows how many more, which are everlastingly found snugly situated nearer the bladder.

In the following paragraph, p. 131, Mr. Home is certainly right, when he informs us that "his observations are published with a view to extend the use of the caustic to a greater variety of cases, and, in some measure, upon a very different principle from that upon which it was applied to impervious strictures by the late Mr. Hunter." Further on, he says, "he wishes to place the merit of the invention, as well as the mode of applying it, where it was due," viz. to Mr. Hunter; a name which, by the bye, Mr. Home introduces on every occasion where he is in want

want of respectable authority to support a repulsive doctrine. I wish Mr. Hunter were alive still to give us his opinion.

I really find so much may be said respecting Mr. Home's practice in stricture, that I fear my readers may imagine I do it from pique; but I assure them this is not the case. I have no knowledge of Mr. Home but from his writings; I have no interest in his success or want of success. Matter of fact and sound reasoning are what I have always been in pursuit of; and I am sorry, for my own ease, I cannot think I have found enough of it in many, even of the best medical publications. But to the point.—In p. 132, Mr. Home, not contented with applying caustic for the removal of permanent strictures; as he calls them, strenuously recommends its use, in preference to the bougie, in what he terms irritable strictures; in other words, I suppose, he means spasmodic strictures. I trust I do not misunderstand him, for I have no wish to do so; however, if I do I shall be glad to be put right. I hope Mr. Home succeeded in all the cases of this nature in which he attempted the introduction of the caustic; I say, I hope so, for if such strictures resembled those of the same kind which are constantly occurring in practice in this place, there must be a peculiar dexterity in his mode of applying that substance so as to cure them. I formerly stated that, in such cases, internal medicines, external applications, and the occasional and most judicious use of the simple bougie, were all in their turn necessary to effect this purpose; that burning away such strictures was merely removing the effect of the spasm for a short period; for the cause still continuing, the constriction would again and again occur; not probably in the same place, to which the caustic was formerly *intended to be applied*, but to every part of the urethra, and possibly to eight or ten different parts of it at the same time, to which it actually was applied.

Mr. Home gives two long cases in proof of this part of his doctrine. He passed bougies repeatedly into the urethra of both patients till he brought on the most alarming symptoms, among which were abscess in perinæo, when he deemed it prudent to desist. He then applied the caustic a variety of times, in each instance, and after occasioning great distress to both patients, he cured them.

In the cure of diseases in general, and of stricture probably among the rest, there is usually, for days or weeks previous to the complete cure, a gradual approach toward
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that state. But in not a few of Mr. Home's cases, we find the patient perpetually racked with the most agonizing pains, either from the nature of the disease or from the peculiar quality of his instruments of cure; and before we have had a moment to recover from sympathizing in the wretched patient's sufferings, we find him *dismissed cured!*

Mr. Home then, p. 150, enters into a long apologetical oration, with an attempt, at the same time, to show (from instances of other parts of the body suffering violence, without danger) with what safety caustic may be applied to the whole internal membrane of the urethra.

He says, "spasms in particular muscles, as in the intercostalis, diaphragm, muscles of the arm or leg, come on from slight constitutional irritation, or local injuries, attended with little violence; the cause is often so slight as entirely to escape discovery, and the treatment most generally found to succeed, is blistering the surface nearest the part affected, which is one of the most violent applications we are enabled to employ." Had Mr. Home transferred the same sort of reasoning, and the same practice, to those strictures in the urethra of a spasmodic nature, with the judicious addition of other articles which, taken internally or applied externally, might tend to produce similar effects—had he done so, I say, much unnecessary suffering might have been avoided by some who have had courage to submit to such rarely necessary practice, as the burning of the internal membrane of the urethra. Indeed, the application of caustic bougies to the internal membrane of the urethra in these strictures, acts, in their removal, on the same principle as a blister applied to the perinæum or under part of the penis; only with this difference, that in the first, the membrane of the urethra, and much damage to the canal in general, must be the consequence; while in the other, viz. blistering externally, aided by internal medicines, &c. the stricture is removed without doing the slightest degree of injury to these parts. In p. 155, even Mr. Home seems sensible of this, for he says, "this general principle of spasmodic affections and local irritations, yielding more readily to stimulating applications, is now found equally applicable to affections in the urethra." I agree with him; we only differ in our mode of applying them. He burns off the very structure affected, and at least, every part anterior to it, with lunar caustic; while I endeavour to remove it by antispasmodics, blisters, the occasional use of the bougie, &c. without injuring the structure at all. No doubt can be entertained which is the easiest

siest and safest way; and there is no one capable of reasoning, but must be convinced of the permanent benefit of the latter, in preference to the former.

In p. 158, Mr. Home commences a comparative inquiry respecting the bougie and the caustic. He says, "it is not my intention, by any means, to discourage the use of the bougie, which is certainly a very useful instrument; *but* as it is found to be limited in its powers, it becomes important to point out a more active application, which may be capable of producing a cure, where that shall have proved inadequate." On the contrary then, I should, according to his mode of using the bougie, entirely discourage it, as, when applied in that way, it is not only very limited in its powers of relief, but productive of the most exquisite distress to the patient; yet, when more scientifically applied, and that in the early stage of stricture, it is preferable, and will ultimately perhaps be preferred to the lunar caustic.

The remaining parts of this section are employed in reasoning upon the comparative effects of these applications. I think it no compliment to Mr. Home, when I state that he reasons on this subject with much accuracy; but he seems in his practice to forget to distinguish the very circumstances upon which his reasonings turn.

In p. 173, Mr. Home informs us, that "it often happens that when there are several strictures, the application of the caustic to that which is nearest the external orifice affects all the others, and makes them relax; so that the stream of urine which before had been very small, shall now be large and free; and after this stricture has been destroyed, and the caustic is applied to one nearer the bladder, the very contrary effect is produced." This he calls sympathy between parts. That sympathy between parts may cause a slight constriction or relaxation of them appears to me very evident; but how, in such a canal as the urethra, it should cause so complete a relaxation of the constricted part as to allow the stream of water before small, to become "large and free", is beyond my comprehension. Permanently constricted parts become, in some measure, like natural cavities, which force or continued pressure may enlarge to a great extent; but sympathy seldom, I may say never will; particularly in parts such as the urethra, destitute of muscularity, and over which the will has no power. The truth of the matter is just this, the reasoning of Mr. Home can only be applied to a *spasmodic* affection of the part altered in its mode of action
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for the moment by the caustic application, which also caused all those spasms nearer the bladder to disappear. The contrary effect produced, as asserted by Mr. Home, when the caustic is applied to one still nearer the bladder, can never be accounted for by any process of reasoning with which at least I am acquainted: it must have been owing merely to some accidental occurrence. That many curious facts must have occurred to Mr. Home in his practice I have no doubt, but no person should establish a doctrine upon an anomalous fact.

In perusing the 196 pages of Mr. Home's first volume, it has been observed, that numerous spasmodic strictures have by him been considered as permanent, and treated accordingly; and even where caustic is recommended for their removal in preference to the bougie, it may surprize some to find under the head of "circumstances under which the use of the caustic has proved unsuccessful," spasmodic stricture.—Spasmodic stricture then may be incurable by the caustic! Spasm of these parts may be subdivided into six or eight different kinds, and complicated in a variety of ways with permanent stricture, but will this be satisfactory to such readers as chuse to reason for themselves?

Some observations may seem of a paradoxical nature in Mr. Home's works. It is asserted in various parts, and cases detailed to prove it, that the application of caustic for the removal of stricture does not bring on irritation; in other instances, as in page 196, we find that it did bring on irritation. But, perhaps, during the composition of the book, Mr. Home's cases of different result may have occurred, which shows the danger of making statements too general.

To make remarks on all Mr. Home's cases that follow this part of his book, would be unpleasant to myself and uninteresting to my readers; I shall therefore particularly refer to or detail only a few, to which he has given the name of permanent stricture, or such as he deemed only curable by means of the caustic. In this very dry part of his subject, I may have overlooked a number of cases to my purpose; but I believe those I shall subjoin, will be found quite satisfactory in respect to what, in the previous pages, I have endeavoured to prove.

(To be Continued.)

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I AM much obliged by your publishing my case of Hydrothorax, and with pleasure hasten to answer your questions relative to the time that elapsed between the patient's death and the inspection of his body, and "whether there was any reason to suspect transudation after death."

My only object in trespassing on the pages of your valuable Journal, is to arrive at the truth, and, if I can, to benefit science; I am therefore willing, as far as I am able, to give the fullest information on any circumstances that have been inadvertently omitted in my paper. I am open to conviction; and being a very young practitioner, return you my best thanks for the liberal manner in which your questions are proposed.

In the Navy we have frequent cause to lament the superstitious aversion which sailors have to dead bodies being opened; and I am sorry to add, that in most of his Majesty's ships this abhorrence of what ought to be considered a sacred duty of the surgeon, pervades all ranks. It has, however, been my good fortune to serve with officers of liberal understanding; and in the few mortal cases that have occurred in my practice, I have uniformly obtained the consent and even approbation of the crew, by fairly stating the object of my research, and allowing such of them as chose it, to witness the dissection.

At the death of the patient whose case is under our present consideration, I was most anxious for immediate inspection of the body; but owing to the Captain's absence, could not accomplish my wish till the next morning; so that nearly fourteen hours elapsed between the dissolution and the opening of the body. With respect to your second question, I will candidly confess that I did not once think of such a circumstance as "transudation after death;" nor can I now reconcile it with my ideas of organized bodies.

The accumulation of fluids in the thorax, in the ventricles of the brain, and in all other cavities of the body, I conceive can only take place while the vital principle is resident in the frame, or not after death till the corpse has begun to turn putrid; and although in those complaints which have been denominated "malignant," appearances
of

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of putrefaction often manifest themselves almost immediately after death, it more commonly happens (unless the weather be excessively warm) that no perceptible change takes place for several days; and sometimes interment is not necessary, on account of the body's corruption, for a fortnight even, in a temperate climate. Just before death we frequently find a momentary increased action of the circulating and absorbing systems, followed by an involuntary discharge of bilious and mucous excrement, flux of tears and saliva, with cold, clammy, perspirable matter left on the surface of the body, all consequences of preceding laborious action, which would appear to be a last friendly effort of the *vis medicatrix naturæ*. I must therefore still believe, that in my patient the effusion took place before death. And here I would beg leave to make a quotation from a work highly and deservedly estimated, which will shew I am not singular in the belief that Hydrothorax may exist, without any of the symptoms which have been considered diagnostic. After a particular enumeration of the usual symptoms of thoracic dropsy, we find the following passages.

"That these symptoms are common attendants of this disease (Hydrothorax) is undeniable; and they are certainly the best characteristics of this affection with which we are yet acquainted: but it must be allowed that they are present in some cases where there is no water in the breast; and that in other instances where the disease exists, they are either altogether wanting, or occur only in a very slight degree. Certain diagnostics therefore of this disease still remain to be discovered."*

But notwithstanding my opinion must be considerably strengthened by the above quotation, it may still be erroneous; and as I have delivered my sentiments with candour, and, I hope, with respectful freedom, I trust you, or some of your Correspondents, will favour me, and the cause of science, by a reciprocation of ideas, which cannot but tend to the improvement of our art.

With your permission, I will state a case of gangrenous pylorus, which I believe was occasioned by spirituous potation. On the 14th day of July, 1808, in the afternoon, while we were at anchor in the roads of New Providence, Cornelius Collopy, seaman, ætat. 23, of a full habit, and who

* Edinburgh Practice of Physic, &c. Vol. ii. p. 474.

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who had enjoyed excellent health, with the exception of an occasional slight dyspnœa, was employed in pumping new rum from large casks into smaller ones; and although much care was taken to prevent his drinking any liquor, he appeared in the evening to be very much intoxicated. Two other men, who were engaged in the same duty, were also drunk; but the officer who attended to see the spirits drawn off, declared they did not drink any, and attributed their drunkenness to the "fumes" or evaporation of the rum, which certainly was very strong. At eight o'clock, P. M. when Collopy's ebriety was first discovered, he was evidently in a state of the utmost danger, having entirely lost the power of speech and voluntary motion. The countenance, notwithstanding, was but slightly flushed; and although he had a little stertorous breathing, there did not appear to be much determination to the head. The region of the stomach was distended, seemingly with flatus, and just below the scrobiculus cordis I observed a circumscribed tumour, very compressible, nearly the size of a hen's egg. Under such circumstances, bleeding did not seem advisable, because of the extreme debility which must necessarily succeed the vast excitement of the spirits; and as the only chance of saving the patient appeared to depend on the contents of his stomach being speedily evacuated, fifteen grains of pure sulphate of zinc were immediately given, and followed by frequent draughts of tepid water, which, it was hoped, would accelerate and assist the action of the white vitriol. At nine, P. M. very little vomiting had been induced, but the patient, though quite unconscious, voided a great quantity of limpid urine, and had an involuntary motion per anum. The dose of sulphate of zinc was therefore repeated, with two oz. of olive oil, and some lukewarm water, as before. At ten, P. M. he continued in a state of perfect insensibility; and notwithstanding thirty grains of sulphate of zinc in solution had been injected into the stomach, its contents were obstinately retained. The heart seemed to contract very irregularly, and at times to intermit, which, with the inefficacy of the emetic, pretty clearly indicated the destruction of irritability in the stomach; and a little before twelve, P. M. he ceased to exist.

APPEARANCES ON DISSECTION.

As this man's death was so sudden, and altogether unexpected by the ship's crew, I judged it my duty to explain the cause of his dissolution, and more particularly so, as
opening

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opening the body in their presence would afford me an opportunity to point out to the sailors, the dreadful effects of intoxication. The surface of the brain exhibited no signs of inflammation, and only a very small quantity of fluid was found in the ventricles. The cerebellum appeared to be perfectly sound. The thoracic viscera had no marks of disease, except rather a greater proportion of fat than is usually found attached to the heart, and which I suppose occasioned the dyspnoea mentioned above. On laying open the abdomen, the stomach appeared prodigiously enlarged, and had occasioned the compressible tumour at the scrobiculus cordis. The cardia had no uncommon appearance, nor did the peritoneal coat indicate any of the effects of inflammation; but on opening the stomach, I observed the tunica glandulosa, or villosa, of a florid colour, and in some parts with every appearance of the most violent inflammatory action. The pylorus was preternaturally thick, and had a gangrenous triangular spot on its upper part, about one inch and a half in perpendicular extent, and with a base about an inch. The stomach contained fully a pint of a greyish fluid, (in which the presence of spirituous liquor could not be detected) mixed with pieces of undigested bread and fruit, which seemed to have undergone a process of fermentation, during which, much gas had been evolved, and the flatulent distension of the stomach produced. Whether the "fumes" of liquor could have caused such effects, I will not "assume the province of determining," but I rather think the spirit was bodily present.

I am, &c.

H. M. S. Euryalus, Sheerness,
June 4, 1809.

JAMES SCOTT, Surgeon.

EDITORS' REMARK.

Transudation after death is by no means a common case, and depends on the manner in which the subject died. In animals slaughtered in the usual way, we believe it has never been recorded. Mr. Scott's remarks on the appearances immediately before death, and which cease with death, show his habits of observation, and convince us that by his diligence and opportunities, some light may be thrown on a most important branch of pathology, namely, a distinction between those appearances which may be considered as the *causa mortis*, and such as may have existed without materially injuring the functions of life, or have occurred in *articulo mortis*, or even after apparent death.

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The appearances marked by Mr. Scott as often preceding death, in what are called putrid diseases, cease, as he observes; with death; and the body keeps longer than one which died suddenly and in high health. Another remark may be made; that after death, or more properly after respiration has ceased, and the body has become cold, it will recover its warmth; and the cheeks regain their colour. If at this time a vein is opened, the blood will flow, and afterwards coagulate, and the limbs stiffen. All this arises from a process which takes place after the other actions by which life is supported have ceased. But they must be the effect of life remaining in certain parts. Accordingly we find, that under certain modes of dying these actions subsequent on the cessation of respiration never take place; that no heat returns; the blood is not thrown by the contraction of the arteries into the veins; the blood never coagulates, the body never stiffens, and putrefaction takes place early. These cases usually happen in hot seasons, after violent deaths or very short illnesses; and in some such instances the stomach is sometimes found digested.

ED.

NATURAL HISTORY OF THE FŒTID GUMS.

(Continued from our last.)

BUBON GALBANUM, is another plant of the natural order of umbellatæ, and stands, according to the Linnæan System, in the same class and order as the preceding. The different colleges in their pharmacopœia have designated the Bubon Galbanum as shrubby, with compound leaves issuing from the sheaths of the stem, tripinnated, veined, and of a sea green colour. The principal umbell terminates the stem, where it radiates with some regularity. The flowers are all hermaphrodite, and produce prolific seeds.

In this, as in the former instance, however, we are not perfectly certain of the plant. From the diversity of authors, some of them must be mistaken, or Galbanum must be procured from more than one species of Bubon. The latter is more consistent with candour as well as probability. The drug, as we see it, is usually imported to us from Turkey. It is a tenacious dry gum resin, white in proportion as it is fresh, of a smell generally not grateful, of a pungent bitter taste. It transudes spontaneously, but more

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readily from incisions in the joints of plants of 3 or 4 years growth. But it is said the best way is to cut the trunk transversely about 3 or 4 fingers above its root, from which the gum will fall in drops. These drops, or distinct grains, are by Mr. Geoffrey called tears, in distinction to larger masses, which he calls loaves. That in tears is esteemed the purest, but the masses are easily detected by numerous white speculæ, which sometimes appear to shine, and which tinge spirit of wine with a golden hue. The worst kind is of a dusky brown colour, and of the consistence of wax. The smell to those who possess this sense with sufficient accuracy, will always betray any sophistication of this article. When exposed to the flame of a candle, it burns and slightly deflagrates, with a white flame and copious smoke, which has an aromatic smell, but a considerable part is left unconsumed. It is dissolved in either water or spirit of wine, but not in oils. In a menstruum of two parts of spirit and one of water, it may be perfectly dissolved: by which it appears that it contains double the quantity of resin to that of gum. Rubbed with water, it becomes milky, but precipitates afterwards.

By distillation, we are informed by Newman, it yields an essential oil, which swims in water; if distilled *per se*, it affords a strong empyreumatic oil.

The virtues of Galbanum are very considerable, though not equal to assafœtida. It is, however, less disgusting in its smell, and therefore of more general use. As a pectoral, it is less esteemed than ammoniacum. Externally applied in the old *emplaste gummis*, it is particularly convenient for those boils, which from their situation, do not conveniently admit poultices, and as long as the cuticle is preserved, its application will be found serviceable in whatever may be the stage of suppuration.

BUBON MACEDONICUM, formerly called Petroselinum Macedonicum. Since the omission of the larger composition of Theriaca and Mithridate, has not found a place in the London Pharmacopœia, consequently as its virtues could not be well ascertained among so many more powerful remedies, may be omitted as to any other notice than a mere demonstration in cabinets.

GUMMI SAGAPENUM.—Though this gum has been long in use, and was even mentioned, as we have reason to believe, by Dioscorides; yet we are to this day ignorant of the plant that produces it. It appears, however, by the specimens brought over, which contain portions of, and sometimes whole seeds, to be an umbellated plant, and as
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it has something of the smell of galbanum and assafœtida, probably is of a species not very far removed from the latter.

The specimens usually contain masses consisting of parts of very different consistence, so that there is reason to believe the whole made up of tears, as they are usually called, transuded at different times from some part of the plant. Sometimes, indeed, we meet with small clean pieces, which have not the appearance of fragments, but these are, I believe, at present, very uncommon.

Sagapenum yields much of its smell and flavour to the still, affording an essential oil and water highly impregnated. About three-fourths of the gum-resin are resolved by long boiling in water, into a turbid yellowish white liquor. Rectified spirits will take up about half, and is very little coloured. The solution smells very weak, and tastes very strong. By this, it is probable that the more volatile parts are dissolved in the watery menstruum.

Sagapenum, as its external qualities show, has many of the virtues both of assafœtida and Galbanum. It has the advantage of both, in proving for the most part somewhat cathartic, a consideration deserving attention, inasmuch as hysterical and hypochondriacal subjects have usually a great torpidity in this and most other secretions, excepting the urinary. On this account, it was formerly more used for what is called resolving obstructions in the different viscera, hypochondria, spleen, and mesentery.

TACAMAHAC; this gum-resin has generally been supposed to be procured from the populus Balsamifera of Linnæus. In this way it is described by Lewis, and in the early volumes of Murray, who commends it as an anti-rheumatic. But Bergius assures us that no populus yields a substance at all resembling Tacamahac; and Murray in his last volume, published in 1792, admits the justice of the remark. He goes further, and acknowledges his mistake in the virtues he at one time imputed to this drug, assuring us, that used by fumigation as was directed, it is either altogether useless or injurious, driving the peccant matter of rheumatism to the bones, and still more important organs. However this may be, there is reason to suspect that a remedy of real value would have been more used, or at least, that its virtues would have been by this time well ascertained.

On the Proofs of the proximate Causes of Diseases, and more especially of Fevers; by Dr. ALDER.

(In Continuation.)

IN my last, I promised some Reflections upon the Cases now stated. Nothing is more apt to mislead than a narrow view of facts. Some gentlemen, from seeing or reading several cases where congestions in the head were most conspicuous in those who had died from fevers, have concluded that congestion in the head, or even inflammation there, is the proximate cause of fever. Others, finding in some cases that livid blotches all over the chief internal parts, were the most striking phænomena, have concluded that repelled carbuncles caused such fevers. Others again, observing nothing very remarkable, inferred that the complaints were seated in the nerves. Others, finding much acrid bile, attributed the fevers to it; and so on. But, in order to say in what fevers do consist, we must examine impartially all the dissections which have been made after the different kinds of fevers, and this deliberately and minutely; and, at the same time, consider the symptoms of all the different kinds of fevers, the causes, and the success of the different modes of treatment. To do all this, has occupied much of my attention for more than twelve years.

From the preceding Sketch of the appearances found after all the different kinds of fever, any gentleman, however, who has not much studied this subject, may be somewhat perplexed to fix upon any one proximate cause, if he has not fully attended to what I have written. But I flatter myself, if he have adopted my idea that an imperfect transmission through the lungs is the proximate cause of fever, and then have diligently inquired into *the reasons why in some cases this does not, prima facie, appear to be so*, may find a clear clue to conduct him through all the apparent intricacies and contradictions, without very much embarrassment. In most cases, he will find every mark to lead him to conclude the lungs had been greatly congested through the whole of the disease, and that the blood, in consequence, could seldom pass freely through them from the veins into the arteries. Whenever he finds the venous system overcharged, he may be sure that the blood has not had a free passage through the lungs; and in almost all cases he will find the venous system in some parts,

parts, indeed in many parts, so overcharged: but sometimes one part of it much more than another. The venous system in the liver, spleen, and head, is apt to be the most overcharged, and the soonest; but that in the stomach and intestines, and all the other viscera, often, is scarcely perceptibly behind, though it seldom, in these, is overcharged to any great extent, except the fever be very malignant or lingering: but in malignant fevers it usually is soon and greatly overloaded in all the viscera. And when fevers are lingering, chronic affections often form in the viscera, or the venous congestion reaches some remote vessels, and forms disease in them. Nothing more occurs to me at this moment by way of general reflection upon these cases; but if we descend to particulars, we shall find sufficient matter for other observations, though part of it has been anticipated.

When the patients had been copiously bled or purged, (their fever in the latter case supervening upon dysentery or a very profuse diarrhœa) the venous congestions were comparatively small; when polypi had formed during the illness in the veins going into any viscus, that viscus was not congested, but shrunk. This was sometimes the case with the lungs, as well as with the liver, and most probably was so sometimes with the head, though I do not just now particularly recollect a case of this last. The black vomit, most unquestionably, was in several cases nothing but black blood exuding from the overcharged vessels of the intestines; though in other cases, undoubtedly, it might be mixed with bile. I believe the yellowness of the skin is usually caused by absorption from the biliary pores, though I find I have been guilty of omitting some dissections which chiefly relate to this, and remember them but imperfectly.

All the common and all the uncommon symptoms of fever are well accounted for. The breathing, and parts about the chest, from the blood being arrested in the lungs, as it evidently is, may be affected in every possible variety of ways; and the appearances found on dissection, in different cases, certainly prove that they have been so. The same observations may be made upon the head, the liver, the stomach, and intestines, all the viscera, and all the parts of the body; for no part of the body can be out of the reach of disease from an impeded pulmonary transmission; and dissections shew that no part is. Every symptom of almost every disease can arise from it; and this is as much as to say, that almost every dis-

ease, whether acute or chronic, can arise from it ; which is what I wish to maintain : as it is what symptoms and causes, as well as dissections and pathological reasonings, bear me out in.

Gentlemen have of late years prided themselves upon making nice distinctions among diseases, and finding out very minute differences ; and this many of them would have us believe, is all that can be done to improve medicine in a *scientific way* ! This, considered in a *certain point of view*, has its use. Others take diseases as they find them, and try by experiments to discover new remedies for them ; and they think this is the *best* way to give to medicine any *essential improvement*. This way too is laudable. But when these gentlemen accuse others, merely because they have taken a different way from what they themselves have adopted, they assume a great deal too much ; as, besides this question, which they expose themselves to, *Who is to submit to your self-erected tribunal* ? it is very evident that they are interested parties, and wish to acquire a great reputation for the mode which they have adopted, at the expence of others who have pursued a different method. And if such gentlemen will but peruse the works of Hippocrates, Sydenham, Prosper Alpinius, Huxham, Cleghorn, &c. very impartially and attentively ; that is, the works of every esteemed practical writer, and also the works of the systematics, they will find that the great *desideratum* in all of them is, not what those gentlemen are respectively pursuing, (though this is by no means *neglected* by them) but it is something of a very superior kind. They all, it is true, discriminate different diseases, and try to find efficacious remedies ; but they all, at the same time, fill their work with facts, which can be of no use, except proper inferences be made from them. They relate the state of the seasons ; the palpable causes operating both for and against the constitution ; the state of peoples' body and mind ; the effects of agents operating on them ; the common and extraordinary symptoms, and the appearances on dissection ; and they dilate upon these with accuracy and minuteness, which prove they think them matters of the utmost importance ; and yet they can be but of little use, except they, by fair, extensive, and certain deductions, lead to a knowledge of the inward nature, the proximate cause of diseases, and from that to the true indications of treatment.

It is true too that these great men (so much were they struck with the importance of it) could scarcely ever restrain
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their inclinations to find out the proximate causes of diseases; and if they went wrong, their endeavours, and even their errors still yield confirmation of the same great truth; for is it to be supposed that men of the first information, judgment, character and practice, would perplex themselves with pursuits, and hazard their reputation, except they conceived these pursuits were of the utmost degree of importance? Such a supposition cannot be earnestly maintained. I will grant, that if they delivered and maintained their conjectures as truths, or with any imposing manner which would make them be received with more attention than they were entitled to, they were to blame; and further, that those who built indications of treatment, or exhibited remedies conformably to them, were as much so: but still I beg it to be recollected, that we must carefully distinguish between the *principle* of a thing and the execution; and that ill success in any undertaking is not a positive proof that the *principle* of that undertaking is wrong. Though it is with sorrow that I acknowledge the common and general way of judging of the *principle* of an undertaking is by the *success of it*. Gentlemen of education, however, must see that this is a wrong way; and it is to such that I address myself. The conjectures, the hypotheses, and the theories, (as they are indulgently I think called) on medical subjects may be canvassed, and when wrong may be condemned; *nay, despised*:—but yet the contempt (however deserved) thrown on them, ought not to prejudice fair and proper inductions.

I mean to pass on now to consider what inferences are to be drawn from the success of different modes of treatment: observing only in the first place, and before I leave anatomy, that the theory I have above proposed explains *the use of the spleen*! I must confess I was not a little surprised when I found this circumstance. It is well known that the vessels in the spleen are easily distended, and may be distended to a great extent without disease or any inconveniency: hence it certainly is a receptacle for any small overflowing of the blood in the veins, intended to prevent its being thrown in considerable quantity upon some important part. The kidneys greatly assist it in this office, by draining off a great part of the fluid sent into them, and they may, in many cases, relieve the whole system more than the spleen can; but I think that in many cases, the spleen will relieve the venous system more, and particularly that part of it situated in the upper part of the abdomen; for it is well known that when the veins coming

from the viscera here seated are very full, the blood coming from the spleen will *regurgitate*, and that the spleen in consequence will greatly increase in size, receiving much blood from these viscera. The spleen may, on such occasions, receive perhaps a pound of blood, and give it out again when the veins are in a condition to receive it. And if it had not received this blood, it must have pressed with violence to distend the veins situated in some of the most vital organs. This is the view which I take of the use of the spleen at present; and since writing this, I find Dr. Powell considers the liver as performing a similar office.

Proofs from the Practice of Physic.—A more difficult undertaking I believe is no where to be found in our profession, than to state clearly any certain and efficacious mode of practice for fevers. We find one author has succeeded in treating fevers in one way, and another another; and so on for a great variety of ways, many of them very different, and some of them, *in appearance* at least, quite contradictory. And we find others, and some indeed of the same, who have in other cases tried all these ways without any perceptible effect. Those ways, however, do no more than correspond with the great varieties which we have seen in the symptoms, and in the appearances on dissection in different fevers, and even in the same kinds and casts of fevers; the body in fever running through a great variety of states, many of them as different as have been the several successful modes of treatment, and some of them opposite. And of these different states some have predominated more in some kinds and instances of fever, and some in another. From all which circumstances it is perfectly clear that no mode of practice can be generally successful which does not make provision for, and indeed depend upon, these variations in the state of the body, not only in different fevers, but in the same kind of fever, and even in the *same case of it*. To say therefore, that opium, wine, or bark, or bleeding, or purging, or antimonials, or the cold bath, is good for fever, or for such a kind of fever, or *even for this case of it*, is in fact *very often* saying but little, even admitting it to be true, and may mislead: for the state of the body is so apt to change in fever, *that if one of these remedies be good this hour, it may not be so the next*. For instance, the cold bath is now much extolled as a sovereign remedy for fever, and by a gentleman in Jamaica, it is called a specific even for the yellow fever. It is no doubt an excellent remedy for most fevers of this country, and for many in Jamaica
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when judiciously applied ; that is, when used according to the directions given : but at the same time there have been and are innumerable examples of fever, and even of the yellow fever, in which it could not be used by a person with success, though he should comply strictly with the directions given. I allude to those cases of fever, in which congestions have been formed in the viscera from venous turgescence, which have run on to a low, malignant, and almost imperceptible, but nevertheless, a monstrous and fatal kind of inflammation almost in half an hour. These cases, it is true, have very seldom, of late years, been seen in this country, and they occur but seldom in the common cases of fever in most countries ; yet they do occur ; and I believe (taking all the fevers into view which have afflicted mankind) these cases form *at least* one half of them ; leaving out all such as have had no danger in them, I believe they form two thirds ; and if we contemplate only those which have been fatal, I am persuaded they have constituted much more than three-fourths. But in order to see this *clearly*, it is necessary to read the history of the most malignant forms of fever, particularly of epidemics. The appearances which I have noticed, however, as discovered by dissection, and the phenomena which I mentioned when treating of the symptoms, will I am persuaded tolerably well support me without alluding to any thing further.

Antimony was the great specific of Cullen ; and I really, when I began to study medicine, thought that this was to remove the *spasm upon the excretories*, open them, and cure fever in almost every case. But I find that in most fevers it is a pernicious medicine. It is however to be depended on in some ; viz. in those which have some topical inflammation joined with them ; and in this respect, it is in some measure an exception to the remark I before made, as it will give great relief *in such cases*, without any very great nicety as to the time of its administration.

Wine too has been cried up as a sovereign remedy in fever. But I am persuaded that, *for general practice*, the exhibition of this ought to be limited by as many “provisos and exceptions” as any remedy whatever.

I would here proceed to lay down certain indications of treatment as resulting from my theory, and see how the successful modes of practice which have been used, correspond with them : but I find I have no room to make much progress in this business in this letter ; I shall therefore reserve it to be the subject of my next. But I wish to
notice

notice now, that various reports have got about, concerning a conspiracy to insult the Profession and the University of Edinburgh; but I declare I know of no such conspiracy: as to the profession I have a great regard for it; and with respect to the University, and the students at it, I have a great respect for them too; but surely gentlemen cannot generally know, what is no where taught; and teachers cannot teach it without they discover it by their own laborious exertions. It is not the practitioners, nor the teachers of medicine which I complain of; *but the science and the practice of it*. I have said, that the present race of teachers and practitioners in medicine is much more enlightened than any which has gone before: but if notwithstanding this, I were to add even that the science and the practice of physic are yet to be brought to certainty and efficacy, (if they can be brought to it) I persuade myself I should fall in with the convictions of every well-informed medical man.

I believe, however, the reflections above alluded to, were levelled chiefly at Dr. Beddoes (for his late letter) and the society of medical reformers; probably, without grounds. For myself, I am sure the body of practitioners could give me very essential aid in the immediately following part of my undertaking; and at the same time I am also inclined to fear, that without some such sort of assistance, it must come forth very far short of what I could wish.

(To be continued.)

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE general utility, and sometimes necessity, of making frequent divisions of the inflamed vessels in cases of Ophthalmia, is admitted by all who have written and practised on that disease; but the operation, by the means hitherto in use, is attended with so much difficulty and danger, that it is often omitted when it would not fail to administer great relief. The following citation, from a high authority, is a sufficient sanction for this remark.

These operations require great nicety. For the particular mode of performing them the reader is referred to the
writers

writers on Surgery. Much harm will ensue from them, when they are injudiciously performed; and they ought, to be refrained from, except when a very skilful and expert surgeon can be procured. They are seldom serviceable, except they be repeated several times. Cutting the vessels of the adnata is, perhaps, the best preventative against opacity of the cornea, that we know; and whenever there appears the least tendency to opacity, this practice should be put in execution. The operation ought to be repeated daily for two, or three, or four weeks, and even longer, if a cure be not accomplished sooner.

By referring to Mr. B. Bell's System of Surgery, an enumeration will be found of the different modes in use at different times for this operation, and his objections to them. He proposes a small knife, which, having one edge only, is to be preferred to the lancet; that, while the scarification is performing with one edge, endangers the eyelid with the other. But an objection may be made even to the knife, for a defect to which it is liable in common with the simple lancet; it has no guard, to prevent deeper incisions than are intended: and the irritability of those suffering under this disease, joined to the natural horror of a cutting instrument about to be applied to so tender and apprehensive an organ as the eye, may well make them flinch, and disappointing the most sure and expert hand, cause a dangerous gashing of the wrong part. If the operator, well aware of this danger, proceeds with diffidence and excessive caution, the operation may not only be incompletely performed at last, but such a manner of operating must expose the patient for a long time to a strong glare of light, which is intolerable in this disease.

I could state many more inconveniences; but these are sufficient to shew the necessity of some better mode of operation. I was embarrassed by all these difficulties with the Military Hospital at Colombo, full of this disease. I made several attempts, and at last succeeded in adapting the lancet by a guard, to perform effectually this operation free from all hazard.

I trust that the following drawing and description will give an adequate idea of the instrument.

Fig.

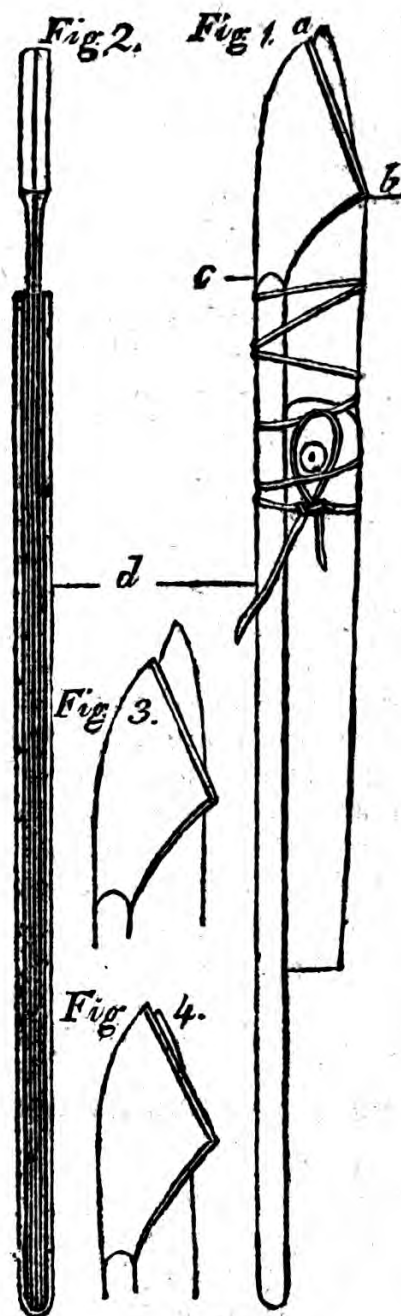


Fig. 1. Represents a side view of the instrument with the lancet fixed.

a b c Two small triangular plates united at the back from *a* to *c*, and separated at the front, to admit the blade of a lancet; from *a* to *b* are the edges, which are made thick, and form shoulders to the edge of the lancet; the other parts of the plate are as light as they can be made without subtracting from due strength; and the plates are joined to a common director, which forms a handle

handle to them, and which is grooved, to receive the handle of the lancet.

Fig. 2. Gives a front view of the instrument.

Fig. 4. The proportion of the blade that I expose for making the scarification on the eye.

Fig. 3. The proportion of blade for making incisions in the tonsils; and fig. 1. for opening the sublingual vein, in both which operations, the lancet thus guarded and limited, will be found eminently useful; and, indeed, wherever great nicety of operation is required. By cutting off part of the handle as at letter *d*, it remains as effective for making the scarifications on the eye, and may then be carried in the lancet case an inseparable companion, (as it ought to be, and I trust will be, when it is well known through the medium of your Journal) to the lancet: I, however, retain it the full length, because I find it so useful in operations of many kinds, where a greater length of handle is required than for scarification of the eye.

With the lancet thus guarded, it is evident that a youth, who has only learned to bleed, may perform with safety and effectualness this important, and hitherto difficult and dangerous operation.

I am, &c.

J. G. LEATH,

Assistant Surgeon of the 19th Regt. of Foot.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IN your Number, (116,) for October, a Correspondent who signs himself "A Constant Reader," has occupied the pages of your miscellany by some animadversions on a paper communicated by Mr. Carter. I shall not enquire whether the castigation be deserved or not, that I leave to Mr. C.; nor whether your "Constant Reader" would not do well (before he sends you another communication) to read his last, to ponder upon its import, and lay its counsels impartially to his own heart.—*Mutato nomine de te, &c.* For myself, I do not write to convey, but to solicit information, thinking that my communication may not be useless,
if

if it give rise to the observations of your well informed and experienced Correspondents, though in itself, it contains "nothing original," or that "every one at all conversant with the practice of medicine" is unacquainted with.

In the practice of an art so confessedly imperfect as that of medicine necessarily is, the best way to advance the object of our common ambition, seems to be that of collecting and concentrating the knowledge and experience of the practitioners of the art. The intelligent reader, possessed of a collection of facts, will for himself institute the comparison, will by deduction, fix upon that plan of practice which has been most generally successful, and keeping it in view, will introduce into it such occasional variety of practice, as may best meet the endless variety of disease. In this consists the immense advantage of the well-informed and reflecting practitioner, over the mere imitative empiric, whether regularly or irregularly educated to the profession. There is a general resemblance in certain diseases which we call by the same name, but no two cases, perhaps, ever occurred precisely alike, nor admitted of exactly similar practice. There is such a family likeness, that they are acknowledged to be of the same stock, but an accurate observer will see sufficient difference to prevent his identifying two members of one house. In adopting the modes of practice to this diversity, consist at once the difficulty and the glory of the medical art. The good practitioner must be as fertile in resources, as disease is fertile in symptoms, be as quick as is the progress of the complaint, and have his observation exerted as unceasingly as the complicated operations of nature, struggling with disease, continue to take place. Without pursuing these general observations into detail, I proceed to fulfil the object of this communication, to state certain difficulties in practice, and to solicit the attention, the knowledge, and the information of your Correspondents.

1. *Amenorrhœa*. I apprehend there are few practitioners who have not found themselves baffled in all their attempts to assist nature in the producing or restoring a periodical evacuation, intimately connected with the perfect health of the female. The difficulty attaches (though not with equal force) to (1) *emansio mensium*—(2) *suppressio mensium*, and to (3) *dysmenorrhœa*.

2. *Leucorrhœa*. The same difficulty and uncertainty in practice attach to this disease, whether in its *continued* or *occasional* form.

Chlorosis, till very lately, might have been added to the number,

number, but the practice instituted by Dr. Hamilton, sen. of Edinburgh, and supported by the cases which that physician has published, has been so generally successful, that I forbear to add it. Not that the practice has (with me at least) generally succeeded in abolishing the "retentio mensium," so frequently a symptom of the disease, but all the other symptoms have yielded to the steady prosecution of the plan.

Here, for the present, I desist. If the idea which I have in this paper thrown out, meet the approbation and call forth the communications of your Correspondents, I shall from time to time resume the subject, state briefly the difficulty and uncertainty attending the treatment of many other diseases of daily occurrence, and hope to benefit the medical art by causing the result of the skill and experience of your Correspondents to be collected and recorded in your Journal. Facts are the only sure foundation on which the arts and sciences rest. To collect, to compare, to arrange, and to draw deductions from them, are the lessons and exercises which we have to learn in the school of practice. There is no other road to knowledge, and I hope it will gradually become a more public and beaten way.

I am, &c.

T.

October 12, 1809.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

HAVING mentioned to some of my medical friends a Case of *Super-fatation*, which occurred to me in my practice a few weeks ago, I was requested to state it to you for insertion in your periodical publication, which I leave to your judgment, if you should deem it worthy of notice.

On the 13th of April last, I was called to Mrs. Lacer, of Hunslett, near this place, in labour, who had previously spoken to me to attend her; on my entering into the room, I proceeded to examine her *per vaginam*, when I found the os uteri completely dilated, and the membranes unbroken; the labour went on regularly, and in the course of half an hour, one living child was expelled.—After having separated the child, I laid my hand (as usual) upon the abdomen,

48 *Experiments on Atmospheric Air and Oxygen Gas.*

men, and found the uterus not contracted; after a few minutes, a pain came on, when I examined her again, and found the membranes pressing forwards, and in the course of half an hour, she was delivered of a foetus; I should suppose from its size, about 4 or 5 months. Apparently it had been dead a few days; it had no putrid appearance, but rather inclining to a darkish hue. The woman recovered remarkably well, and is in perfect health.

I should be happy if any of your readers would favour me with a few observations upon the above case.

I am, &c.

THOMAS FAWELL, Surgeon.

Leeds, May 30, 1809.

In one of our former Numbers, we gave an Abstract of the Experiments made at Edinburgh on the changes produced in the atmosphere by respiration and vegetation, and of Dr. Bostock's opinion on the same. The following Experiments, laid before the Royal Society of London, by Messrs. ALLEN and PEPYS, being connected with the question, we have thought it right to select them from the Philosophical Transactions.

1. **T**HAT the quantity of carbonic acid gas emitted is exactly equal, bulk for bulk, to the oxygen consumed; and therefore there is no reason to conjecture, that any water is formed by an union of oxygen and hydrogen in the lungs.

2. Atmospheric air once entering the lungs, returns charged with from 8 to $8\frac{1}{2}$ per cent. carbonic acid gas, and when the contacts are repeated almost as frequently as possible only 10 per cent. is emitted.

3. It appears, that a middle-sized man, aged thirty-eight years, and whose pulse is seventy on an average, gives off 302 cubical inches of carbonic acid gas from his lungs in eleven minutes; and supposing the production uniform for twenty-four hours, the total quantity in that period would be 39,534 cubical inches, weighing 18,683 grains, the carbon in which is 5,363 grains, or rather more than 11 oz. troy: the oxygen consumed in the same time will be equal in volume to the carbonic acid gas. The quantity of carbonic acid gas, emitted in a given time, may depend much on the circumstances under which respiration is performed.

4. When

4. When respiration is attended with distressing circumstances, there is reason to conclude, that a portion of oxygen is absorbed: and as the oxygen decreases in quantity, perception gradually ceases, and we may suppose, that life would be completely extinguished on the total abstraction of oxygen.

5. A larger proportion of carbonic acid gas is formed by the human subject from oxygen, than from atmospheric air.

6. An easy, natural inspiration is from 16 to 17 cubical inches, though this will differ in different subjects; and it is supposed, that the quantity of carbonic acid gas, given off in a perfectly natural respiration, ought to be reckoned at less than at a time when experiments are making on the human subject for the purpose, because in short inspirations the quantity of air, which has reached no farther than the fauces, trachea, &c. bears a much larger proportion to the whole mass required, than when the inspirations are deep.

7. No hydrogen, nor any other gas, appears to be evolved during the process of respiration.

8. The general average of the deficiency in the total amount of common air inspired, appears to be very small, amounting only to 6 parts in 1000.

9. The experiments upon oxygen gas prove, that the quantity of air remaining in the lungs and its appendages is very considerable; and that without a reference to this circumstance, all experiments upon small quantities of gas are liable to inaccuracy.

The following paper, by the ingenious Mr. Brande, is not less deserving of notice.

Mr. Brande has laid before the Royal Society, an account of the differences in the structure of calculi, which arise from their being formed in different parts of the urinary passages; and on the effects that are produced upon them by the internal use of solvent medicines. The experiments made by this gentleman were very numerous, and on an uncommonly large collection of calculi, to most of which histories of the case are annexed. The subject is divided into different sections: The 1st. relates to calculi formed in the kidneys, and voided without having undergone any changes in the urinary passages. These are entirely soluble in a solution of pure potash: and when exposed to the action of the blow-pipe, they blacken and emit a strong odour, which arises from the animal matter

(No. 125.)

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which

which they contain, and which occasions the loss in the analysis of these calculi. Its relative quantity is liable to much variation. In one instance a calculus from the kidney, weighing 7 grains, was ascertained to consist of

Uric acid	4.5 Grains.
Animal matter	2.5
	7.0

In some cases the calculi from the kidneys consist almost wholly of uric acid; sometimes phosphate of lime was combined with the acid.

II. In treating of the calculi which have been retained in the kidneys, and which frequently increase in that situation to a considerable size, he observes that this augmentation is of two kinds.

1. Where there is a great disposition to the formation of uric acid, the calculus consists wholly of that substance and animal matter, so as frequently to form a complete cast of the pelvis of the kidney.

2. Where there is less disposition to form uric acid, the external laminæ are composed of the ammoniaco-magnesian phosphate, and phosphate of lime.

In one instance, a small uric calculus was so deposited on the kidney, that its upper surface was exposed to a continual stream of urine, upon which beautiful crystals of the triple phosphate had been deposited. Mr. Brande therefore infers, that, under common circumstances, a stream of urine passing over a calculus of uric acid, has a tendency to deposit the phosphate upon it.

III. The calculi of the urinary bladder are of four kinds:

1. Those formed upon nuclei of uric acid, from the kidney.

2. Those formed upon nuclei of oxalate of lime from the kidney.

3. Those formed upon sand or animal mucus deposited in the bladder.

4. Those formed upon extraneous bodies introduced into the bladder. These are arranged under the following divisions:—First, Calculi, which from their external appearance consist chiefly of uric acid, and which are mostly or entirely soluble in a solution of potash. Secondly, Calculi composed chiefly of the ammoniaco-magnesian phosphate, or of phosphate of lime, or of mixtures of the two.

two. These are characterised by their whiteness; by exhibiting small prismatic crystals upon their surface, and by their solubility in dilute muriatic acid. Thirdly, Calculi, containing oxalate of lime, commonly called mulberry calculi. These are distinguished by the difficulty with which they are dissolved in acids, by their hardness, and by leaving pure lime, when exposed to the action of the blow-pipe.

By analysis a calculus of 60 grains yielded

Urea and muriate of ammonia . . .	5.2 Grains.
Ammoniac-magnesian phosphate	6.
Uric acid	48.8
	60.0

From this and many other experiments Mr. Brande concludes, that the evolution of ammonia depends in all instances upon the decomposition of the ammoniacal salts contained in the calculus, more especially of the ammoniac-magnesian phosphate, and that no substance which can be called urate of ammonia exists in calculi.

By analysis it was found, that a pure specimen of the mulberry calculus consists of

Oxalate of lime	65 Grains.
Uric acid	16
Phosphate of lime	15
Loss in animal matter . . .	4

100

IV. The calculi found in the urethra consist of ammoniac-magnesian phosphate, and phosphate of lime, with a small portion of uric acid; though some appeared to consist almost wholly of ammoniac-magnesian phosphate.

Mr. Brande, in the next section, has given the result of analysis of the calculi found in the horse, ox, sheep, rhinoceros, dog, hog, and rabbit. These were found mostly to consist of phosphate of lime and carbonate of lime in different proportions. In some, small proportions of animal matter were combined with the other substances.

The inferences drawn from these interesting and important facts are as follow:

That calculi formed in the kidneys, and immediately voided, are almost always composed of uric acid, and that the phosphates are very frequent ingredients in calculi of the bladder. They are uniformly deposited upon extra-

neous substances introduced into the bladder, but never form small kidney calculi. In what is commonly called a fit of the gravel, a small uric calculus is formed in the kidney, and passes along the ureter into the bladder. For, some time after a stone has passed from the kidney, the urine is generally unusually loaded with uric acid, and deposits that substance upon the nucleus now in the bladder. After this, the subsequent additions to the calculus consist principally of the phosphates.

Where the disposition to form uric acid in the kidneys is very great and permanent, the calculus found in the bladder is principally composed of uric acid; but where this disposition is weak, the nucleus only is uric acid, and the bulk of the stone is composed of the phosphates. When the increased secretion of uric acid returns at intervals, the calculus is composed of alternate layers of uric acid and the phosphates. There are besides these many variations in the formation of the calculi.

In speaking of the solvents, Mr. Brande admits, that the internal exhibition of the alkalies often prevents the formation of the uric acid, and of course an increase of a calculus in the bladder, as far as the uric acid is concerned; but that its action will not proceed any farther; because from his experiments he finds there is at all times a quantity of uncombined acid in the urine; and hence it follows, that, although the alkali may arrive at the kidneys in its pure state, it will there unite with the uncombined acid, and be rendered incapable of exerting any action upon the calculus in the bladder. Mr. B. also observes, that whenever the urine is deprived of a portion of the acid which is natural to it, the deposition of the triple phosphate and phosphate of lime more readily takes place, which is effected by the exhibition of the alkalies; and, therefore, though alkaline medicines often tend to diminish the quantity of uric acid, and thus prevent the addition of that substance in its pure state to a calculus in the bladder, they favour the deposition of the phosphates.

With regard to the exhibition of the acids, particularly the muriatic acid, in order to dissolve the phosphates, Mr. B. admits, that, during the use of this acid, the phosphates are either diminished, or disappear altogether; and even the urine acquires sometimes an additional acidity, and therefore a solution of that part of the calculus, which consists of the phosphates, may be expected; but even then the nucleus of uric acid would remain, and thus a
great

great deal of time would be lost without any permanent advantage. He is also decidedly against the injection of these solvents into the bladder, at once, by means of instruments; because, in every case that has come under his observation, it has always aggravated the sufferings of the patient. He concludes, that as the nuclei of calculi originate in the kidneys, and that of these the greater number consist of uric acid; the good effects so frequently observed during the use of an alkali, arise not from any actual solution of calculous matter, but from the power which it possesses of diminishing the secretion of uric acid, and thus preventing the enlargement of the calculus; so that, while of a very small form, it may be voided by the urethra.

We have at last been able to renew our Correspondence with the Continent, but we fear in an interrupted form. The following Article is selected from the *JOURNAL DE MEDICINE*, on account of the experiments with which it concludes.

Remarks on Hydrophobia, contained in a Letter addressed by LOUIS VALENTIN, of Marseilles, M.D. to ALEXANDER HALDAT, M. D. Secretary to the Academy of Nancy.

HYDROPHOBIA presents so vast and extensive a field for observation, that I must content myself with a mere outline of the subject, in order to introduce some facts which I formerly collected at Nancy, and which must be fresh in the recollection of many of the inhabitants.

It is clearly ascertained, that after the bite of a mad animal, the local treatment by actual cautery is generally the best that can be resorted to.

In vain have an infinite number of external and internal applications been tried; all of them have had their advocates, and almost all have been attended with success, real or imaginary, but time and experience have done justice to most of them. Medical science however is still in want of a remedy against this most formidable malady. It is painful to reflect that not a single curative remedy has been applied to it. Amputation, excision, and cauterising are the only means which present a probability of prevention.

Skilful practitioners agree that the rabid virus, when deposited

posited in the wound, is not destroyed unless it be instantly and properly cauterized, in order to prevent the absorption of the poison by the lymphatic vessels, and its subsequent transmission into the circulation. It is perhaps more hypothetical to believe in the mixture of the poisonous saliva with the mass of fluids, in order to infect them by circulating throughout the whole body for weeks, months and years, than to deny it entirely. It occurs to me, however, that this question is still undetermined.

May we not suppose that the first effects of this poison *sui generis*, only pass along the nervous fibres, with which it remains in contact or in a state of fixity, and that it is only in virtue of the *consensus* that the disease is subsequently transmitted throughout the whole machine, after an indeterminate time producing its symptoms? * That a sufficient number of accurate observations may resolve this question, I should propose, in order more speedily to obtain its solution, that the local treatment be resorted to at all stages of the disease. That is to say, if the operation has not been performed immediately after the accident, that it should be attempted at subsequent periods, either on the first appearance of symptoms, or when hydrophobia has come on, without neglecting, however, the antispasmodic remedies.

Within a short time, M. Rigal, surgeon at Gaillac department of the Tarn, has preserved the lives of four persons, by cauterizing them nine days after the bite of a mad dog.

Dr. Gallup, of Woodstock, in Vermont, North America, informed Professor Mitchell, in July 1806, that having been called in to a man, 28 years of age, who twenty-five days before had been bitten three inches above the left hand, the Doctor found the cicatrix soft, and at times painful: he cut out the cicatrix by a circular incision, applied caustic alkali to the wound, and dressed it with blistering plaister. He gave mercurials internally for two months. Several dogs, two pigs, and a sheep, which were bitten on the same day with this man, and by the same animal, died rabid. When Dr. Gallup drew up the above account his patient had remained well fifteen months. Success is always less doubtful before the appearance of spasms and of hydrophobia; but when the danger is imminent, why should we

* Rour, of Dijon, in common with many others, is of this opinion.

we not act with boldness, and resort to the most desperate remedies?

The application of red-hot iron should almost always be preferred to caustics; indeed, the latter ought to be entirely excluded in the last stage of the disease. Where the bite is deep, if the cicatrix be visible, some incisions should be made before the place is cauterized; for in all cases it is of the utmost importance to destroy every thing that may have been infected, and to excite speedily in the part an inflammatory stimulus capable of exalting the vital energy, and afterwards producing an abundant suppuration. The want of this precaution has sometimes been the cause of failure in the operation, and in every local application.*

The poisonous molecules in the animal's saliva, introduced into the skin or cellular substance, do not display their effects upon the system, nor produce the convulsive agitations until a period more or less remote. The term of forty days, more or less, has generally been fixed: several are seized with hydrophobia in twenty or thirty days. The greatest number, however, are seized after this time, and some upwards of a year from the period of the bite. In general, however, the interval between the bite and the first symptoms does not exceed five or six months. If it be true that these deleterious molecules remain stagnated, and as it were dormant in the bitten part, and do not sympathetically exhibit their effects upon the nervous system until after a certain time of incubation,† we ought to follow the same practice as in *Tetanus*.

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* Vide Enaud and Chaussier, *Traité sur le Rage*. In some instructions for the prevention of Hydrophobia, published by order of the Intendant of the Police of Paris, in 1785; it is directed, when madness has come on, to apply the actual cautery, or the moxa to the lower extremities, and cupping glasses to the shoulders.

† What is called the *local operation of other fixed viruses*, is also more or less tardy, and sometimes depends upon unknown circumstances which do not seem embarrassing to those who think they can explain every thing. Altho' the insertion of the variolus and vaccine virus produces their effects after a term nearly regular, there are several instances of deviation from the general rule. Vaccination presents these anomalies most frequently. The most remarkable known in England, is related by Mr. Ring, the friend of Dr. Jenner. In a patient whom he had vaccinated, the pustule was only developed on the fortieth day, and the test of small-pox inoculation, ascertained that the child had been vaccinated.

But on the Continent a more extraordinary case occurred, perhaps unique in the annals of vaccination. My old friend, Dr. Clerc of Metz, informed me, that M. Chevreuse, an apothecary of that place, last year vaccinated a child four or five years old in two places on each arm, and that it was a whole year before the vaccine infection completely shewed itself. Dr. Clerc saw the virus going through its different stages, and noticed the wounds

The same course ought to be followed with the bites of venomous serpents, notwithstanding the extreme energy of the poison and the promptitude of its action. Although contrary opinions have certainly been given, it appears to me from what I have seen in America, that surgical operations, by incision and burning, succeed more efficaciously than any internal remedies; the application of plantains, the root of *polygala seneka*, and oily, alkaline, or ammoniacal embrocations. I must admit however, that all these, as topical remedies, justly hold the second rank.

I have had opportunities of seeing many persons who were bitten by mad animals; and I have seen several die of hydrophobia, notwithstanding the best treatment as prescribed by modern authors.* At Nancy I had three patients of this description under my care; two were cured, the third had not been cauterized. One of these persons consulted me a few days after he had been bitten in the leg; I applied the actual cautery to the wound, and I recommended it to him to keep up the suppuration. This man took no medicines except some doses of ammonia in an infusion of flowers of the linden tree, and no accident whatever happened.

M. de la Lawrencie Neuvich, major in the King's regiment of infantry, kept two greyhounds. Towards the end of 1783, one of them bit him very violently in the middle of the forepart of the thigh, making a wound of about an inch long. The late M. Deyoteux and myself attended him with the utmost care. We cauterized the wound immediately after the accident, and prescribed a complete course of mercurial frictions, which did not produce salivation. The patient also took some attempering antispasmodic remedies, and observed a proper regimen. Being naturally endowed with great sensibility, he was confined upwards of two months to his room, where he used to read medical books. He suffered no subsequent inconvenience from the bite, and he is still alive.

As it was very important to ascertain if the dog which bit him was really affected, he was shut up by himself, and he died mad. The other dog, which had been also bitten, was treated in the same way, and he exhibited the same fatal symptoms.

In

* The celebrated M. Petit, ex-surgeon to the Grand Hospital of Lyons, says, that he never saw a patient recover after hydrophobia had shewn itself.

In 1787, three years and a half after this event, a child of ten years of age, named Sigisbert Viriot, living in the Faubourg St. Pierre, was dreadfully bitten by a strange dog, which left twelve or thirteen wounds, four or five on the left hand, and a very deep one in the left leg. One of his elder brothers, Francis Viriot, forced the dog from the child and killed it. At the same time he was himself bitten on the back of the right hand, but told no person, nor did he take any precaution. As it was not very certain if the dog was mad, a piece of meat was rubbed upon its throat, in order to impregnate it with saliva, and it was given to other dogs, but they refused to eat it. This refusal of a healthy animal, has been regarded by some as a test of hydrophobia having existed in the dead animal, but modern writers think it is illusory.

On the same day, and a very short time after this accident, incisions were made into the bitten parts; they were allowed to bleed freely, and were afterwards washed with a solution of common salt. Care was taken to keep up the suppuration a long time, and to sprinkle the sore sometimes with cantharides mixed with mercurials, or digestives, which served as dressings. Being at that time the family physician, I was entrusted with the care of this child, and employed mercurial friction, until the salivary glands were slightly affected, and kept them in this state. Mercury was also rubbed in around the wounds, the largest of which were kept in a state of suppuration for five or six weeks.

Upwards of fifty days after the accident, the course of medicine being finished, and the child in appearance quite well, he obtained leave from his parents to spend a holiday at St. Nicholas with his two brothers, one of whom had been bitten in the hand, as above mentioned. He returned home in the evening on foot, and in the midst of a heavy rain, with his clothes wet through. He immediately complained of great thirst, and called for water, which his mother gave him. At the sight of it, he shivered, his throat seemed shut, and he could not swallow it: his whole body trembled, and he passed the night in a state of spasm and continual agitation. Next day Professor Tournay and myself were called in. In vain did we attempt to make him swallow any liquid. He begged that it might be taken away from him: the slightest agitation of the air, or the sight of a fluid threw him into convulsions. All was over with him, and the hydrophobia was at its height. He took some opium pills however, and Dr. Tournay

Tournay prescribed an amulet, into which calcined oyster shells were introduced. I do not recollect if he took it; but he died on the third day in convulsions.

The brother, who had been bitten by the same dog was not alarmed. He continued to conceal the circumstance, and no bad consequence ensued. He only communicated it to me in 1807, (twenty years after the bite) at Marseilles, where I met him accidentally. I saw the cicatrix, which was upwards of half an inch long, situated transversely upon the back of the right hand, above the space formed inferiorly by the last two metacarpal bones. This gentleman (Francis Viriot) is at present a lieutenant colonel and aide-de-camp to the prince of Ysembourg.—We may be permitted perhaps to suppose, that this favorable case can only be ascribed to the defect of the insertion of the rabid virus into the wound, from the slaver of the animal having been expended upon the other child, and perhaps absorbed by the stocking which covered his leg.

I have made many other attempts at a preservative treatment, but I was not always convinced that the animal which inflicted the wound was really mad. It is of the greatest importance to avoid if possible killing the suspected animal immediately; it should be shut up and carefully observed, when the event will regulate the conduct of the physician. If the animal is not mad, the person bitten will be at ease.

Canine madness is extremely rare in the warm regions of South America. I was assured at St. Domingo, in 1791, that it was formerly unknown in the Antilles, and that it was only within these thirty or forty years that it was seen there. A man and woman died at Cape François when I was there, from being bitten by a cat, which was not suspected. Who has not heard of the ravages made by a dog in the Limonade upon several negroes who died of hydrophobia? An intrepid negro, named Coucouba, seeing this furious animal enter a house, armed himself with a knife, marched up to it naked, and attacked it. He was not victorious, however, until he had received several wounds on various parts of his body. Incisions were made; gunpowder was fired upon the wounds, and mercurials were resorted to. This treatment succeeded, and Coucouba never displayed any symptom of hydrophobia.*

Canine

Canine madness is common in North America, where they have not been more successful in its treatment than in Europe. During a long time in Connecticut the prompt application of common salt to the bite was thought to be a sufficient preventive. The savages, with more certainty, annihilated the contagious matter by applying fire to the bitten part, on which they burnt, in preference to any other wood, the bark of the white ash. This process, which radically extirpates the evil, was not taught them by any stranger.

Negroes in the United States, and particularly in Maryland, have suffered no inconvenience from eating pigs which died rabid. A whole family drank the milk of a cow seized with hydrophobia the same day, without any detriment to their health. These facts confirm those related by Dr. Baumgarten in the Medical Commentaries, and by several European authors, who attest their having used with impunity the flesh and milk of rabid animals.

The celebrated Dr. Rush, of Philadelphia, compares hydrophobia to a malignant fever in its highest stage. He founds his opinion on the progress, the symptoms of the disease, and the state in which the organs are found on dissection. Besides the local treatment and a proper regimen, the basis of his plan consists in repeated bleedings, and in the use of mercury. In most cases, according to him, from one to two hundred ounces of blood should be taken from the patient.*

I shall take this opportunity of detailing the process suggested by another physician of Pennsylvania. Doctor Phisick, of New York, persuaded that the death of patients of this description is occasioned by the spasmodic constriction of the glottis, hence producing gradual or sudden suffocation, has proposed to practice *Laryngotomy*. By this operation, (prescribed in Europe for inflammatory and suffocating angina, and rarely practised) he thinks that in facilitating the admission of air into the lungs, by means of an artificial passage, there would be a greater probability of a cure, in consequence of thus gaining time for the exhibition of remedies. He thinks, that the aversion to water, proceeds from the convulsive contraction of the muscles of the glottis, hindering the patient from breathing, and threatening suffocation every time that he attempts to swallow liquids. Dr. Phisick

* Observations upon the Nature and Cure of Hydrophobia.

sick hazarded this opinion in 1801, upon inspecting the body of a negro who died of hydrophobia, and in whom, however, he found the larynx and the tracheal artery in the natural state. (Medical Repository, vol. v.)

In 1802, the same physician was on the point of performing this operation upon a child five years old, attacked with hydrophobia, in consequence of the bite of a mad dog. The breathing and cough were similar to tracheal angina, or the croup, in a moderate degree. While he was preparing the instruments, in the presence of Drs. Rush and Griffiths, the child expired. Dr. Rush, who opened the body, found the glottis and epiglottis inflamed. The glottis was so thickened and close, that it scarcely admitted a small probe. Below, the trachea was similarly inflamed, thickened, and contained mucus, as has been frequently observed in patients who died of croup.

It is not my object to bring under view the great number of remedies which have been employed in hydrophobia. Some having more particularly fixed the attention of the public, have obtained a certain degree of reputation; it may therefore, be necessary to ascertain their value, particularly the more recent, by further experiments. Notwithstanding the former reputation of *belladonna* and the *anagallis arvensis*, they have now fallen into disrepute, and it will probably be the same with the bark of the *Mico coulier*, (*Celtis australis*) the virtues of which have been so much spoken of. Mercury has retained the most partizans, and it seems to be superior to other remedies, particularly if combined with antispasmodics. How often, however, has it been inefficacious when the bitten part was not cauterized? The case of young Viriot and a thousand others are proofs of this.

Pills of cantharides and cinnamon, with the warm bath, have been used with advantage in Austria. Werlhoff bestows great praise on one grain of cantharides, one grain of sweet mercury, and twelve grains of camphor, made into a bolus with gum tragacanth, to be taken every night for six weeks. But he employed burning and mercurial frictions at the same time.

Dr. Fothergill, who published seven or eight years ago a work "On the nature of the disease occasioned by the bite of a mad dog," in which he considers hydrophobia as a kind of spasmodic angina, thinks also that the best method of breaking the fatal connection between the diseased part and the organ of deglutition is cautery. In the

the violence of the spasms, when the disease is declared, he advises the whole body to be rubbed before a gentle fire with a pound of olive oil, in which half an ounce of camphor has been dissolved. He recommends also that the patient should be immersed in a bath of warm olive oil, if it can be procured, in order to excite an abundant perspiration, and that a blister should be applied to the neck from ear to ear.

Two substances, diametrically opposite in their nature, the acids and the alkalis, have been recommended. In Prussia, Reich boasts of the mineral acids. In France, Lassonne, Sage, and others, have again called the attention of the profession to ammonia. Boerhaave had already prescribed vinegar; and Clerc, in his *Natural History of the sick Man*, gives an instance of a cure obtained with five ounces of this acid, taken thrice a day. Half a bottle swallowed at a draught, and by mere accident, cured a patient in Italy. Nothing more was wanting to confirm the reputation of vinegar. This calls to my recollection a circumstance which happened eleven years ago at Chaumerac, near Privas, in the department of Ardèche, which was attested to me by an eye witness, now living at Marseilles.

A very large pig was attacked with hydrophobia in consequence of being bitten by a mad dog. A countryman was allowed to undertake the cure, upon assuring the owner that he had experienced the success of the method he was about to try. The animal was shut up in a stable, where it began furiously to gnaw pieces of wood, or any hard substance that was thrown to it. The countryman made a large hole in the roof of the stable, through which he let down a saucepan containing about two pails full of warm vinegar. The animal instantly ran to the liquid, and drank every drop of it. In a few minutes the madness ceased, and the animal was cured.

The application of viper venom to men and animals already bitten by a mad dog, has not met with the success which two or three examples had given reason to hope. According to Dr. Desgranges, of Lyons, a large mad dog, bitten by a viper, died with all the usual symptoms of hydrophobia. Two persons, upon whom a similar experiment was tried at the Hospital of Lyons, also died in the same way.

M. Gauchi, mayor of Reorthé, has lately announced, the best method of preserving animals, and particularly dogs, from hydrophobia, is to have them bitten by a viper previously

previously to their being bit by the animal which is rabid; because, according to his opinion, the poison of the viper does not neutralize the poison of the hydrophobia, if applied after the bite of the dog. His experience taught him, that dogs which have been bitten by rabid animals, did not become rabid if previously bitten by a viper, and a swelling had been produced. (*Journal d'Economie Rurale*, 1805.) If the good effects of this process were well authenticated, it would prove a new kind of inoculation, which would have the same salutary influence on animals that vaccination has on mankind, as a preservative against small-pox.

In a memoir read by Professor Anselmi to the Imperial Academy of Turin, we find the case of a man cured of hydrophobia by galvanism. This remedy was applied during the first symptoms of hydrophobia, and the individual who was cured, was presented to the academy at the sitting at which the memoir was read.

Some authors, and latterly one of our colleagues in the academy of Nancy,* admitting spontaneous hydrophobia, deny that this disease is ever exhibited in persons who have been bit by animals not actually rabid. There are irrefragable proofs, however, of persons who have died mad after being bit by dogs and cats who were not at all affected. Besides, the case mentioned by Theodore Swinger, the case of Lister, inserted by Bonnet in his *Sepulchretum*, is quoted as one of the most remarkable.

Professor Rossi published in the memoirs of the Turin academy for 1801 and 1802, three cases of persons who died of hydrophobia, after being bit by cats which were not mad, but which had been greatly irritated previous to the bite. In these cases the axiom, *Nemo dat quod non habet*, does not apply. It is remarkable, that the third case was that of a man who attacked a cat with a small hatchet in a dairy. The animal seeing no possibility of escaping the mortal blow, flew upon the man and seized his chin so forcibly, that it could not be detached until the head was cut off. The patient was carried to the hospital, where he was cauterized, bled, purged, and underwent a mercurial course. On the 20th day, however he became hydrophobic, and afterwards so furious that he broke his chains,

* Dr. Gorey—"Reflexions sur le Rage, &c. Journ. de Med." de Corvisart et de Roux, February 1807.

chains, ran out, and fell down dead at the gate of the hospital.

This confirms the opinion of several physicians, who thought that the saliva of an animal exasperated to extreme fury contracts a particular quality, and a morbid alteration, which renders it capable of communicating the disease. Some even furnish examples of epileptic and feverish patients, whose bite produced this disease. Cases of this description are however very rare.

In 1789, M. de Beausett, captain in the King's regiment of infantry, at Nancy, being in a violent paroxysm of epilepsy, seized with his teeth the point of my fore-finger while I was in the act of introducing some salt into his mouth; he pressed it between his teeth with such force for two or three seconds, that I thought he had divided it. I found I had received two contused wounds precisely upon the sides of the articulation of the last phalanx, which was covered with frothy saliva. Notwithstanding the fears of the bye-standers, and my own knowledge of mischievous effects, related in books, I was not the least alarmed, and no accident happened.

It must be admitted, that deep rooted affections of the mind, fear, or anger, after a more or less distant period from the bite, are determining causes of hydrophobia. In the same way, after a wound in the neighbourhood of the nervous and membranous parts of the extremities, tetanus sometimes comes on from the following causes. 1st. A peculiar predisposition or susceptibility of the subjects. 2d. An increased sensibility and irritability. 3d. The nature of the air and of the place inhabited by the patient. And 4th. From the perspiration being checked. Might we not establish a kind of analogy between the symptoms occasioned by a bite, and the general spasm or tetanus? It is certainly according to this apparent analogy, that Dr. Stutz of Suabia, proposes to apply his treatment of tetanus to hydrophobia. This method consists in administering fixed alkali alternately with opium, and in applying the warm bath saturated with this alkali, or rather with caustic potash.

When traumatic hydrophobia ensues from the above mentioned accidents, incisions and cautery are indispensable after the slightest appearance of the first symptoms, without

* It is with much justice that the Editors of the Journal de Medicine, last quoted, proposed to denominate *traumatic hydrophobia*, that which is occasioned by the bite of animals not rabid.

without neglecting opium afterwards internally, and oily embrocations.

I shall conclude this sketch with some curious experiments, made by inoculating with saliva. M. Huzard, in observations communicated to the Institute, says, that herbivorous animals do not seem to transmit hydrophobia by biting, as carnivorous animals do. In fact, we cannot communicate the disease by inoculating with the saliva of the former. Animals have also been inoculated without effect, with the saliva of persons who died of hydrophobia. But inoculation with the saliva of a mad dog almost always communicates this disease to other animals. Dr. Zinke made the following observations at Jena.

1. He dipt a camel's hair pencil in the saliva of a dog which had died rabid, after having bitten several other animals, which shared the same fate; he inoculated it in the fore legs of another dog on the same day; he covered and tied up the incisions, in order to hinder the animal from licking them, and he administered *belladonna*. On the eighth day he refused his food, became sad, and on the tenth day he was seized with rabies.

2. A second dog was inoculated in three places, with a mixture of the saliva with which the pencil was wet, and a strong solution of white arsenic in water. Two hours afterwards the bandages were removed, and the wounds were moistened with arsenical solution. On the third day the edges of the wound were inflamed and covered with crust, under which there was a little matter. It discovered no symptoms of hydrophobia.

3. A cat was inoculated with the same saliva, diluted in tincture of cantharides. The incisions were twice rubbed with ointment of cantharides. On the third day the cat refused its food, and sought to hide itself. On the ninth it became rabid and was killed.

4. The same physician inoculated a rabbit with a mixture of rabid saliva, and drops of volatile alkali. Four hours afterwards, he washed the wound with this alkali, and covered it with a cloth moistened with the same remedy. The animal became rabid on the eleventh day.

5. Another rabbit was inoculated with the saliva of a mad dog, diluted with the saliva of a healthy person. Two hours afterwards, the wounds were washed with soap ley. This bathing was repeated at the same intervals, and no hydrophobia ensued.

6. A dog was inoculated with the same saliva, diluted in a little water, in which some phosphorus had been put.

Six

Six hours afterwards, the wounds were washed with phosphorated water. On the third day the wounds were crusted over and inflamed. On the fifth day the animal lost its appetite, but it did not become rabid.

7. A cock was inoculated with the same saliva, mixed with some of the gastric juice of a cat. Two hours afterwards, the wounds were rubbed with a small tooth brush, soaked in vinegar. One hour afterwards, they were rubbed with gastric liquor, and four hours afterwards with tincture of cantharides. Suppuration was kept up with tincture of cantharides, but on the fourteenth day the cock was seized with hydrophobia.

In five cases of bites of a mad dog, Dr. Zinke succeeded by rubbing the wounds with a small brush dipped in soap ley, and by making incisions. Afterwards he put the patients into a warm bath, then into a warm bed, and he gave hot drinks. When the bleeding had ceased, he covered it with a paste composed of white arsenic, like that which is generally applied to cancers, and he gave internally phosphorus dissolved in ether. This topical application produced only pain and inflammation, and yet it is at present regarded as a specific in the treatment of these bites.

The corollary to be drawn from the proposition I have placed at the beginning of my letter, consists therefore in the superiority of the local treatment, not only instantly after the bite, but also at any subsequent period.

I do not mean to say that the cauterization should exclude the use of internal remedies, but without burning they are very rarely efficacious.

CRITICAL ANALYSIS

OF THE

RECENT PUBLICATIONS

ON THE

DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND MEDICAL PHILOSOPHY.

Medico-Chirurgical Transactions, published by the Medical and Chirurgical Society of London. Vol. I.

To give a just view of the nature of the Society to which we are indebted for this Volume, we shall transcribe part of the Preface.

(No. 125.)

F

" On

" On submitting to the public the first volume of the Transactions of the Medical and Chirurgical Society, the President and Council, to whom the management of its affairs is entrusted, feel it to be their duty to state the nature and objects of this Institution, and the claims which it possesses to professional patronage.

" The want of a Society, founded upon liberal and independent principles, and conducted with the propriety and dignity which are worthy of the medical profession, had been long acknowledged; and a few physicians and surgeons in the year 1805, held a meeting for the purpose of considering the best means of obviating it. They invited many gentlemen of eminence to join them, and thus a Society was formed, which they soon had the satisfaction to see, comprised a very respectable portion of the professional rank and talent of the metropolis.

" The present volume is composed of papers which have been communicated to this Society, and read at its meetings. The president and council submit it to the consideration of the medical public, not without the hope, that it will support the claim of respectability and usefulness, which they are desirous that it should possess.

" The papers which come before the Society have necessarily various degrees of value; and in considering their merits with a view to publication, it is wished equally to avoid the extremes of fastidiousness, and want of discrimination. Brilliant discoveries in medicine and surgery, or the branches connected with them, are seldom made; but the observing practitioner has various opportunities of improving the profession, by attention to the facts which come daily within his view, and by the management of the materials which are already in his possession.

" The varied forms of disease, whether medical or surgical, and the modes of treatment which may be found adequate to their removal, are subjects concerning which the Society necessarily feels the highest interest. Cases having a fatal issue, however, are often not less instructive than such as terminate favourably. They frequently tend to point out more accurately the plan to be pursued in the treatment of similar complaints; they afford valuable information relative to the probable causes of failure; and when dissection is permitted, they throw light on the more intimate nature and modification of the disease.

" The operative part of surgery opens a field of considerable interest and extent, and the number of gentlemen connected with hospitals in London, who are members of the Society, gives it the prospect of being able to communicate to the public, some valuable observations and improvements in this important branch of the profession."

" The want of a society formed on liberal or independent principles," is not so apparent to us as to the writers of the above. The London Medical Society has always appeared to us founded on such principles. That parties have occasionally been formed in that as well as
in

In all other associations, can hardly be questioned; but we know of none which have disturbed its general harmony, and precluded the admission of either members or papers for publication. It will, perhaps, be said, that both have been too indiscriminately admitted. In answer to this, we must remark, that till the encouragement given within the present century to a popular Journal, there was no regular record for many facts, which, if not brilliant in their issue and recital, were at least of sufficient importance to be recorded. It may be urged, that the last volume of *Memoirs* which has been published since the period alluded to, does not show more circumspection in its choice of papers. This must be admitted, and, probably, the erection of a rival institution may be serviceable to both.

The plan of the two Societies seems similar; each publish volumes when they have collected a sufficient number of interesting papers. Each read a paper when one is offered. Each admits conversation without allowing it to degenerate into debates. Each proposes the augmentation of its library; and each solicits communications from whatever quarter. In the new Society, the Preface remarks, "The union of gentlemen of both branches of the profession, affords a greater facility of obtaining accurate information on many points of practice, than could have been derived from a society composed of either physicians or surgeons only." By the latter part of this sentence, we were fearful apothecaries, whose opportunities of information are at least equal to either of the other two branches, were excluded; but in perusing the list which follows, we are glad to find this is not the case. We do not, however, perceive any names on the council, but those of physicians or surgeons.—Having given this general account of the Society, we shall proceed to offer an abstract of their "Transactions."

ARTICLE 1.—*A Case of Aneurism of the Carotid Artery.* By ASTLEY COOPER, Esq. F. R. S. Surgeon of Guy's Hospital. To do justice to the author, we shall transcribe the account of the operation, which will give a sufficient insight into the disease.

"The tumour at this time reached from near the chin beyond the angle of the jaw, and extended downward to within $2\frac{1}{2}$ inches of the clavicle. I made an incision two inches long, on the inner edge of the sterno-mastoid muscle, from the lower part of the tumour to the clavicle, which laid bare the omo and sterno-hyoideus muscles, which being drawn aside toward the trachea, exposed the jugular vein. The motion of this vein produced the only difficulty in the operation, as under the different states of breathing it sometimes presented itself to the knife, tense, and distended, and then as suddenly collapsed. Passing my finger into the wound to confine that vein, I made an incision upon the carotid artery, and having laid it bare, I separated it from the par vagum, and introduced a curved aneurismal needle under it, taking care to exclude the recurrent nerve on the one hand, and the par vagum on the other. The two threads were then tied about half an inch asunder, being the greatest distance to which they could be separated; I thought

it proper not to run the risk of a hemorrhage by dividing the artery, as I was fearful the ligatures would be thrown off by the force of the heart, and the distance was too small to allow of any means being used to prevent it. As soon as the threads were tied, all pulsation in the tumour ceased, and the operation being concluded, and the wound superficially dressed, she rose from the chair in which she sat during the operation, and was immediately seized with a fit of coughing, which I thought would have terminated her existence. This seemed to arise from an accumulation of mucus in the trachea, which she could not expel; it continued about half an hour, when she became more tranquil.

"*Saturday, Nov. 2.*—Mr. Owen, who had sat up with her, reported that she had slept six hours during the night, but was now and then disturbed by her cough. The pulsation in the tumour has not returned; that in the brain has ceased, and there is no appearance of diminution of nervous energy in any part of the body."

On the same night, leeches were applied to the head to relieve her of pain in that part; next day her cough better, pain gone; the following night slept 6 hours.

The following day mending, but cough returned; increased on Tuesday; the succeeding day, Wednesday, so violent as to force a few drops of venous blood from the orifice.

Thursday, the symptoms mended.

Friday, general irritation, and the left leg and arm somewhat paralytic. Head free from pain.

Saturday, all the symptoms improved. Wishes to eat, but unable to swallow solids.

Monday, symptoms mended.

Tuesday, the paralytic arm recovered.

The ligatures, with the intervening piece of artery, came away with the dressings; all the symptoms mended till Sunday the 17th of November, the seventeenth day from the operation. From this day, the symptoms of irritation increased, with an ill condition of the wound; on the 21st she died.

By examining the part subjected to the operation, it appears that "the cause of her death was the inflammation of the aneurismal sac and the parts adjacent, by which the size of the tumour became increased so as to press on the pharynx and prevent deglutition, and upon the larynx, so as to excite violent fits of coughing, and ultimately to impede respiration.

"A similar event, however, may be in future prevented, by performing the operation when the tumour is small, and pressure has not been made by it upon important parts, or if it is of considerable size, as in this case, by opening the tumour and discharging the coagulum, as soon as inflammation appears."*

Permission

* Since this paper was read to the Society, another case has occurred which has terminated successfully, and will be given at the end of this volume."

Permission not being obtained to open the head, the cause of the paralysis could not be discovered.

If we may be allowed to make any remarks on this case, of which we may truly say, "*quem si non tenuit, magnis tamen excidit ausis*," we should be induced to regret that so important an operation was undertaken under circumstances so unfavourable. Considering the rank of life of the patient, it was hazardous to trust her under such circumstances any where but in the hospital. The very short time between the first interview and the performing of the operation, might, perhaps, have been usefully employed in preparing the constitution for it, or the first symptom of inflammation might, if not anticipated, have at least been met by copious bleeding. We are not urging that these or any other means could have saved the patient, or what is still more to the purpose, that she could have lived without submitting to the operation: but we feel it impossible to restrain our expression of regret, that so good a thing did not succeed perfectly. We shall, however, do all we can to reconcile ourselves and our readers to the event, by noticing in this place, though out of order, a

Second Case of Carotid Aneurism. By ASTLEY COOPER, Esq.
F. R. S. Surgeon to Guy's Hospital.

This case is introduced by a concise but ample apology for performing such an operation. The subject was a porter on the Quays, 50 years of age, the disease of about 8 months standing. The tumour when first observed, 6 months before the operation, was about the size of a walnut, just under the angle of the left "jaw, and extending from thence downwards to the thyroid cartilage. It was accompanied with great pain on the left side of the head, which began about five months ago, and was attended with a sense of pulsatory motion in the brain. The tumour affected his speech, so as to make him extremely hoarse; and he had more recently a cough, attended with slight difficulty of breathing, and which seemed to be the effect of the pressure of the swelling on the larynx. His appetite was sometimes affected by it; for three or four days he eat heartily, and then for many lost his relish for food. He had a sense of coldness succeeded by heat in his left ear, and he often became sick when eating, but did not vomit. Upon attempting to stoop at any time from that period, he had an insupportable feeling as if his head would burst; a giddiness; loss of sight; and almost total insensibility.

"The left eye, which had for some time been gradually closing, appeared now not above half as large as the right; yet its power of vision was equally perfect.

"A blister was at this time ordered to be applied on the head by Dr. Hamilton, which lessened his pain. A month ago he applied another with the same relief; but it lasted only for a few days. He continued at work until the day previous to the operation.

"The dilatation of the carotid artery was seated just below the angle of the jaw, and about the acute angle which is made by the

great division of the common carotid. The tumour was about the size of a pullet's egg, and prominent in its middle.

"The pulsation of the aneurism on the day of the operation was remarkably strong; when the sac was emptied by pressure on the artery below, the tumour sprang to its original size with one contraction of the heart."

In this operation, the artery was divided between the ligatures. No unfavourable circumstances occurred to interrupt the healing of the parts or the health of the patient, who, within 3 months after the operation, was enabled to pursue his occupation without injury or danger.

"The result of this case (says Mr. Cooper) afforded me a degree of pleasure which compensated for the disappointment I felt in the issue of the former. In a professional point of view, it was highly desirable to ascertain the possibility of saving life in a case which had hitherto proved generally fatal; and I could not but feel more than common interest in the fate of a man, who, although he well knew that the trial was new, and the risk considerable, never betrayed the smallest signs of apprehension.

"Near eight months have now elapsed since the operation was performed, and he has returned to his former employment without any diminution of his mental or corporeal powers, excepting the lessened action of the temporal and facial arteries on the side in which he was operated. The tumour has disappeared, and he has not been since subject to that pain in the head, by which he had been so much distressed prior to the operation.

"This aneurism, from the depth of its situation, was, I believe, seated in the internal carotid artery, and this led me to hope that the regurgitation of the blood, although at first sufficient to produce a slight pulsation in the tumour, would not continue to support its growth, because as the internal carotid passes through a foramen in the skull, a little above the swelling, it could not dilate at that part to bring down any additional quantity of blood into the sac; so that its first effect was likely to be as great as any it could produce. But if the aneurism had been of the external carotid artery, owing to the number of communicating vessels, I should not have been equally sanguine in my expectation that the pulsation would have ceased, as I have known two instances, one of a wounded radial artery, and the other of aneurism of the anterior tibial, in which the tumour continued to grow by anastomosis, after the arteries had been tied above the swellings."

ARTICLE 2.—Case of Violent and Obstinate Cough, cured by a Preparation of Iron. By CHRISTOPHER STANGER, M. D. Gresham Professor of Physic, and Physician to the Foundling Hospital.

THIS is a very interesting paper, on account of the accurate description of the case, and the pathological remarks of the author. The remedy, however, was very similar to Griffiths's celebrated mixture,

mixture, which that practitioner conceived was a cure for phthisis pulmonalis.

ARTICLE 3.—Some Observations relative to the Treatment of the Hooping Cough. By RICHARD PEARSON, M. D. F. A. S.

IT is some consolation to find that the rising generation will be freed from those miseries which we have undergone, and some of us inflicted on others. Emetics, since the days of Dr. Fothergill, have till lately been considered the remedy for hooping-cough. The author of the present paper proposes, after the accumulation of phlegm has been brought away by an antimonial vomit, a medicine prepared of opium, ipecacuhana, and prepared natron.

We have no doubt of the efficacy of this remedy; but this does not prevent our making a few remarks. In the early stage of the disease, cathartics will be found very useful, and *nostro periculo* may entirely supersede the use of emetics. In the progress, the symptoms must be attended to as in other complaints, and the remedies applied according to each; but the history of every case and of every remedy, will be very imperfect if the season of the year, temperature of the weather, and situation of the person in all other respects, are not most carefully registered throughout the whole. We ought to add, that our author has not overlooked the necessity of attending to all the symptoms, or of varying the practice according to them.

On a Diminution (in consequence of disease) of the Area of the Aperture, by which the left Auricle of the Heart communicates with the Ventricle of the same Side. By JOHN ABERNETHY, Esq. F. R. S. Assistant Surgeon to St. Bartholomew's Hospital, and Vice President of this Society.

Malformations of the heart, are of all others the most vexatious, because we witness the sufferings of the patient, are constantly anxious that we may be mistaken in our prognosis, and certain that if right, we can offer no relief. The most remarkable circumstance in this paper, is the accuracy with which Mr. Abernethy conjectured, during life, the exact seat of the disease, which, in an organ whose cavities and their communications are so numerous, and whose actions so much influence the whole vascular system, is oftentimes extremely difficult.

"Notwithstanding, says he, the respiration was laborious and frequent, it still appeared too free to admit of the supposition, that the left cavities of the heart received the blood in such small portions, in consequence of an impediment to its transmission through the lungs. I therefore conjectured, that a mechanical impediment prevented the left ventricle from receiving its due quantity from the auricle, and I could suggest no other kind of impediment, but some polypous growth or unnatural tumour. The symptoms increased in severity for the course of a month, when the patient died."

On examination, a passage from the left auricle to the left ventricle was found of an elliptical form, situated between the sides

of two pointed productions of the mitral valves, and not greater than would admit the passage of a moderate sized bougie, adapted to the form of the aperture. The following are the author's reflexions on this case.

" The annulus venosus is a strong callous ring by which the auricles communicate with the ventricles. If the left cavities of the heart were injected to the utmost, the ring would be probably about one inch and a half in diameter. From this circle arises that duplicature of the membrane of the heart, called the *valvula mitralis*, into the pointed edges of which the *chordæ tendineæ* are inserted. Now, if the fleshy columns which proceed from the middle of the heart are irritable, and frequently draw these tendinous chords, they will cause the two sides of the valve to approximate in a linear direction. Nay, as the base of the valve arises from the annulus venosus, they will even produce an approximation in the sides of that aperture, and thus gradually tend to effect the kind of contraction which I have described. One cannot, however, suppose the closure of the opening to arise from such force alone, but from an alteration of structure and a new formation of parts according with the effect which this force would occasion. It might be suggested, that this was the mere effect of inflammation; but inflammation might cause thickening, or perhaps ossification of the valve, as we frequently see, without producing this contraction. When, however, inflammation takes place in the mitral valve, it will in some degree be extended to the tendinous chords which terminate in its points, and by these means to their fleshy columns, rendering them irritable, and thus producing the effect of approximating the sides of the valve in different degrees.

" In the dissection which has been related we found evidences of inflammation, but not considerable in degree. That the action of the heart tends to diminish the aperture between the auricle and ventricle, is, I think, evident from examining the heart of an animal which has been bled to death, when it is found in its utmost state of contraction; and then it is difficult to pass even the little finger from the auricle into the ventricle. I have, as I before said, met with various degrees of contraction in the aperture by which the two cavities of the left side of the heart communicate, in the ordinary course of dissections, and in some instances even to the extent described in the foregoing case. I knew nothing, however, of the symptoms which took place during life.

" A late instance, however, has occurred in St. Bartholomew's Hospital, in which the symptoms were noted during life, and the morbid appearances after death. The dissection was made by Mr. BARNES, the House Surgeon, whose diligence and talents are, I think, likely to render service to the profession, and whose account of the dissection I here subjoin.

" It will, however, be previously proper to give a brief account of the symptoms which the disease occasioned.

" The

"The patient was a woman of a thin and small form, and about thirty-eight years of age. I should unnecessarily occupy the attention of the society, was I to detail all the particulars of the case, as they were recorded, during the patient's life. Many circumstances related to the state of the stomach and bowels, and to that of the nervous system. It seems only necessary to mention those which appear more immediately to have arisen from the mechanical impediment to the circulation of the blood; and there were (as in the former case) an extremely small and frequent pulse, a purple tint of the skin, particularly in the face; but there was no œdema, as in the preceding case. The smallness and frequency of the pulse increased, as the disease advanced, so as to render it difficult to feel and count it."

In the former case, we should remark, that the right cavities were found distended with blood. In this, the right cavities were empty. The left auricle was filled with blood, coagulated in layers; and its muscular parietes thickened. The annulus venosus appeared like a slit, an inch in length, and one eighth in breadth, with an irregular hardened edge, cartilaginous, white, and with difficulty admitting the fore finger. On cutting off the apex of the ventricle, the parts below had nearly a similar appearance, the mitral valve being much thickened, opaque, and of the hardness of cartilage.

"In this case, says Mr. Abernethy, there was a much greater disease of the valve, than in the one which I first related. It is useful to shew the different circumstances in which the contraction takes place. I repeat that it is, as far as my observation enables me to determine, a frequent occurrence in various degrees. We also meet sometimes with considerable disease of the valves with but little contraction in the passage between the auricle and ventricle; and we meet with great contraction sometimes, where but little inflammation seems to have existed. These observations shew, that the contraction does not depend on inflammation alone, and led me to suppose, that it was produced in the manner that I have stated in a former part of the paper."

A very curious case of diseased ovary follows, which occurred in Mr. Hurlock's practice.

ARTICLE 5.—*An account of a very peculiar Disease in the Heart.*

By DAVID DUNDAS, Esq. Serjeant Surgeon to his Majesty.

This truly valuable paper contains an account of several cases, in which, under rheumatic fever, the disease has been suddenly transferred to the heart. The symptoms in that organ are peculiarly acute, and the palpitation often so violent, as to be distinctly heard, and even to agitate the bed in which the patient lies, with such violence, that the pulse may be counted by the motion of the curtains. The respiration is painful. At the same time, the pulse is small, quick, and sometimes irregular; in some instances, weak, but more commonly hard. As the disease advances, the legs swell, sometimes the abdomen, and the patient dies after wretchedly

ly lingering for an uncertain period. All the cases seen by the author were young subjects, six males, and three females. In all that have been opened, the heart was enlarged in different degrees, principally the left ventricle, but the increase was not in the muscular fibres, which were found unusually pale, even soft and tender in their texture. The pericardium adhered to the heart in every instance but one, in which water was found in it.

A case with many similar symptoms is related by Mr. Thomas, in which an irregular excrescence of the nature of a polypus was found attached to, and nearly occupying the whole of one of the valvulæ mitrales. The left side of the heart was somewhat larger than natural. Another by Dr. Baillie, which occurred in the year 1770. The pericardium adhered to the left ventricle, which was thinner than the right. Where the pericardium did not adhere, a small quantity of water was found within it. Another by the author of the paper, in which the heart was found of an unusual size, its substance pale and tender, the pericardium every where adherent. The valvulæ mitrales edged with a substance of a spongy appearance; perhaps, says the author, coagulable lymph.

A case follows, related by Dr. Pemberton. The patient was a male, 36 years of age, and subject to acute rheumatism, of which he had a severe fit immediately preceding the disease in the heart. The symptoms of an affection about the heart were very violent, but somewhat relieved by cordials, after which a small quantity of blood was taken, which was not buffy. The symptoms gradually subsided under the use of digitalis and cicuta, a low diet, and a seton in the region of the heart. Two cases have occurred to Dr. Marcet of rheumatism transferred to the heart, with similar symptoms. They proved fatal, and in each the heart was found enlarged. The last case related is by Mr. Dundas. The patient was a female, 29 years old. Besides the symptoms about the heart, ascites followed. The heart was found to occupy the greater part of the left side of the thorax, the lungs strongly adherent to the pleura.

Of all the cases related by Mr. Dundas, it is remarkable, that only two were above 22 years old. About the year 1781, we recollect a similar case at St. Bartholomew's Hospital. The subject was a boy about 18, and the third of his father's children who had died under similar symptoms, at the same age. We shall forbear to offer any opinion on the cause.

ARTICLE 6.—*On the Gelatine of the Blood.* By JOHN BOSTOCK, M. D. Liverpool.

The labours of Dr. Bostock in that most valuable inquiry, animal chemistry, has appeared on many occasions. The present is not less important, though the result may not confirm any generally received opinion. According to Parmentier, Birkbeck, Fourcroy, his translators Thompson and Delametherie, blood is supposed to consist of fibrine, albumen, gelatine, red globules, soda,

soda, some neutral and earthy salts, a small portion of sulphur, and a peculiar phosphate of iron, all held in solution by a large quantity of water. The crassamentum is composed principally of fibrine and red particles. To the red globules the iron is attached, which is supposed to impart the red colour to the blood. The albumen, jelly and salts, dissolved in water, have been considered as constituting the serum. The albumen is procured by subjecting the serum to heat. If after its coagulation by that process it is cut into small pieces, and digested in water, the other ingredients will be suspended in the water, and leave the albumen tolerably pure.

“By evaporating the water we obtain the jelly, but it is unavoidably mixed with the salts, from which it does not appear possible entirely to separate it; this object can only be in part accomplished by a slow evaporation of the water, in consequence of which, a portion of the salts will assume their regular crystalline form, and may be thus removed from the mass. The small quantity of sulphur which exists in the blood, appears to be united to the albumen; it has, however, never been obtained in a separate form, and its existence must be regarded as somewhat problematical. That part of the serum, which remains fluid, after the albumen has been coagulated by heat, to which the name of *jelly* or *gelatine* has been applied, is the last of the constituents of the blood, the presence of which has been distinctly ascertained, and it is the one to which in the present paper I propose principally to direct my attention.”

The author next proceeds to give an account of the opinions of such authors as have expressly or incidentally written on the subject, before he offers the result of his own experiments. We shall pass over all that has been said before the late improvements in chemistry, or at least, till the researches of modern physiologists produced a more accurate distinction in the language of each.

The first person who uses the term, “serosity,” as a part of the blood, is Senac, in his *Traité du Cœur*; but, as Dr. Bostock sufficiently proves, Senac had no meaning in the word, different from the *serum*, never considering it as a part distinct from the rest. De Haen seems to have been the first person who used the term *gelatum* as a part of the blood, but there is no satisfactory proof that he meant jelly, strictly so called, by such a term, for the manner in which he procured it was incompatible with such an effect, even if jelly had really existed in the serum.

Haller, in his physiology, speaks of the serum as consisting of water, mucus, and jelly: but there is reason to believe he used the latter expression very indefinitely; of this one expression quoted by Dr. Bostock, *seri pars quæ cogitur vel gelatina*, is sufficient proof.

Dr. Butt, in an inaugural dissertation, published at Edinburgh in 1760, divides the serum into a coagulum and watery part, but evidently

evidently shows that he considers the coagulable lymph and albumen as the same substance.

Cullen appears to have entertained the same opinion. He made use of Senac's term, serosity, our author remarks, to distinguish that part of the serum which was separable from the albumen.

Hewson was more correct in distinguishing the coagulable lymph from the serum. He used the term serosity in the same sense as Cullen, fancying that he is following Senac, in which we have shown that he was mistaken. He considered that this serosity or watery part of the serum contained the salts diffused in the blood, and remarks, that by evaporation, a mucilage which it contains, is hardened so as to resemble the mucus spit up by the blood, and dried. Such was the state of the question when the chemists engaged in the enquiry. "If serum, says M. Fourcroy and Vauquelin, after being mixed with half its weight of water, be exposed to heat, it is in part coagulated; and the portion of liquid which is not coagulated contains gelatine, which gelatinizes by cooling." In a future paper, they seem to explain themselves with more caution, saying only, that a slightly turbid fluid may be separated from coagulated albumen, which by evaporation and cooling, concretes into a substance having all the characters of jelly.

In 1794, a still more particular account is given of this substance, by Parmentier and Deyeux. But though they seem disposed to admit the result of their countrymen, yet it appears, that with all their diligence, they procured only a substance glutinous to the touch, and which when dried composes a hard transparent film. But this is not the true character of jelly, which should be fluid under heat, and concrete with cold. Dr. Bostock also remarks, that they offer no chemical tests to prove the existence of gelatine.

Mr. Hunter, about the same time, was engaged in experiments on the blood. With little or no knowledge of chemistry, we can only expect that he should faithfully narrate what he saw, and draw no conclusions without explaining the sources from which he derives them. After describing the serum as consisting of albumen, and a fluid not coagulable by heat, he adds, that he found the latter might be precipitated by Goulard's extract, and the precipitate he conceived was the same as albumen. In this he was evidently mistaken, Dr. Bostock having lately discovered that the acetate of lead is the proper test for mucus.

Since this period, the chemical writers have followed each other, in representing jelly as one of the constituent parts of the blood. Mr. J. Bell, in his anatomy, makes some objections to the general doctrines of other writers, but he confounds coagulation with gelatinization, and his mode of writing on this subject is so confused throughout, that it is not easy to develope his meaning.

Having thus noticed the opinions of others, Dr. Bostock reminds

minds us of those tests with which he formerly favoured the public for examining the constituent parts of animal matter. Our readers will recollect his account of the three substances most nearly resembling each other in their visible properties, and which being found in most parts of the body, he calls primary, viz. albumen, jelly, and mucus.

“ The distinguishing characters of the first are, its being coagulable by heat, and by the oxymuriate of mercury. The second is liquefied by heat, and becomes solid again by cold ; it is not affected by the oxymuriate of mercury, but is precipitated from its solution by tan ; while mucus is neither coagulated by heat, nor has the power of concreting by cold ; it is not affected by the oxymuriate of mercury, nor by tan, but it is copiously precipitated by the acetate of lead.

“ In order to ascertain the nature of the uncoagulable part of the serum, I exposed a quantity of it for some time to the heat of boiling water ; it concreted in the usual manner into a solid mass, but upon being divided into small pieces, and laid upon an inclined pane of glass, a brownish liquor oozed from it. The pieces of serum were afterwards digested in boiling water, which became tinged of a brown colour, owing to some substance previously contained in the serum which it had carried off. The fluid which oozed from the coagulated serum, and the water in which it had been digested, were added together. To a portion of it a small quantity of the solution of the oxymuriate of mercury being added, it became milky, and a precipitate was formed ; it was also rendered opake by being for some time exposed to the boiling temperature. Hence I found that it still contained some uncoagulated albumen ; and in order more effectually to separate it, I diluted a quantity of serum with six times its bulk of water ; to this I added the solution of the oxymuriate of mercury, until no farther precipitation could be perceived, and placed the compound in the water bath. The coagulum was by this process rendered considerably firmer than when heat only had been employed, and the liquor remained nearly transparent ; it was passed through a filtre, and now no precipitate could be obtained by the addition of the infusion of tan. A quantity of the water, in which coagulated serum had been digested, was slowly evaporated ; when the greatest part of the water was separated, it was suffered to cool, but no appearance of gelatinization was perceptible. The evaporation was then continued to dryness ; a tenacious film of animal matter was left behind, which did not in any respect resemble dried jelly, and which was with difficulty re-dissolved by the addition of more water. These experiments were several times repeated, and the results were essentially the same, so far at least as affected the conclusion to be drawn from them. It is necessary however to remark, that in trying different specimens of serum, there was a considerable difference perceptible in the readiness with which the albumen was separated from the uncoagulable part ; in some instances

stances a single operation was sufficient, while in others it was necessary to repeat the addition of the oxymuriate of mercury and the boiling four or five times, until the liquor which passed through the filtre was entirely freed from the uncoagulated mass.

"From these experiments I felt myself justified in concluding: First, That when diluted serum is completely deprived of albumen, which is proved by its no longer yielding a precipitate, upon being boiled with the oxymuriate of mercury, it is not affected by the infusion of tan, Secondly, That the animal matter contained in serum, which is not coagulated by the operation of heat or the oxymuriate of mercury, does not possess the property of concreting by cold. Whence we may infer, in the third place, That that part of the serum which is not coagulable by heat, does not possess the properties which are essential to jelly, either physical or chemical."

It is hence shown that the precipitable part of the serum left after the separation of the albumen can only be mucus, mixed perhaps with some small portion of the salts. Dr. B. remarks, that he has since had an opportunity of examining the fluid in a diseased spine, in hydrocephalus internus, and in hydrocele, in neither of which could he detect any jelly.

The paper concludes with a short apology for differing from so many respectable authorities. It is shown however that the operative chemists do not say that the substance they obtained *concreted by cold*, which is the true property of jelly strictly so called. Mr. Hunter's experiments, as far as they go, exactly confirm Dr. Bostock's conclusion, the precipitate by acetate of lead being the true test of mucus. Dr. Brikbeck and Mr. Allen, indeed, speak of tan as throwing down a copious precipitate from the serosity; but as this fluid was obtained by pressing it from serum that had been exposed to heat, the author infers that it still contained a portion of uncoagulated albumen, which would be acted upon by the tan.

ARTICLE 7.—*Account of the Effects produced by a large Quantity of Laudanum taken internally, and the means to counteract those Effects.* By ALEXANDER MARCET, M. D. F. R. S. one of the Physicians to Guy's Hospital.

The patient had swallowed six ounces of laudanum; five hours after he was forced to swallow a drachm and $\frac{1}{2}$ of sulphate of zinc, by which he was made to vomit about half an ounce of a fluid smelling strongly of opium. The symptoms increasing to an alarming degree, about half a drachm of sulphate of copper was dissolved in water. By great diligence of the attendants half this quantity was swallowed. This produced a copious vomiting, and afterwards, by continually moving and rousing the patient, he gradually recovered.

Reports on the Effects of a peculiar Regimen on Scirrhus Tumours and Cancerous Ulcers: by WILLIAM LAMBE, M. D.

(Concluded from our last, pp. 508—516.)

“By parity of reasoning, [never was a happier expression,] continues Dr. Lamb, we ought to conclude, that the symptoms, which did not yield to this change of regimen, but which continued to recur with equal violence, though at irregular intervals, were wholly unconnected with the use of water; such are the sickness and vomiting, which have been always observed to form a striking feature in the constitutional symptoms of Cancer; the pains of the limbs; and the dropsical swellings.”

These latter symptoms it is supposed must arise from something taken into the stomach, and this something, it is concluded, must be the solid matter, or rather that part of it which consists of animal food. From this time, therefore, a strict adherence to vegetable food is added to the distilled water regimen.

The second case was of an inmate in St. Andrew's workhouse, who at the age of 64 had had a cancer in her breast for twelve months. For three years she had suffered such pains in her limbs as rendered her a cripple. The progress of the breast had been from pricking pains to a lump, to which the skin adhered, which became discoloured and blistered on the surface. In the course of six or seven months other blisters arose, which running together formed a scab.

“July 13, 1805; at this time the scab is lower than the surrounding skin, and so much detached from it, that a probe might readily be passed between them. From this part it bleeds occasionally. Its situation is a little above the nipple. Still higher, and more towards the sternum, there is a lump, irregular and knobby on the surface, with an edge that is irregular likewise. The skin is discoloured over it, and of a dusky red. There is no tumour in the axilla, but there is pain in the arm, about the insertion of the deltoid muscle. The other breast is pretty full, and to appearance sound.

“Of the general health, there was no particular complaint, but a general debility; she complained of a sense of tightness across the stomach; the countenance was pallid, and the lips dark coloured, approaching to purple. Considering therefore her time of life, and general decrepitude, there was little hope of rendering her any essential service. The case could not be properly called open cancer; but there being a considerable breach of the substance of the skin, it was obviously fast approaching to that state. Wishing to see the genuine effect of pure water on such a case, I prepared it for her myself, and she used it regularly during the remainder of her life.”

From this time to the middle of October 1807, the appearances are registered with an exactness which does equal credit to the author's patience, exactness, and candour. They remind us of what

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we have too often seen, where the diet was unrestricted. In cases where the disease occurs at a very advanced age, and the progress in the course of a twelvemonth was no more than those met with by Dr. L. at his first interview with this patient, we should expect exactly such a progress and issue as he has related. Alternate vesications, serous and purulent discharges, ulcerations, fungating and sloughing processes, nor should we be at all surprized at the occasional skinning of the parts.*

The 3d case was of a woman 50 years old ; three or four years after the extirpation of her whole breast, a tumour about the magnitude of a filbert, appeared on the lower part of the sternum. It was of a livid red colour. After a time it sloughed out, leaving the surrounding skin with a smooth regular edge, as if cut with a knife.† She had cough ; difficult respiration ; seemed emaciated ; pulse about 120 ; but muscular strength not greatly impaired. In such a case as this, our readers, accustomed to view cancer, will bear without surprise, that she lived 13 months, that is, the commencement of the succeeding winter. But for her pulmonary symptoms we see no reason why she should not have lived longer on the customary diet of a workhouse, assisted by her friends, as this woman was. Her only restraint seems to have been in confining herself to distilled water.

The 4th was a rapid case, in a woman 36 years of age ; she died in a short time after the course was begun. The disease however did not spread under the regimen, but, on the contrary, the colour and appearance of the margin sensibly improved.

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* The following account of the progress of a carcinoma is extracted from Dr. Adams's Correspondence with Dr. Baillie, and others, published in the year 1801. Page 106 alibi.

" When ulceration has begun, it is not as in common abscess, because matter has approached the surface with a previous elongation and as we call it pointing of the skin. For the fluid, which consists only of hydatids altered in their form by the loss of life, makes no progress towards the surface, but remains till the gradual sloughing and ulceration of the fungus expose the cavity in which they are contained. When by these means the fragments of the cysts and turbid fluid into which the hydatids are converted by death escape, the sides of the cavity do not collapse like that of common abscess, but expose a ghastly cavern, from which, instead of pus, a watery discharge is secreted, attended with a very peculiar smell. Round the mouth of this cavern, fungus sometimes grows, and instead of any attempt to unite, the skin curls in a contrary direction, which increases the depth of the cavity. This continues as long as any fragments of hydatid-tunics retain their life. As they die, ulceration takes place to detach them, like other extraneous bodies ; and this ulceration being unattended with fungus, renders the cavity for a time still deeper. After all the fragments of tunics are detached, the wound will perhaps continue stationary or heal, or more commonly another set of hydatids will be so far advanced as to produce a fresh sloughing or ulceration."

† Compare this with Justamond's case treated with arsenic.

The 5th was also a rapid case. The patient lived from Oct. 1806, to the January following, under the regimen of distilled water; during this whole time the appearance of the cancer improved.

The sixth case was the effect of a blow. It remained about a twelvemonth, without any breach of the skin. Half a year afterwards Mr. Abernethy proposed the use of distilled water, and at the same time introduced Dr. Lamb to the case. It was then conjectured by Mr. Abernethy, that the patient could not live more than a twelvemonth at most. Of the symptoms at the latter end of May, 1805, we shall only remark, that the fungus was so considerable as to project greatly beyond the natural figure of the breast; the pain had never been acute. The general health, the author remarks, was as little affected as could be expected. She had however many symptoms of reduced health.

For the first eight months after commencing the distilled water, every thing promised well. On the ninth some unfavourable symptoms induced the author to propose the adherence to vegetable diet in addition to the distilled water. The progress of the disease varied from this time as well as the state of health; but the latter seems gradually to have declined. In the spring of the third year, small doses of tinct. ferri muriati were of great service. When they were begun, or how long continued, we are not informed. The patient lived till the October twelvemonth following.

The 7th case describes a widow 60 years old, who for *many years* had a tumour in her breast, which was originally caused by a pinch. Of the appearance of the disease we shall only remark, that the breast was smaller than the sound one, that the health was sound till she commenced the distilled water. In about five or six months a quantity of serous discharge took place, as had formerly been the case. At the end of a twelvemonth the tumour was either wholly or nearly absorbed.

The following are our author's remarks on this case.

"She left off the distilled water when the tumour was absorbed because she said that, she had never felt well, as long as she used it. She concluded, therefore, naturally enough, that it disagreed with her and did her harm. Upon resuming the use of common water, these uneasy feelings immediately disappeared. So great is the difference upon the body between this fluid in its common state, and when freed from all heterogenous matter; and so much are we the slaves of habit, which renders the most noxious irritations, to which we have been accustomed, necessary to our comfort.

"I find that still there is some uneasiness about the part which the tumour occupied, though it is slight. This circumstance proves, I think, that the nature of the disease has not been mistaken; and I have little doubt, that it will still prove troublesome, if she be not cut off by internal disease."

Many of our readers will be of opinion that the reduced health in consequence of distilled water, or from some other cause, might

have produced absorption of tumours which never seem to have shown a destructive tendency.

The 8th case affords no satisfactory conclusion either for or against the regimen.

CASE IX. we suspect would be called by the author we before alluded to, lymphatic hydatids, to distinguish them from the true carcinomatous. The former he considers as vesicles filled with fluid, the latter with fat. Dr. Lambe's subject was a widow, who for some years had perceived a small lump, which appeared just above the nipple.

"During the year 1805, the tumour increased, and in February 1806, a small hole had formed in the skin, which had become discoloured, and there was a fetid matter discharged from it. At this time the regimen I have so often spoken of, was recommended to her, but it was not adopted; and I know not what occurred from this time till the beginning of June 1807, except that the ulcer never closed, but continued to discharge a serous fetid matter; once the whole inflamed, and a number of oval vesicles came out; afterwards there was a discharge of a cream coloured matter. After this the ulcer contracted greatly; it, however, never closed, but enlarged by the gradual destruction of its margin."

This is what the same advocate for the hydatid nature of carcinoma would call the death and subsequent separation of a cyst of lymphatic hydatids. About a twelvemonth afterwards, the same train of circumstances took place as before the adoption of the regimen, viz. the parts inflamed, a quantity of oblong vesicles sloughed out, and afterwards a cream coloured fluid was discharged; "the ulcer then contracted." On a subsequent occasion, something like the same process was renewed, excepting that the vesicles came away gradually in pieces of about half an inch long, and as thick as a quill. In consequence of which the cavity was increased, and a cream coloured fluid discharged. The process was attended with much fœtor. The discharge gradually abated, the ulcer contracted and healed.

All these nine cases, as far as we can perceive, have followed the order described by the most accurate writers. If the process has begun early in life without a previous injury, the consequence has been so rapid a progress as has baffled every remedy, and outrun every operation.*

Dr. Adams, after reciting the success of different authors, concludes with the following remark.

"From these cases it seems to follow, that all the success practitioners have hitherto flattered themselves with, depends on the slowness of the progress of the disease. Thus we find that though Justamond's and Dr. Ewart's cases both healed for a time, yet Storck's and Mr. Simmons's, though mild, were too rapid to be
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* Observations on Cancer, by Dr. Adams, above referred to.

ever completely skinned over after they were once ulcerated. Wiseman gives three cases of this kind, which he calls schirrhous cancers. The first healed for a time; the others continued for many years without much inconvenience to the patients. Thus it generally happens that the cases which promise the greatest success are old cancers, or cancers in old people, which though held out as the most formidable, are in reality the most innocuous:—Formidable they may be truly called, inasmuch as they place the disease beyond a doubt; but their former progress, or the late period of their commencement, evinces a comparatively less aptitude in the constitution; so that unless a change takes place in the general health or external circumstances of the patient, we have reason to hope that life will not be much shortened, and only occasionally embittered by this incurable malady.”†

Such are the cancerous cases related by Dr. Lambe. A case of scrofula follows in a boy 11 years old. In this the author’s success induces him to conclude, “that the scrofulous ulcer is prevented from cicatrizing, merely by the constant irritation of common water.” Surely they do sometimes cicatrise under the use of common water. Many ingenious and powerful arguments follow, but whether they will prove more convincing to others than ourselves, it is not for us to determine.

“It is in vain, says our author, that I hear it objected, that chemistry can detect no difference between the blood of the herbivorous and the carnivorous animal. Be it so;—your chemistry then is imperfect. Some centuries more may elapse, before you arrive at a just analysis of vegetable and animal matter; and before you can ascertain the difference between blood, or bone, or muscle, formed from vegetable, and from animal food. It may be no more than a slight variation of the proportions. Alcohol and sugar are composed of the same elements. I shall not believe, on that account, that the former is wholesome nutriment, and the latter a deadly poison.”

A case of long continued and obstinate asthma follows, related by the patient, which has been so effectually cured by distilled water and vegetable diet, that the writer has been induced to adopt a similar plan for his children, “than whom no children can possibly be healthier.”

Such is the abstract of this valuable book; valuable we call it, because the whole is replete with internal evidence, which scarcely wants even the character of the author to confirm it. Every physical fact is valuable. But we conceive it will be unnecessary for us to give any further opinion of the success of the practice proposed,

† *Id.* p. 135.

Report of the Diseases of Edinburgh for May, 1809.

By JOHN ROBERTON, M. D.

The weather, in the beginning of this month, was soft, and accompanied by occasional gales of wind from the west. In this state, or nearly so, it continued till about the end of the first third of the month, when, although cloudy, it was very good, and afforded some warm and very pleasant days. About the beginning of the last third, the easterly winds prevailed and fogs became common, particularly early in the morning and after sunset. This sort of weather was, in a few days, succeeded by showers of rain, and we were assailed, within the last few days of the end of the month, with the coarsest weather that has been witnessed in this part of the world for many years. Hail, rain, and snow, fell in amazing quantity in the neighbourhood of Edinburgh for a whole day and night, causing the surrounding hills to exhibit rather the appearance of the month of January than of the end of May: the weather too was excessively cold. On the following day, a similar fall took place in the city of Edinburgh, and the flakes of snow have not been surpassed in size, at least within my remembrance, even in the depth of winter. The weather at the termination of the month was soft.

The barometer, about the beginning of the month, fell considerably. About the end of the first third, however, it rose a little, and continued to vary till near the end of the month, when, during the storm, it again fell.

The thermometer, till near the end of the month, stood between 45 and 60; but, toward the end of the month, it fell considerably below this.

The complaints which have been most prevalent have been pneumonia, enteritis, chin-cough, measles, small-pox, and fever.

The cases of pneumonia which have occurred in practice have been exceedingly bad. The disease, however, has not been nearly so frequent in occurrence as usual for several months past, but it has often terminated fatally in the space of a few hours. From our habit of annually witnessing the regular recurrence of inflammatory complaints during the winter months, the generality of people here seldom, at that time, attempt to account for their existence; but the usual season of such affections having elapsed, and their severity seemingly in a great measure having abated, their recurrence, especially to such a pitch of severity as has lately happened, excited the wonder and astonishment

astonishment of every one. The perpetual anxiety in the human mind rather to give a ridiculous explanation of an event than no explanation at all, was clearly evinced on the present occasion. The water by which the city is supplied, was fixed on as the criminal on this occasion, and no sooner was this report put into circulation, than every one could easily point out the very cause of these complaints actually floating in the fluid. The majority seemed to think that it was owing to some insect which had found its way into the water in immense numbers, and, so convinced were they of the fact, that, in almost every glass of water, they could point out some of them. So they might have done last year, or any other year at the same season, for they were literally the small harmless summer insects, which, unfortunately for themselves only, are at this season usually drowned in the water. These complaints, however, before the end of the month, had almost all disappeared; but, in some enfeebled patients, there remained after them a sort of chronic cough, which I found uniformly removable by the administration of pills, composed, as I formerly mentioned, of myrrh, ammoniac, squills, and a small proportion of opium. During the violence of the pneumonia, the most active practice was found absolutely necessary. Large and repeated bleeding, blisters applied over the whole chest, with the administration of saline cathartics, were often all found necessary at the same time. I am sorry to say that even the most active practice was frequently found ineffectual, and consequently many patients died.

Enteritis, although severe, was by no means so much so, or so fatal as the last mentioned complaint. Some patients died of it, but the generality recovered by the judicious abstraction of blood, and by the application of blisters over the abdomen.

Chin-cough has occurred in various parts of the city, but it never has been so severe as to excite much general alarm. No instance that has come within my knowledge, or under my immediate observation, has terminated fatally. Measles and small-pox have also had their place in the list of diseases; but neither their extent nor severity has been of an alarming nature. One or two cases of small-pox seemed rather of a bad kind, but the patients recovered.

Fevers, as usual, still continue to prevail in this place, and also, as usual, are found to originate and prevail with greatest virulence in the nasty abodes of the poor.

No. 12, Prince's Street.

An

*An Account of Diseases in an Eastern District of London
from May 20, to June 20, 1809.*

ACUTE DISEASES.		Hæmorrhoids - - - -	1
Pneumonia - - - -	3	Menorrhagia - - - -	5
Peripneumonia Notha	2	Leucorrhœa - - - -	7
Dysentery - - - -	1	Rheumatismus Chronicus	14
Rheumatismus Acutus	4	PUERPERAL DISEASES.	
CHRONIC DISEASES.		Menorrhagia Lochialis	3
Tussis - - - - -	17	Mastodynia - - - -	4
Dyspnœa - - - - -	5	Rhagas Papillæ - - - -	3
Tussis cum Dyspnœa	12	Dolores post Partum	6
Hæmoptysis - - - -	3	INFANTILE DISEASES.	
Phthisis - - - - -	2	Pertussis - - - - -	3
Pleurodyne - - - -	4	Aphthæ - - - - -	3
Hydrothorax - - - -	5	Diarrhœa - - - - -	4
Hepatitis Chronica	3	Dentitio - - - - -	2
Enterodynia - - - -	2	Vermes - - - - -	2
Diarrhœa - - - - -	4		

Notwithstanding the season is so far advanced, and we have for some time entered on the Summer Quarter, the state of the weather, and the temperature of the air, have been such as might be expected in the months of March and April. During the prevalence of the high winds, which have been blowing in all directions, and particularly in consequence of those which have proceeded in a North and North Eastern direction, much mischief has been done, both to the vegetable and the animal world. The trees of the forest have suffered much in their foliage, and the fruit trees have been despoiled of their blossoms. The human frame, as might be expected, has partaken of the injury; catarrhal complaints have been very frequent, and some severe affections of the chest have been experienced. Our list of diseases, therefore, bears a near resemblance to those which we have presented for some months past. Until within a few days, such has been the vicissitude of temperature, that different pneumonic symptoms have, in some instances, been almost as severe as in the winter months, and seem to threaten consequences similar to those referred to in preceding Reports.

I N T E L L I G E N C E.

Mr. JOSEPH HUME has discovered a new method of detecting arsenic. The test which he proposes as a substitute for those hitherto used, appears to be more efficacious, inasmuch as it produces a more copious precipitate from a given quantity of that substance. It is composed in the following manner: Let one grain of white oxide of arsenic, and the same quantity of carbonate of soda, be dissolved by boiling in ten or twelve ounces of distilled water, which ought to be done in a glass vessel; to this let a small quantity of the nitrate of silver be added, and a bright yellow precipitate will instantly appear.

M. VAUQUELIN has examined the root of a species of polypody, known by the appellation of calaguala. Of the substances which compose it, only those soluble in alcohol and water are capable of producing any effect on the animal economy. These are saccharine matter, mucilage, muriate of potash, and resin, which last he conjectures would be found to destroy the tape worm. He has likewise made similar experiments on the roots of the common polypody and male fern, and obtained from them precisely similar principles and nearly in the same proportions as from the calaguala. The former roots, however, contain a small quantity of tannin. Thus the medicinal virtues of the calaguala root being analogous to those of the other ferns, is fully confirmed by chemical analysis.

The Journal de Medicine contains several cases of coincidence in Variola and Vaccina. These are related with much accuracy, and exactly confirm what has been long since remarked by Doctors Woodville and Adams. The experiment of inoculating sheep has been repeated, and is said to have secured them from the scab.

The same Journal contains very high recommendations of the Radix Rhataniæ, from observations made by M. Pager and others. We shall give the substance of them in our next.

The College of Physicians have, on the recommendation of Sir Lucas Pepys, their President, admitted a Physician to the town practice, without passing through the academic forms required by their Statutes. Dr. ADAMS, the author of "Morbid Poisons," &c. is the person they have thought proper to distinguish.

Dr. CLOUGH will commence his next Course of Lectures on Puerperal Anatomy, Physiology, and Pathology, on Monday the 7th of August, at ten in the morning, at his house, No. 68, Berners Street; and for the convenience of such Students as may be engaged in attending other Classes, his Evening Course will be continued as usual on Tuesdays, Thursdays, and Saturdays, at eight. These Lectures will be elucidated by appropriate specimens of anatomical preparations and casts from Nature, from the collection of a very celebrated Teacher in this country. Particulars may be had as above, and at the St. Mary-le-bone Dispensary, Welbeck-street, Cavendish-square.

Dr. SQUIRE, Ely Place, Holborn, will begin a Course of Lectures on the Theory and Practice of Midwifery, and the Diseases of Women and Children, on Tuesday, July the 11th.

Dr. ROBERTON has in the press a new work, which will soon be published, entitled, *A practical Treatise on the Anatomy, Physiology, Pathology, and practical Treatment of the Diseases of the Generative System, particularly Lues Venerea, Gonorrhœa, Gleet, Seminal Emissions, Stricture in the Urethra of every Species; also Leucorrhœa, and various other Female Complaints.*

NEW MEDICAL PUBLICATIONS.

An Inquiry into the Anti-variolous Power of Vaccination By Thomas Brown, Surgeon, Musselburgh. 7s. 6d.

The English Physician enlarged. By Dr. Parkins. 5s. bound, fine paper 7s. 6d.

The Principles of Midwifery, including the Diseases of Women and Children. By John Burns, Lecturer of Midwifery, and Member of the Faculty of Physicians and Surgeons, Glasgow. 8vo. 12s.

CORRESPONDENCE.

We have received several accounts of cow-pox failures; among the rest, a long letter from Mr. Bartlett, Apothecary to the Finsbury Dispensary. The last gives an account of Mr. Taunton's, and many other children, who several years after going regularly through the process of vaccination, took the small-pox by inoculation, and some casually. The cases by inoculation of small-pox were mild, and most of the others, but not all.

We have also heard from a great friend to vaccination, that during an epidemic small-pox at Hayes, all the children formerly vaccinated, who were on this occasion inoculated to the amount of twenty, took the small-pox slightly, that is, as much as is the common effect of inoculation. Ten, who were not inoculated, resisted every exposure. It is said that some persons on this occasion had the small-pox a second time. It is of the utmost importance that all this should be rightly understood, in order to enable us to determine by what laws these diseases are governed, and how we are to arrange what at present appear anomalies. These cases should be transmitted to the National Vaccine Establishment in Leicester Square. At the same time such publicity should be allowed to every well ascertained fact, as may teach those who meet with similar incidents to mark every phenomenon in which the cases seem to differ or agree.

We are sorry that the absence of our Publisher prevented our receiving Mr. Taylor's letter till it was too late to avail ourselves of it for this Number.—It shall be attended to in the current month.

"An Essex Practitioner" cannot expect us to insert his anonymous remarks on our Correspondent who honours us with his name. If he inserts his own, confining himself to the result of his own experiments, without any unnecessary reflexions, we shall be ready to do him justice. The remedy to which he alludes does not entirely rest on the credit of the candid proposer, satisfactory as that alone might be. Besides common fame, which in matters of this kind, since the introduction of cow-pox, we shall always be afraid of despising, we have the authority of other practitioners, confirmed in one instance by our own observation. At the same time we have no intention to doubt the truth of the Essex Practitioner. The insects to which we owe the remedy are a numerous tribe, whose properties may be different, and even the same species different at different seasons, as we see most remarkably the case in all the poisonous reptiles.

Dr. SERNY's Treatise on Local Inflammation will be noticed in our next

THE
Medical and Physical Journal.

VOL. XXII.] AUGUST, 1809. [NO. 126.

Printed for R. PHILLIPS, by W. Thorne, Red Lion Court, Fleet Street, London.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

ETHER your Readers have not deemed my inquiries concerning the employment of rest, in the first stage of Phthisis Pulmonalis, worthy of their attention, or they are not possessed of such information as I requested from them upon the subject. When it is considered too that the best authors who have treated on the means of resisting this fatal disease have not thrown out a single hint on the utility of rest, as an auxiliary in any of its stages, I ought not to wonder, however mortifying it may be, if none of your Correspondents have noticed my address, through the channel of the Medical and Physical Journal for March last. This shall not however deter me from keeping my promise by asking the favor of three or four of your pages, for the purpose of recommending the trial of local and general repose, under the circumstances before mentioned. The inadequacy of our present modes of arresting the progress of consumption is undeniable; but not more so, I fear, than the rapid increase of its ravages in this country: if, then, there is one disease that calls more loudly than another for the introduction of additional methods of relief, surely it is pulmonary consumption.

I have no intention of dwelling upon the causes, the history, or the nature of the disease in question; there is no dearth of information upon any of those points; and it will be sufficient for my purpose to state, that *in its origin* it is supposed to consist, from whatever cause it may proceed, in the excessive or irritated action of some one or more sets of ~~the~~ vessels subservient to the functions of the affected viscus; that is to say, in a peculiar excitement or inflammation, tending to the formation of what are denominated tubercles of the lungs. Accordingly, the most promising remedies are generally held to be such as con-

(No. 126.) H tribute

tribute most effectually to restrain the circulation of the blood within moderate limits, both in the system at large, and more especially in the lungs themselves. Into this, and the counter irritation of some neighbouring or connected part or parts, most of the indications of cure which maintain their credit (for the first stage of the disorder) will be found to resolve themselves: but it would be difficult to shew how exercise in the open air, particularly in our variable climate, can at any season of the year agree with such a treatment. Sydenham, it is true, strongly recommends riding on horseback in consumption, without specifying the circumstances under which it is advantageous;* and he is too accurate an observer to have mentioned its utility without good grounds. In the advanced periods of phthisis, when suppuration has become evident, and the debility great, no doubt, every thing which cheers the patient's spirits, and helps to support his strength, must contribute in the same proportion to prolong his existence: but surely it must be prejudicial at an earlier period. In the inflammation, irritation, or excitement, (call it which you please) whether phlegmonous or peculiar of any other part, exercise would be one of the last means which a rational man would wish to resort to; and there appears not much more propriety in it at the beginning of consumption, than there would in an attack of pneumonia or enteritis. Yet nothing is more common than to see a consumptive patient in the first stage, who is actually under treatment intended to reduce the pulse at the very time, left almost as much at liberty in this and other respects as any of the healthy members of the family; just as if we were yet ignorant that the pulse is much quicker in an upright posture and a talkative mood, than it is in a state of repose and silence.

We all know that in an active hæmorrhage from the lungs, which is frequently an early symptom of phthisis pulmonalis, speech and motion are most strictly and properly forbidden; but because, in the great majority of consumptive cases, the arteries of the lungs are able to sustain the increased force or celerity with which the blood is transmitted

* I have since found that I trusted too much to my memory in asserting this of Sydenham, since he distinctly points out two of the later symptoms as those relieved by riding on horseback; and thus it appears that the benefit he had seen derived from it must have been at an advanced period of the disease, as I had previously supposed. Hoffman objects in express terms to the use either of a horse or a carriage in the beginning of phthisis. Wallis's Sydenham, vol. II. p. 155, Ed. 1783. Hoffman Opera, tom. 3, p. 294.

mitted through them, without bursting, these means are altogether neglected; although, except this accidental occurrence, the circumstances of the patient are the same, and the circulation of the part is probably as much out of bounds in the one case as in the other. Nor is the increased action of the heart and arteries the only injurious effect of exercise and conversation in these cases; the hurried respiration which necessarily results from them, affords the very means by which this rapid circulation is carried on, viz. the equally rapid expansion of the lungs, to say nothing of the pain and fatigue which is sooner or later occasioned to persons thus afflicted by the exertion. The extremities are subject to as great a variety of inflammations as the lungs, though not perhaps exactly of the same kind, and it would be reckoned preposterous to allow a patient suffering from the very slightest of them to swing his arm, or walk about, during the cure; although the worst that can happen in such cases is for the most part curable.

Every other plan likely to assist us in subduing this bane of our country has been tried in vain, and why should not complete bodily rest, combined with every possible quiescence of the excited parts, be at least attempted? It would certainly be too much to say that it would supply the defect altogether; but if reasoning from analogy be at all applicable upon this occasion, it is not too much to hope that, *employed in time*, it might prove one step towards it. Besides the great advantage of agreeing with the most rational indications of cure already established, it possesses in a high degree that of assisting and facilitating the execution of our other means of relief. If you are seeking to keep down your patient's pulse by sedatives or evacuants, can you do better than confine him to his bed or couch, in a posture which of itself will moderate the circulation as much as the most powerful remedy, without farther diminishing the strength? If you are trusting to the effects of a regular and congenial temperature, by adopting this plan, you have your patient strictly confined to his own apartments. Are you placing your dependence upon particular articles of diet; in this way the sick is preserved from every temptation to deviate. If you expect to relieve by blisters, issues or setons, the most effectual method of rendering them tolerable to your patient, is to prevent him from irritating them by moving about. If you are hopeless of more than the palliation of symptoms, in a recumbent posture constantly observed, you will find his pain of the breast or side, and his harrassing cough comparatively quiet.

From the circumstance of these two symptoms, being often most troublesome upon first going to bed and rising in a morning, some will be inclined to deny that they are relieved in the manner I have mentioned; but it should be recollected, that it is not either one posture or the other which ought to be made accountable for this distress, but the *change* from an upright to a recumbent, and from a recumbent to an upright posture.

Without attempting to anticipate all the objections, to which the use of rest and silence in early consumption may be liable; let me advert to such of them as lie pretty much upon the surface. In the first place, to the difficulty of enforcing what will appear so irksome as this kind of restraint for two or three months together, I am aware that there are many consumptive patients, who must follow their usual occupations, from necessity, till long after it is too late for them to benefit by any change; and others, who cannot be made to feel their danger at any period; but, after these deductions, many interesting and valuable subjects of this dreadful malady remain, who would not resist the intreaties of their relatives, or the advice of their medical attendant. Such consumptive affections as evidently betray a strumous origin, and which, I will not affect to deny, form a very considerable proportion of the whole, may prove beyond the reach of art, at a very early period of attack; but I think there can be very little doubt that the mischief is first *set to work*, and afterwards *kept up*, by the same causes and in the same manner as in other habits, and of course that the same means are required, though with less prospect of success. But this unfortunate state of things demands from us attention and not indifference, activity and not despair. I have now done with this subject, at least for the present; but I shall be obliged to any one who pursues it further, in the way either of assistance or correction; and shall be very ready to give any further explanation that may seem to be required of me, or to retract any thing on being shewn in what my error consists.

At the same time, I wish to offer two or three remarks concerning Digitalis: We all recollect how very greatly it was extolled in consumption a few years ago. No doubts were admitted of its efficacy, or utility at least, in *any* stage of the disorder. We have now time to cool upon it, and to see the medical world divided into several parties about this important plant: some prescribe it in inflammatory diseases, and consequently at the *beginning* of
of

of consumption; some in those of debility,* and consequently at the latter end of it; while some employ it in neither, and, what is most extraordinary, some in both. Of course, some believe it to be an *universal* sedative,† and others an *universal* stimulant. It is clear from all this, that we have still to learn, what are really the effects of this once fashionable medicine? Perhaps, the difficulty may be solved in something like the following manner: A quick pulse occurs in two opposite states of the body; namely, in extreme exhaustion and extreme excitement. Now the quickness of debility is, generally speaking, reduced by those medicines which have obtained the title of stimulants; and the quickness of inflammation by those called sedatives; what accelerates the one reduces the other, and vice versa; consequently, the same medicine has opposite effects in opposite states of the body, or, in other words, is by turns both a stimulant and a sedative. If this be the case, it is the *condition of the patient* which determines, in a great measure, the effect of what he swallows; and the confusion which I have been speaking of, probably, arises from this distinction having been too often disregarded. If so, we need not be much at a loss to account for most of the contradictions, with which makers of experiments upon articles of the *materia medica*, have saluted each other; since it is not only requisite for them to understand each other's terms, but also to choose subjects as nearly as possible of the same strength and temperament.

Whether it is the quickness of inflammation, or that of debility, which digitalis has the power of decreasing, although I believe it to possess the latter only, and therefore to be fit only for advanced consumption, it would not become me to assume the office of declaring: I merely contend that it cannot do *both*, and that unless the two states I have alluded to be kept separately in view whenever the point is contested, the disputants will be apt to fall into the situation of the Knights who came to blows about the colour of the Statue, which appeared black or white, according to the ground occupied by the respective Champions.

Oxford, July 12, 1809.

JOHN JENKINSON.

* This party have the early practice of Drs. Withering and Darwin, which preceded all theory upon the subject, on their side.

† Dr. Ferriar, for instance, says—"If any man had expressed an opinion a few years ago, that we should discover a medicine capable of reducing the pulse, without danger, from 120 in a minute to 75 or 80, *at the will of the practitioner*, he would have been ridiculed as a visionary; yet such is the power of digitalis under proper management."

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IN Number 125 of your Journal, I observe with pleasure, under the head of "Correspondence," what I cannot help thinking extremely proper, namely, a Reply to an Anonymous Writer, who ventured to offer remarks on a communication which you received with its author's real signature. Indeed, I have always considered those papers which are only signed with initials, or some convenient word, as "Crito, Verax, &c." not to be written with that purity of intention, or strict adherence to truth, which should be paramount to all other considerations in every thing relating to a science so intimately connected with the happiness of mankind; and although my opinion, universally applied, may be rather harsh, yet I own I should be pleased to find that such communications were uniformly rejected.

In the instance alluded to, although you have not mentioned the name of the author on whose paper the anonymous writer commented, I believe Dr. Jackson's Observations on the Virtues of Spider's Web, were the subject of his censure; and from his subscribing himself "An Essex Practitioner," I doubt not he is the person who, in Number 124, informs us of the great mischief he has seen occasioned in many cases, by the administration of arsenic in intermittent fevers, and that he expects to "see many more, as it is become extremely common for "Lady Doctors," and other persons who are not in the profession, to dispense the arsenic solution with a very liberal hand to the poor and needy."

His dislike to female and interloping Practitioners, I cannot altogether disapprove of, but I fear his zeal for the honour of the profession, and the interest of its regular members, may have led him too far into the practice of condemning every remedy which looks like an old woman's nostrum.

It is however certain, that many medicines which have failed in their intended effects, in the hands of regular Esculapians, have been administered with the most flattering success by Quacks and Female Physicians; and to what can we attribute the failure of the former, but to a very reprehensible timidity in the exhibition of medicines, which I am persuaded is the chief reason that digitalis, and other invaluable articles have fallen so low in the general estimation of the medical world? Under that conviction I
have

have given fox-glove in substance, in pneumonia and other acute diseases, in doses of 2, 3, 4, and even 5 grains, repeated two or three times a day; or according to its effects on the pulse; and I believe that after a large bleeding, as ℥bj. or 20 ounces, I have frequently seen the repetition of venesection rendered unnecessary by 2 grains of the powder.

As a vulnerary, spider's web has long stood high in the opinion of the vulgar, not merely on account of its styptic virtue, but because of an anodyne quality which they suppose it to possess in an eminent degree; for which reason it is frequently applied to painful and ill-conditioned wounds and ulcers; and in such cases the "Lady Doctors" (who are often as successful as the regulars in simple complaints) assert that it produces the best effects. Indeed, when we consider the well known efficacy of some animal drugs, as castor and musk, I do not see any reason to doubt the virtues which spider's web is said to possess; and although musk and castor might naturally be expected to exert considerable effects on the system, in consequence of their strong and peculiar odour and taste, yet the absence of those sensible qualities in spider's web, should by no means be considered even a presumptive evidence of its medicinal inefficacy; for, as an elegant and learned writer* has observed, substances do not affect the body in proportion to the quantity of what we denominate their active qualities, but according to laws widely different. A grain of the white oxyd of arsenic does not impress the organs of taste, as being peculiarly acrimonious, nor does any chemical test prove that it contains more of the principle of astringency than a drachm of the powder of galls; yet, variously administered, this apparently inconsiderable quantity can destroy life or cure disease.† I will therefore take it for granted that spider's web, though tasteless, and almost inodorous, has medicinal virtues; and if the *modus operandi* of this remedy cannot be satisfactorily accounted for, according to the generally received theory of intermittent fevers, it must also be allowed, that our pathological disquisitions are clouded with so much uncertainty, that we cannot positively say we are perfectly acquainted with the action of any medicine.

But it is plain to me, by Dr. Jackson's testimony, that cobweb did arrest the paroxysms of intermittents in his patients, and that too under circumstances where the imagination

* Dr. Edmondston.

† Dr. Edmondston's "Treatise on the Varieties and Consequences of Ophthalmia," p. 44, (Note.)

tion was unimpressed by any particular expectations; and I have lately been informed of a case of ague in which a cure was effected by the patient swallowing a spider, after all the usual remedies had failed. In this instance, the spider was had recourse to without the advice of medical attendants, and, indeed, before Dr. Jackson wrote on the subject.

The patient was a young lady who had a particular aversion to spiders, and was literally forced to swallow the insect in a spoonful of currant jelly; of course she was acted upon, not by the exhilarating hope of receiving benefit, but by fear and disgust, which being depressing passions, could only operate as sedatives; yet the remedy was effectual; and if the paroxysms of intermittents are cured by stimulants, the cobweb must have been concerned in the sanative process.

The "Essex Practitioner" may perhaps wish to know further particulars of this case; and if so, I will readily communicate them, but at present I shall content myself with observing that I have the pleasure of the lady's acquaintance; and when I pledge my honour to the truth of my assertions, I conceive it unnecessary to mention the fair patient's name or residence, as it might not be altogether pleasing to her to appear before the public.

Since Dr. Jackson's paper was published, I have had no occasion to employ the remedy he proposes, but I shall most anxiously embrace the earliest opportunity to give it a fair trial.

In the mean time, I hope you may be less troubled by anonymous Correspondents, and that candour and sincerity may be a prominent feature in all medical communications.

I am, &c.

JAMES SCOTT, Surgeon.

His Majesty's Ship Euryalus, Downs,
July 9, 1809.

Extract from a Memoir, entitled "Enquiry into the Action of some Vegetables upon the Spinal Marrow."—Read before the French Institute 24th of April 1809; by M. MAJENDIE, M. D.

M. LECHENAUD, one of the naturalists who accompanied the expedition under Captain Baudin, having brought from Java and Borneo a great quantity of an extract

tract from a vegetable called by the natives of Java, *Upas tienté*, with which they poison their arrows, Messrs. Majendie and Delille conceived the idea of determining by a series of experiments, the effects produced by this substance. M. Lecheaud himself is about to publish the description and critical analysis of this plant, which the learned author of the work upon the natural families of plants, has removed from the genus *Strychnos* and placed among the *Apocynæa*.

With a view of imitating the process of the South Sea Islanders for poisoning their weapons, the authors of the memoir dipped in the extract of *Upas* some pieces of wood, of the size of a quill. When the poison was completely dry, they inserted the point of one of these pieces of wood into the thigh of a dog. For three minutes the animal appeared to suffer nothing except the pain of a common puncture; he was then seized with evident symptoms of general disease; almost all the muscles were convulsively contracted, the head was thrown backward, and the spine was rigidly bent in the same direction; the fore legs were lifted from the ground, from the curvature of the spine.

These convulsive motions lasted a moment only, and some seconds of tranquillity ensued, after which the convulsions recurred with double violence; the respiration became painful and quick; the convulsions were gradually stronger, and more frequent; and ended in a true tetanus. The dog fell upon his side, the legs became stiff, and stretched out; his breathing ceased, and the tongue and lips assumed a blue colour.

While the convulsions lasted, the state of circulation was ascertained by feeling the region of the heart; when a general tetanic stiffness was perceived for an instant only. The same effect was produced by touching the head, trunk, or limbs, and even the tail. About five minutes from the appearance of the first symptoms of poison, the animal was seized with a final tetanic convulsion, which was increased at intervals with violent shocks, and in two minutes it died. The brain seemed to have retained its functions during the strongest convulsions, and these functions only seemed weakened when the tetanus had almost entirely prevented respiration.

The same experiments, when repeated on a horse, six dogs, and three rabbits, presented in all the same results, with this exception, that if the animal was vigorous and full grown, the convulsive fits were more frequent, more violent, and of longer duration; they recurred even

15 or 20 times before death. If the animal was young and feeble, it generally died in the third or fourth paroxysm.

On opening the bodies of animals killed by this poison, the muscular flesh with which it had come in contact, was of a yellowish brown colour, and the arterial and venous systems were filled with blood of a deep black colour. In order more precisely to ascertain the manner in which the Upas acts, Messrs. Majendie and Delille made several other experiments.

A small quantity having been dissolved in water, was injected into the cavity of the peritonæum of a dog. In about 20 seconds, the symptoms above described came on, and he died during the third convulsive attack.

Forty drops of Upas (dissolved as above), injected within the pleura of a horse, instantly produced tetanus and asphixia. He died during the second convulsion.

When injected into the cavities coated by mucous membranes, or mixed with food, the Upas was also absorbed, but much more slowly. It was half an hour before the symptoms appeared.

When applied to the serous and mucous membranes, no trace of local irritation was observed.

It was important to determine, whether this poison acted upon the nervous system through the medium of the circulation. In order to ascertain this, Messrs. Majendie and Delille injected 30 drops into the jugular vein of a strong and healthy horse. It was almost immediately seized with tetanus, and died in three minutes. Death always comes on more slowly if the poison has to take a long circuit before it reaches the spinal marrow.

If the poison be injected into one of the carotid arteries, the animal is in the first place violently agitated, and rolls about the moment the poison reaches the brain. These first symptoms go off in a short time, and are succeeded by those which seem to result from the action of the poison upon the spinal marrow.

If the spine is cut below the occipital bone after the inoculation or injection of the Upas into any part of the body, neither the convulsions nor tetanus are stopped, by the operation, and they continue while the circulation also goes on. In this last experiment, weak animals die much sooner than such as are vigorous.

If, instead of cutting the marrow below the occiput, we disorganize it completely by inserting a piece of whalebone or metal into the vertebral canal, convulsions do not take place, or if they have already commenced, the instant the marrow is wounded, they cease in succession

sion from the fore to the hind legs, in proportion as the instrument penetrates more deeply into the spinal marrow.

When the spine is cut across, and one of its extremities placed in contact with a small quantity of Upas, those parts only become convulsed which receive nerves from the portion of the marrow, upon which the poisonous substance acts.

The above are the chief phenomena observed by Messrs. Majendie and Delille in their numerous experiments. They evidently prove,

1st. That the extract of Upas acts in a particular manner upon the spinal marrow, in whatever way it is introduced into the system.

2d. That animals poisoned by this substance die of asphyxia, which comes on when tetanus affects the muscles of the chest.

A great number of experiments also demonstrated to the authors of the memoir, that the Upas when inoculated or mixed with food in small doses, does not produce death, but merely the effects resulting from any other strong excitement of the spinal marrow.

May not this substance be usefully employed in some diseases which seem to arise from a weakness or defect of action in this part of the system? Such is the question with which Messrs. Majendie and Dellile conclude their memoir.

On the Nature of Fever. By D. J. H. DICKSON, Physician and Inspector of His Majesty's Fleet, at the Leeward Islands.

"Nam quæ spesprehendendi, cui in plures jus est transire figuras."
Con. Med. Th. Vol. I. p. 68.

ALTHOUGH the incomprehensibility of the vital principle, cognizable only by its more evident operations, has proved a barrier to the elucidation of the proximate cause of fever, which it has baffled the ingenuity of man in all ages to remove; yet every step towards a better acquaintance with this universal and complicated disease has its utility; and while we cannot say what fever actually is, it is of no inconsiderable importance if we can ascertain what it is not.

A wish to promote the investigation of a disease of general

neral interest, and which occupies a large portion of my time, has induced me to offer the outline of some observations; and will, I trust, secure my motive from the imputation of attempting what the most eminent abilities have failed to explain.

The sanguine speculations of the theorist, and even the expansive comprehension of genius, have here proved of little utility: it is only by a patient observance of the phenomena of fever in all its varieties, by endeavouring to trace them to their origin; and by comparing this disease with others, with the nature of which we are better acquainted, that we can expect to form a rational pathology. To this end, indeed, the labours of the physiologist have availed much; but much, also, yet remains to be known, and especially of the faculties of the brain, &c. as the common centre and source of the vital, sentient, and irritable powers. In using these terms, it is unnecessary to premise being compelled to speak indefinitely as to their being distinct, or the same; but it seems most probable that all the phenomena of animal existence depend upon modifications of the living principle; or, in other words, are modes of action of this principle, originally interwoven by certain laws, with the peculiar organization of different parts. Such being our state of knowledge, it is natural to believe that there are intermediate links in the pathology of fever, which connect the chain of cause and effect, of which we are altogether ignorant; but it is evident, nevertheless, that the operation of this cause is to repress and pervert the habitudes of the animal economy. The presence of fever is first discoverable by changes of this nature taking place, and consequently its rudimental existence must be referred to the sensorium, as the parent of the laws of animal life: or fever may be called an affection of the sensorial function, which is the source of the vital, sentient, and irritable principles, characterized by various associated changes of increase, diminution, and irregularity of sensation and of action.

The part of the body originally affected, or what has been termed the 'Seat of Fever,' must, I should conceive, depend upon the specific nature or modification of agents causing this disease, and on the part to which their action is more especially directed by external circumstances; or by the internal state or degree of predisposition of the different organs. In some cases the brain is most obnoxious to the action of the exciting cause, and consequently will be primarily affected; in others, the stomach, intestines, &c.; although, from intimate sympathy, these parts may

may suffer so simultaneously, that without farther diagnostic symptoms, it must be extremely difficult to determine the seat of the primary affection, unless the specific nature of the occasional cause should assist in throwing light upon the subject.

The causes of fever have been too much simplified, while the symptoms, on the contrary, have been rendered unnecessarily numerous and complicated; the importance of some has been over-rated; and others have been included in the history which are only occasional consequences of this disease; and frequently, also, those which exhausted Nature, in her last struggles, usually exhibits. Indeed, it appears to me that unqualified stress has been laid upon increased actions, while those of diminution and irregularity have been too little attended to. The delineation of the paroxysm of an intermittent as a miniature of fever (the propriety of which is too highly sanctioned for me to doubt) has, partly, I conceive, given rise to the great importance usually attached to morbid heat and disordered vascular action. That these symptoms, and particularly morbid heat, are very general attendants, and by reaction may materially affect the termination of fever, I readily allow; but I am strongly of opinion that they have engrossed too much of the attention due to the state of the functions of animal life, which more immediately suffer in this disease. Augmentation of heat and arterial action are undoubtedly much connected, and may have considerable influence in increasing each other; but tho' frequent consequences, they are not inseparable; and of the two, I consider a change of temperature as much the most uniform concomitant, because it depends on a greater variety of causes; and because I have frequently met with it in fevers of great debility, where I could not detect any alteration of the pulse. That the pulse, moreover, is not a certain index of the degree of strength, I think further proved by its having been found to continue unaltered in lingering cases of extreme weakness from inanition, until the very last stage of debility.

It has, indeed, been insisted by some, that, although these symptoms may escape observation, yet they always do exist in a greater or less degree, at some period or other: but this is, surely, saying very little in their behalf; and allowing it to be the case among the extensive series of phenomena in the course of this disease, (which I am not anxious to dispute, as my object is simply to detract from their rank), instead of strengthening, it tends to invalidate their being essential to the nature of fever. It

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may, also, somewhat militate against their importance to observe, that they very generally accompany the slighter or symptomatic fevers, from irritation; whilst to the venerated suffrages of a Cullen and Fordyce, in favour of their occasional absence, I might add numerous sterling authorities to strengthen my own observation, that in many cases of the most dangerous ultra-tropical, as well as Caribbean fevers, and of the plague, the pulse and skin have remained unaffected; that they have sometimes fallen below; and that they have, often, very little exceeded the natural standard.

Inflammation of some organ, or part, I conceive to be frequently a cause, and *very often a consequence* of fever; but, although, the nature of tropical fevers is much in favour of a connection between these diseases, I do not feel satisfied that fever is, *therefore, an inflammation of the brain*, or of any other part, because, though these diseases often co-exist, yet in many cases of idiopathic fever, no traces of such a state are to be found; and because a difference does, I think, obtain, and can be established between fevers, properly so called, and the phlegmasiæ.

As I am inclined to consider the wide-extended discussion upon stimulants and sedatives as chiefly a dispute about words, I shall only observe, that neither of these terms appear to me to explain the mode of action of the remote causes of fever: those substances which most clearly evince a stimulant or sedative power, do not, *per se*, produce this disease. The actual state or condition of the brain, which constitutes fever, seems then, still sub judice; in symptomatic fever, indeed, it appears to undergo a species of irritation; but in idiopathic fever the energy of the brain may rather be said to be repressed, if the term repression may be allowed to distinguish a state differing from oppression and depression, which seem more applicable in some other diseases, as those under the orders, Comata, and Adynamiæ.

To pursue this subject to a greater length would be leaving the path of observation, and rational induction for the wilds of hypothesis; I shall, therefore, in conclusion, request only the farther indulgence of remarking, that from a wish to avoid the appearance of criticising the opinions of others, I have abstained from quoting numerous authorities which might be adduced either in explanation, or in support of these observations; and however little light they may be conceived to throw upon the question, I shall feel
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amply gratified if they tend, in abler hands, to what is still attainable, a nearer approach to the nature of fever by the analysis of its phenomena.

May 1, 1809.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IN the course of five and thirty years extensive practice in midwifery, I have, in three or four instances, been obliged to have recourse to one of the most painful operations that can possibly occur to a feeling mind; namely, opening the head of the child. An act, at which, as has been truly observed, human nature revolts. Still, however, it sometimes becomes a necessary duty; and, as I flatter myself, by making a less extensive opening into the cranium than has been usually recommended, material advantage when in the act of extracting will be derived, I wish, through the medium of your very useful Journal, to offer a few remarks on the subject.

By perforating the head, the surgeon has evidently two objects in view; the one, to evacuate the brain, and thus to afford a greater facility for the bones of the cranium to collapse; the other, to obtain a firm and fixed point, on which he may safely exert that degree of force, which may be requisite for the extraction of the fœtus. But I am inclined to think, that too great stress has been laid on the necessity of the former object; and I much doubt, whether the supposed advantages derived from the removal of the brain, are sufficient to counterbalance the inconvenience, which, when we come to extract, must necessarily occur, from the free and extensive opening generally directed. The brain, from its soft texture and compressibility, cannot afford any material resistance to the bones collapsing; this fact almost daily experience evinces. How frequently do we find, in long and severe labours, that they will collapse considerably, that the head will become elongated; and this, without detriment to the child. I am ready to admit, on the contrary, that in many cases, equally tedious and severe, the head will not collapse, but remains sound, compact, and firmly locked in the pelvis; but this difference in the state of the latter case evidently arises, not from the resistance of the brain, but from the extraordinary ossification of the bones, and from the sutures being more perfectly

fectly formed, which prevents them from yielding, as the head is forced into the pelvis. In such cases, were all the brain evacuated, little or no collapse would ensue.

Supposing the above remarks well founded, it surely must be unnecessary to make a larger opening into the cranium, than will be sufficient easily to admit the extracting instrument; namely, about the size of a shilling. Hence, when we begin to extract, a much greater security will be afforded to our exertions, than if the cranium had been more freely divided; for, in such cases, even in the hands of the most expert, and of course conducted with the most guarded care, the instrument will be very apt to lose its hold and slip out, or the bone suddenly to give way, to the no small danger of the mother.

With respect to the instruments generally used for extracting the fœtus, I confess I am somewhat dissatisfied; for, whether the blunt hook or crotchet be employed, from the small distance from the edge of the bone, on which the curvature of either will admit their point to be fixed, they will frequently slip out. To obviate this inconvenience, I beg leave to recommend an instrument which I trust will be found to possess the following advantages.

First. When closed, in which case the two blunt ends are in contact, they may be introduced into a small opening with greater ease than either of the instruments now in use.

Secondly. The instrument is capable of acting on one or two points at the same time, and that in every possible direction, according as the principal obstacle is found to be, as is generally the case, at one or another particular part of the pelvis.

Lastly. Although the two blunt ends are directed to be closed when first introduced, yet, when in the act of extracting, they should be always separated to a certain extent, which will effectually prevent the instrument from slipping out.

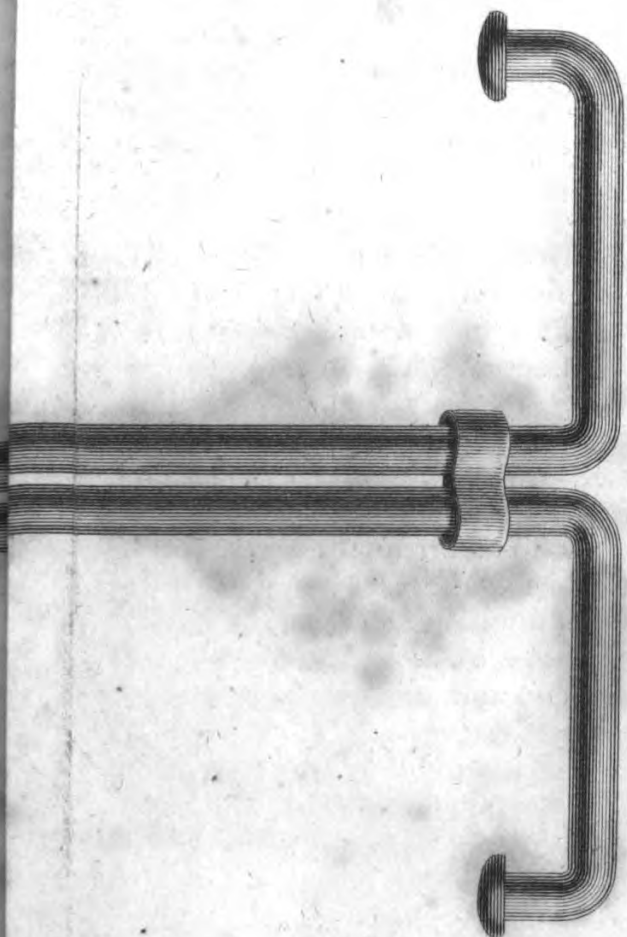
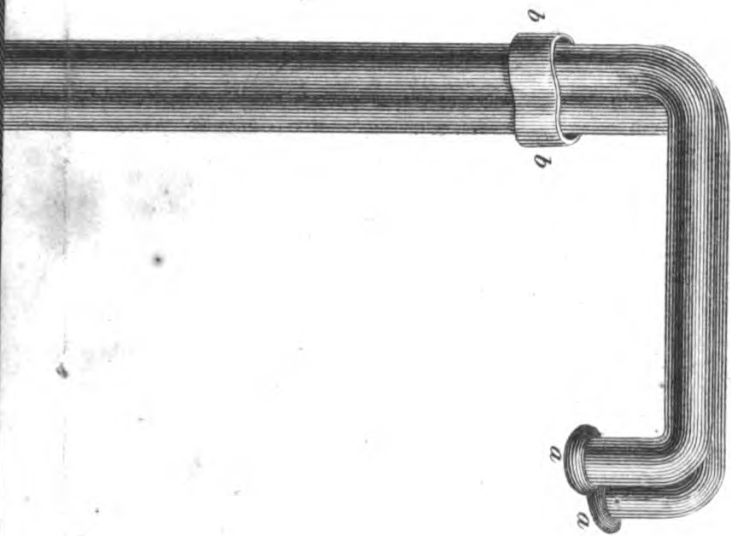
The instrument, however, will be best understood from the enclosed drawing.

Fig. 1. Represents it closed. *aa*. The two blunt ends, which are first to be introduced. *bb*. A steel collar, nicely let into the two arms of the instrument, by means of a groove in each, so as to be on a level with them. *cc*. Two indexes, which, with the blunt ends, are capable of describing a complete circle; and at the same time point out the parts on which they are acting.

Fig. 2. Represents the instrument of its proper size, and open to its utmost extent.

WILLIAM GUY.

Chichester, June 25, 1809.



HISTORICAL SKETCH OF THE PROGRESS OF MEDICINE
IN THE YEAR 1808; BY MR. ROYSTON.

(Continued from our last, p. 16.)

ON contagion, as confounded with and substituted for epidemical diseases, having an atmospherical origin; and on the danger of making epidemical constitutions of the air supply the cause of diseases heretofore believed contagious, much has been written since the re-appearance of yellow fever in America, and its extension to Europe, without bringing the question to a rational issue. Dr. Robertson has very properly appropriated a part of his work to this important subject, and his inquiries have induced him to conclude that it has been ascertained,

1st. That no change of the ordinary physical or chemical properties of the atmosphere takes place during the prevalence of pestilential diseases.

2dly. That the occurrence of epidemics is not prevented by the succession of seasons, nor by remarkable changes of weather.

3dly. That although it be admitted, that some of the most malignant species of epidemics arise from causes that are not originally contagious, yet this circumstance appears to be sufficiently explained, as being the consequence of the malignant nature of those causes having propagated a disease, which in its course has generated a matter capable of producing a certain definite train of symptoms at any distance from its original source; and it is owing to this, that it is frequently observed, that the diseases occasioned by contagion do not resemble those by which the contagious matter had been originally produced.

Researches into the causes that act so generally and so extensively on the frames of animals, as to occasion epidemic or contagious fever; and into what peculiarity it is that produces some diseases in particular places only, or in a greater proportion than in others, are among the most difficult and arduous employments of human intellect. Prejudice, self-interest, the ignorance and superstition of former ages, pre-conceived opinions and favorite hypotheses, darken still more the obscurity. Among those who have best laboured to elucidate this important question, as well as the causes of the increase and decrease of diseases, the changes in climate, and the effects of particular states of the weather and seasons on human health; it will be grati-

(No. 126.)

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fyng, to Englishmen at least, to notice the names of Grant, Sharp, Fothergill, and Heberden. To these may now be added Dr. Woolcombe, who has, in a series of observations drawn from facts and supported by calculations founded on admitted data, endeavoured to ascertain the frequency and fatality of several diseases, particularly the progressive increase of consumption, and the influence of the seasons on mortality. In pursuing this inquiry an unexpected fact has come out on phthisis. By these calculations, opposed to others made in the metropolis, it seems fully ascertained that consumption is more frequent in the south-west of Devonshire than in London. It may be proper to state, that the estimate is not taken from strangers who carry the disease to this part, but from the registry of a Dispensary at Plymouth.

In the preceding volume of the *Med. & Phys. Journ.* the writer of this annual Report has endeavoured to point out some of the benefits that would arise from a *medical topography* of the British Isles. Dr. Woolcombe has furnished additional arguments in support of such a design, by the development of many interesting local facts. There can be but little doubt that every portion of the united kingdom has some local peculiarities, of importance, probably, to the extensive views it is essential that the *science* of medicine should take. How easily would a knowledge of these local peculiarities be collected, if medical practitioners, whenever they are stationed, did inquire into the facts by which they are surrounded, and, through the medium of some channel, from time to time, give their discoveries to the public.

Among other advantages that arise from investigations such as Dr. Woolcombe's, those are not the least, perhaps, which tend to correct popular opinions on the subject of seasons as affecting the health, and which are frequently the reverse of truth. In observations on weather and diseases from 1751 to 1757, Doctor Fothergill asserted, that excess of wet, with moderate warmth, is not so dangerous to health, as a dry and cold season. The truth of this has been demonstrated by Dr. Heberden. No fact is, perhaps, better established than that a severely cold and dry atmosphere, occasions a greater mortality in this climate, than an open winter with wet. From documents collected in various parts of Britain, Dr. Woolcombe shews, that the relative healthiness of the months of the year follow this order:—July the most healthy, then August, June, October,

October, November, May, December, April, February, January; and, the most productive of disease, March*.

In the department of Pharmacy and the Materia Medica the present year affords but little of novelty. The College of Physicians of London, employed on a new edition of their Pharmacopœia, have dispersed among the fellows and licentiates, two specimens of their intended publication. The materia medica appears to have received an addition of some value in the *Radix Rhataniæ*, a substance long known to the manufacturers of Port wine. This drug is the production of Peru, and is probably the root of the *Cinchona cordifolia*. It is described as externally resembling the *rubia tinctorum*, to the taste being aromatic, bitter, and very astringent; its infusion or decoction, turns black with sulphate of iron, and precipitates tannin. The principal virtues appear to reside in the cortical part of the root, which is thick and resinous. An opinion prevails that the substance, sold in the shops under the name of foreign extract of bark, is made from the *Rhatania*. The first to blazon the virtues of a new remedy, are those who deal in it; but the reasons for suspecting their evidence, are very obvious. In every instance their reports should be taken with great caution. On safer evidence, however, than the assertions of traders of any description, it is known that this substance is a powerful tonic. In debility of the digestive organs, in chronic rheumatism, fluor albus, and in intermittent fever, it has been employed with very good effect. While given in doses similar to cinchona, it has the advantage of being only one third the price of that substance.

To the practical part of botany, and to those higher and
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* The local as well as temporary history of health, as affected by the seasons, should be fully understood: the description of Celsus, compared with the above, will put this in a strong light. On the shores of the Mediterranean he said, *saluberimum ver est: proxima deinde ab hoc, hiems: periculosior ætas: autumnus longe periculosissimus*. And he explains why the autumn was most sickly. *Ex tempestatibus vero optimæ æquales sunt, sive frigida, sive calida: pessimæ, quæ variant maxime. Quo fit, ut autumnus plurimos opprimat. Nam fere meridianis temporibus calor; nocturnis atque matutinis, simulque etiam vespertinis, frigus est*. There is no question but this has given a bias to the opinions of the faculty in this country, for a long period, and induced them to assert, and probably to believe, that the autumn was here as in Italy, the most sickly season. We observe for ourselves, and discover that what might be very true of Italy, cannot be applied to Britain.

more elaborate views that raise the practice to the dignity of science by investigating the relations, analogies, and functions of vegetable life, the art of medicine is much indebted. And in a former Report, an effort was made to impress the practitioner, and particularly the student, with a sense of the benefit that would arise from a due attention to this subject. In the natural botanical analogies, it was presumed there was a clue that led to the knowledge of a considerable extension of medicinal properties in plants. Simple and obvious as this principle appears, it is accompanied with circumstances that should induce a cautious study of the subject: for it will be found that many individuals of the same family possess properties widely differing from their congeners, and even distinct parts of the same plant afford substances of very opposite qualities. The leaves of the *Jatropha manihot* are employed as a common esculent; but its root secretes a virulent poison;—the genus *Laurus* associates in the same family the Cinnamon and Cassia with the poisonous *L. caustica*;—the *Convolvulus batate* (Spanish potatoe) is joined to the Jalapa and Scammony, and the common potatoe (*solanum tuberosum*) is found among the Nightshades. These facts do not subvert the principle drawn from botanical analogy, yet as they are of no infrequent occurrence, they forcibly indicate the necessity of cautious inquiry. But it is not from eliciting the qualities of plants only, that Botany holds an elevated station among the elementary sciences that form the medical character; the structure, the functions, and the diseases of vegetables, and the many other analogies they have with the operations of animal life, form so near a connection with anatomy, physiology, and the institutes of medicine, that they mutually illustrate each other. On the continent this seems to be fully understood; and Professor Willdenow has ingeniously arranged in a portable form, the known facts belonging to the subject. From the oration before the Medical Society of London, at their anniversary on the 8th of March, it may be seen, however, that the subject is not altogether unnoticed here. In this oration Mr. Good gave a brief survey of the general structure and physiology of plants compared with those of animals, and the reciprocal conversions of animal and vegetable matter. The nature of the subject brought together a great number of interesting and curious facts; and the student who desires to pursue the inquiry, is much indebted to the ingenious

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ous author for having compressed into a small pamphlet the spirit of many volumes*.

To bring the practice of medicine and surgery to the highest possible state of perfection, has been often, if not always, the aim of professional study. And as there are but few practitioners, who have not, in some moment of self-complacency, believed they had made discoveries that would be serviceable to the public, it has necessarily followed that the practical department of medical literature has teemed with the labours of a multitude that sought the "bubble Reputation." In the year 1808 we have seen this desire extend from the science of Willan, downward, with a long interval, to an improved system of medicine by an ingenious Colonel. It will not, perhaps, be proper to look very closely into the causes that induce to publication; but rather to admit, with prudent silence, the benefits that science directly or indirectly receives. The learned physician, just mentioned as the strongest possible contrast to the mob of authorlings, has long been employed on the investigation of an obscure and difficult class of diseases. He found the history of cutaneous complaints involved in confusion; one description serving for a multitude of synonyma, or one synonym often indicating different diseases. Arrangements, when they were attempted, were erected on uncertain and variable data; and the suggestions of fancy supplied the facts of nature. To this chaos Dr. Willan applied the principles that have guided the classifications of Natural History. He selected the least mutable of the appearances that occur in cutaneous diseases; these he defined with scrupulous exactness, and employed them as the foundation of seven orders, that were to comprehend all the genera, species, and varieties of morbid affections that happen to the skin. These orders were characterised by

* Oxygen is the principal stimulus in the germination of plants, and affords a test of remaining vitality in torpid seeds. A torpid seed, destitute of all power to vegetate in any other substance, if steeped in a diluted solution of oxygenated muriatic acid, at a temperature of 46° or 48° of Fahren. if any portion of vitality remains, will germinate in a few hours; and if then planted in its appropriate soil, will grow with as much speed and vigor as if it had not evinced torpidity. We wish to extend the publicity of this fact from the utility connected with it. As applying particularly to the torpid state of seeds brought from distant countries, it may obviate the disappointment of many who are anxious to extend botanical knowledge, by exciting the latent spark of vitality where it was believed to be extinguished. Possibly the application of this acid, in some particular state of dilution, to growing plants, may produce unexpected effects.

by the different appearances of papulæ, scales, rashes, vesicles, pustules, tubercles, and maculæ. This great work has advanced slowly, because, perhaps, rapidity was incompatible with correctness; or impossible where the subject was to receive the last touches of elaborate finishing. Two Orders, and a part of a third have been some time published; and at length a fourth fasciculus, completing the third Order, and comprehending the fourth, has appeared. With this Order ends the first volume; and it is but common justice to say it is executed with a correct attention to nature, with a spirit of investigation and comprehensive research, that are highly creditable to the author; and that it is accompanied throughout with plates that cannot fail materially to illustrate the description of morbid appearances.

Among the diseases that have been distinguished for the difficulty with which remedies act upon them, Diabetes has been conspicuous. Before Dr. Rollo's observations on this disease were made public, it was treated with astringents and tonics; he attempted, and in some instances succeeded, to cure it by animalizing the system.* The present year has produced another method, perfectly distinct from either of the former, and, it is said, still more successful. Mr. Watt, an ingenious surgeon at Paisley, disappointed in his attempts

* Mr. Watt has very ingeniously made his system of abstinence quadrate with the use of animal food, as employed by Dr. Rollo. "That abstinence to a considerable extent, he observes, obtained in Dr. Rollo's cases, may be inferred from the nature of the diet to which his patients were restricted:—animal food alone, and that as rancid as possible. Their constant deviations, in spite of every remonstrance, are convincing proofs that they soon acquired a dislike to it; and their being denied every thing else might be the means of enforcing, though inadvertently, a sufficient degree of abstinence. The sickness produced by the hepatised ammonia, must also have contributed to the same end." The instability of medical hypothesis has always been a subject of regret. But in few instances has a theory of great ingenuity, remarkable simplicity, and of apparently easy adaptation to practice, been so suddenly subverted as Dr. Rollo's has been by Mr. Watt. The use of animal food of such a kind, and in such a state as to be highly disgusting, combined with restriction from all other nutriment, must virtually be the same as a system of abstinence.

The leading points in Mr. Watt's treatment of Diabetes, are—"1st. To reduce the quantity of blood already in the system.—2d. To diminish the supply of new materials.—And, 3d, To afford a certain proportion of stimuli. This is accomplished, 1st. by venesection, or any other competent evacuation.—2d. By abstinence.—3d. By blistering, mercury, &c. The effect of this treatment on the system is, increased reaction, indicated by a degree of fever, and terminating in the restoration of all the excretions." The ingenious author has denominated this, the treatment, the renovating process, and the cure.

attempts to relieve his diabetic patients by former methods, employed abstinence and venesection. The limits of this Report do not admit of a detailed view of the train of reasoning employed by Mr. Watt, to justify his adopting these bold measures, or of a particular statement of the facts that induced him to employ a plan that would, it was believed by competent judges, be suddenly fatal in a disease of such apparent debility. Instead of this fatal termination taking place, however, patients who lost from their system very large quantities of blood, 108 ounces in a fortnight, had their disease suddenly subdued, while the energies of the frame increased in proportion to the frequency of evacuation. The singular change produced on the circulating fluid by these evacuations deserves particular notice. The first drawn blood was thin, abounded with serum, had little coagulum, and that without firmness and buffy coat. As the venesections were repeated, the blood assumed an inflammatory character, had an increased quantity of crassamentum, and separated a coagulum, tenacious, buffy, and cupped, till contracted on its upper surface to the size of a shilling. The striking character of these facts, and the impetus they will give to the tide of opinion that is strongly setting against the stimulating therapeutica of the Brunonian school, will claim for them the most serious attention. But while the originality of Mr. Watt's pathology, the ingenuity of his remarks, and his novel treatment of several diseases, for he has extended his researches to asthma, cholera, colic, consumption, chorea, and plethora, must be allowed; it is experience alone that can determine their value.

If the bold deviations of Mr. Watt have not pervaded every publication of the year, yet several are distinguished by a patient investigation of the progress, symptoms, and cure of disease. Dr. Badham's observations on inflammatory affections of the mucous membrane of the bronchiæ, Dr. Davis on carditis, and Dr. Cheyne on hydrocephalus acutus, deserve attention as practical works that will afford considerable information.

It seems a singular incident in the history of medicine, that the most dreadful malady to which human nature is liable should have occurred so frequently in this year, without having occasioned any separate publication of importance. In this Retrospect for last year, the investigations of Dr. Bardsley on *rabies canina* were mentioned with an approbation to which they were entitled; and calculated, it was hoped, to excite public attention to the means he proposed for extirpating, or checking at least,

the spread of this disease. The events of another year have fully shown how essential to the security of society some means for the prevention of this complaint are become. In the short period of a few months many fatal cases have happened; and this frequent recurrence has at length produced so just a sense of the danger, as to call forth the direct interposition of the legislature. In the latter end of the year the Secretary of State directed the College of Physicians of London to inquire into the actual prevalence of rabies within the metropolis, and its vicinity, with a view to its prevention or cure. This requisition occasioned an advertisement from the College Register, requesting practitioners to communicate such cases as had fallen under their personal observation, and in which hydrophobia had actually taken place; together with a statement of leading facts sufficient to identify the disease. It is generally understood that this public notice occasioned a large mass of materials to be transmitted to the College. Beside the materials thus collected, and which have in no part been made public, several well discriminated cases have been printed, in which the progress the symptoms has been detailed with a precision that marks scientific investigation, and it is feared has also ascertained the inefficacy of every known remedy. With this dread of rabies, which has spread very generally throughout the kingdom, much false alarm has doubtless been mixed, and many dogs have been sacrificed without the real nature of their disease being known. It is not easy to conceive any circumstance of existence more dreadful than the distress that must arise after being bitten by a dog, when the destruction of the animal has precluded the possibility of ascertaining his malady. Probably under this mental calamity, nervous symptoms have arisen imitating the specific hydrophobia so nearly, as with small aid from the imagination, to be pronounced that disease: and the symptoms thus excited, having worn out by time, or being subdued by medicine, have afforded occasional instances of cured hydrophobia. It is certain that a want of discrimination among the diseases of dogs, has occasioned infinite distress, and probably very serious consequences. Dr. Clarke of Nottingham has described a disease in this animal, which occurred in that town and neighbourhood in August and September; and might have been mistaken for rabies. Several persons were bitten, but no instance of hydrophobia ensued. In this affection the dogs were suddenly attacked with vertigo, turning round, staggering, and biting

biting at objects in their way, and then unexpectedly falling down dead: and often in two or three hours after the first seizure. Some have looked dull in the eye, having a frothy saliva in the mouth: in them the tartrate of antimony removed the disease. These complaints prevailed most among dogs exposed to the temporary influence of fire; and an instance occurs of a dog being suddenly seized with phrenitis from this cause.

The frequent occurrence of bites from dogs under suspicious circumstances not being followed by any disease, and the appearance of a malady said to be produced by the bite of a mad animal, when it was known that no application of the rabid virus had taken place, occasioned doubts whether a specific disease, arising from a poison *sui generis*, infused by the bite of a rabid animal only, ever occurs: or whether the symptoms said to arise from this source are not produced by affections of the nervous system, induced by terror, occasioned by a lesion of nervous fibre, or connected with some inflammatory state of the œsophagus or stomach. That a morbid state of the system sometimes happens, resembling hydrophobia so nearly as to be called by nosologists *hydrophobia spontanea*, cannot be doubted; but this differs in several of its phenomena from the specific disease. In its course and symptoms it so nearly resembles tetanus, that it may be considered as a variety of that affection. It has followed the bite of a dog, and it has occurred from wounds in various parts, certainly unconnected with the bite of any animal; it is often violent in its symptoms, sometimes terminates in death, but commonly in recovery. In many parts of its character it differs from the disease so clearly described by Drs. Pinckard and Powell. In one particular there is a marked dissimilarity: the specific disease is always fatal, the spontaneous is generally cured. The following case comes so near to the specific disease, that it may serve to illustrate the opinion that all the cured cases have been simple hydrophobia. An athletic young man in high health, on a Saturday afternoon in the month of July, was attacked with uneasy feelings about the neck and muscles employed in deglutition: swallowing was rather impeded, particularly of fluids. In the evening the symptoms were so much increased as to require medical assistance. Swallowing was then become more difficult, the pulse hard, and there was an efflorescence about the fauces, that indicated the approach of active inflammation. Early on Sunday morning the inflammatory state of the fauces had so far subsided as to do away the apprehension of
angina

angina inflammatoria. The pulse had now increased in rapidity; there was a wild quickness in the countenance; some slight involuntary actions of the muscles appeared about the upper part of the frame, that could hardly be deemed convulsive; and the difficulty of swallowing fluids was alarmingly great. Whenever an attempt was made to force down liquids, it was only effected with reluctance, hesitation, hurry, and confusion; accompanied with inexpressible distress, and spasms that spread from the muscles about the throat and neck to those of the shoulders and back. So strongly marked was this dread of fluids, for the sight of them produced disturbance, that it became the principal object of attention; indeed, so slight were all the other symptoms, and so quiescent, except when fully excited by attempts to drink, that probably at this period of the disease, 19 hours after its visible accession, they would not have been the subject of medical investigation. Inquiries were now made, with the caution that should prevent its concealment if it had happened, whether the patient within a few weeks, or at any preceding time, had been bitten by a dog or other animal. It was positively denied by his parents and himself, persons of veracity and good sense, that any such circumstance had occurred; and from every inquiry it became certain that no such accident had happened. At eight on the evening of this day, the dread of fluids had risen to a most alarming point; convulsive spasms, particularly of the muscles of the back curving the spine backward, were become frequent, but were always excited by attempts to drink. The pulse was now extremely rapid, the face flushed, temperature high, and the skin covered with profuse perspiration. To these were added, a rigidity of the lower jaw, which impeded its motions without closing the teeth. It was now stated by his parents, after reiterated inquiries whether accidents of any kind had happened to him, that three weeks before he had ran the iron tooth of a garden rake into the ball of the great toe; that for a few days it was painful, but got well without assistance. It may be remarked, that this was the unbiassed relation of the parents, for no assurance or reasoning could persuade them that their son's disease arose from so trifling an accident. On examining the toe, a slight scar was seen where the iron had entered; but there was no other appearance of local disease. On Monday morning every symptom had become more intense, the convulsions were more frequent and violent; it was impossible to get down any fluid; the pulse was 150, with a disposition

position to delirium rather than its actual existence, except during the spasms, when it required much force to keep the patient in bed; and this was resisted with incoherent expressions, threats, and fierce ravings. In the afternoon of this day, after a succession of frightful convulsions, he expired, forty-eight hours after the appearance of the disease.

This history of a case of tetanus, accompanied throughout all its stages with a strongly marked hydrophobia, had it followed the bite of any animal, must have been attributed to the action of the rabid virus. Its rapid progress to a fatal termination, also brings it nearer to the specific disease than most other recorded instances of simple hydrophobia. The apparent approximation of many diseases, specifically very different, has led to some fatal mistakes, and to more impositions. How often have consumptions been cured that were only catarrhal affections; and the disease which is the immediate subject of these remarks, has, in its simple form, been subdued again and again, sometimes by substances absolutely inert, at others by the powerful articles of the materia medica; while the specific affection resists the utmost energy of medical art. A little reflection will prevent practitioners having recourse to methods, in themselves generally empirical, and which have failed constantly when the disease has been really what its name implied. But the scientific physician will not merely reject what experience has found to be inefficient, he will endeavour, by a close study of the disease, to find fresh expedients, and to discover more successful modes of treatment.

The heat in the month of July of this year far exceeded that of any other reported period; but it does not seem directly to have occasioned any increase of disease. Many rumours were promulgated of its suddenly fatal effects, but very few of these were true; or were rather exaggerated accounts of common occurrences, referred to this high temperature as their cause. It is very probable, however, that some persons employed in the fields suffered something like a coup de soleil; but generally during this hot weather the state of health was more perfect than in seasons when such deviations have not been observed. Circumstances occurred in the autumn and winter, which indicated, however, that the influence of this heat had been felt throughout the kingdom; and that a very extensive epidemic state of the atmosphere probably resulted from it. Over most parts of the country, but particularly in the marshy districts, in the
autumn

autumn of the year, after the subsidence of this excessive heat, intermittents became frequent, to a degree seldom before experienced; and this disposition in the air continued for many months, and during the cold and frost of winter. Even in London tertians were often met with, though in several instances they were traced to sources very distant from the metropolis. If the cause of intermittents is some marshy exhalation, it is a question, how long the appearance of the effect may be protracted after the application of the cause? A family whose summer residence is generally, and was during the heats of this summer and to the end of November, in the midst of the fenny parts of the Isle of Ely, had, after their return to town in different years, several individuals at uncertain periods, seized with intermittents. Their town residence is far removed from every local circumstance that can be supposed a cause of this disease, being in a high and dry part near to Grosvenor Square. The disease itself has taken in them the form of tertian, and has had an obstinate continuance. The last case occurred in April 1809 to a young woman who left the country in November 1808. Observations relative to the extent of the interval that may take place, between the application of the exciting cause and the appearance of ague, are not yet sufficiently numerous to warrant any positive conclusion. It is probable, however, that the disease may not appear till a considerable time after exposure to the cause, and at a considerable distance from the place where it was contracted.

Among the evils of protracted war must be enumerated the origin of new diseases, or at least the aggravation of those already existing, to a degree of malignity that gives them a new character. The campaign in Egypt was connected with the spread of an ophthalmia of unknown virulence, and propagated by infection. The extensive progress of this disease, and the multitude of cases that terminated in the destruction of the organ of vision, excited the attention of the profession, and many ingenious disquisitions have been published. In the present year the remarks of Mr. Ware on the purulent ophthalmia that has been epidemic in this country, deserve attention. Connected with this is an anonymous pamphlet, with the quaint title of "Identities ascertained;" in which the writer professes to illustrate the opinion of Mr. Ware respecting the sameness of infection in gonorrhœa and the ophthalmia of Egypt. There has also been published an ingenious practical treatise on the Egyptian ophthalmia, by Mr. Thomas;
and

and the first part of a work of considerable importance on the morbid anatomy of the eye, with plates, by Mr. Wardrop. Considerable attention has likewise been given to other branches of Surgery. The operation of lithotomy in particular has been investigated by Mr. Allan of Edinburgh, who has endeavoured to demonstrate the dangers of operating with the gorget, and to point out the superiority of the more simple operation by the knife and staff. Dr. Thompson, also of Edinburgh, has re-published Dr. James Douglas's appendix to his history of the lateral operation, and of the other original papers relative to Mr. Cheselden's invention and improvement of that operation. To this Dr. T. has added a proposal for a new method of cutting for the stone; which consists in the use of a scalpel and staff in a way somewhat different to Mr. Allan's. Mr. Simmons, of Manchester, has published a small pamphlet on the same subject, the object of which is to point out the advantages of a pure atmosphere to patients who have undergone the operation of lithotomy; and to describe, what he conceives to be some improvement in that operation. The calculus of animals has been so often tortured by chemical analysis, as scarcely to admit the hope of farther illustration. But of what avail is this? The knowledge of the chemist has not furnished the means of cure; and the painful and hazardous operation just noticed, is now as much a resource, as before it was known of what the calculus of the urinary bladder was compounded. We lament the fact without meaning to detract from the merit of the chemist, and would be well pleased to have understood, that after the examination of 150 human calculi, Mr. Brande had discovered something to alleviate the sufferings of human nature, as well as that a small number only of the 150 were composed of pure uric acid; and that in the calculus of the horse, the ox, the sheep, the dog, the hog, and the rabbit, he found carbonate of lime. There is, however, in Mr. Brande's experiments, conjoined with Mr. Home's observations, a negative merit. They shew why the supposed solvents do not effect a cure, and also why, in many instances, they increase the malady; and that in others, where it has been believed they had effected a cure, the suspension of symptoms had arisen from a very different cause, *an enlargement of the posterior lobe of the prostate gland*. There is no disease that afflicts man more connected with positive corporeal suffering than stone; but there are many that put life in greater hazard, and when understood by the patient, impress with stronger mental apprehensions.

Aneurism

Aneurism presents an instance. The mind must be painfully harrassed when it is known that any sudden exertion, or the next throb of the heart, may bring instantaneous death. But the fears of the patient may be much lessened by understanding that all varieties of aneurism are not equally hazardous or incurable. This fact has been long known to surgeons, but it has been remarked with a nicer discrimination since the year 1804, when Professor Scarpa of Pavia, in a splendid work, pointed out the shades of difference that exist among the cases of this disease, connected with their natural history and pathology, in a way that distinctly marked the peculiarities of every species and variety. The merit of this work is not that of communicating original discovery, or of presenting ingenious novelties; but it has the fair character of giving to the profession an elaborate history of the state of knowledge on the subject of aneurism, by a perfect master of the subject. And it is satisfactory to observe that an English translation of it, by Mr. Wishart, is added to the medical literature of this country; though it must be lamented, that in a nation like this, motives of oeconomy should have compelled the translator to omit the exquisite plates of Professor Scarpa.

It has been observed until observation has become trite, that the study of medical jurisprudence has been neglected in Britain to a degree passing belief, but from experience of the fact. At length the profession seems to be aroused to a sense of its utility by an occurrence that took place in the autumn of this year. A young woman died at Liverpool under circumstances so mysterious as to induce a legal inquiry. The body was examined by several physicians and surgeons of eminence, whose evidence went to prove that she died by poison: but it did not appear that any remains of that poison were detected in the stomach, or that the symptoms during life, were precisely such as have been *commonly* understood to characterize the action of a virulent irritative poison. Secondary to this, it was endeavoured to be proved that this person had been delivered of a child very shortly before her death, because the uterus was found distended, and had marks of the recent attachment of a placenta. These opinions were impugned in court by one physician, whose remarks so far raised doubts in the jury, that they acquitted the accused person. It will be readily seen that this case involves many difficulties, and calls into action a variety of contending physiological opinions; difficulties hard to be solved, and opinions, that even the weight of authority cannot reconcile. The unexpected turn of the trial occa-
sioned

sioned further medical investigation, and the case has been re-examined in a variety of pamphlets of various merit. One useful consequence will result from this controversy: it must induce the faculty seriously to reflect that they stand between the law and the accused; and that on their evidence an innocent person may be convicted, or a villain escape punishment. And if this investigation, which has been carried on with a warmth not ill calculated to make an impression, should raise in the faculty a proper sense of the important station they fill in society, and the influence their opinions have on the fate of their fellow creatures; it will also lead them to feel that they cannot conscientiously decide in intricate cases, without laborious research and profound investigation.

With a view to the credit of the profession under every trying circumstance, it has always been a primary consideration with the writer of this annual *Retrospect*, to impress the minds of students, at least, with a full conviction that the *science of Medicine* is founded on an exact acquaintance with the numerous facts that are spread throughout Nature; and that their knowledge will be superficial or profound in a ratio agreeing with the proportion in which these facts are ascertained, arranged, and understood. As far as the learning of antiquity has been transmitted to us, we have seen that on subjects least allied to nature and the properties of life, that learning has been most perfect. But from the revival of literature there has been a gradual approach to a true history of the visible creation; and the practice of medicine has been benefited by this direction of the human mind, in a proportion greater perhaps than any other branch of knowledge. Within the limits assigned to this Report it would be impracticable, if it were proper, to point out the various circumstances connected with the elucidation the science of life has undergone in this period; or to do even a slight justice to individuals who have pushed on discovery in every direction allied with this interesting subject, to a point, we hope, of scientific certainty. Yet among the causes that in modern times have particularly contributed to disseminate a knowledge of nature, we cannot forbear to observe, that the institution of philosophical societies, the occasional publication of materials collected by them, and the establishment of scientific journals, have been efficient in an eminent degree. By this means a facility of communication has been afforded, as well as an asylum for fugitive remarks, suggestions, and facts, that would otherwise have

have perished in the progress of time. Within the immediately preceding period of twenty-five or thirty years, on the continent of Europe, in the British Islands, in America, and in India, a continued sense of the public utility of this periodical communication of the progress of science, has been clearly evinced by the encouragement it has received. A writer of peculiar energy has observed, that "an age of war is not often an age of learning: the tumult and anxiety of military preparations seldom leave attention vacant to the silent progress of study, and the placid conquests of investigation." But we have now to lament that a warfare, rancorous beyond any precedent in civilized life, has closed the course of useful information, forbidden the intercourse of nations, destroyed or suspended the mutual advantages that arise from the collision of opinion, and the union of inquiry among men destined to similar pursuits, and labouring in the vineyard of science. With the whole of the continent of Europe, and with America, the intercourse of the last eighteen months has been so difficult, uncertain, and inefficient, that we have been compelled, in giving this view of the progress of the medical art, to collect the principal part of the materials from resources, in a great measure, confined to the British Islands. But if we regret this abridgement of the means of information, we cannot but feel a proud hope, that the energies of the British nation may become more elastic by compression; and as the power of France to shut the continent extends, that the intellect with which this happy "nook of earth" is blessed, may with tenfold activity be exerted, to the elucidation of science and philosophy, to the detection of error, and to the promulgation of TRUTH.

*Princes Street, Cavendish Square,
June, 1809.*

CASES OF LOCK JAW AND TETANUS. By JOHN HOWSHIP,
Surgeon.

*Case of Tetanus, in which Amputation failed in checking the
fatal Progress of the Disease.*

UPON the memorable 21st of October, 1805, I. Kelly, of H. M. S. Mars, was struck by a heavy shot, which in passing through the sides of the ship produced a compound fracture of the leg. From the apparent state of the wound,
hopes

hopes were entertained that the limb might be saved, particularly as the loss of blood had not been considerable. No remarkable event occurred earlier than the 10th day, at which period he complained of stiffness and difficulty in moving his jaws, as well as of the pain in deglutition that generally takes place in the early stage of this formidable disorder.

A decided and vigorous plan of treatment was not immediately adopted, and nothing of consequence was done till the evening of the 13th day, when the rubbing in of the mercurial ointment was commenced. The frictions were ordered to be repeated every hour, and the ointment was rubbed in over the spine and limbs.

Upon the 14th day the pulse was very small and much hurried. The twitches of spasm were frequent, though apparently not very severe. The jaws were so firmly locked as to render the introduction of any solid food quite impracticable.

It was very evident that the exciting cause of this unfortunate man's distress was his wound; it was therefore determined to afford every possible chance for the preserving of life by the removal of the diseased member. The operation was performed at two in the afternoon, the leg being taken off above the knee.

The probability of the ultimate success of the operation was not at first doubtful, for even before the stump was dressed the man spake better than before, said he was greatly relieved, and expressed the clearest conviction that he should now recover. The most remarkable circumstance, however, was his finding that the power of separating his jaws to a certain degree, had returned to him again; he tried to open his mouth, and was observed to separate his teeth so well as to allow a table spoon to pass freely, though before the removal of the limb his jaws were constantly and closely locked.

Every one present concurred in the opinion that he was wonderfully relieved by the operation that had been performed, and the man himself, soon after he was composed and quiet in bed, told some of his companions that he was in every respect much better.

From the time of the amputation, the spasms affecting the voluntary muscles of the system left him; these constitute perhaps the chief peculiarity, and certainly are productive of the highest degree of torment to those who are afflicted with this malady; these were very frequent till the limb was removed, but from the moment when the divi-

sion of the soft parts was completed, these spasms ceased altogether and never afterwards returned.

He continued to be, as the attendants state, much better, more cheerful and lively than he was before, till about five o'clock in the afternoon, when he was seized with a sort of convulsive tremor, a general state of vibration of the whole system, resembling the cold fit of an ague. This had continued for some short time, when an impediment to his breathing seemed to arise about the throat; he was now in a state of approaching suffocation, and very soon afterwards sunk into the arms of death.

On the day this patient was first attacked, the 10th after the action, he was seized in a very singular manner; to all appearance he fell into a swoon, in which he was so perfectly without motion for an hour and a half, that it was doubted whether he would recover from it; the heart could not be felt to beat, the breast remained unmoved, nor could the halitus of respiration be perceived, upon placing a looking glass over the mouth.

Upon coming to himself he recovered his faculties quickly, and told his attendants that he knew he should very soon die, for that he had seen his father and his friends, while in the apparent state of swooning. His lucid interval was of very short duration, and was succeeded by a state of delirium, in which he fell into frequent fits of laughter, abusing those that were near him, and spitting in the faces of such as were rendering him assistance.

The senior medical officer of the hospital declared that he was convinced this man died from debility, and that only.

A Case of Tetanus, in which the Close of the Scene resembled that of the Case last described, although the Circumstances of it were essentially different.

W. Connars, aged 29, a seaman belonging to H. M. S. Mars, was severely wounded in the back by a splinter from the ship's side. It was not before the 11th day that symptoms of Lock Jaw first appeared. On the 12th, mercury was introduced both by internal and external exhibition. Upon the 13th day the system remained unaffected by the mode of treatment. At this time the spasms about the jaws were frequent and distressing. The pulse was little quickened, but was firm and throbbing:

From the muscles about the face, neck, and chest, the spasmodic affection extended itself to all parts of the body and limbs.

Upon

Upon the 14th day he was in every respect worse; his mouth was by this time somewhat affected, but the disease had become much more severe, being established in its most aggravated form. The sufferings of this poor man continued, with short intervals of alleviation, till the 16th day, when towards the evening he fell into the same state of violent trembling that occurred in the case last mentioned; the excessive violence of the shaking fit gradually subsided, all motion of the body ceased, and in a tranquil state of insensibility he soon afterwards breathed his last.

A Case of Lock Jaw, in which the Course of the Disease was arrested and the Complaint cured, by Amputation.

On board one of the hospital ships, lying in the Rio de la Plata, after the disgraceful and unfortunate attack upon Buenos Ayres, in July, 1807, was William Taylor, aged 25, under the care of Mr. Burnal, Apothecary to the forces. He was a thin young man, and had been wounded on the 4th of July, by a ball which shattered the elbow joint. The mischief however was not so extensive as to preclude all hope that the limb might be saved, no operation therefore was proposed, but every proper means adopted for the preventing an excessive degree of inflammation.

It was in this case as late as the 22d day before the patient first perceived a stiffness about the jaws, which prevented him from opening his mouth so well as usual.

Some degree of pain followed after the stiffness, but the progress of the complaint was so very slow that it was three days after he had first perceived the stiffness, before he made mention of his sensations to the surgeon on board, who upon examination found that his jaws were stiff, but by no means closely locked.

The wound upon the 25th day was productive of great disturbance to the system, being exceedingly painful, very tumid and highly inflamed, besides which there had been large and repeated collections of matter.

At this time amputation was proposed, being considered to afford a fairer prospect of recovery, than any course of medical treatment could ensure. The operation was unattended by any peculiar circumstances. From the time of the limb being removed, he began to mend, and continued to improve daily. He found himself gradually recover, and by the 29th day, being the fourth after the operation, he was able to open his mouth very well, and felt no more pain, and very little remaining stiffness.

About a week after the operation he complained of a very severe pain in the chest, which, however, yielded to the common treatment, and the man perfectly recovered.

Scarbro', June 19, 1809.

(To be continued.)

To the Editors of the Medical and Physical Journal.

GENTLEMEN

ACCORDING to Dr. Mossman's own shewing, I have neither misquoted the works to which he referred us, nor mistated the opinions, such as they are, of their authors. The Doctor, therefore, has only to complain, that I cited from those authorities the passages which were in my own favour. I am also obliged to him for extracting from Withering and Ferriar a page and a half of letter-press, which is to the full as much in support of my opinion as his own. On the subject of the digitalis then, he has generously lent his aid to prove, what I mainly contended for, viz. that the opinions of the writers to whom he appealed, were contradictory to each other, and that the estimate entertained of the virtues of this plant had considerably fallen in the minds of others.

In the first page of Doctor Mossman's paper, he has availed himself of the common notion respecting the importance of abating the irritating fever in phthisis by diminishing the velocity of the blood's current through the lungs; for that the principal wear and tear of the system is occasioned by this excited pulse. With this view, likewise, I believe, the physicians of the early part of the last century recommended the frequent use of the lancet in phthisical cases. I do conceive this view of the case, if not fundamentally erroneous, is at least gratuitous; for I strongly suspect we are here mistaking the effect for the cause. The former is in the lungs. The accelerated pulse, the colliquative perspirations alternating with wasting diarrhœa, &c. are merely attendant upon and indicative of the magnitude of the evil. You may by bleeding, and still more effectually, perhaps, by the fox glove, lower the pulse and obscure the symptoms, but the mischief is advancing *viresque acquirit eundo*. To me it appears vastly more probable, that the great difficulty, I had almost said impossibility,

impossibility, of curing by medicine an ulcer in the lungs, is the joint result of their peculiar structure and incessant movement in the business of respiration.

Doctor Mossman can have seen but little, or, which is more probable, much to very little purpose, if he have not frequently observed phthisical patients whose pulse has been reduced steadily below 80 for weeks together, by means of digitalis, gradually sinking under the irresistible progress of the disease, and whose sufferings were not only not alleviated by the influence of the fox glove, but the patients have *appeared* to gain renovated vigour, and called themselves better, on this medicine being withheld. This *apparent* alteration for the better, on the cessation of digitalis influence, is sometimes so obvious as to impress the friends of the patient with a belief, that an important and salutary change has taken place in the condition of the disorder, though at the same time, it is hurrying on to a fatal termination.

Hypothetical reasoning is probably on no subject more dark, fanciful, visionary, and inconsistent than on topics of disease. We talk of curing ulcers in the lungs by lessening the velocity of the blood's current through them. When we speak of the difficulty of healing ulcers in the legs, we then shift our ground, point our artillery in an opposite direction, and considering the too sluggish movement of the same fluid in the extremities as the chief obstacle to be combated, endeavour by every means, both within and without, to whip on the torpid stream.

I do not know any thing so calculated to bring discredit upon the profession and its professors, as the pomp with which medicines of doubtful or insignificant virtues are sent forth into the world. With all the boasted aid of the fox glove, what is the answer we obtain on examining the bills of mortality, when we ask whether the number of those who annually die of phthisis has regularly increased or decreased since the introduction of digitalis into common practice? Is it not a notorious and melancholy fact, that the number is greatly on the increase. And when it is asked by some, how was this medicine given, by whom, under what circumstances, and in what dose? This has too much the appearance of mystery for regular practice.

The wholesome maxim of antiquity, *νήφι και μέναισ' ἀπιστεῖν* was early and carefully impressed upon my mind; and I must take the liberty of hinting, that it is never more necessary to be observed than when reading the lucubrations of medical writers.

When I find one practitioner extolling as a remedy in typhus fever, the bark and sulphuric acid as alone to be relied on;—another, cold water;—another, ardent spirit; another, to plunge the patient in a bath of animal broth;—another, mercurial unction: when one asserts, that the seat of this fever is fixed in the brain, and another, that it is in the stomach and bowels; I ask, what are we to infer from this mass of contradiction and wild conjectures? And whether it is unreasonable to exclaim, as Voltaire did at the incredible narrations of historians, *mais pour les miracles d'Esculape, n'en croyez rien!* So likewise, when I hear, in regard to the treatment of phthisis pulmonalis, one enjoining bleeding and a vegetable diet;—another, starvation and sleeping on a boarded floor;—another, a tonic plan ab initio;—another, steel and myrrh;—one to send phthisical patients to the pure air and sunny regions of Lisbon;—another, to the humid atmosphere and chilling fogs of Batavia;—and, to close the catalogue, when others talk of specifics for consumption, I again cry, *n'en croyez rien.*

Allow me, Gentlemen, on taking my FINAL LEAVE of Doctor Mossman, to tender you my thanks for the indulgence I have received from you.

I am, &c.

Harleston, Norfolk.

THOMAS TAYLOR.

P. S. In imitation of Doctor Mossman's solicitude to bring me acquainted with books, I recommend to *his* ATTENTION a book published some twenty years ago, under the title of, *The Medical Quixote*. By the bye, so good a book deserves a much better title. T. T.

*** As we inserted Dr. Mossman's last paper on condition that he would permit us to prune it, justice seemed to demand that we should do the same for Mr. Taylor. But from this time we must close the controversy. Communications of any other kind, from the same Gentlemen, shall meet with due attention.

Dr. ROBERTSON'S ADDITIONAL REMARKS ON STRICTURE.

(Concluded from our last, pp. 17—28.)

In page 210, Case V, appears one of simple gonorrhœa, in which the increased contraction of inflamed parts caused by the belief of stricture, leads Mr. Home to a train of unnecessarily severe practice.

CASE

CASE VII is one of Gleet.—Mr. Home for the most part informs us, that a gentleman from the *East Indies* applied to him with a case of stricture, &c. and this mode of statement doubtless precludes question; but sometimes he relates more distinctly the history of the case, and shows as if he suspected the presence of stricture on very slight grounds; in this case, for instance, the person had a gleety discharge, incontinence of urine, erections, and nocturnal emissions; in short, general depravation of health, succeeding gonorrhœa. Mr. Home supposes this to be a case of stricture, and not recollecting that irritation produces contraction, he, because his bougie was opposed by an obstacle which itself might have excited, was certain that there was stricture; consequently he destroyed all opposition by the caustic; and says, “I applied the caustic to this stricture three different times at the usual intervals, and the passage then admitted a common sized bougie. Finding that, in other cases, the passing a bougie, under these circumstances, brought on irritation, I did not propose the use of it, and left the parts entirely to themselves.” Now, if he had observed the circumstances accurately, he would say, the irritation of the bougie and caustic brought on an inflammation of the urethra, which cured the gleet.

CASE VIII exhibits a spasmodic affection of the urethra, or rather the sphincter vesicæ, which was removed by a hemorrhagy which the caustic induced; *but might have been equally well, and for the patient, far more easily removed by leeches applied to the parts.*

In Case IX. a young man from the country, calls on Mr. Home to tell him that he was perfectly cured of a stricture; Mr. Home advises him never to travel without bougies, then introduces one into the canal; a contraction is perceived, Mr. H. *applies the caustic!* “The application,” says he, “was repeated four times before the passage allowed a full sized bougie to go through the stricture; it was, however, much larger than any that had been passed before; I then desired that the parts might be left entirely to themselves, and *not* disturbed by passing a bougie; in this state the young man was at last suffered to return into the country.” If Mr. Home had not disturbed the parts by his bougie, at a time when the patient had no complaint, would not the patient have been exempt from the idea of stricture, and all the painful treatment to which he was subjected?

CASE X. is one of gleet, considered as stricture, and cured by the caustic.

CASE XI. is one of inflammation of the urethra and neighbouring parts.

These cases of stricture are of a singular nature; there is no impediment to the urinary evacuation, nor any want of retention; in other words, the constricted canal is as wide as usual.

CASE XII. is one of gonorrhœa; first, properly treated and cured by a judicious surgeon. Though the gonorrhœa returned, proofs of stricture are deficient till after the application of bougies.

This is a case of mismanaged gonorrhœa running into gleet, and protracted four years.—One surgeon thought it a gonorrhœa, and removed the discharge by injection; another supposed it stricture, and also removed the discharge by bougies; Mr. Home at last produced a cure by means of caustic. This case, after the gonorrhœal inflammation had subsided, was converted into a bad gleet, and, as in other obstinate cases of this nature, the common remedies alleviated, but did not remove it, so that when any one introduced a bougie, the irritation made the canal contract round the instrument, and hence the idea of a stricture, which in reality only existed while the irritation of the bougie continued. At last, Mr. Home, under the idea of curing stricture, cauterized the canal, and, by this inflammation, removed the gleet; which could at first have been much better and far more easily accomplished in a few weeks.

In this whole section, the proofs of stricture are deficient in every case:—Case IV. it appears, baffled even the caustic to remove the discharge, and the patient remained uncured. This affection, if I may judge not only from my own experience, but from that I believe almost of many others now in the habit of treating these diseases, could have been completely cured by the internal use of cantharides.

In the cases of Section III. page 272, it is related, that a small tumour like a pea was distinctly felt in the urethra. What is this but the caruncle of Wiseman and others? Mr. H. supposes this tumour to arise from the thickened edge of a lacuna; but might not excrescence of this nature arise from any diseased surface? I am much inclined to believe, that in all the cases of this section, this pea-like body, or something similar, was the real cause of obstruction, and that the manifold strictures found in each canal were caused by the irritation of the bougies.

It appears that, in some instances, the stricture was rather

ther the effect than the cause of fistula in perinæo, as in Case V. p. 312. "A gentleman had a stricture which was not known till it had produced a fistula in perinæo."

Mr. Home informs us frequently, that the hardness in perinæo is removed by the application of the caustic to the stricture, and the hardness is the only proof of the stricture existing. See Case V. p. 314, &c. But the tumour would have yielded much more readily, if the caustic had been applied in powder to its own surface externally, or, perhaps, even to the application of a blister over the external surface of the tumour. It is a fact, which I have often seen realized, that a piece of caustic applied, for instance, over the surface of a bubo for the purpose of opening it, a practice adopted by some, diminishes the size of it in one or two days, and by a repetition of the same practice, once or twice afterward, the tumour has entirely disappeared without bursting.

In Case VI. p. 316, a swelling between the fundament and scrotum had existed years before a stricture seemed to have formed. The case seems to have been a gleet, accompanied with occasional spasms aggravated by the bougies, and at last cured by the inflammation induced by the caustic. This disease had remained about nine years. Mr. Home concludes the case thus: "After the removal of the strictures in the urethra, a spasm came upon the bladder in the middle of the night, attended with suppression for several times, generally only every other night, and then went off." Was there not as much reason now to apply the caustic for stricture as formerly? We indeed often find that the same symptoms do not induce a repetition of the treatment; I must conclude that once was found enough, although it is not so expressed.

Page 322 is a Case of occasional spasm, arising from the stimulus of the urine or of the semen, on the tender urethra; and the last case in this section is a well marked case of inveterate gleet, with occasional spasm, cured by the caustic at last.

Case I. p. 338, entitled, "Stricture attended with complaints of the stomach and eruptions on the skin," does not seem to be any thing else than an inveterate gleet, accompanied as usual with general debility, and depravation of the appetite, &c. which affection was removed by the local application of caustic, and the internal use of corrosive sublimate!

CASE IV. p. 345, entitled, "Stricture with nervous fever," affords insufficient proof that stricture existed independently

pendently of the bougies; but the mucous discharge which is mentioned indistinctly, and the general debility, indicate something like gleet. Those who consult authors, will find that all the symptoms detailed by Mr. Home, viz. nervous affections, restlessness, quick small pulse, uneasy and disturbed sleep, with heat in the skin, and mucous discharge, nay, I may add, all the symptoms of hectic fever, are brought on by excess of venery, in any form where no strictures exist. In page 346, of the same case, "he had," says Mr. H. "no apparent difficulty in voiding urine, nor did he believe that the stream was smaller than is natural." Is the existence of a disease then only to be proved by its cure?

CASE III. p. 355, is a case of Gleet.—Nor does Mr. H. afford us any proofs that the prostate gland was diseased.

CASE I. p. 362, is pronounced stricture, though the symptoms appear the same as those in Case IV. p. 357, which is deemed not to be a stricture.

I cannot avoid quoting the following Case, p. 363. "A gentleman," says Mr. Home, "aged 30, had a frequency in making water, particularly in the forenoon, which continued through the day, but went off entirely on going to bed, and he did not make water till he got up in the morning. He had also a gleet, as it was termed, in consequence of gonorrhœa, which had continued upon him for two years.—From the frequency in making water and the discharge! I was naturally led to suspect there was a stricture, and therefore examined the urethra by passing a bougie. I met with a stricture at five inches; this was removed by the caustic; another was found at six inches and a half, which was also destroyed, and the bougie passed with ease into the bladder. The parts were now left to themselves, and the symptoms continued without any abatement. At the end of a month, the bougie was passed to ascertain whether the stricture had been entirely removed, and it passed with great ease. The circumstance of the bladder being at ease during the whole night made me suspect stone, which by its motion gave uneasiness, but none when at rest. I sounded the bladder, but nothing hard was felt. The disease appears therefore to be an irritated state of the membrane of the bladder, probably brought on by the stricture.—In this case there was little sediment in the urine. By the use of the mephitic alkaline water, the patient has almost entirely got the better of his complaints."

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This is a simple case of gleet brought on by gonorrhœal inflammation, but Mr. Home says, "the disease appears to be an irritated state of the membrane of the bladder, probably brought on by the stricture." The caustic, however, did not cure this patient; for Mr. Home concludes the case thus, "this patient has *almost entirely* got the better of his complaints."

CASE I. p. 373, is a very well related and ably treated case of stricture and stone in the urethra. This case proves that an irritating substance applied to the urethra, makes it contract so as to form an impediment to the passing of the substance.

CASE II. p. 435, which Mr. Home gives as an instance of hydrcoele cured by the removal of stricture, was probably a case of gleet combined with hydrocele. The caustic was applied to the urethra, which removed the gleet by inducing inflammation; and, at the same time, the hydrocele was cured by stimulating the vessels of the neighbourhood.

Mr. Home, in page 442, says, that the swelling of the perinæum in consequence of caustic, is entirely produced by the blood extravasated in the cellular membrane; but of this we have no proof, and the facts related seem to me to indicate otherwise.

CASE II. p. 444, was gleet succeeding gonorrhœa; in which the injudicious application of the caustic produced very bad symptoms, without producing a cure.

CASE I. p. 474, seems only an occasional spasm.

CASE II. p. 475, very completely proves that the irritating substances, as bougies and the caustic, may produce very dangerous constrictions in the urethra.

The Cases adduced, p. 484, &c. in support of stricture being the cause of ague, and which disappeared when these were removed, are by no means sufficiently supported. By a careful examination in the early stages of them, it will appear probable, that they were spasmodic stricture; that the patients resided in parts of the world where these diseases are common, and in all probability in the neighbourhood of places which gave origin to such complaints; that on the return of the patients, as has been formerly stated, to this country, where no such causes operated, they would soon have recovered without the bougies. They were probably spasmodic strictures, occasioned partly, perhaps, from the effect of the bougie, but more likely from the horror into which the patient was put at the very thought of such a barbarous operation.

The Chapter, p. 494, on the treatment of strictures in
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the œsophagus, is certainly a very extraordinary one. If, as I suspect, the disease arose from hysteria, combined with affections of the digestive organs, such severe treatment must have been unnecessary.

As a very great degree of similarity may be found in Mr. Home's reasoning in both volumes, to be even as minute in my examination of the second as I have been of the first, generally as I have treated the subject, might lead to unnecessary repetition; I shall therefore take notice of but very few of Mr. Home's cases, enough having been said on that part of the subject.

Any person who may have read Mr. Home's first, and as far as page 46 of his second volume, may feel surprised, after all his reasoning, and the numerous cautions held out to others, that even he should have fallen into such an error, as he is candid enough to acknowledge in that section. The case he has adduced in proof of irritation in the urethra from inflammation in the internal membrane of the bladder, is simply a spasmodic affection. The disease, Mr. Home informs us, was mistaken by a surgeon in London for stricture, to which he applied caustic, and thus, by destroying every obstruction, gave momentary relief, but did not in the least remove the tendency to contraction. Thus continually harrassed, and having suffered greatly from hemorrhage, the life of the patient was brought into the utmost danger. In this state he applied to Mr. Home for advice, who was, *by advice of his patient*, prevailed on to employ the caustic, although it had been so frequently used before, without yielding any thing more than temporary relief, and although he himself gives it as a case of no disease in the urethra, but one of irritation from inflammation of the bladder. The patient at length died, and the following were the appearances on dissection.

Mr. Home informs us, that "upon inspecting the parts after death, it appeared that there had been no stricture in any part of the urethra. The internal membrane of the bladder was in a state of ulceration, particularly the lower part, where the ureters enter into it, except a line not broader than one-eighth of an inch, extending from each ureter to the middle line, where the two streams would unite. The orifices of the ureters were in a state of ulceration, and inflammation had extended itself all along the internal surface of the left ureter to the kidney, the pelvis and infundibula of which were in a state of ulceration."

"The use of the caustic, he adds, had made *five different*

ferent holes through the membrane of the urethra, of the size of the end of the common bougie, at a small distance from each other ; and a large abscess had formed between the perinæum and buttock, into which the urine escaped by these orifices." Good God! what could have tempted Mr. H. to make such a case known to the world? Why has he voluntarily exhibited such a mass of blunders and cruelties committed, not only by another surgeon, but by himself? Why, if another surgeon went wrong, did he persevere in a similar plan of practice? What became of all his advice and all his reasoning on such an occasion? And above all, when he did commit the fault, why did he expose himself by exhibiting the urethra with five holes in the various parts to which the caustic had been applied by mistake; with a large abscess formed in the perinæum from the inflammatory action, and the internal membrane, &c. of the bladder in a state of ulceration, probably from the same rude treatment!

It seems from the history of this case, that, even from the very commencement, by the properly regulated use of internal medicines and external applications, this patient might have recovered.

I again urge, that the extreme difficulty of applying the caustic immediately to the strictured part, independently of every other consideration, is very great, and, perhaps, there are few surgeons capable of hitting the mark. The consequences of such an error must then be extremely frequent; even by Mr. Home's own confession, in some of his cases it has occurred to him, and, conscious of the danger, he makes the following observation in page 57, "To accomplish this, requires great attention on the part of the surgeon; since the smallest inaccuracy in the application of the caustic, occasions it to get beyond the natural boundaries of the urethra, and the smallest excess of violence brings on too much inflammation, and consequently, in such thickened parts, a suppression of urine; while, on the other hand, too much mildness prevents the patient from making any advance towards recovery."

These circumstances must render burning with the caustic an operation of a most ticklish nature, which ought never to be attempted till every other rational method we can devise has completely failed of success, and even then only by people who know what they are doing.

CASE III. p. 127, is advanced as a proof of the effect of stricture on the bladder; Mr. Home introduces it thus, "The following case I am particularly anxious to lay before

fore the public for several reasons; it was one which Daran and every surgeon since his time had taken charge of without success. It is one in which Mr. Hunter tried the caustic without performing a cure, &c." This Case is detailed to the length of 100 pages, and we find that Mr. Home was equally unsuccessful. It appears that this was a disease of the bladder itself and left kidney, and of the prostate gland, under which the patient had laboured 53 years; and on dissection we find evidence, that the affection of the bladder, &c. had extended itself to the urethra, which shewed no morbid symptoms, except at the very points where the caustic had been applied.

Although, undoubtedly, various substances existing in the kidneys, ureters, or bladder, occasion great irritation, and often violent contraction of the urethra, even when no disease exists exclusively in that canal, yet these contractions are almost always of a spasmodic nature, often originating in the urethra itself, in consequence of diseases of that canal; and by the harsh treatment of the surgeon, or long continuance of the disease, sometimes extend their influence to the bladder, ureters, or even to the kidneys.

On inspecting the body of the patient just alluded to, after death, the following appearances were observed.

"The urethra had one uniform smooth surface throughout its whole extent; there was no appearance of contraction in any part of the canal; but upon a minute examination, the spots, where the stricture at five inches, and that at seven inches had been, could be distinguished by the membrane being thin, (*of course by the burning with the caustic*) and more compact at these parts than in any other. The prostate gland was enlarged, and several different abscess had formed in its substance; these had opened into the cavity of the bladder, and the inflammation they had produced, had extended itself over the internal membrane, which was crusted over with coagulable lymph. This adventitious substance projected every where by very irregular processes into the cavity, and portions of it had, during life, been occasionally separated and voided with the urine." Nor can I doubt that the too liberal use of the caustic promoted the inflammation, aggravated the symptoms, and hastened the death of the patient.

In page 243, Mr. Home gives two Cases as instances of stricture, brought on by onanism, in neither of which is there proof that stricture existed previously to the introduction of the bougies. The first case is related in the following manner, p. 247. "A gentleman, who had early addicted

addicted himself to that pernicious vice, had the following symptoms brought on at the age of 21; frequent emissions in sleep, attended with lassitude, depression of spirits, and loss of general health; head-ach; inability to apply his mind to business or exert himself, for the whole of the day after such an effect had taken place. These occasionally happened for several nights in succession, and then left him for six or seven, but that was the longest interval. The effect of these attacks upon his reasoning faculties was such, as to make him completely miserable. I explained to him, that I thought it probable, the symptoms of which he complained, arose from a spasmodic stricture *immediately behind the bulb of the urethra.*" What is there in these symptoms from which we should infer the presence of stricture? Not the general debility, lassitude, and depression of mind; for what could produce these more effectually than the inordinate exertion of these organs, every act of which, in the most natural way, is succeeded by that very state of mind and body! Not the nocturnal emissions, for such practices induce these quite independently of stricture; I have seen hundreds of such instances. Besides, the very diagnostic symptom is wanting, by which we have a right to infer the presence of stricture of any kind, viz. the diminished stream of the urine; but Mr. Home not only judges that there is stricture, but predetermines the very site of it, "*immediately behind the bulb of the urethra.*" Now, as it appears by Mr. Home himself, that the urethra was "*in an irritable state, and preternatural sensibility,*" we can easily perceive why it was contracted when the bougie was forced into it, and we are surprised from other relations by Mr. Home, that he did not suspect it in this case. The complaint of this patient, Mr. Home tells us, was very much relieved by the caustic.

In page 269, we find strictures producing other diseases. Section I, is entitled Erysipelas, in consequence of stricture; and on examining the case adduced in evidence of this, it seems probable that it was the bougies introduced into the urethra, and not the stricture, which caused erysipelas.

SECTION II, p. 271, is entitled, Sciatica, in consequence of stricture; and in the next page Mr. Home tells us, "The application of the caustic, and inflammation from other causes, produce the sciatica, but it does not appear to be an immediate symptom of stricture."

In all Mr. Home's speculations respecting permanent strictures, none is carried so far, as in the notions he has entertained of stricture in the *œsophagus*. There are few
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men who do not, at some period or other of their lives, entertain very strange notions respecting many points of science ; and it is not uncommon for men to publish their opinions on these subjects, even under the influence of these mistakes. But, in general, when they afterwards reflect seriously, it is more honourable for them to retract, than pertinaciously to insist on such notions being actually true.

We find, then, in Mr. Home's second volume, he still endeavours to support the notion of strictures in the œsophagus being by no means an uncommon disease : he assures us, in page 397, that strictures in the œsophagus are most common in the earlier periods of life, or, he might have added, when the passions are most strong, and when hysteria is most common. Mr. Home's strictures in the œsophagus almost all occurred in females, or in men in general of a delicate habit and irritable mind. In other words, they are commonly to be found in such persons as are most liable to violent hysteric affections.

The task I have now executed, has occasioned me many an unpleasant sensation. I waited with the utmost impatience for the publication of every book that was announced on the subject of stricture, in full confidence that some of those authors would anticipate what I had to say. I need scarcely state that I have been disappointed, for these works are now in the hands of the public, and may be consulted. Some of them, indeed, have started very strong objections to the use of the caustic bougie, but none of them have proposed any rational plan by which such obstructions could be removed, without, in many instances, occasioning more torture to the patient than human nature was capable of supporting.

It is extremely painful to make innovations on any generally received plan of practice ; but I could not witness the severe methods, which on every hand presented themselves to me, without appealing to the public tribunal to avert a repetition of such acts.

* * We have inserted these long remarks on a practice which at present excites general attention ; and shall thankfully receive any reply from our various Correspondents. We cannot conclude without observing, that whether all the cases relieved by caustic were really stricture or not, still the practice was successful after the usual remedies had failed. We are also obliged to express our surprize that stricture of the œsophagus should be so rare a disease in the northern metropolis.

Account

*Account of an Organic Disease of the Heart; communicated by M. BOUCHER, Surgeon at La Fleche.**

MADemoiselle R—, born of strong and healthy parents, enjoyed a good state of health until she was fifteen years of age, when she was attacked by a putrid fever, produced in all probability by an irregular diet; from this attack she completely recovered.

During a year she increased in strength, and grew taller: every thing, so far as age or health were concerned, gave tokens that her menses would soon appear. She became pale, however, and bloated, and soon complained of oppression of the chest, and palpitation. I thought these symptoms were as much to be ascribed to the effects of chlorosis as to worms; and consequently prescribed martial tinctures and anthelmintics. I confess I felt considerable uneasiness, when I found that the palpitation continued night and day. When asleep she threw off the bed clothes without awakening; a symptom not observable in an affection purely nervous. Besides, the palpitation was not clear and distinct, but tumultuous and confused, and never in unison with the vibration of the pulse.

Menstruation at length commencing, her friends thought all danger at an end: for my own part, my satisfaction was only temporary; the bloatedness of the countenance re-appeared, the lips became of a livid hue: the tip of the nose assumed the same colour, as well as the centre of the cheeks; the eyes were a little swollen. Having felt the region of the precordium, I perceived the same tumultuous motion. I communicated to her friends my fears, with respect to the defective organization in the source of circulation.

At this period, a second putrid fever attacked the patient, and after having brought her to the brink of the grave, it yielded to the usual remedies. Her recovery on this occasion gave her friends reason to hope that the whole system had undergone a change, which could not fail to establish her health in future. I could not be persuaded, however, of her complete recovery, having always observed the same palpitation of the heart: the bloated appearance of her skin had of course ceased, but

* From the Journal de Medicine.

this frequently proceeds from diet, blisters, and universal debility: the paleness of the skin, the necessary consequence of this fever, had banished the livid colour of the countenance. I thought it most prudent to keep up a discharge from the legs, and to revert to the use of anthelmintics and emmenagogues.

The patient's growth had increased during the disease, and her figure was now tall, inclining *to embon point*, her limbs became plump, and her breasts swelled; her countenance became agreeable; her courses were regular, and, though not abundant, they were unaccompanied with any painful sensations; her dispositions were gentle, inclining to gaiety. In the midst of all these natural advantages, I witnessed the same symptoms which had formerly given me so much uneasiness.

I then consulted two eminent practitioners in the capital. It was their joint opinion that the patient's case was a severe chlorosis, the consequence of a general atony, and particularly of the uterus, which gave reason to apprehend an organical disorder in the heart, or in its large vessels, if the elasticity of the fibres was not speedily increased. Aperients and emmenagogues under different forms were prescribed.

I did not exactly coincide with this opinion; 1st. Because no hysteric symptom had ever taken place, and it seemed to them, that the womb or its appendages were affected, rather than the heart and its large vessels: besides, young boys are also subject to this dreadful disease.

2dly, Because I thought the organical defect already existed. I adhered however to the prescriptions, even not omitting the vomits which I was desired to administer from time to time.

The patient took several of these remedies, but, like all other persons similarly situated, she lost all confidence in them. M. Lepine, a physician, was then called in, and he agreed in opinion with me.

In this disagreeable situation, our patient was seized with a shivering, followed by fever. I was again sent for, and on examining found her heart in the same state, but beating more tumultuously; her face and limbs were bloated, and the violet colour was deeper.

Third day, An erysipelatous eruption appeared on the left leg; spirituous applications were employed.

Fifth day, Gangrenous spots appeared upon the foot: cinquona and generous wine were administered.

Eighth day, The alvine secretions were similar to those
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of the *melæna*. I remarked that all postures were alike to the patient; she generally, however, lay on the left side.

Ninth day, Apparently improved throughout the whole system.

Eleventh day, The oppression, anxiety, and tumultuous motion of the heart were increased; the pulse was obliterated, an icy coldness covered the whole surface of the body; and she was at times delirious.

This state of agony having lasted four days, slight convulsions came on, and the patient died at the age of 25, having been ill about five years.

APPEARANCES ON DISSECTION.

It was with some difficulty that I obtained leave to open the body, and I was only permitted to examine the heart. A confidential person was appointed to be present, and I was limited with respect to time.

Having raised the sternum, the pericardium presented itself like a large bladder, occupying a third of the cavity of the thorax, having pushed the lungs aside both behind and before. On opening it, about a wine glass of watery fluid escaped; the heart when exposed to view seemed to be two-thirds more than its ordinary size; the aorta and the pulmonary artery had preserved their natural form and size: the two auricles presented an extent proportioned to that of the heart; throughout they preserved their relative proportions; thus, the right auricle was larger and firmer than the left, and the colour deeper; we found a large glass full of blood in it, part of which was fluid, and part polypous; this last substance strongly adhered to, and was spread over the various curves and apertures of the heart. The tricuspid valves were five or six lines in length. The aperture by which this auricle pours the blood into the right ventricle would have admitted of a hen's egg.

The left auricle contained a smaller quantity of blood.

The scalpel, so far from shewing a tenuity in the ventricles, occasioned by a stretching of the organ, exhibited a thickness and consistence double that of Nature, particularly in the left ventricle; both contained a prodigious quantity of blood, partly fluid, and partly polypous: the latter strongly adhered to the curves and flexures of these organs: the left contained less than the right.

The lungs were soft and much inflated: the liver large and pale. To conclude, we perceived no particular affection in any other organ.

REFLECTIONS.—If the celebrated Corvisart and the most enlightened professional men, have not ventured to determine the efficient cause of organic defects in the heart, it would be highly presumptuous in me to hazard a definition. Besides this efficient cause always pre-supposes an original defect in the organization of the parts; thus, individuals are born with the lungs, the brain, or any other of the viscera so formed, as to produce mortal diseases sooner or later.

It is much easier to explain the symptoms. It is in fact easy to conceive that the veins have always the facility in every state of the body and lungs, of pouring the blood into capacious ventricles; and on the contrary, if the pulmonary arteries and the aorta are not of a proportionable calibre, the blood cannot leave the heart without difficulty, and not by a single *jet*: hence this perpetual tumultuous motion of the heart, the irritation being constant from the presence of this improper quantity of blood.

Nevertheless, although the apertures of the auricles were very large, from the venous blood of the heart filling them, they would become, (if I may use the expression) choaked, and not be perfectly emptied; particularly if, as in this case, the veins did not possess any contractile power. All these evils would therefore extend not only to the blood vessels, but also to the lymphatics, whence resulted a small menstrual discharge, a livid colour where these vessels abounded, filtrations through the cellular texture of the parts removed from the source of circulation, and a great difficulty of breathing; finally, the extinction of life, occasioned by the increase of debility, the polypous thickening of the blood in the ventricles, and the whole train of symptoms attending the case in question.

Two Cases of complete closing up of the Glottis, one by the Growth of two Hydatids, the other from a Division between the Glottis and Epiglottis.

Communicated to the Medical Society of Paris by M. DELORME, Naval Surgeon; and extracted from the Journal de Médecin, tom. xxxii. p. 148.

P. JOLY, captain of the galley slaves at Brest, a native of Angers, aged 44; of a bilious and dry temperament, twelve years in the service, was seized in 1802 with
 blenorrhagia,

M. Delorme's Case of Hytadids closing up the Glottis. 141

hemorrhagia, of which he was perfectly cured. He had the jaundice twice, from which he also recovered. In May 1807, he was seized with a low fever, followed by a tendency to ascites. A digitalis tincture was prescribed, and on the 1st of June the cure was complete. On the 13th of the same month, Joly was once more brought into the hospital, and placed under M. Delorme's care. He had been ill for nine or ten days, and exhibited the following symptoms: oppressed and sonorous respiration during sleep, which however was sound; the noise greater in the act of inspiration than in respiration; face yellow, eyes sunk; sclerotic coat slightly tinged with yellow; lips pale and thick; tongue broad, marked longitudinally from the base with yellowish streaks; skin dry and warm; pulse feeble. Although Joly experienced some obstruction in the larynx, without pain or heat, nothing was to be seen externally; nor in the lower part of the mouth. This obstruction, which slowly increased, was felt during the day, for the first time; and with the exception of constipation, the usual animal functions exhibited no derangement.

June 14th, being the eleventh day of the disease, a mineral water and a ptyisan of barley and oxymel were prescribed—several vomitings of bilious matter; two stools.

15th, Sleep profound; respiration so wheezing, that it was heard at the Court Yard of the Hospital; deglutition difficult, particularly of liquids; infusion of borage with oxymel; electuary with ipecacuanha.

16th, M. Duret saw the patient, and having seen nothing in the pharynx, he prescribed two drachms of acetate of ammonia in a pint of ptyisan.

17th, The same noise in breathing; sleep sound; prescription the same—difficulty of swallowing; a powerful blister applied to the nape of the neck.

18th, Scarification of the eschar; nothing new; the noise in breathing is less when the patient is awake.

19th, One grain of extract of opium in two pills, to excite perspiration.

20th, Noise in breathing less; a bad appetite; nothing particular until the 10th of July, and during this interval there were three or four days without any noise in breathing; but this symptom returned on the above day.

July 23d, The patient complained of nothing but an obstruction in the larynx.

24th, Being the fortieth day of the disease, Joly was found dead in his bed.

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During the last stage of the disease, the pulse was almost always feeble, but regular; the patient retained his senses to the last, and his appetite was good until the 7th of July. No obstruction was experienced except in swallowing of liquids, which constantly produced violent coughing.

DISSECTION OF THE BODY.

Face and lips violet coloured, frothy mucus in the mouth; nothing particular was observed in the abdomen, with the exception of nineteen lumbrical living worms in the jejunum and illium; the lungs were only a little flabby, and of their natural colour; a veinous turgescence of the right cavities of the heart; the left were almost empty; the brain perfectly sound, as well as its membranes.

Incisions from the lips to the condyles, which were sawed through, facilitated the inspection of the lower part of the mouth, in which nothing particular was observed. Incisions were afterwards made as far as the spine, into all the soft parts situated before and behind, above the sternum, without in the least changing the connection between the tracheal artery and the œsophagus; and every thing was detached from the jaw including the tongue. By this means we saw, behind and under the epiglottis, near its junction with the posterior part of the larynx, two semi-transparent vesicles, oval both behind and before, as large as a small nut, fixed against each other, and occupying (the right one in particular) a part of the ventricles, from which they proceeded towards the epiglottic ligaments; the side not attached was turgid, both before and behind, and they entirely closed up the glottis. One of the assistants inadvertently placed his finger upon one of the vesicles and burst it, when a clear thready matter issued similar to albumen; the division of the posterior part of the œsophagus, admitted of our discovering the whole extent of the disease.

The Council of the Board for superintending the Health of the French Navy, ordered a drawing to be made of this dissection. M. Duret thought that if a similar case again occurred, great advantages might be expected from the section of the crico-thyröid membrane, cutting a little into the thyröid cartilage. In fact, he performed this operation, and the separation of the edges of the section exhibited the two vesicles, which might have been easily removed from the living subject, if their existence had been suspected. In the above case, the cure would have been the

the more certain, as the whole tracheal artery was very sound.

The hydatid preserved was shining, smooth, semi-transparent, and more consistent than the other; it adhered to the adjoining parts by the half of its external circumference; in front it was detached, and merely touched the other at its internal edge. It contained a limpid fluid, in which a whitish flake floated, similar to what is found in the white of a new laid egg, but much smaller; it occupied the anterior part of the vesicle, and exhibited a brown point in its centre, as large as the point of a small pin; the animal organization of which could not be ascertained. The liquor was tasteless and insipid; it gave a turbid appearance to the acetous acid, and to alcohol, but there were no flakes; the whitish substance was only a little hardened; when held in a spoon over the flame of a candle, the liquor remained fluid in the centre, but was coagulated at the sides.

The above account is interesting in a double point of view; both from the accurate manner in which it is drawn up, and from the difficulty of discovering the cause of a similar affection, should it again occur. Unique of its kind, it deserves to be recorded, in order to enlarge the mass of insulated facts, which may one day be referred to their proper causes. On opening the body of a patient like M. Joly, it is not sufficient to ascertain that by such and such methods a hydatid may be extirpated, but the real object is, to ascertain its actual existence, and the precise spot which it occupies.

M. Delorme judiciously observes, that there was in this case no pathognomical sign, and that all the symptoms might have been referred to any other affection of the same part, the croup for example, if the wheezing respiration only was regarded. As to the patient in question, it ought to be remarked, that no convulsive cough made its appearance, and that there was no threatened suffocation, nor any of those strong symptoms which indicate croup beyond the possibility of mistaking it. If the opening of the body shewed what might have been successfully practised, it also accounts for the inadequacy of the remedies employed, and there is nothing wonderful in the patient's sudden death. The venous turgidity of the right cavities of the heart, accounts for the size of the lips, the tongue, &c. There ought also to have been a similar swelling of the veins of the head, and a collection of serous matter under the cranium; at least, this circumstance is

probable, although it is positively asserted, that these parts presented nothing particular.

The sudden death of M. Joly brings to my recollection, a case, which I think ought to be generally known. In May, 1795, two chimney-sweeps, about 13 or 14 years of age, were on their way to the country. One of them had eleven louis d'ors in his pocket, and he fell asleep on the road. His companion robbed him after cutting his throat. The unfortunate victim when brought to the Hotel-Dieu, at Paris, had a transverse wound between the os hyoides, and the thyroid cartilage; every thing shewed that there was a communication from the external to the internal part of the pharynx. Under the care of M. Pelletan, the cicatrix was soon almost entirely healed up. One day, in the interval between the dressings of the wound, the patient was suddenly ordered to attend the judge, to give evidence against the perpetrator of the crime. He had scarcely descended the staircase, when he fell down dead. On opening the body, we found the left side of the epiglottis detached from the glottis, and from the root of the tongue; it had fallen across the glottis, so as suddenly to suspend respiration. Who could have foreseen such an accident?

Chemical Account of the Angustura of Commerce, wherein the Means are pointed out of ascertaining the true Kind.

By L. A. PLANCHE, Chemist and Apothecary.*

THE remedy which forms the subject of this article has been hailed by some medical men as a febrifuge of equal efficacy with the best Peruvian bark; but whether from administering it under unfavourable circumstances, or from not having employed the true kind, other practitioners have disputed the febrifuge powers of Angustura. Hence arises the uncertainty which prevails, as to the efficacy of this remedy; hence, the necessity of trying new experiments in order to establish, in a more accurate manner than has hitherto been done, its medicinal properties. These experiments certainly belong to the practice of medicine; I shall therefore consider the question in this light.

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* From Journal General de Medicine.

The following pages will therefore have for their object,
1. To detail some chemical and physical properties of several kinds of bark, sold by the name of *Angustura*. 2d. By comparing them together to ascertain some characteristics, by which we may distinguish them from each other. 3d. To call the attention of the practitioner, not only to the true *Angustura*, but also to new kinds of bark, long confounded with the first discovered, and the virtues of which are necessarily different. From this outline, it is evident, that I do not mean to confine myself to a chemical analysis, properly so called, but rather to give a hasty sketch, intended to clear the way for the physician who wishes to administer this remedy.

Under the name of *Angustura*, there are to be found in the shops of the Druggists, three kinds of barks, very distinct from each other, which I shall describe under the following names :

First species, *Angustura vera* ; second species, *Pseudo Angustura, ferruginea, cortice convoluta* ; third species, *Pseudo Angustura cortice plana*.

First species, *Angustura vera*, the oldest known, is that which has been described by Murray, in his *Apparatus Medicaminum*, and faithfully repeated by Dr. Alibert in his *Materia Medica*.

" This bark is a little convex, generally broader and thicker than cinchona. The epidermis covering it is whitish, unequal, and full of asperities ; the substance covered by this epidermis is of a fawn coloured brown, and of a hard and firm texture.

" When reduced into powder, it has a very yellow appearance. I designate the first species in this manner, because it was in fact, the only one used in France at the time of the introduction of *Angustura* into medicine. I was the more scrupulous in ascertaining its quality, from regarding it as a test of comparison in my future experiments."

1st Species, *Angustura vera* and cold water.

Two drachms of *Angustura* being macerated twenty-four hours with eight ounces of cold water, in a temperature of about 10° above Zero (*Reaumur*) a clear liquor is obtained, which passes very speedily through the filtering paper ; it is of the colour of table beer, of a nauseous smell, like that of briony ; and is of a bitter aromatic taste.

a. This liquor gives a yellow precipitate with the sulphate of iron.

b. The

b. The nitrate of silver forms a very abundant white precipitate, which in an hour becomes a more or less deep grey, at the place where it is most directly in contact with the light; soon afterwards, namely, in two hours the whole precipitate acquires a dirty purple colour.

c. The sulphate of copper is precipitated in it, in yellowish flakes, inclining to green.

d. Solution of isinglass does not present any remarkable phenomenon with the maceration of *Angustura*; the two mixed liquids keep clear a long time.

The bark of *Angustura* reduced to powder, and subjected to the action of very weak muriatic acid, communicates to this liquid the property of precipitating in a fine citron yellow, with the precipitate of potash.

Action of boiling Water upon Angustura in Powder.

The filtered decoction of *Angustura*, deeper coloured than the foregoing liquor, is not perceptibly disturbed upon cooling. It acts almost in every respect, the same way with the small number of re-agents I have mentioned.

Second Species, *Pseudo Angustura, ferruginea, cortice convoluta.*

This kind has not yet been described by any writer on the *Materia Medica*; it is at present very common, and several druggists describe it by the appellation of *fine Angustura*.

Messrs. Jussieu and Bompland, to whom I shewed it, declared that they were ignorant of the vegetable to which it belonged.

The barks of this species are generally rolled over each other, and are of a yellowish grey colour internally. Some of them have the epidermis covered with a substance which has the appearance of iron rust, and which possesses some properties. Other barks are more or less shining, sometimes very much wrinkled and studded with various coloured spots.

These last barks are generally thicker, and more voluminous than the others; and although they differ in appearance, they possess the same chemical properties; they are merely a little less ferruginous.

The powder of this false *Angustura* is of a grey colour, similar to ipecacuanha, and has a similar smell. It is so bitter that few persons can taste it without experiencing nausea.

If this powder is macerated with water, in the same proportion, and during the same time with the true *Angustura*,
a liquor

a liquor is obtained, which when filtered, is of a straw colour, not sensibly altered by the contact of air, of a faint smell, and bitter, like pulverized bark, precipitating in a dark grey with sulphate of iron, and forming with the nitrate of silver, a white precipitate, which becomes perfectly black in five or six minutes. The sulphate of copper forms a precipitate less highly coloured, and less abundant than with the true *Angustura*; it is not affected by the solution of glue.

Lastly, Water sharpened with muriatic acid, and shaken with the powder of this false *Angustura*, assumes a clear green colour, if alkaline prussiate be poured into it; and soon afterwards Prussian blue is deposited. It is proper to remark, that we instantly obtain a very fine Prussian blue, if we treat the yellow powder which covers the bark with the muriatic acid; this evidently proves the above substance to be of a ferruginous nature, and is a phenomenon not observable with the true *Angustura* bark.

The decoction of ferruginous *Angustura* is higher coloured than its water of maceration; although transparent when warm, it becomes turbid on cooling, like cinchona. We may however avoid this inconvenience, if it be one, by adding a little solution of glue, which has the property of keeping the cooled liquor transparent. In some cases, we might derive great advantage from this method, both in correcting the extreme bitterness of the decoction, and diminishing the disgust which a turbid drink almost always creates in a patient. As to the metallic salts, such as the sulphates of iron, copper, and nitrate of silver, they act nearly in the same manner upon the water of maceration, and upon the decoction of the false ferruginous *Angustura*.

To conclude, this bark, which surpasses in bitterness all the bitter vegetables known, is well worthy the attention of medical practitioners.

Third Species, *Pseudo Angustura cortice plana*.

This third species is in small estimation among the druggists, who sell it at a very low price. At first sight it has some resemblance to the true *Angustura*; but on examining it more attentively, we perceive that it differs from it; 1st. in the internal colour of the bark, which is of a deep yellow, inclining to red; 2d. by its rougher and less resinous fracture; 3d. by its slightly bitter taste; 4th. by the colour of the powder, which resembles the grey cinchona, and some of the properties of which it possesses. I am of opinion

opinion that this bark, which has no other name in commerce than that of common *Angustura*, is only a variety of the *Cinchona Magnifolia* of Bompland.

1st. The powder of the false *Angustura cortice, plana*, communicates a bright yellow colour to water, which becomes a reddish brown on exposure to the air.

2d. This water of maceration is more abundant in mucous principles than that of the two former barks, but although separated in the same manner, does not pass so easily through filtering paper; it unites in a feeble degree the smell and taste of the grey Kina of the shops.

3d. The solution of glue produces a very abundant and flaky precipitate.

4th. It gives with the sulphate of iron, a very dark green precipitate.

5th. With the nitrate of silver, a dirty grey precipitate, which keeps this colour a long time.

6th. With the sulphate of copper, some slight flakes of a greyish colour.

7th. The decoction of the false *Angustura* of this third species is of a very deep red colour; it is transparent both when hot and cold; it precipitates glue more abundantly than when macerated, and acts in every respect similar, both in decoction and maceration, with the re-agents.

The information I have now communicated, is the result of some experiments tried about eighteen months ago for my own use, and which I communicated at the time to M. Jaquemin.

I ought to observe, however, that it is only within these two months I heard of the existence of a third kind of *Angustura* in commerce, and this part of my experiments is here.

In imitation of the example of M. Vauquelin, when treating of *Cinchona*, I have drawn up the subjoined table of the chemical phenomena observed, with respect to *Angustura*.

A Table of the Effects produced by the three Kinds of Angustura with various Re-agents. 149

Species.	Sulphate of Iron.	Nitrate of Silver.	Sulphate of copper.	Solution of Glue.	Weak Muriatic Acid and Prussiate of Potash.	Observations.
First. <i>Angustura Vera.</i>	Yellow precipitate.	Abundant white precipitate which became grey after an hour, and dirty purple in two hours.	Precipitate, in greenish yellow flakes.	O	Citron yellow; pulverised bark is here intended.	The first four columns indicate the effects produced upon the maceration and decoction.
Second. <i>Pseudo-Angustura ferruginea cortice convoluta.</i>	Dark grey precipitate.	White precipitate which became black in five or six minutes.	Thin apple green precipitate.	Hinders the decoction from being disturbed on cooling.	A fine green colour at first; afterwards a precipitate of Prussian blue.	There is an instantaneous production of Prussian blue, if we treat the yellow powder with the muriatic acid and an alkaline Prussiate.
Third. <i>Pseudo-Angustura cortice plana.</i>	Very dark green precipitate.	Dirty grey precipitate.	Dirty white flaky precipitate.	Very abundant flakes,	O	O

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Account of an Organic Injury of the Intestines, which produced the Symptoms of Pulmonary Consumption, with the Appearances of the Body on Dissection. By M. NACQUART.*

M. B. had been early given to the study of the dead languages, and prosecuted them with so much ardor that he neglected the calls of nature. For some years he had accustomed himself to refrain from going to stool at the usual times, and sometimes felt no desire of that description for several weeks.

He became subject to very acute cholics, accompanied with obstinate constipation, to which succeeded an habitual diarrhœa.

While the bowels were thus the seat of a slow but unremitting irritation, the chest seemed to be affected, and a sharp cough succeeded, accompanied by an expectoration, at first of mucus, and soon afterwards of pus.

The patient's constitution became daily worse, his weakness increased, the cough was distressing, and the expectoration considerable: the diarrhœa still continued.

Such was the predominance of the symptoms of the disease of the lungs over those of the intestines, that several eminent practitioners of Paris did not hesitate to ascribe the whole symptoms to phthisis, attended with irritation of the bowels.

The treatment of the case, viewed in this light, was attended with no success, and the patient became worse until the 5th of January 1807, when he died at the age of 27, having retained his senses to the last.

Dissection of the Body. The chest when struck against resounded throughout its whole extent, with the exception of the middle part and the lower part of the right side. The right lobe had formed some very close adhesions to the pleura; both lobes were sound and firm: mucus, similar to the matter expectorated filled the tracheal artery and the bronchiæ.

The belly was not tumefied: on opening it a very foetid smell was perceived. The epiploon, loaded with fat, had descended into the pelvis: its back part adhered to the small intestines, and was fringed with a coating of grumous pus, which was accumulated in the circumvolutions of the intestines;

intestines; the peritoneum contained a great quantity of this purulent liquor; the surface of the small intestines was inflamed.

The colon, bent and contracted, seemed to be smaller in bulk than the small intestines; its passage was in some places almost effaced.

The cæcum was sunk in a cellular texture, hard, blackish, and as it were fleshy: it presented nothing else than a very irregular pouch, with hard and shrivelled edges.

These two intestines having been opened throughout their whole extent, there issued a great quantity of black, purulent, and foetid sanies, which coloured their internal coat, and this last was thick and like suet.

When carefully examined, the internal surface of the colon and cæcum seemed pierced with holes, which led to very large follicles, filled with black sanies: the transverse section displayed a multitude of black streaks, confined to the surface, and resembling an injection made with ink.

An attentive dissection shewed that this disease was confined to the mucous membrane of the large intestines, the muscular and peritoneal coats having preserved their healthful state.

The liver was sound: its large volume raised the diaphragm considerably, and diminished the right cavity of the chest. The brain was not examined.

I take leave to make the following observations:

1st. Here we have an organic affection of the intestines, without any trace of affection of the lungs. What could be the cause of this change of phænomena? To what can we attribute the striking symptoms of pulmonary consumption which accompanied this disease of the intestines? Perhaps we shall find the cause of it in the nervous communications between these organs, and in the pressure of the lungs by the liver: but our present knowledge of the nature of the mucous membranes, their identity of action, and their frequent simultaneousness of affections, convince me that we ought to ascribe to these membranes the symptoms which have rendered the diagnostic of this disease so uncertain.

2. Here we have to remark two diseases different in their seat and their origin. On the one hand, the disorganization of the mucous membrane of the large intestines, which occurred so far back as the first attacks of disease fifteen years before; on the other hand, the diseased state of the small intestines, which I regard as a consequence of the other.

3. The

3. The isolated state of the cellular textures, in a disease so deep seated, and of such long standing, shews us how important it is not to confound them, Nature having communicated to them functions, structure, and diseases quite different.

4. Finally. The dissection of the body shews that even if this disease had been well known, both in its nature and its seats, it would still have baffled the resources of art.

I am far from offering this observation as unique in its kind: on the contrary, I could adduce several analogous cases from authors who have written on pathology. But although this disease of the intestines may have been already noticed, and although these sympathetic affections of distant organs were long known, I thought them worthy of being once more brought before the public.

CRITICAL ANALYSIS

OF THE

RECENT PUBLICATIONS

ON THE

DIFFERENT BRANCHES OF PHYSIC, SURGERY,
AND MEDICAL PHILOSOPHY.

Medico-Chirurgical Transactions, published by the Medical and Chirurgical Society of London. Vol. I.

(Continued from our last, pp. 65—78.)

ARTICLE 8.—*Case of Exposure to the Vapour of burning Charcoal.*
By WILLIAM BABBINGTON, M. D. F. R. S. Sen. Physician
to Guy's Hospital.

This paper abounds with good observations, many of which are more calculated for the public at large than the medical reader. We therefore trust the whole will be inserted in every popular Journal.

Two of the waiters at a public house in Honey-lane Market, totally unconscious of the danger to which they exposed themselves, went to rest with a chaffing dish of burning charcoal at the foot of their bed. In the morning, not appearing at the usual hour, they were called by a person who found one of them lifeless on the floor. The other was insensible, and apparently at the point of death, but with perceptible breathing, heat, and pulsation at the arteries. The situation of the first being the most urgent, Dr. Babbington tried the effect of artificial respiration, by
instructing

instructing Mr. Hingeston to inflate and empty the lungs; Mr. H. blowing through a catheter, passed by the mouth into the trachæa, and his assistant alternately pressing out the air.

As all this proved ineffectual, the Galvanic apparatus was introduced; and the muscles showing no irritability to this powerful stimulus, it was reasonably supposed that all further attempts would prove ineffectual.

In the elder waiter there was stertorous breathing, countenance somewhat flushed, pulse full and strong; it was therefore thought advisable to bleed him. But upon returning to him, it was found that the vital powers were much more enfeebled than before; the pulse was weaker, and the respiration more imperfect; the heat confined to the upper part of the body; the eye insensible to common impressions; and a slight convulsive motion, which some of the muscles had before exhibited, had ceased; the tongue swollen and projected from the mouth, which was locked by a spasmodic action of the muscles of the lower jaw; there was a copious discharge of frothy saliva from the angles. Under these circumstances the galvanic shock produced instantly a good effect, affecting not only all the muscles through which it was immediately passed, but most others subservient to the functions of life as well as to the organs of sense.

About two hours after the event was first discovered, a bladder of oxygen gas was procured, the inspiration of which seemed to be followed by an increased activity in respiration and arterial action. As the heat of the body was not deficient, the face and chest were sprinkled with cold water, which, adds the author, "had also the effect of rousing the dormant powers of sensation, as the respiratory muscles were uniformly thrown into action, though in a more feeble and interrupted manner than when we employed the galvanic influence." These processes of galvanism and oxygenation were alternately employed every half hour for two hours and a half more, when the galvanic application was discontinued, as the heart, though always excited by it, seemed in the intervals to act more feebly, and to endanger a destruction of that equilibrium of forces which is necessary to the maintainence of life. Harts-horn was rubbed on the temples, and the lower extremities being cold, bottles filled with warm water were applied to the feet, whilst the trunk of the body was covered with bed clothes. In an hour after, a gentle perspiration was perceived over the whole body; the pulse fuller; the respiration easier. The inhalation of gas was continued however at longer periods for three hours more. The spasm on the jaw having subsided, the patient swallowed liquids in small quantities without apparent difficulty. The pulse now rose to 120 with some strength. About this time the ligature slipped from the arm; a pound of blood escaped, which produced at first alarming symptoms of debility. During the night however the strength recovered. On the following day symptoms of paralysis appeared, but gradually passed off.

Some very ingenious reflections follow by Dr. Babbington on the cause of the deliterious property of carbonic acid gas. Rozier and Davy conclude from their experiments, that in its undiluted state it is wholly irrespirable, and produces a similar spasm on the epiglottis as if the animal were immersed in water. If this be the case, says Dr. Babbington, how shall we explain the loss of muscular irritability in animals destroyed by this gas? This is a very just inquiry; but we submit it to that ingenious physician, whether a sufficient number of experiments have been made in destroying animals by gases, to determine the uniformity of such consequences as he describes. Under some circumstances of drowning, it was observed by Mr. Hunter, that what he calls absolute universal death followed. In these cases, of course, there could be no more irritability in the muscles than in the unhappy subject, who could not be roused from the situation in which he was found, and whose severer fate is very rationally imputed to his having fallen on the floor, by which he was still more exposed to the effects of the carbonic acid gas, whose specific weight is known to be greater than that of common air.

Respecting the mode of treating such cases, we cannot but agree with Dr. Babbington, that where respiration is suspended, or even impeded, our first object must be to restore it artificially; and if the appearances he describes have uniformly shown themselves in dissecting animals with a double heart, which have died from this cause, there can hardly be a doubt that death is occasioned by a spasm on the epiglottis. For in common cases of sudden death, where all the parts have immediately ceased to act, the left side of the heart, and the arteries, are found filled with blood; whereas where death has gradually followed the loss of that series of actions by which life is supported, the last act has usually been the muscular contraction of the arterial system by which the blood has been forced into the veins. Unfortunately, the friends of the boy could not be prevailed upon to suffer the body to be opened. It might have afforded some information had it been recorded, whether stiffening came on after death; whether blood could be drawn from a vein; and if drawn from any part, whether it had the power of coagulation.

That the boy's case was hopeless, however, appears not only from the event, but from the inefficacy of every attempt made towards resuscitation. We shall therefore offer only a single hint on the situation of such as may be found in the act of breathing, however laboriously or imperfectly. And first, after a removal to a purer air, we cannot help suggesting the importance of sprinkling with cold water till such other means are procured, as in this case were found useful. We should also advise the utmost caution in suffering the body, particularly the lower extremities, to lose the heat it has retained. Sprinkling with cold water has been found sufficient of itself in some very urgent cases, which, as far as our memory serves, were not less serious than that of the elder waiter.

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We refer to one mentioned in a volume of Dodsley's Annual Register, which may be easily referred to, as it was recorded before the Index was published to that valuable work. Most probably the Gentleman's Magazine would furnish the same.

The other means suggested by our author, are such as we cannot but approve. But we must offer a hint, which we have found almost innumerable occasions to enforce in sick chambers. When Dr. Babington's patient recovered his reason, the first thing that distressed him was to find himself in a strange place. From the period that he fell asleep, to the time we are now describing, he had been perfectly unconscious of his own existence. Had he awoke to the scene he had left, how much distress might he have escaped, which, though of short duration, was at a most interesting period. In many cases of fever, the moving a patient's bed, whilst the actions of the brain have been vacillating, has been followed by terrors, which the state of his mind rendered it impossible to relieve.

ARTICLE 9.—*Case of Lithotomy, with Remarks.* By THOMPSON FOSTER, Esq. Surgeon on the Staff of the Army, and Senior Surgeon to Guy's Hospital.

This paper contains some judicious cautions on selecting the proper state of a patient for performing this important operation, and particularly of admitting no delay whenever such a state occurs.

ARTICLE 10.—*On Gouty Concretions, or Chalk Stones.* By JAMES MOORE, Esq. Surgeon to the Second Regiment of Life Guards.

A good systematic description is here given of the process of Nature, in the deposition of gouty calculous matter, and also the means by which she disengages the parts from it. Some useful practical remarks follow, on the mode of treatment under cases of particular urgency.

ARTICLE 11.—*Case of Artificial Dilatation of the Female Urethra.* By H. L. THOMAS, Esq. F. R. S.

This paper contains two very interesting cases. In the first, as mentioned above, the urethra was in a very short time so dilated, that the operator introduced with ease his finger and thumb, and relieved his patient of an ivory ear picker, which, whilst it was used by her husband to remove a slight difficulty in making water, had been suddenly retracted into the bladder. No incontinence of urine followed more than six hours afterwards. Mr. Thomas's success induces him to propose, that in all cases of stone in the female bladder, recourse should be had to dilatation, rather than a section, which as frequently ends in an incontinence of urine as the greatest and most continued dilatation. The other case, tho' it could not be more successful, is perhaps more creditable to the surgical dexterity of the author, from the greater difficulty and the novelty of the attempt. We cannot but transcribe it in his own words.

" A gentleman of an inactive and sedentary disposition had for many years suffered from contipated bowels, which increased to that degree that the most active cathartics failed in producing the desired effect. By the advice of a practitioner, whom he consulted in Paris, he daily introduced into the rectum a piece of flexible cane (about a finger's thickness), where it was allowed to remain until the desire for evacuating the fæces came on. This plan succeeded so well that for more than a twelvemonth he never had occasion to resort to any other means. One morning, being anxious to fulfil a particular engagement in good time, in his hurry he passed the stick farther up, and with less caution than usual, when it was suddenly sucked up into the body, beyond the reach of his fingers. This accident, however, did not interrupt the free discharge of the fæces, and the same evacuation regularly took place every day, whilst the stick remained in the gut. It was seven days afterwards when I first saw him; he was in a very distressed state, with every symptom of fever, tension of the abdomen, and a countenance expressive of the greatest anxiety. His relatives and friends were totally ignorant of the real nature of his case; and nothing less than the urgency of his sufferings, could ever have prevailed upon him to disclose it to me. Such were his feelings on the occasion, that a violent hysteric fit was brought on by the mere recital of what he termed his folly.

" Upon examination with my finger, per anum, no part of the cane could be discovered; but one end of it was readily felt projecting (as it were) through the parietes of the abdomen, midway between the ilium and the umbilicus on the right side. The slightest pressure upon this part gave him exquisite pain.

" After repeated trials I was at length enabled, with a bougie, to feel one extremity of the stick lodged high up in the rectum; but without being able to lay hold of it with the stone forceps. To allay the irritation for the present, an emollient clyster, with tinct. opii. ʒij. was given, which passed without the least impediment, and did not return. On the next examination, two hours after, I found the sphincter ani considerably dilated, and by a continued perseverance to increase it, the relaxation became so complete, that in about twenty minutes I was enabled to introduce one finger after the other, until the whole hand was engaged in the rectum.

" I found the end of the stick jammed in the hollow of the sacrum, but by bending the body forward it was readily disengaged, and extracted. Its length was nine inches and a half, with one extremity very ragged and uneven.

" For several days after, the situation of the patient was highly critical; the local injury, joined to the perturbation of his mind, brought on symptoms truly alarming. At length I had the satisfaction to witness his complete recovery; and he has ever since (more than two years ago) enjoyed good health, and the regular action of the bowels, without the assistance of medicines, or any other aid."

ARTICLE

ARTICLE 12.—*Case of Hydrophobia; with an Account of the Appearances after Death.* Communicated by ALEXANDER MARCET, M. D. F. R. S. one of the Physicians to Guy's Hospital. This account cannot be expected to furnish much novelty in this melancholy disease; it is however very well worth being recorded, for no facts can be unimportant in a malady that baffles not only all our remedies but all our researches.

There are two or three particulars worthy of notice. The first is, that the dog appears to have been diseased, refusing his food, and barking less distinctly than usual. He left his home, as has always been remarked, and as far as can be judged, died without any appearance of violence. He bit his master in two places, who without using any precautions, remained well.

The patient lived to the sixth day after the first appearance of the symptoms. The pharynx was found inflamed, and inflamed portions of the œsophagus appeared also. The vessels on the surface of the brain were turgid; some of the vessels of the pia mater contained small bubbles of air.

The remedies used were opium to a considerable quantity, though, as the writer expresses himself, without much hope of success. Iron and arsenic had also a full trial. Hyocyamus seemed to exasperate the symptoms, but this inference must be uncertain.

"I would also (says our author) beg leave to point out a circumstance which does not seem to have been sufficiently remarked; I mean the pain which is felt in the parts contiguous to the bitten spot, at the moment the symptoms of hydrophobia are developed. This pain, it would appear, is apt to follow the course of the nerves rather than that of the absorbents. In the present case,* as well as in one of the cases detailed by Dr. Babbington, there was pain in the arm and shoulder, but without any affection of the axillary glands; and in another case, published in the second volume of the *Medical Communications*, the pain occasioned by a bite in the leg was referred to the hip and loins, without any affection of the inguinal absorbents. Should this remark appear to have any weight, the consequence which would naturally be drawn from it would be, that when the precaution of removing or cauterizing the part has been neglected in the first instance, it may still be adviseable to have recourse to it at any subsequent period before the developement of the disease."

We believe the late Mr. Hunter once entertained this expectation of excision at any period before the symptoms appeared, but in one attempt found himself foiled. We shall be glad if those who have had larger opportunities would correct us if we are mistaken, or add to our information if right.

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ARTICLE

* "We dissected and examined the radial nerve; but, as we fully expected, not the least diseased appearance could be discovered."

ARTICLE 13.—*Account of Three Cases of sudden Death, with the Appearances on Dissection, and some additional Observations, by THOMAS CHEVALIER, Esq. F. R. S. Surgeon to the General Westminster Dispensary, and Surgeon Extraordinary to the Prince of Wales.*

In these three cases no appearances of disease could be discovered; but the heart was in all found destitute of blood, yet not contracted. A similar case is extracted by our author from Bonetus, and another from Morgagni. Some judicious observations follow of Mr. Chevalier's; and two cases are related by Mr. Wood, in which the previous symptoms were somewhat analogous, but relieved by vol. alkali and other stimulants.

ARTICLE 14.—*Case of Intus-susceptio, with Remarks. By THOMAS BLIZARD, Esq. F. R. S. Surgeon to the London Hospital.*

Our readers will recollect, or may turn to a paper in our Journal, No. 35, for January 1802, by Dr. Hull, of Manchester. In this the ingenious author (page 32), refers to a paper in the second volume of Transactions of a Society for Medical and Chirurgical Improvements, where a substance is described resembling gut, about a yard long, discharged by a patient under symptoms of colic and dysentery. This substance being accurately examined by Dr. Baillie, was admitted to be a portion of colon. In this Dr. Hull is ready to agree; but these two physicians differ in the probable manner in which the continuity of the intestinal canal was preserved after so large a defalcation. Dr. Baillie conceived that under high inflammation, ending in mortification, coagulated lymph was thrown out, surrounding the inflamed part, and when the mortified part was separated, that the cavity was preserved by this coagulated lymph, which retained the tubular form of the intestine it had before surrounded. Dr. Hull, whilst he admits the advantages Dr. Baillie has over him, from his extensive opportunities of seeing diseased dissections, expresses his dissent with much modesty; and from analogous cases which were examined after death, and are recorded by different writers, does not scruple to give it as his opinion that the disease was *Intus-susceptio*; that the incarcerated part mortified at its extremities was cast off, and that the continuity of the canal was preserved by an adhesion at the divided extremities of the containing gut, with the parts immediately contiguous. In the succeeding Number of our Journal, is contained a most valuable, though short paper, from Dr. Baillie, in which that gentleman, with a candour which distinguishes his every transaction, makes no scruple to admit the greater probability of Dr. Hull's opinion, particularly as it is supported by cases strongly analogous, and in which the parts were examined after death.

The case contained in Sir W. Blizard's paper, now in order before us, is of a child, who after the usual symptoms of constipated bowels, died. On dissection, six inches of the intestinum ileum, the
cæcum

cæcum with its appendix, and ascending colon with its transverse flexure, were found compressed within the sigmoid flexure of the colon extending to the rectum. The rest of the intestines were little altered, but the intus-suscepted parts were in a complete state of strangulation, and black. "Had the child's constitution," continues Sir William, "been able to sustain the separation, inflammation might no doubt have produced an union of the ileum with the lower part of the colon; the continuity of the canal would thus have been preserved, the separated part might have passed with the fæces, and the child have recovered."

Sir William then refers to Dr. Baillie's paper, and makes the same apology for differing from him, that we have seen made by Dr. Hull. In a note it is added, that he, (Sir W.) was not aware, when he wrote his paper, that Dr. Hull had in the Medical and Physical Journal, "adopted a similar view of the point in question."

On this occasion we cannot help remarking, that for some years past, it has been too much the custom of metropolitan practitioners to undervalue *medical reading*. Perhaps Mr. Hunter may be chargeable with first introducing, by countenancing this fault. It is well known that gentlemen *read* but little; and if any other physiologist should *do* as much as he has done, perhaps we may make the same excuses for him. However, justice to that celebrated character, obliges us to remark, that whenever he wrote, he has shown himself careful to collect the opinions of his predecessors. It must be admitted, that for men in full practice, this would be a difficult task, and perhaps, if it were always required of them, we might lose many valuable facts and observations which we now possess in a crude state. Nor can we, on this occasion, fail to mention the advantage which medicine has derived from our hazardous, but as it has proved, fortunate undertaking. By means of our Journal, the most important facts have been not only circulated several years sooner than they could otherwise have been generally known, but any inaccurate conclusions have been noticed; and as we see in the remarks of Drs. Baillie and Hull, corrected with equal celerity, and perhaps with greater precision than any other means could have accomplished.

ARTICLE 15.—*Description of Two Muscles surrounding the membranous Part of the Urethra.* By JAMES WILSON, Esq. F. R. S. &c. and Vice President of this Society.

"In my lectures on the organs of generation, I have, for these last ten years, demonstrated to the students attending in Great Windmill Street, two very distinct fleshy bellies belonging to muscles of a triangular shape, united below by one common tendon, but each having a separate tendinous attachment to the inside of the symphysis of the pubes, and which are so placed as to surround the membranous part of the urethra. The tendon belonging exclusively to each muscle, is at first of a round shape, but soon be-

comes, flattened as it descends; it is affixed to the back part of the symphysis of the pubes; in the adult, about one-eighth of an inch above the lower edge of the cartilaginous arch of the pubes, and nearly at the same distance below the attachment of the tendon of the bladder; to which, and to the tendon of the corresponding muscle, it is connected by very loose cellular membrane. The tendon descends at first in contact with, and parallel to its fellow; it soon becomes broader, and then sends off fleshy fibres, which also increase in breadth, and when near to the upper surface of the membranous part of the urethra, separate from those of the opposite side, spread themselves on the side of the membranous part of the urethra through its whole extent, then fold themselves under it, and meet in a middle tendinous line, with similar fibres of the opposite side. One extremity of this common tendon is connected with the posterior part of the tendon joining the *acceleratores urinæ* muscles, and which, in the perineum, joins also with some of the fibres of the *sphincter ani* and *transversales perinei* muscles.

“The line of tendon connecting the two bellies of these muscles, is in general very distinctly seen running from the apex of the prostate gland, along the under surface of the membranous portion of the urethra, until it enters the *corpus spongiosum penis*. Sometimes, however, it is more faintly marked, and the fleshy fibres then appear to be continued into each other.”

One effect of the attachment and course above described, the author very reasonably remarks, must be to draw the membranous part of the urethra upwards, so as to compress it against the inside of the cartilaginous arch of the pubes, another to diminish or even close the urethra at that part.

“It is well known that the part where the membranous portion of the urethra joins the penis, is naturally the narrowest part of the canal; it is at this part that the chief impediment is felt, in irritable urethræ, to the introduction of any instrument; and here strictures generally begin to be formed. The contraction of these muscular fibres must occasionally increase the difficulty, and sometimes of itself produce it. When bougies have been introduced into very irritable urethræ, and have been permitted to remain in them a few minutes, I have often observed, on their being withdrawn, that they were much flattened at that part which lay in the membranous portion of the urethra. This could only be occasioned by the muscles, which in the perineum are connected with the middle tendon of the muscles now described, contracting at the same time, rendering the perineum a fixed point, and thereby obliging the fibres of the muscles surrounding the urethra, to form in their contraction a straighter line, and thus to compress the sides of the urethra more than the under part, and by this means to change the urethra from a circular to an elliptical form.

“Knowing,” concludes our author, “that such muscles exist, we shall not hastily infer, that a permanent stricture of the urethra is formed, because we cannot immediately introduce a bougie or catheter.

catheter. We shall therefore avoid using those remedies, which, though adapted to the cure of a stricture attended with a morbid alteration of the urinary passage, would, in a case arising from contraction only of these muscles, prove injurious to our patient. In cases of retention of urine, where no instrument will enter the bladder, we shall be induced to persevere in the means best adapted to overcome a temporary but forcible contraction of muscles, which is constant, but which are seldom thrown into such strong action. When this has been done, our second attempt to draw off the urine will probably succeed. It is my wish here, however, to point out an arrangement of muscular fibres till now overlooked, not to reason on such arrangement."

This truly valuable paper is accompanied with an engraving to illustrate it. We shall only remark, that the sphincter vesicæ, and the muscular fibres of the urethra, are more easily talked of than demonstrated. The muscles above described cannot hereafter escape the notice of any diligent anatomist, and every practical surgeon will keep them in view, whenever he meets with difficulties in passing an instrument of any description, especially in that part of the urethra.

ARTICLE 16.—*Case of Tumour in the Brain, with Remarks on the Propagation of Nervous Influence.* By JOHN YELLOWLY, M. D. Physician to the London Hospital.

This case furnishes the basis of a very long dissertation, we shall give it therefore at full length, as the text of the paper.

"David Thomas, a man of a fair complexion, and of about thirty-six years of age, became my patient in the General Dispensary in December 1806, on account of a slight paralysis of the right side, and a distortion of the left eye. He had been subject, for twelve months before, to occasional severe attacks of pain of the head, shooting from behind forwards; and about six weeks previous to my seeing him, he was surprised, on awaking in the morning, to find his left eye drawn inwards, and his vision double. In two or three days more, his right hand became weak; and this was gradually followed by weakness, and afterwards by numbness of the corresponding leg and side; and by a slight stammering, and a small degree of distortion of the mouth.

"These symptoms continued when I first saw him, with some degree of head-ache, and his pulse about sixty-eight, and rather weaker in the affected than the sound arm. In other respects he was in his accustomed state of health. The left eye was drawn towards the nose, but the pupil was in its usual state of sensibility to light. The double vision continued. All voluntary power over the abductor muscle was lost; nor did the affected eye, as in common cases of strabismus, recover its usual position on shutting the sound one. He had been purged and blistered by a gentleman well versed in the treatment of complaints of the eye, when the distortion

tortion first came on; but he ceased to be under his care on the paralysis supervening.

"In little more than a week from the time of my first seeing him, he became at first slightly, and then considerably affected with convulsive motions of the whole body. These recurred at more and more frequent intervals, he became gradually less and less sensible, and died in about twenty-four hours from their commencement. I saw him a few hours previous to his death. He was then in a state of insensibility, with his eyes suffused, his pulse weak, frequent, and fluttering, and his respiration laborious. The distorted eye had recovered its usual position a few hours before, and the pupils were insensible to the action of light.

"On dissection, the brain was found to be of an unusually firm texture, with about half an ounce of water in the ventricles. There was no diseased appearance in the right side of the head, but in the left, a tumour was discovered on the tuberculum annulare, which my friend and colleague Mr. Thomas Blizard, surgeon to the London Hospital, did me the favour to examine with me. It was about the size of a hazel nut, and was lying on, and sunk into the tuberculum, at its posterior part, on the left side. It extended to the corpus pyramidale of the same side, pressing upon, and entirely obscuring the left abductor nerve. The tumour was closely connected with the basilar artery, half an inch from the union of the vertebrals to form it; and the coats of this artery had become so tender, that they readily gave way from the application of a probe, which passed through the tumour. The tumour was in a state of imperfect suppuration, and a small coagulum was formed on the diseased part of the artery, similar to what is found in aneurismal arteries."

"The tumour now described, agreed very much in nature with those, which various authors on the subject of morbid anatomy have mentioned, as being occasionally found in the brain. It seemed to be of a scrophulous nature, and its appearance and imperfect suppuration were analogous to those of scrophulous tumours, formed on the surface, or in any of the cavities of the body. The pressure which it made on the tuberculum annulare and medulla oblongata, there appears to be no doubt, gave rise to the pain of the head, the strabismus, the gradual production of paralysis, and the convulsions which occurred in the latter period of the patient's life. The distortion of the left eye towards the nose, was the necessary consequence of the nerve being affected, which gave energy to the abductor muscle of the eye; and as it arose from the preponderating influence of its antagonist, the adductor, it went off at that period, near the close of life, when the whole nervous system became in a great degree inert.

"The pressure which was made on the basilar artery, had produced a considerable thinness and tenderness in its coats, so as to make them readily give way, on the application of a probe. Had this gone on a little further, the patient must have lost his life by
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the vessel giving way, from its inability to resist the pressure of the column of blood which passed through it."

The combined circumstance of the paralytic symptoms on the *right* side of the body, and in a muscle of the *left* eye, apparently arising from a compression on the *left* side of the brain, have led the author into an enquiry concerning the propagation of nervous influence from the brain and spinal marrow, to the muscles of different sides. The structure of the spinal marrow and the effects of injuries it sustains, are first considered according to the opinion of different anatomists.

Haller, it is observed, in one part of his writings, speaks of the same side of the body on which the spinal marrow has suffered an injury as becoming paralytic; in another place it is shown, that he describes the opposite side from that in which the spinal marrow has been affected as paralyzed. From hence our author concludes, that Haller's remarks are not founded on his own observations.

Soemmering observes with the former writer, a decussation of medullary fibres in the medulla oblongata, immediately below the ninth or lingual nerves. He speaks of injuries to the spine as affecting the side of the body, in which the injury has happened; yet, in another passage, he conceives it highly probable that the fibrils of the spinal nerves, every where belong to the side of the body, opposite to that in which they are dispersed.

Sabatier merely describes the two columns of which the spine is composed.

Vicq d'Azyr's remarks go principally to show a communication between the two columns into which the medulla spinalis is divided.

Having shown the difficulty of learning any thing from the physiological speculations of former writers, Dr. Yellowly proceeds to inquire how far experiments, observations made in disease, or the structure of analogous parts in other animals may direct us.

Galen, it is observed, gives what appears the result of experiments, by which it was found that if the spinal marrow was divided longitudinally, none of the nerves on either side were paralyzed. If transversely, that then the nerves only directly below the division were paralyzed. On this the ingenious author of the paper very justly remarks, that if there really exists a decussation of nervous filaments from one side to the other, a wound either longitudinal or transverse, however partial, must wound either the origin or ramifications of the nerves on both sides, and consequently should produce paralytic symptoms on both sides.

Some instances are cited of natural structure in some animals, and peculiarities in individual human spines, in which water has been found in a species of canal in the middle of the spinal marrow. Under such circumstances it is remarked, that if there really existed a propagation of nervous influence by decussation of nervous fibres, it must have been interrupted. In insects it is found that the two sides of the medulla oblongata are separate throughout
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their whole extent. All these facts and analogies seem to contradict any decussation of nervous fibres from one side to the other.

It is next remarked, that some instances have been known of persons wounded in the spinal marrow, who have lived for a considerable time without any paralytic affection. In such cases, it is added, that probably the medulla spinalis was divided longitudinally and not transversely. Before we offer our opinion on this question we must be satisfied of the fact, for we are quite of opinion with our author, that "it is difficult [not merely] on the principle of decussation, [but from every fact we have witnessed] to conceive a wound in the spinal marrow in any direction, which would not have the effect of dividing a part of the medium of nervous communication."

A case is mentioned, witnessed by several medical gentlemen, in which a tumour, found after death, pressing on the *left* side of the dorsal vertebræ, produced several anomalous symptoms and severe pains on the *left* side of the abdomen, and, a short time before death, paralysis greater on that side than on the right.

To ascertain how far Galen's account might be depended on, Mr. Astley Cooper was prevailed upon to divide one half of the spinal marrow of a dog transversely. The division was made on the right side. The animal at first appeared dead and rigid. In the course of a few minutes he recovered so far as to breathe, but the elevation and depression of the ribs seemed confined to the *left* side. When laid on his back, it was found that the extremities on the *left* side were stiffer than those on the right, and that on bending them they immediately recovered their position. The extremities on the right side were more flaccid, and remained in the posture in which they were placed.

When the animal turned himself, it was entirely by the exertion of his *left* side. When he attempted to stretch himself, he succeeded on the *left* side: he barked slightly. The muscles of his head and the organs of sense seemed to retain their power; he appeared to swallow. The flaccidity of the side on which the operation was performed seemed to increase, but he recovered the power of moving his tail. On the following morning he had convulsions in both, but principally in the wounded side. On examination after death, slight marks of inflammation appeared, and the operation was proved to have been accurately performed. This experiment confirms one part of Galen's assertions, viz. that wounds in the one side of the spinal marrow affect the same side of the body or extremities.

The similarity of structure, observes Dr. Yellowly, in the medulla spinalis and oblongata, renders it probable that the same laws obtain in both. But some experiments of M. Lorry seem to prove, that a wound in one side of the medulla oblongata produces paralysis in the other. Objections are, however, made to M. Lorry's experiments, both on account of the natural structure of the animals (pigeons) on which they were made, and also from the difficulty of conducting such experiments with sufficient accuracy. As it is found that the tongue, the velum pendulum, and
occasionally

occasionally the muscles of deglutition, are affected in paralytic cases on the same side as the other voluntary muscles, it is conceived a fair pathological inference, that the medulla oblongata and spinalis follow the same law; that is, the parts are affected on the same, not on the side different from that on which the injury is received.

The effects of pressure on either hemisphere of the brain, has been since the days of Hippocrates, for the most part, admitted to produce paralysis on the opposite side. Whether the same takes place in the cerebellum is not so easily ascertained, as that part is rarely injured without so much mischief induced in many parts of the brain, as to preclude any certain conclusion.

Having made these general remarks, our author is lead again into the inquiry concerning decussating fibres, and the result is about as uncertain as before. Much information, it is remarked, might be gained by a minute attention to the effect which pressure in particular parts of the brain might produce on particular nerves. We heartily agree with this proposition, and sincerely wish that this paper was enriched with more experiments than we find it. By these only can we arrive at any explanation of "an unaccountable circumstance" remarked by Dr. Y. that the senses are in general but little affected in this complaint. Even those nerves which are concerned in mere motion, as the 3d, 4th, and 6th pairs, which go to the muscles of the eyes, have their power but little affected." These and many other apparent paradoxes remarked in this paper, can only be solved by repeated and very accurate experiments.

"The brain," continues Dr. Y. "has a remarkable power in accommodating itself to gradual derangement; and in cases where deposition has been made, or growth taken place by slow advances, the act of absorption on the substance of the brain itself, seems to keep pace with the alteration of circumstances, and thus to prevent any undue or irregular pressure."

Yet it must be remembered, that the case related in the beginning of the paper, and which has given rise to those inquiries, seems to have been a gradual formation, and to have proved fatal before any considerable enlargement occurred.

"It seems to be a salutary provision of Nature, that while those parts of the body which are concerned in voluntary motion, are affected in paralysis, through the medium principally of the spinal nerves, those which supply organs immediately concerned in the preservation of life, are connected as well with the brain as with both sides of the spinal marrow. The great sympathetic nerve, by this connection, and by the number of ganglions which occur in the course of it, (which seem to afford an additional source of nervous influence) is well adapted for preserving, in the vital organs, a species of security against that partial interruption to the propagation of nervous influence, which takes place in paralysis."

Yet we find in Mr. Cooper's experiment on the dog, the muscles of respiration, a function most important to life, were very materially

terially affected by the operation. At the conclusion of the paper, notice is taken of Drs. Gall and Spuzheim's memoir, of which we gave an account in one of our former Numbers, and the passage quoted in which those gentlemen remark the communication by means of nervous filaments between the two cords into which the medulla oblongata is separated. In answer to this, it is very justly remarked, that this proof of decussating fibres will not materially affect the reasoning.

"If we find (says our author) that pressure on the opposite of the brain will affect such nerves as are sent out from the medulla oblongata, above the place where this appearance of decussation is seen, it seems to be evident, that the decussation occurring at this place, and confined to a very small portion of the thickness of the whole column, is not the means by which the phenomenon is produced.

"Should the portio dura of the auditory nerve be affected in paralysis of the face, additional force is given to this argument; since it has been proved, both by the authors of the memoir, and by the committee to whom we are indebted for the report, that this nerve arises from the medulla oblongata, near its union with the pons Varolii, and not from the crus of the cerebellum."

We have endeavoured to do justice to this paper, on account of the evident pains which it must have cost the author, as well as on account of the obscurity of the subject. But, we cannot help again recommending *agere plus quam scribere*. By experiments well conducted we may determine something; by reasoning without them, nothing; and though quotations from Aræteus and Galen may show the learning and industry of a writer, they at the same time show the slow progress of the art, if we are to depend on writers of that date for facts which we can ascertain ourselves.

ARTICLE 18.—*Case of a Fœtus found in the Abdomen of a Boy.*

By WILLIAM GEORGE YOUNG, Esq.

Of this very curious case, we shall only remark, that the subject containing the fœtus was born apparently in good health; that he lived about nine months; during which time every circumstance proves that the fœtus lived and grew. The latter was imperfect in so many respects that it could not have existed an hour, removed from its nidus. In other words, it had no means of supporting its own existence, which was only preserved by communicating vessels with its brother.

A fact so well ascertained, may induce us to believe a story long current in France, and within these few years repeated in one of their Journals, of a youth who lived to the age of puberty with a brother gradually increasing in his abdomen. These cases are very curious; but as they never can furnish any practical information, 'tis enough that they are recorded.

(To be concluded in our next.)

A Treatise

A Treatise on local Inflammation, more particularly applied to Diseases of the Eye, wherein an Improvement in the Treatment of those Diseases is recommended. By J. B. SERNY, M. D. Oculist. 8vo. pp. 128. London, 1809.

THE practice of separating the several branches of medicine and surgery appears to be gaining ground in the more civilized parts of the world; though, doubtless, there will always be found some practitioners in all countries who will not scruple to profess every branch. Such a separation of the science is well calculated to promote the improvement of it, and this has actually been found by experience to be the case. The public at large, as well as the profession itself, always give a marked preference to those who confine themselves to particular lines of practice. We remark this more especially in diseases of the Eyes and Teeth; and in those cases where great dexterity of operation is required. Hence arises the rational preference given to hospital surgeons in the performance of the great operations of surgery.

As the organs of vision are the most wonderful parts of our frame, and the instruments of our most important sense, so the diseases of them have always formed a very important branch of medical practice. Our author appears to have devoted much attention to the subject which he has chosen for the exclusive line of his practice, but we think he has been unnecessarily anxious to establish his theoretical opinions. Medical theories are not now the order of the day. The systems of Galén, Stahl, Hoffman, Cullen, Brown, or Darwin, are little regarded by the generality of practitioners, and Dr. S. can scarcely expect better success than these popular theorists.

He commences his Treatise with the theory of local inflammation; and in order to simplify the subject as much as possible, he assumes the inflammation consequent upon a slight bruise, and examines what takes place in and near the part injured. In order to develop the proximate causes of this affection, (for he rejects the common notion of one proximate cause, as being insufficient to explain appearances) he enumerates the following symptoms or events, as taking place in a simple contusion, viz. redness, throbbing, heat, swelling, pain, and various kinds or successions of discolouration. His manner of explaining or accounting for these events, as well as for those which take place in the progress of the cure, constitutes his theory, and is the most original part of his work. As it appears to him to be of great practical importance to elucidate his ideas on this subject fully, he has devoted no less than forty-four pages to it; and after a particular explanation of each part, he recapitulates the substance of his theory of inflammation, by whatever cause produced, to the following import. "A local inflammatory affection occasioned by cold, checked perspiration, violent exercise, &c. is at first produced by an increased
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impetus of blood to the part, which is become vicarious, for the time, of the whole system, (in this respect differing from those inflammations occasioned by external applications or violence) and this inflamed part, if restored to health by resolution or absorption, will run the following course, in about fourteen stages or different actions. 1st. An increased impetus of blood to the part to be inflamed. 2d. Congestion there in consequence. 3d. Laceration of minute vessels, which is the origin of the pus. 4th. Effusion and swelling in numerous incarcerated cavities. 5th and 6th. Intercepted circulation, with an increase of heat. 7th. The vicarious actions of enlarged and elongated vessels, with redness round the part. 8th. The contraction and healing of the lacerated vessels. 9th. The absorption of the serum of the blood effused. 10th. The death and decomposition of the effused and incarcerated red globules. 11th. The absorption of the same when pus is not formed. 12th. The gradual contraction and obliteration of the vicarious vessels near the part affected, and the disappearance of the redness. 13th. The reproduction of entirely new vessels; and, finally, the complete restoration of the circulation, and the perfect cure of the inflammation.

"The intercepted circulation (5) and increased heat (6) are multiplied or augmented in the very same parts, by two causes. The first, by the vessels becoming impervious through a loss of continuity or laceration of their extremities, producing an effusion and intercepted circulation: and, secondly, this effusion occasioning an additional compression on other minute arteries circumscribing it, and further interrupting the course of the arterial blood in this part.

"The 7th, 8th, 9th, 10th, and 11th stages of local inflammation, from whatever cause, may take on the absorptive or suppurative action; although they are both nearly the same internally, yet forming some external distinguishing characteristic appearances. I mentioned above the absorptive, but in the full suppurative, instead of the lacerated vessels continuing to form many small, detached, incarcerated cavities, containing their respective quantity of effusive fluid, they soon communicate with one another, and forming at last one common, large, swelled cavity. Thereby, during that action, increasing the effusion, and laceration, with increased pain: shewing all the symptoms of a circumscribed inflammatory tumour. The solids of the internal surface of which tumour, undergo several actions or changes, and so also do its contents (5, 6, 7, 8, 9, 10); and upon which internal surface, new vessels spring up called granulations, in proportion as the vicarious vessels are obliterated. So that these new granulations, by becoming very numerous and thick, force the contained fluid in the cavity, called an abscess, to break through the external integuments which have lost their texture. And these granulations (13) continue, and must continue, till the complete obliteration of the vicarious vessels (12) has been perfected; and thereby
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the circulation through the injured part restored (14) The circulating equilibrium will then be re-established, and the cure completed, as far as the nature of the injury committed will permit."

Here the author ends his abridged Sketch of the 'proximate and accessory' causes and stages of inflammation; and he contends, that in the cure of such affections, it is of material importance to keep these several actions or events in view. This he exemplifies in the treatment of the inflammations of the eye in the practical part of his work, which immediately follows.

The diseases which he has selected are,—1. *Ophthalmia*; in the treatment of which, besides the usual antiphlogistic plan, scarifications, &c. he recommends two very different external applications during the night and the day. The nightly cataplasms are only to be continued till the tension, pain, and throbbing are relieved, which he observes they do by their anodyne and emollient powers. The other external applications are, mild tonic lotions, employed frequently, and cold; the light being partially excluded by a shade during the day.

"Let this remark," he says, "be particularly remembered, that whoever has his eye or eyes covered up day and night, even for a short time only, may have the transparency of the *cornea* destroyed, by the matter confined between the eyelids so corroding it as to form a thick speck, sufficient to exclude the rays of light. This observation alone, I am confident, if duly attended to, will prevent the blindness of thousands."

He then proceeds to inflammations of the eye produced by blows, wounds, punctures, or acrid substances, and thinks the Egyptian ophthalmia belongs to the last species, and produced by acrid effluvia emanating from persons labouring under the disease.

On the subject of cataract he has bestowed particular attention; he has detailed the causes, symptoms, preventive cure, and operations of depressing and extracting the lens, with a precision and discrimination that, we think, will entitle him to the thanks of junior oculists.

For the other diseases of the organs of vision, we must refer our readers to the work itself; but we think it due to Dr. S. to notice, that he has particularly merited the thanks of the profession for his ingenious suggestions respecting the treatment of specks on the cornea.

Report of the Diseases of Edinburgh for June, 1809.

By JOHN ROBERTON, M. D.

During the first third of the month the weather was generally soft, occasionally intermixed with some good days, and we had also during this period some falls of rain.

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From this till near the beginning of the last third, the weather was very variable, with some hard gales of wind. It then improved remarkably, and we had some excellent days, when it again became cloudy and moist till the termination of the month.

The barometer, which was low at the beginning of the month, rose about the end of the first third of it; it then continued to vary till near the end of the month, when it again fell.

The thermometer varied considerably, being sometimes so low as 40, at other times as high as 70, of Fahrenheit's scale.

The diseases of this month have been neither numerous nor severe. They have principally been of a slight inflammatory sort; some cases of ophthalmia, catarrh, a sort of influenza, and fever.

The late alarming violence of inflammatory complaints has now abated, as scarcely any cases of great severity have occurred in practice since the commencement of the month.

Ophthalmia, though neither very prevalent nor of great severity, has appeared in some parts of the city. I have repeatedly observed, as I stated on a former occasion, that the severity of this disease is greatly increased when it occurs in persons of a scrofulous habit of body: indeed, on the present occasion, it is only in such that it is at all conspicuously severe. Where this habit of body prevails, the treatment must be very different from what is proper under other circumstances. Instead of any of the common cooling solutions, we must use those of greater activity. The holding the eye lids open and blowing into the eye a quantity of tincture of opium, or the introduction of a quantity of any kind of stimulating ointment between the eye lids, seems to be the only practice from which we are entitled to expect benefit. In very slight cases, simple bathing of the affected eyes with any kind of ardent spirit generally effects a cure; but, in those of very great severity, when vessels of considerable magnitude run over the ball of the eye, the only successful practice is to divide the vessels; and afterward employ such of the above applications as shall seem of greatest benefit.

Catarrh has prevailed rather extensively, and, in some instances, severely, especially when combined with cyananche tonsillaris, which has lately happened in various instances. Bleeding and purging, with the use of gargles, however,

however, usually effected a perfect cure of these complaints.

A sort of influenza has lately made its appearance in this city. It too often appeared in combination with cynanche or catarrh, which rendered the cure of either of these affections much more tedious than they otherwise would have been. In some forms of this disease, it appeared, from the seemingly inflammatory state of the system that blood-letting might be of service; but the great debility which instantly followed this practice, prevented its being repeated or at all permitted. A disposition to faint remained with some patients for several days after such practice, and the debility was not in general recovered from in some instances even for two or three weeks. The most advisable practice seemed to be the administration of gentle saline purgative medicines, the application of blisters, and the use of a pill (of which I have frequently had occasion to take notice) composed of squills, g. ammoniac, myrrh, and a small proportion of opium. In all the cases which have come under my observation, I have found these means effect a perfect cure.

Fevers still continue to form a considerable part of the list of diseases. I think, of late, they seem to have prevailed with greater violence among children than in adults, and their consequences have in many instances been fatal.

Various are the forms which hysteric affections have assumed in different individuals, which have rendered the nature of this disease apparently complicated and perplexing. Two curious cases occurred to me sometime ago, both of which puzzled me very much; I shall briefly relate them both. The first was of a lady of about 40 years of age, stoutly made. She was suddenly seized with violent inflammation in the throat, and hoarseness, without any apparent cause: she applied to me, and I prescribed for her saline purgative medicines, and a gargle of diluted sulphuric acid; but, although she continued the use of these for several days, her complaint did not abate. From the character of the lady, and conversation with her husband on the subject, I had no reason to believe that the complaint was venereal, although in some respects it had something of that appearance. I directed a large blister to be applied to the throat, and the other prescriptions to be continued, but still her complaint was undiminished in severity. I was now much at a loss how I ought to proceed, when one day she told me that for the first time she that morning felt something rolling in her breast like

a ball, and that it rose to her throat and had nearly suffocated her. I prescribed for this symptom, assafoetida and opium, and, to my utter astonishment, the inflammation in her throat was next day nearly gone, and the following day it was completely removed. She had frequent returns of this inflammation, though not nearly in such severity, and the assafoetida and opium uniformly removed them.

The other case was that of a lady about 30 years of age, of a delicate habit of body, who was evidently of a consumptive habit. For six or seven years she had been frequently troubled with a prickling sensation almost amounting to pain, in the soles of her feet, which, for several weeks together, often prevented her from putting her feet to the ground. Before I saw her, she had used sinapisms and blisters, electricity, and a variety of other external applications, from which she obtained momentary relief. She informed me, that during the intervals in which the prickling sensation left her, she was affected with other complaints, which, from her description, were evidently hysteric, and that all her complaints were much aggravated when her mind was in any way violently affected. I prescribed for her the volatile foetid spirit, which completely removed these affections. She died soon afterward of phthisis pulmonalis.

No. 12, Princes Street.

*An Account of Diseases in an Eastern District of London
from June 20, to July 20, 1809.*

ACUTE DISEASES.		Menorrhagia Difficilis - 6	
Typhus - - - - -	2	Obstipatio - - - - -	3
Scarlatina - - - - -	4	Dysuria - - - - -	4
Variola - - - - -	1	Nephralgia - - - - -	2
Rheumatismus Acutus	2	Rheumatismus Chronicus	7
CHRONIC DISEASES.		PUERPERAL DISEASES.	
Tussis - - - - -	12	Peritonitis - - - - -	1
Dyspnœa - - - - -	4	Abscessus Mammæ - - -	3
Tussis cum Dyspnœa -	8	Menorrhagia Lochialis	5
Phthisis Pulmonalis -	4	INFANTILE DISEASES.	
Hepatitis Chronica - -	3	Pertussis - - - - -	7
Hydrothorax - - - - -	4	Convulsio - - - - -	2
Anasarca - - - - -	5	Febris Mesenterica - -	2
Diarrhœa - - - - -	3	Aphthæ - - - - -	4

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The whooping cough has for some time been very prevalent, and in many instances very obstinate. This disease is of so frequent occurrence, and the symptoms of it are so well known, that there is no danger of its being mistaken for any other.

For these reasons it is generally managed by mothers or nurses, and but a small proportion of these cases come under regular medical treatment. By the interference of some friend, a fashionable or favorite remedy is introduced, and if the child recovers, every thing is attributed to this. It is, however, very certain, that in this, as well as in many other complaints, a varied mode of treatment is necessary in different temperaments, in different stages of the disease, and under the various circumstances which occur in the course of it. That this cannot be understood by persons in general is too evident to be denied or even questioned: it can only be known by those whose profession and habits lead them to take a comprehensive view of the subject. If there be any article of the *materia medica* which deserves the title of an infallible cure, or even of a specific remedy in the disease referred to, the probability is that such persons would be acquainted with it; but they know too much of the nature of the disease to pretend to any such discovery. They are aware, however, that in many cases, if their assistance were requested at an early period of the complaint, many of the symptoms might be mitigated, and much of the ill consequences attending them might be prevented.

INTELLIGENCE.

The following article we select from the last Number of the Monthly Magazine. From the respectability of that Publication we presume it has not been inserted without authority.

"We have great pleasure in presenting our readers with a test of security, in regard to persons who have undergone Vaccination, and who may be made uneasy by the false and interested alarms of malignant persons. Let a patient be selected on whose arms the vaccine pustules have *regularly* advanced to the 7th, 8th, or 9th day. From one of these pustules, let the subject intended to be put to the test of security, be re-vaccinated, and at the same time, and with a portion of the same vaccine fluid, let another child, who never has had either the cow-pox or the small-pox, be also vaccinated. On the arms of the child put to this test, if it was previously

previously secure, the virus will produce in a short space of time, (two or three days perhaps), an inflammation around the parts punctured, and sometimes small irregular vesicles, accompanied with itching, which commonly dies away, long before the regular pocks on the arms of the child that had not been before secured, arrive at maturity. The reason why Dr. Jenner recommends the vaccination of a child not in a doubtful state, with the one whose situation may be supposed doubtful, is to prove to a certainty, that the vaccine fluid employed, is in a state of perfection. The insertion of variolous matter by way of test, in the early periods of the vaccine practice, was adopted and recommended by Dr. Jenner; but although it did not produce the small-pox on those previously vaccinated, it sometimes occasioned very extensive and troublesome inflammation on the arms."

Dr. Wollaston has been led, by Mr. Davy's experiments on the separation and transfer of chemical agents by means of the Voltaic apparatus, to imagine it probable that animal secretions are effected by the agency of a similar electric power. In this opinion he is supported by the following experiment.—He took a piece of glass tube about three quarters of an inch in diameter, and nearly two inches long, open at both ends, and covered one of them with a piece of clean bladder. Into this little vessel he poured some water, in which had been dissolved $\frac{1}{24}$ of its weight of salt; and after placing it upon a shilling, with the bladder slightly moistened externally, he bent a wire of zinc, so that while one extremity rested on the shilling, the other might be immersed about an inch in the water. By successive examination of the external surface of the bladder, he found that even this feeble power occasioned soda to be separated from the water, and to transude through the substance of the bladder. The presence of alkali was discernible by the application of reddened litmus paper, after two or three minutes, and was generally manifest even by the test of tumeric before five minutes had expired. This experiment tends to confirm the conjecture that similar agents may be instrumental in effecting the various animal secretions which have not yet been otherwise explained. The qualities of each secreted fluid may hereafter instruct us in the species of electricity that prevails in each organ of the body.

M. BOULLAY, of Paris, has invented an improved process for preparing sulphuric ether, which he describes as follows:—To a large tubulated glass retort placed on a sand heat, I adapted a glass worm immersed in a vessel of cold water. The extremity of the worm was inserted in the neck of a large bottle, between which and a second bottle filled with water, a communication was established by means of a siphon. Into the retort I introduced 22lbs. of sulphuric acid, concentrated to 66°. In the tubulure was inserted a particular kind of funnel with two cocks, so that its pipe descended nearly to the bottom of the retort, passing through the sulphuric acid: 22lbs. of alcohol at 36° of Beaumé's areometer were then poured in quickly, being conveyed through the acid by means

means of the funnel. The mixture was very well effected; the distillation was kept up by means of a fire under the retort, and as soon as about 4lbs. had passed over, 22lbs. of fresh alcohol, at 40° were introduced, drop by drop, regulating the quantity as nearly as possible by what passed over into the receiver. The process was continued so as to obtain 33lbs. of a fine white limpid product, of the most agreeable ethereal smell and taste, containing no traces of sulphurous acid, and yielding, when rectified on a water bath, 17½ lbs. of pure ether, with some alcohol of an ethereal smell, well adapted for future processes. The residuum consisted of nearly the whole of the sulphuric acid employed, some alcohol, water, and probably a certain quantity of ether completely formed; and might be used as sulphuric acid where the alcohol could do no harm, as for instance in forming different salts.

The following account of the recent eruption of Mount Etna, in Sicily, has been transmitted by an eye-witness:—On Tuesday, the 27th of March, the inhabitants of the neighbourhood of the mountain were frightened by repeated and violent shocks of an earthquake; these were soon followed by immense volumes of ashes and other volcanic matter, thrown up from the mouth of the crater to a great height, so as to darken the sky, and to fill all the environs with ashes, Messina not excepted, which lasted five hours and a half. This, however, was only a prelude. On the 28th, towards evening, the fiery matter forced its way through two apertures below the crater, and was thrown up to a prodigious height. The flames and red-hot stones afforded a most sublime spectacle. On the 29th, and following days, upwards of twenty different apertures were formed in different parts of the mountain, from all which the eruptions of fire and stones in all directions were tremendous. Streams of red-hot lava ran down profusely, and in their descent destroyed every thing at a touch. A fine chesnut wood, several extensive olive plantations and vineyards, became instantly a prey to the liquid element. Upwards of twelve square miles are inundated by the fiery torrent. Of the many apertures, two in particular continued vomiting fire and lava for several days, and caused the greatest damage. No lives have been lost, although the village of Lingua Glossa was nearly destroyed. A stream of lava approached it within two miles, and would have reached it in its descent, had it not stopped of its own accord. At first the lava travelled at the rate of one yard per minute; about a week ago its velocity was reduced to one or two feet per hour. It is about six miles down the mountain; some of its channels are half a mile in breadth, and 60 to 80 feet deep. Several new mountains have been formed on the base of the old one. No exact estimate has yet been formed of the damage occasioned by the eruption; but the extent and value of the landed property destroyed by it must be very great, and a number of families, who solely subsisted on the produce of their fields, have been reduced to a state of absolute beggary.

Dr.

Dr. RAMSBOTHAM will commence his Lectures on the Science and Practice of Midwifery, on Monday October the 2d, at his house, No. 9, Old Jewry.—These Lectures are illustrated by anatomical preparations, and casts from his valuable Museum, to which the Pupils will have the advantage of free access for individual improvement.—Two gentlemen may be accommodated as house Pupils, who will receive every domestic attention, as well as derive considerable professional advantages.

Mr. J. WILSON, surgeon, late of Guy's Hospital, will speedily publish *Pharmacopæia Chirurgia*, or *Formulae* of the different Hospitals.

NEW MEDICAL PUBLICATIONS.

Reports on the Effects of a peculiar Regimen on Schirrous Tumors and Cancerous Ulcers. By W. Lamb, M.D. 8vo. 5s.

A System of Surgery. By James Russell, F.R.S. Edin. and Professor of Clinical Surgery in the University of Edinburgh, 4 vols. 8vo.

The Vaccine Scourge, No. II. 1s.

CORRESPONDENCE.

We are very glad to find Mr. Ward purposes collecting his scattered remarks on the external use of opium into a pamphlet, which we are taught to hope may appear in the course of the summer. He is perfectly at liberty to avail himself of whatever Remarks our Journal may afford him in the prosecution of his valuable undertaking.

Our Lincolnshire Correspondent cannot expect us to insert his favour in its present form; we have, however, referred it to our Reviewer, who will avail himself of the hints contained in it when the work to which it relates comes before him.

We are much obliged to Mr. Scott for the many useful hints contained in his paper, p. 94, of this Number; but we must be allowed to insert anonymous communications of useful information, provided they do not reflect on any of those names which we are permitted to publish. Mr. Scott may be reminded:

“Scilicet est aliquid cum sævis vivere ventis;

“Ingenio populi convenit ipse sui.”

QVIN.

Though not a fighting man, he may acquire courage from the element in which he lives, and from the heroes who form his society. But the modest youth, who has scarcely emerged from College, and the lectures of his Professor, must be allowed to make his first efforts unknown, though he may hope not unobserved.

We wish very much to call the attention of the Medical Public to the contagious property of certain sore throats, if such is really the case. It is well known that Dr. Pitcairn was seized with the complaint which proved fatal to him about a week after he had been watching with peculiar attention a patient who died under an exactly similar complaint. Our readers will recollect Dr. Ferguson's case, with our remarks, and his polite notice of them. In the middle of the last month died Sir John Macnamara Hayes, of a sore throat, with symptoms in most respects similar to Dr. Pitcairn's, and with a similar appearance on dissection. We cannot learn that he was exposed to a similar disease. We shall be glad of any information concerning analogous cases.

THE
Medical and Physical Journal.

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Abstract of PROFESSOR MITCHILL'S Lectures on the Origin and Constitution of the Atmosphere, as delivered in the New Institution at New York: being a Section of his Course of Natural History.

THIS Course is divided by Professor Mitchill into the following Sections: I. GEOLOGY, or the History of the Earth. II. PHOTOLOGY, or the History of Light. III. PYROLOGY, or the History of Heat. IV. HYDROLOGY, or the History of Water. V. ÆROLOGY, or the History of the Atmosphere. VI. MINERALOGY, or the History of the solid Materials of the Globe. VII. BOTANY, or the History of Vegetables. VIII. ZOOLOGY, or the History of Animals. IX. URANOLOGY, or the History of the Solar and Sidereal Systems, the Zodiac, and the other Constellations.

The view he took of the atmosphere, was founded on Lavoisier's declaration that it was formed by the conversion of different substances to gases by caloric. Four substances commonly present: 1. Azotic gas. 2. Oxygenous gas. 3. Carbonic acid gas; and 4. Inflammable gas. The *metallic* constitution of the atmosphere is stated and maintained by him. The late experiments on the alkalies countenance the idea, that azotic is a *metallic gas*, as quicksilver is a *metallic liquid*. It probably rose first from chaos, and is the oldest, as well as most abundant ingredient of the atmosphere. Its natural and chemical qualities were then explained. 2. Evolution of oxygenous air from water, by sharp points and sun-shine, as shown by Rumford's decomposition of water by metals, attracting its phlogiston (or hydrogen) to themselves, and discharging the oxygen in union with light and caloric into the atmosphere. The atmosphere enlarged, and the quantities of water diminished thereby. Origin of plants, aquatic and terrestrial, and their agency in decomposing water, and replenishing the air with oxygen. Thus

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the atmosphere, by degrees, became respirable, and fit for the economy and life of animals. Eulogy on the Oxonian, MAYOW, and an account of his brilliant discoveries, in an age not prepared to comprehend them. 3. As combustion and respiration could now go on, carbonic acid would be readily formed, and was, in all probability, the third ingredient of the atmosphere. History of carbon, carbonic oxyd, carbonic acid, and carbonic acid gas. 4. Phlogistous gas, the fourth constituent part of the atmosphere. Its history and relations. The strong attraction of its radical hydrogen for metals, sulphur, phosphorus, carbon, and inflammable bodies generally. The material of blaze or flame. Explanation of the thermolamp, or gas lights, which are nothing more than the inflammable gas that forms the blaze, burning at a distance from the fire-brand and ignited coal which affords it, instead of burning in contact with them, or near their surface. Its extraordinary lightness, capacitates it to raise balloons. The history of these heavy bodies elevated by inflammable air. Proportions, of azote, 783; oxygen, 210; carbonic acid gas, 4; and of phlogistic gas, 3, to constitute 1,000 parts of atmosphere; though different experimenters differ somewhat in the respective quantities of each.

Other ingredients in the atmosphere; vast quantity of water; needful to be guarded against in nice experiments, and making a considerable proportion of its ponderable mass. Water, when elevated, carries with it saline and earthy matters. Examples from the saltiness of the air, in maritime situations, made evident to the senses and proved by chemical tests; also demonstrated over and again by MARCGRAFF, BOYLE, BOERHAAVE, and LINNE. Hence, a portion of the earth dissolved in water rises with it, and may be explained without the hypothesis of conversion or transmutation.

Inflammable or phlogistous air is singularly constituted, from its numerous relations and affinities to elevate substances into the higher regions of air. Its attraction for sulphur, phosphorus and carbon, not confined to the solid states of each of them. When the phlogiston was relatively small, and the other ingredients large, they chain the hydrogen to the earth, and the union of the two forms common firm brimstone, coal and phosphorus. But when the quantity of hydrogen is relatively large, and the other materials small, it breaks loose from its confinement, and carries aloft with it a portion of the several ingredients with which it is combined, and raises them as high

high as it mounts. So it may dissolve and elevate the metals, and especially iron, to which it has a readiness for association. When the metal is relatively inconsiderable and the phlogistous gas copious, the heavier body may be elevated by the lighter to a very great height. On the contrary, when the metallic ingredient is large, and the phlogistic small, the former represses the latter, and overcomes its tendency upwards. Whenever, therefore, any of the before mentioned substances are combined with inflammable air in due quantities, they may ascend with it into the upper spaces of the atmosphere, even though they are metals.

On considering this body of evidence, Prof. Mitchill drew another argument in favor of the elevation of earthy and metallic substances, from the fall of stones from the atmosphere. If it could be comprehended how the constituent parts of these solid bodies could be carried to great heights in the atmosphere, there might be a possibility of conceiving how such meteoric masses could be formed. Generally, these atmospherical concretions are accompanied by flame and light. The bodies formed are a composition of earthy and metallic ingredients. They carry with them the signs of scorching and fusion. There are no materials found in them different from those which our planet affords. But they are connected or associated in an assemblage that differs from any mineral hitherto discovered on our globe. Now, all these circumstances are natural and obvious enough; for it is probable that the blaze of the meteor was inflammable air. This probably held metallic particles in solution. On the burning of this gas, those particles would be discharged from their connection, and precipitated. But in order to make this inflammable gas explode, the concurrence of oxygenous air would be necessary; and the consumption of this would dislodge a considerable quantity of the earthy matters it held in solution. These would be mingled at the moment of discharge with the metallic particles. The heat of such a combination of burning gases would be intense. The earthy and metallic particles would be likely to combine, by virtue of cohesive and chemical attractions. Their union would be promoted by the actual heat, and wafting and melting might naturally enough be the consequence of its intenseness. As their association is formed under circumstances which differ from those which obtain on the surface of the earth, so the mixture and proportions of the ingredients also differ; and the meteoric

oric stones, containing no new elements but merely new mixtures of those already known, are such combinations of matter, as, according to correct theory, we should suppose they ought to be.

Contenting himself with this survey of the subject, Professor Mitchill said, he should not trouble his hearers with the *Theory of Terrestrial Comets*, advocated by some ingenious and distinguished persons; nor with an examination of the *Lunar hypothesis*, supported as it was by famous and honourable names. He then examined other impregnations of the atmosphere by dust of various kinds, odours, and effluvia, of numberless variety, together with miasmata and poisons; all concurring to constitute a mass or volume of vapours, concerning which, although we know a great deal, we have much still to learn.

These interpretations of the constitution of the atmosphere, led to an examination of its operation upon the health of animals, in producing sporadic, endemic, epidemic, and epizootic diseases; in the course of which, he spoke of the Tract of *Hippocrates on air, water and situation*, with strong commendation; and treated with becoming severity the quarantine systems of the Christian nations, in ascribing to Foreign nations through a pretended contagion, the evils that arose from filthiness and bad management on board their own vessels. He gave his opinion solemnly, that *if quarantines were abolished, and ship-cleaning substituted in their stead*, the alteration would infinitely redound to the credit of science, the honour of police, and the advantage of commerce. Prof. M. stated also his belief, that the *metallic nature* of the atmosphere, would solve many of the phenomena of electricity and lightning, more satisfactorily than had been done heretofore; and opened new views of the subject by comparing the grand metallic apparatus of the atmosphere, both as to exciting and conducting power, with the amalgam and wires of the electrical machine, and with the plates and troughs of the galvanic battery.

Case of Hematemesis with Melæna. Communicated by
Dr. E. CAMPBELL.

——— LE CLERC, a Frenchman, æt. 40, asthmatic, and of a spare habit, butler at the time to the Right Hon. H. Grattan, was severely attacked by a vomiting of blood attended

tended with syncope, in the night and morning of the 29th and 30th of May last. The first attack appears to have been preceded by, and accompanied with, a fit of coughing, but without any previous observable sense of oppression or fulness about the præcordia. Three weeks before this, he fell by accident down some steps into the area: not feeling however much inconvenience from the fall, he neglected it, and continued his occupations until the evening of the attack; having had on the same day a natural stool.

Early next morning, the 30th, Mr. Tegart of Pall-Mall, and myself, saw him for the first time. He had been using some medicines in the night. The quantity of blood now thrown up, into different vessels, and on the bed and floor, was probably not less than from 10 to 12 pounds. When recovered in some degree from the death-like state of lipothymia, in which we found the patient, he complained of extreme debility, vertigo, great flatus, head-ache, and thirst; his pulse was about 80, soft but unsteady.

Removed into a more airy chamber, he now began to take the cerussa acetata with opium in pills. His bowels were kept freely open by laxative emulsions, cooling injections, vitriolated magnesia, and crystal. tart. severally employed according to circumstances. The stools thus procured were at first scanty, and pitch-like, being black, and somewhat indurated; towards evening they became liquid and copious, with a large proportion of *bloody* fluid: from this time, they continued to the last, more or less fluid; always quite black and foetid; sometimes glossy, exactly like pitch; seldom figured, and apparently but little real alvine fæces in them.

After an interval of 28 hours, he had another attack of *Hæmatemesis*, (slight in comparison) when he threw up about a pound of red blood, the paroxysm ending in fainting. After this, he never had any more return of vomiting of blood.

Next morning, that is, the third from the first attack, ten grains in all of the cerussa acetata had been taken; the dose having been increased from half a grain every 4th, to a grain and a half every 6th hour: the pills were then entirely discontinued.

He complained of no abdominal pains; slept at intervals; and continued taking in light nourishment and cooling drink, with a little wine and water; urgente lipothymia, which latter generally, more or less, accompanied his stools. Occasional nausea was relieved by saline mix-

tures. His tongue remained moist; but he had considerable thirst, and seldom any appetite for food. His pulse becoming daily more frequent, smaller, and intermitting, with other marks of increasing debility, he began to complain of amaurosis. His stools continued without any favourable change, very foetid and atramental.

On the 7th of June, he complained of increasing dyspnoea; he had been restless and delirious in the night; his fluttering pulse was now upwards of 130; his urine continued natural from the first.

Next day, he lost the power of deglutition; and the following morning, the 9th, yielded to his fate.

The circumstances of this case rendering an inspection after death very desirable, the body was carefully opened by Mr. H. Earle of Hanover-Square. The spleen, not larger than natural, was found remarkably pale, soft, and easily broken, adhering to the diaphragm and cardia; and free of any obstruction.

The stomach on being opened, gave out a considerable quantity of foetid gas; it was otherwise perfectly empty. On the inner face of the great curvature, was seen a circular erosion in and through the villous coat, barely a fourth of an inch in diameter, exposing to view an opening in the side of a large branch of the gastro-epiploic artery, communicating directly with the cavity of the stomach. A large probe was readily passed from the opening in the eroded spot, into the circular lumen of the artery, for some length in both directions: the opening was much smaller than, and towards one side of, the erosion.

The artery retained scarcely a drop of blood, and was of the size of a small goose's quill. There was no marked appearance of inflammation connected with the erosion, or in any other part of the stomach. There remained but little blood in the vasa brevia; yet they appeared to have been somewhat enlarged.

The small intestines were lined in many places with a greenish black matter of peculiar foetor, in appearance resembling molasses, and adhering with great tenacity to the villous coat. A small quantity of faeces was in the colon.

The pancreas, liver, and gall-bladder were of healthy structure; in the latter was about an ounce of deep yellow bile.

The kidneys and urinary bladder seemed free of disease; the latter more than half full of urine.

The lungs adhered extensively to the pleura costalis, the effect

effect of former disease; they were not tuberculous, but on being cut, gave out a brownish mucous fluid; within the cavity of the chest we found about six ounces of watery fluid.

The heart was sound, but pale, and exanguinous, a very small quantity of blood remaining in the right auricle only. About an ounce of watery fluid was within the pericardium. On cutting into the several viscera, it appeared as if little or no blood had been left in them; the vessels being almost every where nearly empty.

There was no appearance by the dissection, of any internal injury having been occasioned by the fall. And the erosion, which had so principal a share in the mischief, remains yet unaccounted for: it was said, indeed, that the subject of the case had been addicted to the use of fermented liquors; but it does not appear that he had complained of greater derangement of stomach previous to this vomiting of blood, than asthmatic persons are frequently subject to.

The hæmorrhagy itself will appear obviously to have been the consequence of the erosion. The portion of the stomach with the morbid part, which is now before us, shews some evident loss of substance of the arterial coats. It may also be remarked, that as a difficulty, more or less, of pulmonary circulation *did* exist, such an unequal distribution of the blood would the more readily take place, during a fit of coughing, as to affect for the time amongst other vessels, the cœliac artery, and its gastric branches; so that with the concurrence of this exciting cause, a still more effectual opening of the injured artery was likely to happen.

The vomiting of blood, it has been seen, ceased early in the disease, most probably because the sanguiferous system being then greatly reduced by such depletions, the supply from the bleeding artery became so much diminished, as no longer to excite the action of vomiting; while the blood, now more slowly effused, appears to have been carried *downwards*. The irreparable waste thus effected could not fail, by interrupting the functions necessary to the circulation of the blood, to be fatal to the vital principle. In the cases given by Hoffman, he explains the great prostration of strength, and fatal tendency, in such complaints, as arising rather from the putrefaction of the effused blood within the body affecting the brain, than from the loss of this vital fluid. (Medic. Rat. tom. 4. p. 2 s. 1. cap. 3.) This explanation, perhaps, frequently applica-

ble, appears to be more especially so in cases where the hæmorrhagy shall not have been of itself sufficiently great to account for the unfavourable issue. But, from the nature of the hæmorrhagy in the *present* case, it will appear unnecessary to seek for any *other* cause of the fatal event. At the same time, as the presence of the putrefaction alluded to, could not be doubted, it may be supposed that this did concur with the loss of blood, in occasioning the morbid symptoms.

The black coloured matter evacuated in melæna either by stool or vomiting, and sometimes both ways, is now generally supposed to consist chiefly of blood effused into the alimentary canal, and by stagnating there for a time, to be so changed, as to put on such an appearance. The presence of the atra bilis of the ancients is very rarely, if at all, any longer admitted; and Boerhaave's theory seems to be equally exploded. Yet the celebrated Morgagni, apparently in doubt upon the subject, after giving a case with the appearances on dissection, writes thus: Sed undenam tanta ista nigredo? an ab effusa in illud intestinum bile, quæ per se esset nigerrima? Videre enim potes in Cl. virorum Budæi et Schoberi observationibus fellis vesiculam magnam eadem illa materia nigricante turgidam quam ægri vomitu ejiciebant. An bilis cum antea esset subnigra, ab admistis in eo intestino certis quibusdam aliis humoribus, tanto nigrior facta est? An atri aliquid etiam a sanguine accessit, ex erosione in gravissimo illo dolore vasculis effluente? Cave enim credas eum omnem humorem sanguinem fuisse. (De sed. et caus. Morb. Ep. 30, art. 17.)

As to our particular case, a few suggestions only remain to be offered. The dissection shewed the bile of a natural colour, oozing through the common duct, towards the duodenum. But after passing, with a free admission, into the intestines, and its natural appearance lost, it is probable to suppose that it suffered some morbid change there, contaminated by the corrupted state of the effused blood; and thus possibly the bile itself promoting the general evil. Dr. SAUNDERS, in his excellent work on the Liver, (p. 136) shews by an experiment, that the bile does not putrefy so soon as blood, each being separately exposed, in equal quantity, to the same degree of heat; but what the *reciprocal* action of these important fluids would be, from their *union* under applicable circumstances, appears to be little known.

The matter found in the small intestines, as has been seen, had not acquired so deep a dye as that which (of the

the same sort) after a longer circuit through the body, came away by stool; the former had in its blackness, something of a greenish or olive hue, and was exceedingly viscid. Now, was the olive cast of this matter, as also some share of its viscid quality, owing to the admixture of bile? or, was *all* this tenacity imputable to the gluten of the effused blood? However this may be, the proportion of bile incorporated with this matter was likely to contribute to its characters in some way, *supposing* even the quantity of bile usually poured into the *duodenum* in a given time, according to the estimate of Valcarenghi and Haller to be much over rated.

Conduit Street, July 15, 1809.

CASES of TETANUS; by Mr. J. HOWSHIP, Surgeon.

A Case of Tetanus, arising from a Wound, in which the Exhibition of Mercury was unsuccessful.

LANDERS, private in the 13th Regiment of Foot, aged 23, received a slight wound in the sole of the foot, by treading upon a rusty nail. The accident happened on February 21, 1805, during the time of the regiment being upon garrison duty at Gibraltar.

For the first three days he suffered no pain from the wound; it was near the base of the great toe, and by his own account, it appeared to be very doubtful whether the point of the nail had penetrated beyond the common integuments; however, as he had reported himself, he was ordered to lay up his leg, and keep himself quiet, the only application to the wound being a mild dressing.

Upon the 4th day, the puncture became sore, tender, and inflamed; warm and emollient applications therefore were directed to be kept constantly applied to the foot; fomentations and poultices were alternately laid over the whole of the foot during the 5th, 6th, and 7th days.

On the morning of the 8th day, at the time of the poultice being removed, he felt and complained of a pain darting across his breast and about his jaws. These darts of acute pains came suddenly, as a shock of electricity, and were away again instantly; yet he described a constant but dull sort of pain, which he felt about the sides of the neck, and the angles of the jaws.

He made no complaint of severe pains in the back part of his neck; the tendency to spasm at this period seeming to prevail more in the lateral than the posterior muscles.

cles of the neck. From this time forward, his situation became more distressing, every hour adding to the severity of his sufferings.

On the first mention of pains about the neck and jaws, there being reason to suspect that the fascia of the foot had been wounded, the integuments and the tendinous expansion beneath were at once freely divided by the scalpel, cutting upon a director; by this means the wound was increased to nearly an inch in length. A fermenting poultice was laid upon the parts, and was renewed every twelve hours.

During the course of the disease, in this instance, the skin was ever free and perspirable, the excessive discharge by sweating only came on after the dreadful pains of the spasms had "run through his body." These pains always commenced from below near the umbilicus, and about the region of the false ribs, passing upwards upon the chest, and reaching as far as the insertion of the muscles of the neck into the mastoid process of the temporal bone.

The patient was himself of opinion, that the laying open the wound had produced some change in the situation and severity of the pains; he neither felt so much, nor so intense a degree of pain about his throat, as he had experienced prior to the division of the fascia. The pains had become more universal, shooting about the shoulders and neck more than formerly, although attended with a less severe impression upon the chest.

He frequently said he felt that his heart was at times ready to break with the distress of its pain. During intervals, however, he was nearly, or altogether free from pain, and expressed himself as being quite comfortable; at such times he would drop asleep for a quarter of an hour, till from some unfortunate attempt at motion, he was suddenly roused from his slumber, to endure the most excruciating torment.

When attacked in this way, his impatient desire was always to be laid as quickly as possible upon his back; he found this posture agree with his complaint better than any other, probably, because it in some measure operated as a check to the excessive contraction of the numerous and powerful assemblage of muscles situated posterior to the spine.

He found that the pains most particularly relieved by resting on his back, were those that passed across the breast, and towards the shoulder blades. In the muscular parts of the neck he almost constantly felt more or less of
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a dull irksome pain, as well as at the angles of the jaw, where the permanent stiffness, rather than the degree of pain, distressed him.

Upon the 11th day, ʒij. of mercurial ointment were rubbed in upon the back and loins. The bowels were occasionally regulated by a laxative enema. The regular and natural state of the pulse was not at any time altered, even during the most severe paroxysms of pain. He received sufficient support in soups and sago with wine.

On the 12th day, a second consultation was held, the result of which was a second and more extensive division of the wounded parts.

The scalpel was again passed freely through the wounded integuments, and the incision was carried considerably deeper than the fascia, the perfect division of which was the object held principally in view.

The wound did not bleed three drops, and the man, though he felt intense pain at the time of the operation being performed, soon became easier; but he still suffered from occasional returns of spasm, which always commenced down at the groin, flying upwards to the breast and neck. ʒij. of mercurial ointment were rubbed in during the fore part of this day also.

Three hours after the enlargement of the wound a bleeding came on; the hæmorrhage was both sudden and considerable, he lost about ʒviij. of blood.

It is very worthy of observation, that the moment the bleeding commenced "he found his jaws become much looser than before," and they remained in this state of partial release till the time of his decease.

Upon the 13th day, this poor man was greatly altered, and much reduced in strength. He said in the forenoon that he was better, but that he was very weak; his pulse was remarkably lower than on the preceding day; the alteration was so great, as hardly to be explained by the quantity of blood lost by hæmorrhage the day before. Indeed the pulse was so much sunk as to raise doubts as to the possibility of his recovery.

He still, however, took wine and other nutriment in the most convenient forms, and opened his mouth sufficiently well to admit the passing a table-spoon. He said the cramps were certainly less severe than they had been on former days, and that on the whole he was better. His foot he mentioned frequently, it gave him a great deal of pain.

The rubbing in of the ʒß of mercurial ointment had not

not produced any perceptible effect upon the mouth or system.

In the evening he had just taken an opiate draught, when upon endeavouring to turn himself in bed, he was seized with a fit; he complained of his belly, but did not at the time express any sense of pain about his heart; however, he succeeded in laying himself down upon his back, and in this posture he in a few minutes silently expired without a groan, or the least appearance of a struggle.

Eleven hours after death the body was examined, while some degree of warmth was still perceptible in the viscera of the thorax.

The sternum was raised, and upon laying open the pericardium, the immediate cause of dissolution manifested itself clearly in the very remarkable condition of the heart.

The body was that of a tall man, while to the eye the heart was that of a very small person; the external form of this organ was greatly altered from its usual characters, it was in bulk so much reduced as not to occupy a fourth part of the cavity of the pericardium, in which was yet found, only the natural proportion of fluid.

The heart appeared to be very unnaturally shortened in length from the basis to the apex; the circumference of the basis was by no means diminished in the same proportion.

Upon raising up and examining the structure of the heart, its consistence and texture were found to be still more remarkably changed than its form. The resistance upon pressing the muscular ventricles, resembled that of a very firm and even horny substance, rather than of a mere fleshy cavity. The substance of the heart felt in every part unnaturally firm to a degree far beyond what can be well conceived.

The auricles as well as ventricles were greatly contracted; a section was made through the heart, by cutting across the cavities of the ventricles. The sides of the left ventricle were found in the closest contact; so much so, that the exact situation of the cavity was not immediately to be perceived.

The right ventricle, although greatly contracted, had not been able to expel the whole of its contents, about $\frac{3}{8}$ of blood still remaining within it.

The auricle on the right side contained about $\frac{3}{4}$ of blood, that on the left a much less proportion.

The heart was now removed from the body, and upon being,

being again examined a few hours afterwards, it was found to have become completely relaxed; was much larger and softer, as well as very flaccid, having entirely lost that very peculiar and remarkable state of tone which it possessed at the time of its being first inspected, when it was in the body.

The only morbid appearance found was the peculiar state of the heart above described; and thus it was on every side clear, that the muscular structure of the heart had in this case become at length subject to the same affection, which during the earlier stages of the disease was confined principally to those parts of the body subservient to voluntary motion.

[To be continued.]

No. 4, Mill Street, Hanover Square.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I Should have been much disappointed if you had shut the door indiscriminately against all anonymous communications. The exclusion of severe or petulant criticism from that privilege, appears highly reasonable, and doubtless will be very generally approved; there are, however, two subjects, or occasions, which seem to have a pre-eminent claim to the veil of concealment, which anonymous publication affords. The one is, for the communication of unsuccessful cases; the other for the promulgation of new hints or conjectures respecting the causes or cure of diseases. There is no doubt that the publication of cases, which have baffled the skill of a fair practitioner, tends as much to the improvement of the science as details of successful treatment; but there are many, especially among the junior part of the profession, who would hardly be prevailed on to authenticate their want of success in a public manner, by their signatures. So there are some theoretic conjectures, relating to the causes and cure of diseases, which may appear of small importance to many, or perhaps no better than the offspring of a lively imagination, but which eventually lead to improvements in practice. Under this conviction, I have submitted the following

following observations to you, if you deem them worthy of the attention of your Readers.

Intermittents have been unusually prevalent in London during the last spring and summer, and, as I think, unusually obstinate. It appears to have been generally admitted, that an ague cannot originate from any other cause than marsh miasma, or the effluvia issuing from putrescent vegetable and animal substances in marshy and fenny situations. This idea, I believe, has been universally entertained since the opinions of Lancisci on that subject received the sanction of our Cullen. London practitioners, however, begin to grow somewhat sceptical, because they have so often found agues appear in the metropolis during the spring months. I confess, till this spring I never met with a case where the patient had not been previously exposed to marshy situations in the course of some part of the foregoing six months; and I concluded that the contagion had lain dormant till some exciting cause during the cold or rainy weather had called it into action. My opinion on this point, I believe, was far from singular, as I never heard any practitioner express a doubt respecting the marshy origin of intermittents. I have, however, during the present summer, had two instances of ague, where the cause could not be traced to any other than the miasmata of London. In both these patients there was sufficient reason to be convinced of a material derangement in the functions of the liver; and in all the obstinate cases, this derangement was conspicuous in the complexion and albuginea of the eyes, as well as in the colour of the stools and urine. Now, it has long been known that a protracted intermittent seldom fails to injure the liver in a manner similar to the injury produced by hot climates. It is also admitted, that the remittents of hot climates, generally called bilious remittents, approach very nearly to the nature of intermittents; but that the greater fatality attending them, arises from the superior virulence of the exciting cause, when applied to persons unused to the climate. For it has long been acknowledged, that any person in the vigour of life, by a prudent attention to food, drink, rest, and cloathing, may assimilate his constitution to any climate. Other animals have not the same power, because they cannot regulate the non-naturals, unless man, for his own gratification, chooses to take this trouble for them; in which case, elephants, lions, and tigers may be naturalized to our fickle climate. But I am in danger of wandering from the subject of intermittents. If
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I have made myself understood in the foregoing observations, it will be credible, if not probable or evident, that the liver demands particular attention in the investigation of the causes and regulation of the cure of ague.

The present season has sent many of the London labourers into Kent, Sussex, and Essex, to assist in getting in the harvest. Hence we may expect a plentiful crop of intermittents to spring up, many of which will be imported into London. After the above introduction, I hope the following queries and hints will not be thought irrelevant.

1. Since intermittents and their causes uniformly derange the functions of the liver, may not a diseased liver strongly predispose to intermittents?

2. Since the habit of labourers in and near London of drinking spirits, has a tendency to derange the functions of the liver, may not this diseased state of that viscus render our labourers much more susceptible of that disease than those who reside in the country?

3. If this view of the subject be correct, may not some preventive means be employed, calculated to obviate this hepatic predisposition?

4. When the disease has supervened, should not the state of the liver be attended to in the first instance? and has any medicine equal powers with mercury to fulfil this indication?

The Author hopes these few observations and hints will draw from some of your numerous and respectable Correspondents, either approbation of, or objections to, his opinions; and for the present subscribes,

HEPATICUS.

London, August 16, 1809.

For some time past, Mr. Astley Cooper's Operation of perforating the Tympanum, in Cases of Deafness, has been either laid aside, or the Operators have ceased to inform the Public of their Success. The following is selected from the *Journal Gén. de Medicin*, No. 133.

Observations upon the Restoration of Hearing, by perforating the Tympanum. By Dr. HUNOLD, Garrison Physician at Capel.

M. MICHAELIS having informed Dr. Hunold, by letter, that he had lately succeeded in restoring the faculty of hearing to a lady, by perforating the tympanum, in the manner

manner prescribed by Cooper, Dr. Hunold determined to attempt the operation.

CASE 1. Ann Catherine Mehlberg, aged 45, deaf for six years past, from a violent inflammation of the ears, occasioned by a severe cold, could not hear at all with her right ear, and could only hear with the left by using an ear trumpet. The right ear was first operated upon, and it was previously cleared of all the wax, &c. until the tympanum, which was white and shining, was plainly discernible. Dr. Hunold pierced it at the lowermost and interior part. The patient instantly heard every thing that was said to her, and informed the operator, that she experienced no pain whatever, but merely a crack, or sharp noise, at the moment of the perforation.

CASE 2. M. Wienbrecht, a master locksmith, 50 years of age, was completely deaf in the right ear, and heard very indistinctly with the left. He had lost his hearing at 20 years of age, by falling, when much heated by over exertion, from an eminence into a piece of water, with his head foremost. When taken up, no signs of life remained, and although animation was restored; he was never free from the deafness occasioned by the violent cold he had thus caught, and all the remedies he had subsequently taken proved of no avail. By his own desire, the tympanum of the right ear was perforated, and he instantly heard every thing that was said, even in a whisper.

CASE 3. — Gressin, a widow, 63 years of age, affected from the age of 30, in consequence of blows from her husband, according to her own account, was completely deaf in both ears, which determined Dr. Hunold to operate upon both tympana at once. This patient instantly recovered her hearing perfectly in the left ear, and imperfectly in the right, and was able to repeat, word by word, all that was said to her.

Dr. Hunold has performed about one hundred similar operations, and two-thirds of them have been successful.

Some Account of a peculiar Species of Plague which depopulated West Barbary in 1799 and 1800, and to the Effects of which the Author was an Eye-witness. By JAMES GREY JACKSON, Esq. Consul at Mogodor.

FROM various circumstances and appearances, and from the character of the epidemical distemper which raged lately in the South of Spain, there is every reason to suppose it was similar to that distemper or plague which depopulated West Barbary; for whether we call it by the more reconcilable appellation of the epidemy, or yellow fever, it was undoubtedly a plague, and a most destructive one, for wherever it prevailed, it invariably carried off, in a few months, one-half, or one-third, of the population.

It does not appear how the plague originated in Faz in the year 1799. Some persons who were there at the time it broke out, have confidently ascribed it to infected merchandize imported into that place from the East; whilst others, of equal veracity and judgment, have not scrupled to ascribe it to the locusts which had infested West Barbary during the seven preceding years, the destruction of which was followed by the (jedrie) small-pox, which pervaded the country, and was generally fatal. The jedrie is supposed to be the forerunner of this species of epidemy, as appears by an ancient Arabic manuscript, which gives an account of the same disorder having carried off two-thirds of the inhabitants of West Barbary about four centuries since. But however this destructive epidemy originated, its leading features were novel, and its consequences more dreadful, than the common plague of Turkey, or that of Syria, or Egypt, as will appear by the following observations.

In the month of April, 1799, a plague of the most destructive nature manifested itself in the city of Old Faz, which soon after communicated itself to the new city, carrying off one or two the first day, three or four the second day, six or eight the third day, and increasing progressively, until the mortality amounted to two in the hundred of the aggregate population, continuing *with unabated violence*, ten, fifteen, or twenty days; being of longer duration in old than in new towns; then diminishing in a progressive proportion from one thousand a day, to nine hundred, then to eight hundred, and so on until it disappeared.

* See Travels in Africa by the above gentleman.

Whilst it raged in the town of Mogodor, a small village (Diabet), situated about two miles south-east of that place, remained uninfected, although the communication was open between them: on the thirty-fourth day, however, after its first appearance at Mogodor, this village was discovered to be infected, and the disorder raged with great violence, making dreadful havock among the human species for twenty-one days, carrying off, during that period, one hundred persons out of one hundred and thirty-three, the original population of the village before the plague visited it; none died after this, and those who were infected, recovered in the course of a month or two, some losing an eye, or the use of a leg or an arm.

Many similar circumstances might be here adduced relative to the numerous and populous villages dispersed through the extensive Shelluh province of Haha, all which shared a similar or a worse fate. Travelling through this province shortly after the plague had exhausted itself, I saw many uninhabited ruins, which I had before witnessed as flourishing villages; on making inquiry concerning the population of these dismal remains, I was informed that in one village, which contained six hundred inhabitants, four persons only had escaped the ravage. Other villages, which had contained four or five hundred, had only seven or eight survivors left to relate the calamities they had suffered. Families which had retired to the country to avoid the infection, on returning to town, when all infection had apparently ceased, were generally attacked, and died; a singular instance of this kind happened at Mogodor, where, after the mortality had subsided, a corps of troops arrived from the city of Terodant, in the province of Suse, where the plague had been raging, and had subsided; these troops, after remaining three days at Mogodor, were attacked with the disease, and it raged exclusively among them for about a month, during which it carried off two-thirds of their original number, one hundred men; during this interval the other inhabitants of the town were exempt from the disorder, though these troops were not confined to any particular quarter, many of them having had apartments in the houses of the inhabitants of the town.

The destruction of the human species in the province of Suse was considerably greater than elsewhere; Terodant, formerly the metropolis of a kingdom, but now that of Suse, lost, when the infection was at its height, about eight hundred each day; the ruined, but still extensive
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and populous city of Marocco, lost one thousand each day; the populous cities of Old and New Faz diminished in population twelve or fifteen hundred each day,* inso-much, that in these extensive cities, the mortality was so great, that the living having not time to bury the dead, the bodies were deposited or thrown altogether, into large holes, which, when nearly full, were covered over with earth. Young, healthy, and robust persons of full stamina, were for the most part attacked first, then women and children, and lastly, thin, sickly, emaciated, and old people.

After this deadly calamity had subsided, we beheld a general alteration in the fortunes and circumstances of men; we saw persons who before the plague, were common labourers, now in possession of thousands, and keeping horses without knowing how to ride them. Parties of this description were met wherever we went, and the men of family called them in derision (*el wurata*) the inheritors.† Provisions also became extremely cheap and abundant; the flocks and herds had been left in the fields, and there was now no one to own them; and the propensity to plunder, so notoriously attached to the character of the Arab, as well as to the *Shelluh* and *Moor*, was superceded by a conscientious regard to justice, originating from a continual apprehension of dissolution, and that the *El khere*,‡ as the plague was now called, was a judgment of the Omnipotent on the disobedience of man, and that it behoved every individual to amend his conduct, as a preparation to his departure for paradise.

The expense of labour at the same time increased enormously, and never was equality in the human species more conspicuous than at this time; when corn was to be ground, or bread baked, both were performed in the houses of the affluent, and prepared by themselves, for the very few people whom the plague had spared, were insufficient to administer to the wants of the rich and independant, and they were accordingly compelled to work for themselves, performing personally the menial offices of their respective families.

The country being now depopulated, and much of the territory without owners, vast tribes of Arabs emigrated

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* There died, during the whole of the above periods, in Marocco, 50,000; in Faz, 65,000; in Mogodior, 4,500; and in Saffy, 5,000; in all 124,500 souls!

† *Des gens parvenues*, as the French express it; or upstarts.

‡ The good, or benediction.

from their abodes in the interior of Sahara, and took possession of the country contiguous to the river Draha, as well as many districts in Suse; and, in short, settling themselves, and pitching their tents wherever they found a fertile country with little or no population.

The symptoms of this plague varied in different patients; the variety of age and constitution gave it a like variety of appearance and character; in some it manifested itself by a sudden and violent shivering, in others by a sudden delirium, succeeded by great and unquenchable thirst. Cold water was eagerly resorted to by the unwary and imprudent, and proved fatal to those who indulged in its momentary relief. Some had one, two, or more buboes, which formed themselves, and became often as large as a walnut, in the course of a day; others had a similar number of carbuncles: others had both buboes and carbuncles, which generally appeared in the groin, under the arm, or near the breast. Those who were affected * with a shivering, having no buboe, carbuncle, spots, or any other exterior disfiguration, were invariably carried off in less than twenty-four hours, and the body of the deceased became quickly putrified, so that it was indispensibly necessary to bury it a few hours after dissolution. I recommended Mr. Baldwin's † invaluable remedy of olive oil, applied according to his directions; several Jews, and some Mooselmin, were induced to try it, and I was afterwards visited by many, to whom I had recommended it, and had given them written directions in Arabic how to apply it; and I
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* M'drob is an idiom in the Arabic language somewhat difficult to render into English; it is well known that the Mohammedans are predestinarians, and that they believe in the existence of spirits, devils, &c.; their idea of the plague is, that it is a good or blessing sent from God to clear the world of a superfluous population—that no medicine or precaution can cure or prevent it; that every one who is to be a victim to it is (mktube) recorded in the Book of Fate; that there are certain Genii who preside over the fate of men, and who sometimes discover themselves in various forms, having often legs similar to those of fowls; that these Genii are armed with arrows; that when a person is attacked by the plague, which is called in Arabic l'amer, or the destiny or decree, he is shot by one of these Genii, and the sensation of the invisible wound is similar to that from a musquet-ball; hence the universal application of M'drob to a person afflicted with the plague, i. e. he is shot; and if he die, ufah, ameruh, his destiny is completed or terminated, (in this world.) I scarcely ever yet saw the Mooselmin who did not affirm that he had at some time of his life seen these Genii, and they often appear, they say, in rivers.

† Late British Consul in Egypt.

do not know any instance of its failing when persevered in, even after the infection had manifested itself.

I have no doubt but the epidemic which made its appearance at Cadiz, and all along the southern shores of Spain, immediately as the plague was subsiding in West Barbary, was the same disorder with the one above described, suffering, after its passage to a Christian country, some variation, originating from the different modes of living, and other circumstances; for nothing can be more opposite than the food, dress, customs, and manners of Mohammedans and Christians, notwithstanding the approximation of Spain to Marocco. We have been credibly informed, that it was communicated originally to Spain by two infected persons who went from Tangier to Estapona, a small village on the opposite shore; who, after eluding the vigilance of the guards, reached Cadiz. We have also been assured that it was communicated by some infected persons who landed in Spain, from a vessel that had loaded produce at L'arajche in West Barbary. Another account was, that a Spanish privateer, which had occasion to land its crew for the purpose of procuring water in some part of West Barbary, caught the infection from communicating with the natives, and afterwards proceeding to Cadiz, spread it in that town and the adjacent country.

It should be observed, for the information of those who may be desirous of investigating the nature of this extraordinary distemper, that, from its character and its symptoms, approximating to the peculiar plague, which (according to the before mentioned Arabic record) ravaged and depopulated West Barbary four centuries since, the Arabs and Moors were of opinion it would subside after the first year, and not appear again the next, as the Egyptian plague does; and agreeably to this opinion, it did not re-appear the second year; neither did St. John's day, or that season, affect its virulence; but about that period there prevails along the coast of West Barbary a trade wind, which beginning to blow in the month of May, continues throughout the months of June, July, and August, with little intermission. It was apprehended that the influence of this trade wind, added to the superstitious opinion of the plague ceasing on St. John's day, would stop, or at least sensibly diminish the mortality; but no such thing happened: the wind did set in, as it invariably does about St. John's day; the disorder, however, increased at that period, rather than diminished. Some persons were of opinion, that the infection maintained its

virulence till the last; that the decrease of mortality did not originate from a decrease of the *miasma*, but from a decrease of population, and a consequent want of subjects to prey upon; and this indeed is a plausible idea; but admitting it to be just, how are we to account for the almost invariable fatality of the disorder, when at its height, and the comparative innocence of it, when on the decline? for *then*, the chance to those who had it, was, that they would recover and survive the malady.

The old men seemed to indulge in a superstitious tradition, that when this peculiar kind of epidemy attacks a country, it does not return or continue for three or more years, but disappears altogether (after the first year), and is followed the seventh year by contagious rheums and expectoration, the violence of which lasts from three to seven days, but is not fatal. Whether this opinion be in general founded in truth I cannot determine; but in the spring of the year 1806, which was the seventh year from the appearance of the plague at Faz in 1799, a species of influenza pervaded the whole country; the patient going to bed well, and on rising in the morning, a thick phlegm was expectorated, accompanied by a distressing rheum, or cold in the head, with a cough, which quickly reduced those affected to extreme weakness, but was seldom fatal, continuing from three to seven days, with more or less violence, and then gradually disappearing.

During the plague at Mogodor, the European merchants shut themselves up in their respective houses, as is the practice in the Levant; I did not take this precaution, but occasionally rode out to take exercise on horseback. Riding one day out of the town, I met the Governor's brother, who asked me where I was going, when every other European was shut up? "To the garden," I answered. "And are you not aware that the garden and the adjacent country is full of (Genii) departed souls, who are busy in smiting with the plague every one they meet?" I could not help smiling, but told him, that I trusted to God only, who would not allow any of the Genii to smite me unless it were his sovereign will, and that if it were, he could effect it without the aid of Genii. On my return to town in the evening, the sandy beach from the town-gate to the sanctuary of Seedi Mogodole* was covered with biers. My daily observations convinced me that the epidemy

* A sanctuary a mile south-east of the town of Mogodor, from whence the town receives its name.

my was not caught by approach, unless that approach was accompanied by an inhaling of the breath, or by touching the infected person; I therefore had a separation made across the gallery, inside of my house, between the kitchen and dining parlour, of the width of three feet, which is sufficiently wide to prevent the inhaling the breath of a person. From this partition or table of separation I took the dishes, and after dinner returned them to the same place, suffering none of the servants to come near me; and in the office and counting-house, I had a partition made to prevent the too near approach of any person who might call on business; and this precaution I firmly believe to be all that is necessary, added to that of receiving money through vinegar, and taking care not to touch or smell infectious substances.

Fear had an extraordinary effect in disposing the body to receive the infection, and those who were subject thereto invariably caught the malady, which was for the most part fatal. At the breaking out of the plague at Mogodor, there were two medical men, an Italian and a Frenchman, the latter, a man of science, a great botanist, and of an acute discrimination; they however did not remain, but took the first opportunity of leaving the place for Tene-riffe, so that the few Europeans had no expectation of any medical assistance except that of the natives. Plaisters of gum ammoniacum and the juice of the leaves of the opuntia, or kermuse ensarrah, i. e. prickly pear, were universally applied to the carbuncles, as well as the buboes, which quickly brought them to maturity: many of the people of property took copious drafts of coffee and Peruvian bark. The *vinaigre de quatre voleurs* was used by many, also camphor, smoking tobacco, or fumigations of gum Sandarac; straw was also burned by some, who were of opinion, that any thing which produced abundance of smoke was sufficient to purify the air of pestilential effluvia.

During the existence of the plague I had been in the chambers of men on their death-bed: I had had Europeans at my table, who were infected, as well as Moors, who actually had buboes on them: I took no other precaution than that of separation, carefully avoiding to touch the hand, or inhale the breath; and, notwithstanding what may have been said, I am decidedly of opinion that the plague, at least this peculiar species of it, is not produced by any infectious principle in the atmosphere, but caught solely by touching infected substances, or inhaling the

breath of those who are deceased; and that it must not be confounded with the common plague of Egypt, or Constantinople, being a malady of a much more desperate and destructive kind. It has been said, by persons who have discussed the nature and character of the plague, that the cultivation of a country, the draining of the lands, and other agricultural improvements, tend to eradicate or diminish it; but at the same time we have seen countries depopulated where there was no morass or stagnate water for many days journey, nor even a tree to impede the current of air, or a town, nor any thing but encampments of Arabs, who procured water from wells of a great depth, and inhabited plains so extensive and uniform, that they resembled the sea, and are so similar in appearance after, as well as before sun-rise, that if the eye could abstract itself from the spot immediately surrounding the spectator, it could not be ascertained whether it were sea or land.

Many of the cities and towns of Marocco are visited yearly by malignant epidemics, which the natives call fruit-fevers; they originate from their indulgence in fruit, which abounds all over this fertile garden of the world. The fruits deemed most febrile are musk mellons, apricots, and all unripe stone fruits. Alpinus, de Medicina Egyptiorum, says, "Autumno grassantur febres pestilenciales multæ quæ subdole invadunt, et sæpe medicum et ægrum decipiunt."

I shall now subjoin a few cases for the further elucidation of this distemper, hoping that the medical reader will pardon any inaccuracy originating from my not being a professional man.

CASE I. One afternoon I went into the kitchen, and saw the cook making bread; he appeared in good health and spirits; I afterwards went into the adjoining parlour, and took up a book to read; in half an hour the same man came to the door of the room, with his eyes starting from his head, and his bed clothes, &c. in his hands, saying, "Open the gate for me, for I am (m'drob) smitten." I was astonished at the sudden transition, and desired him to go out, and I would follow and shut the gate. The next morning he sent his wife on an errand, and got out of bed, and came to the gate half dressed, saying that he was quite recovered, and desired I would let him in. I did not, however, think it safe to admit him, but told him to go back to his house for a few days, until he should be able to ascertain that he was quite well; he accordingly returned

returned to his apartments, but expired that evening, and before day-break his body was in such a deplorable state, that his feet were putrified. His wife, by attending on him, caught the infection, having a carbuncle and also buboes, and was confined two months before she recovered.

CASE II. L'Hage Hamed O Bryhim, the old governor of Mogodor, had twelve or more children and four wives, who were all attacked, and died, excepting one young wife. He attended them successively to the grave; and notwithstanding that he assisted in performing the religious ceremony of washing the body, he never caught the infection. He lived some years afterwards; and out of the whole household, consisting of wives, concubines, children, and slaves, he had but one person left, which was the before mentioned young wife; this lady, however, had received the infection, and was confined some time before she recovered.

CASE III. Hamed ben A——— was smitten with the plague, which he compared to the sensation of two musquet balls fired at him, one in each thigh; a giddiness and delirium succeeded, immediately afterwards a green vomiting, and he fell senseless to the ground. A short time afterwards, on the two places where he had felt as if shot, biles or buboes formed, which on suppurating, discharged a foetid black pus: a (jimerra) carbuncle on the joint of the arm near the elbow was full of thin ichor, contained in an elevated skin, surrounded by a burning red colour. After three months confinement, being reduced to a skeleton, the disorder appeared to have exhausted itself, and he began to recover his strength, which in another month was fully re-established. It was an observation founded on daily experience, during the prevalence of this disease, that those who were attacked with a nausea at the stomach, and a subsequent vomiting of green or yellow bile, recovered after suffering in various degrees, and that those who were affected with giddiness, or delirium, followed by a discharge or vomiting of black bile, invariably died after lingering one, two, or three days, their bodies being covered with small black spots similar to grains of gunpowder: in this state, however, they possessed their intellects, and spoke rationally till their dissolution.

When the constitution was not disposed, or had not vigour enough, to throw the miasma to the surface in the form of biles, buboes, carbuncles, or blackish spots, the virulence

virulence is supposed to have operated inwardly, or on the vital parts, and the patient died in less than twenty-four hours, without any exterior disfiguration.

CASE IV. It was reported that the Sultan had the plague twice during the season, as many others had ; so that the idea of the plague, like the small-pox, attacking a person but once in his life, is refuted. The Sultan was cured by large doses of Peruvian bark frequently repeated ; and it was said that he found such benefit from it, that he advised his brothers never to travel without having a good supply. The Emperor, since the plague, always has by him a sufficient quantity of quill bark to supply his daily emergency.

CASE V. H. L. was smitten with the plague, which affected him by a pain similar to that of a long needle (as he expressed himself) repeatedly plunged into his groin. In an hour or two afterwards, a (jimerra) carbuncle appeared in the groin, which continued enlarging three days ; at the expiration of which period, he could neither support the pain, nor conceal his sensations. He laid himself down on a couch ; an Arabian doctor applied to the carbuncles the testicles of a ram cut in half, whilst the vital warmth was still in them. The carbuncle on the third day was increased to the size of a small orange. The before mentioned remedy was daily applied during thirty days, after which he resorted to cataplasms of the juice of the (opuntia) prickly pear-tree, (feshook) gum ammoniac, and (zite el aud) oil of olives, of each one-third. This was intended to promote suppuration, which was soon effected. There remained after the suppuration a large vacuity, which was daily filled with fine hemp dipped in honey ; by means of this application the wound filled up, and the whole was well in thirty-nine days.

CASE VI. El H—t—e, a trading Jew of Mogodor, was sorely afflicted : he called upon me, and requested some remedy ; I advised him to use oil of olives ; and having Mr. Baldwin's mode of administering it,* I transcribed it in the Arabic language, and gave it to him. He followed the prescription, and assured me, about six weeks afterwards, that, with the blessing of God, he had preserved his life by that remedy only. He said, that after having
been

* Mr. Baldwin observed, that whilst the plague ravaged Egypt, the dealers in oil were not affected with the epidemy, and he accordingly recommended people to anoint themselves with oil every day as a remedy.

been anointed with oil, his skin became harsh and dry, like the scales of a fish; but that in half an hour more, a profuse perspiration came on, and continued for another half hour, after which he experienced relief. This he repeated forty days, and he was then quite recovered.

CASE VII. Moh—m'd ben A—— fell suddenly down in the street; he was conveyed home; three carbuncles and five buboes appeared the same day in his groin, under the joint of his knee, arm-pits, and inside the elbow; he died in three hours after the attack.

CASE VIII. L. R. was suddenly smitten with this calamity whilst looking over some Marocco leather; he fell instantaneously: afterwards, when he had recovered his senses, he described the sensation as that of the pricking of needles, at every part wherein the carbuncles afterwards appeared. He died the same day in spite of medicine.

CASE IX. Mr. Pacifico, a merchant, was attacked, and felt a pricking pain down the inside of the thick part of the thigh, near the sinews; he was obliged to go to bed. I visited him the next day, and was going to approach him, but he exclaimed, "Do not come near me, for although I know I have not the prevailing distemper, yet your friends, if you touch me, may persuade you otherwise, and that might alarm you; I shall, I hope, be well in a few days." I took the hint of Don Pedro de Victoria, a Spanish gentleman who was in the room, who offering me a sagar, I smoked it, and then departed; the next day the patient died. He was attended during his illness by the philanthropic Monsieur Subremont, who did not stir from his bed-side till he expired; but, after exposing himself in this manner, escaped the infection, which proceeded undoubtedly from his constantly having a pipe in his mouth.

CASE X. Two of the principal Jews of the town giving themselves up, and having no hope, were willing to employ the remainder of their life in affording assistance to the dying and the dead, by washing the bodies and interring them; this business they performed during thirty or forty days, washing the bodies of those who died of the plague, and putting on them their shrouds, during which time they were not attacked. When the plague had nearly subsided, and they began to cherish hopes of surviving the calamity, they were both smitten, but after a few days illness recovered, and are now living.

From

From this last case, as well as from many others similar, but too tedious here to recapitulate, it appears that the human constitution requires a certain miasma to prepare it to receive the pestilential effluvia.

General Observation. When the carbuncles or buboes appeared to have a blackish rim round their base, the case of that patient was desperate, and invariably fatal. Sometimes the whole body was covered with black spots, like partridge shot; such patients always fell victims to the disorder; and those who felt the blow internally, shewing no external disfiguration, did not survive more than a few hours.

To the Editors of the Medical and Physical Journal,

GENTLEMEN,

NOT doubting that the desire of information on any subject of utility in the practice of medicine, will be a sufficient apology for wishing to occupy a small portion of your valuable pages, I proceed to request of some of your numerous Readers, who may be so fortunate as to have acquired dexterity in the art of taking blood by cupping, to detail that operation with minuteness, and to explain on what circumstances the success of it depends. In London, this operation is consigned to particular persons, some of whom have probably, from frequent practice, acquired superior excellence in performing it; but though the operation appears so easy, I have been disappointed that after much expence on the subject, and considerable pains taken, I seldom succeed in procuring any considerable quantity of blood. I should therefore be happy to be instructed by some of your liberal and better informed Correspondents, from what particulars my failure may proceed, and what precautions would be likely to ensure success.

In a late case of pleuritis, wherein general bleeding had been carried as far as appeared to be safe; on account of frequent stitches in the side still occurring, the scarificator was applied four or five times, and though by the adhesion of the glasses, the vacuum appeared to have been pretty complete, not more than an ounce or two of blood was procured, and notwithstanding the case ended favourably, I felt mortified that so little blood could be obtained.

I have

I have used scarificators made by eminent London instrument-makers; and in the above case the lancets had not been used since being newly ground, notwithstanding which they did not appear to cut well, and this defect seemed to depend on a want of sufficient strength in the spring, which although it appeared pretty strong in cocking the instrument, was yet too weak to carry the points of the lancets clean through the integuments, while the instrument was pressed upon, so that the brass box which contains the lancets, was elevated by them as by levers, instead of keeping its situation; or if sufficient pressure was applied to prevent that circumstance, the lancets were arrested in their progress, and obliged to be pulled round by the trigger, making the operation clumsy, painful, and tedious; and this fault of the instrument is apparently the chief impediment to success; the best way of making the vacuum appears to be by the flame of a spirit lamp. Is the form and size of the glass of particular importance? That used in the present instance, is at the mouth 1 inch $\frac{2}{3}$ wide, its depth is 2 inches $\frac{2}{3}$, and about an inch above the mouth it bulges out, and terminates at the depth described in a globular form.

Country practitioners may often have occasion to perform this operation, and I have too good an opinion of it to abandon it entirely as some have done, partly from esteeming it of little importance, but more from their own unskilfulness in performing it. I have known it of considerable utility, even when a small quantity of blood was obtained, which it is probable may arise from a considerable quantity of blood having been brought to the surface, and thus relieving the deep-seated membranous part, on which principle dry-cupping was formerly practised.

I am, &c.

A COUNTRY PRACTITIONER.

P. S. As it is always of importance to confirm the successful practice of an easy method of cure in a troublesome disease, I beg leave to mention, that I have lately succeeded in the cure of three cases of hydrocele of the tunica vaginalis testis, by the injection of a mixture of equal parts of Port wine and water; in the last case, the inflammation, instead of producing immediate adhesion of the sides of the cavity, ended in a suppuration, apparently between the dartos and tunica vaginalis, which latter substance appeared to come away in tough ragged sloughs; and the case occupied from three to four weeks in the cure, which was in the end complete.

I wish

I wish to observe, that it greatly facilitates this operation to make a short incision through the integuments with the shoulder of a lancet, so as to lay bare the tunica vaginalis, through which the trocar passes with much greater ease than when it is pushed through the integuments which it is apt to drive before it, and thus gives more pain to the patient, and trouble to the operator.

REMARKS BY THE EDITORS.

There are two or three hints we would readily offer to our "Country Practitioner." We shall be glad if any other correspondent will enlarge on the subject, and if he thinks it necessary, correct our remarks, which cannot strictly be called practical, as we have had few opportunities of performing the operation.

It is of the utmost consequence that the glasses be perfectly dry as well as warm, when applied. This is particularly necessary when the glasses are applied after the scarification is made.

It cannot be necessary to add, that the rarification by the heat should be accomplished immediately over the spot to which the glass is to be applied.

The operator should have glasses of different sizes, and even of different forms, to suit the part to which he applies them.

As often as a glass is removed for the application of a fresh one, the orifices should be carefully washed with warm water and a sponge, that no coagulum may remain on them.

All these remarks are obvious enough, but there is one more which does not occur so often as we might expect.

If the operation is performed on fat subjects, and particularly on the surface most loaded with fat, the process will be tedious in spite of all our caution. This more commonly occurs in the parietes of the abdomen; but the whole front surface of the trunk, particularly in females who are not young, is often so charged with obesity, as to be scantily provided with blood vessels.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I Believe there is but one danger or one difficulty attendant exclusively on the *operation* of Lithotomy, (viz.) the probability of the beak of the Gorget slipping from the groove of the staff.

To obviate this inconvenience, therefore, is the object of the present paper; but as my contrivance for this end is simple, and the attainment of it important, I am inclined to suspect that the same has been attempted, and laid aside, from a decided conviction of its impracticability. If, however, such should not have been the case, and your superior judgment detect no palpable imperfection in the plan, I should be obliged by the insertion of it in your Journal.

I would have the beak of the gorget made larger than usual, and the neck belonging to the beak (if I may so express myself) rather thinner; the front edge of it might be made sharp, so as to divide the urethra with the more ease; thus much for the gorget.

I would have a certain portion in the groove of the staff, (viz.) somewhat about an inch on each side the curvature of it, almost closed up by a gradual approximation of its sides; so that in its practical application, when the beak of the gorget arrives at the bend of the staff, which is both the critical and *contracted* part, the beak being larger than the slit of the staff in the place, and the neck of the beak being smaller; the gorget must follow the course of the staff, so long as it cannot slip out of it, and the contraction of the groove may be continued to within an inch of its extremity; thus may the gorget be extricated from the staff with the ordinary facility.

The excellence of a communication is not in proportion to the pages it occupies; I shall therefore briefly conclude, by observing, that as a pupil, I am not in a situation for proving the excellence of my plan by the test of experiment; but many are in such a situation, to whom the contents of your Journal are familiar. To such I apply; let them lay the credit of the invention to the proposer, and reserve the honour of its first application to themselves.

Birmingham, June 21, 1809.

" Our

"Our readers will perceive that though the following is not the production of a Medical Writer, yet, that it is written by a man of science, who felt in himself so many of the symptoms as to induce him to watch it carefully in others. The descriptions are at once lively, impressive, and correct."

OBSERVATIONS ON NERVOUS DISORDERS. By the Rev. Mr. PATRICK.

FEW works published by medical writers are so unsatisfactory and so defective in complete information, as those which have attempted to elucidate the subtle subject of nervous complaints. The anatomy of the brain, and the peculiar mode in which mind acts upon matter and body, escape the most sagacious Inquirer. Medical men, as they are rarely nervous, cannot speak the clear language of personal experience. Were I anxious to investigate the mechanism of a watch, I would listen to the experienced knowledge of a veteran watch-maker, not to the theories of a Cantabrigian lecturer on the mechanical powers.

On entering upon so delicate a subject, I tremble lest a fancy too animated, descriptions too lively, or language too faithfully picturesque, should increase the numbers of the nervous patients, or should hurry into that state of mental disease, those, to whom Nature has given a tendency and a mournful fitness for so wonderful an affection.

Let such readers either close this Essay at its first page, or should a rash curiosity lead them to peruse the whole, let their memory in future life dwell on the precautions and preventives, with which the Essay will conclude, and on the remedies which it will copiously and humanely prescribe; remedies on which a successful practice has stamped an indisputable value.

While the muscles and the fibres are the obvious, the nerves, which are of a similar nature, are the more delicate and secret portions of the body, which give to it all its locomotive powers, and impart to the brain its action of thinking. Their anatomical delineation may be read with every advantage in the Encyclopedia Britannica, under the article "nerves and nervous complaints." The nerves, like the Eolian harp, tremble at every vibration from external objects, and flutter at every collision of thought. They are the most delicate subdivision of our animal economy. They are too sensitive, and too irritable. I mean by irritation, neither furious passion, nor dark revenge; but a tendency to excessive excitement, and an agitation too extravagant for its apparent cause. Such patients are
 attacked

attacked by a sensibility as keen as the sensibility of the infant, but it is unhappily accompanied with the reflecting powers of the man. They confess their weakness; they discover their want of judgment, or rather their want of firmness; yet the consciousness of such a frailty rather adds to their wretched sensation than rouses them to attempt their own cure. A respectable lady, who eventually died from a lethargy and a dropsy, superinduced by a tedious nervous affection, which had harrassed her during 30 years, assured the writer of this essay, that all who labour under a tendency to these curious disorders, may verify their own feelings, and may detect their own malady in the following description. "Some have hours of deep and awful grief; melancholy overspreads the soul; there is an appetite for retirement; for the house of the way-faring man in the wilderness; the soul is struggling through a mist; it feels its own large capacity for happiness, but happiness is denied to it." In different constitutions, and at different ages, some variety in the symptoms appear, but in all the patients an extraordinary, unexpected, and benumbing depression of spirits is experienced.

The grandfather of one of my early companions was so *loaded* and *overwhelmed* by this sensation that he blessed God, whenever the gout seized him, because it stimulated him with a very different feeling," and delivered him from its uniform and intolerable pressure. These two disorders alternately assailed him. No words, however poetical, and no images, however highly figurative, can paint to one who has not endured the torture, the peculiar weight and over-awing nature of this *mental chillness*, of this spiritual frost, which binds the cheerful current of thinking, and bends down the stubborn and reluctant mind to contemplate its present miseries alone, its immediate, its actual oppression. I have seen a lady, seated in her chair, motionless and apparently insensible; stupified with her own miseries; bending her eyes in terrible musing on the floor; the world lost to her; no friend, no sympathising relation, not even her aged father, able to draw from her a look, a word of consolation. In the midst of his own miseries, he tried, by the power of sacred music, to awaken her absorbed attention, and to recall her from her pains: a faint sigh alone conveyed to him her answer and her anguish. When such a wearisome weight of woe attacks the man of a firm mind and a robust frame, you perceive him anticipating the same *torpifying* sensation, as it spreads over his faculties and his soul, like a thick and sluggish cloud ef-

facing the light of day. I saw a studious man, under these awful visitations, rise from his table, and as it were, feel after his understanding; struggle to retain his coolness of judgment, and his sober discernment, but struggle in vain; mind was lost to him for a few moments; he had forgotten his business, his place, his present circumstances; his soul was enveloped in one dark cloud; he neither reflected on the past, nor indulged in hopes of the future; he only experienced the galling and bitter misery of the minute; this sentiment, and this sensation, was his only feeling, his only contemplation.

I knew another who attempted to convince himself that he had not lost his reason, and fortunately attempted *to count his ten fingers*. This singular employment gave the learned author a melancholy assurance that all mind was not taken from him, and partially relieved him from the *solitary* thoughts of his present distress. Madness is not a disorder of a nervous nature, nor attended with nervous symptoms; for it is a total delirium, a day-dream, an absence of consciousness. But the peculiar and discriminating misery of the nervous patient consists in feeling his own miseries, in the ability to recollect them, and in the oppressing conviction of his inability to overcome at the moment the present and acrid torment in the mind. Superficial writers and unexperienced physicians err upon these remarkable points of difference between the cases. I have dwelt at greater length upon this symptom, as it continues in some patients through many tedious years. To delineate with precision the symptoms, the origin, and the progress of the disorder in individual patients, it is necessary to give a summary view of their biography, and of their bodily frame.

My intimate friend, Mrs. G——, the wife of a clergyman, who married her from attachment, and treated her from early youth to a very advanced age with the fondest affection, and the most studied attention, fell insensibly into the wretched agony of nervous depression. Her figure was broad, her limbs square and fully formed; her eye mild, her temper placid; her society engaging, and her original disposition cheerful, but not so in the extreme; neither hysterical in her feelings, nor wild in her imagination. An office for life-insurances would have required a very low premium for her chance; a philosopher would have calculated upon her continued tranquillity. Vain hopes, and delusive estimates; she remembered that her first tendency towards a nervous affection arose from the
treatment

reatment to which she was exposed under a father, passionate, boisterous, rude, and despotic. His sallies of fury approached to a frenzy, and gave her infant frame those tremblings and shudderings which, probably, relaxed all her system and unnerved her mind. The second cause arose from the solitary life which she spent in a forlorn village on the banks of the Humber, during the first seven years of her marriage. Habituated to the tumult or the activity of a seaport, she confessed that the poets described in colours very false in her estimate of happiness, the dull repose and heavy stillness of a village of peasants, who "slowly plodded their way," amidst a Dutch-like country, and its stupid hedges. The horrible uniformity of so wearisome a residence, gradually wore down her mind to gloomy musings, and to the discontented images of her sombrous life. At this critical moment, her only daughter, all her pride and hope, when she had completed her education in France and returned to London, on her journey home, died in the capital after an illness of three days; at the same moment her sun set in night. Nothing remained to her, she remarked to me, but a sure return of misery when she contemplated the desolate and childless situation. In vain her numerous friends offered their sympathy and confidence. Her soul refused comfort. The dead never return, and she saw that nothing remained to her but languishment and sorrow. From that bitter hour to the night of her death, thirty years rolled over her head, only distinguished by increasing anguish. Some instances of her grief were romantically affecting. She frequently held in her livid hand her favourite watch from the morning to the night, to notice the spending even of every minute; so heavy to her was the lapse of time. If her husband by chance offered to take the watch, when he took his walk in the morning, she would shriek aloud for it; though her dwelling was contiguous to the clock in the parish church. She would peruse the letters of Lady Russel, twice each year, and contrast such misery with her own. In her work basket favourite epitaphs lay, which she daily read with bitter feeling; the one she preferred in Shakspeare, which ends with these cheering lines. Quiet consummation have, and renowned be thy grave. Every morning she was heard faintly and humbly to observe: "now I begin *another* day of misery;" and her last wish at every evening was, that she might be found a corpse in the morning. "On the anniversary of the month, and of the day in which her only daughter died, her suf-

ferings were still more poignant. She frequently passed both of them in her chamber. This custom gave a melancholy comfort to her troubled mind. It was a still and silent offering of respectful grief to the shade of her child." She not only absented herself from the genteel society in which she had moved, and relinquished the visits to the castle of Lord Mulgrave, to which she had been habituated, but she with a sigh would invite the poorest and stupidest females from three adjacent hospitals to take tea at her table in mournful succession, one on each day. She was soothed by the sight of those unfortunate persons, whose wants she was able to relieve, and in whose simple tales of woe she could feel an interest without the necessity of those deep reflections, and without those tremors of false delicacy, to which a sympathetic condolence with the rich subjects the speaker. A daily present richly rewarded such humble companions. It was no common fall and no usual descent in life, to sink to the level of paupers, from an education amid the ladies of the nobility. The scenes of Mulgrave Castle, appeared to her like visions which had closed in a dark night.

Other instances of nervous maladies have occurred in the county of York. A student of Cambridge, (who has attained to a high rank in the church) when he had taken his first degree, sought in the country, the strength and the health which he had injured by his studies at the college. His person was large and muscular, his stomach digested rapidly, and his rosy complexion promised a superfluity of blood, of generous humours, and of rustic vigour. By the excessive intensity of his application, and by the natural irritability of his constitution, sleep forsook him for one or two nights; a depression of spirits, and a torpid melancholy arrested all his powers of mind and of body. His relations compelled him to ride on a horse in a retired village; but he was unable to guide the reins; a poor man was hired to lead it by the bridle. The scholar and the fine genius sat on the saddle with an idiotic gaze, motionless, torpid, insensible. Our minds shudder at such a picture. He recovered his health, however, in one season, and his love of science returned. But his habits of life continue uniform, tranquil, and retired. His robust figure is still liable to disturbed sleep, and the faintest sound awakes him.

The wife of a merchant had risen from humble life into unexpected opulence; her pride and her delicacy increased with her fortune. She had possessed in her youth no
incon-

inconsiderable share of beauty, and the physician would have discovered in her figure every promise of long life and of perpetual health. The ambition of visiting her wealthier neighbours seized her, but she met with repulses and with disgrace. Discontented at her domestic and obscure situation, her soul brooded over it in indignant silence; a high nervous affection followed. Her husband prudently concealed her in her house, and compassionately administered to her food and medicine; yet the irritation of temper which the complaint had produced, caused her to dislike the presence of her husband. By the most gentle perseverance, she was restored to her family. A hectic flush in her complexion and a fiery keenness of eye are the only marks which attest to an intelligent observer the former existence of high nervous affection; as the transient view of a ruddy reflexion in the sky at midnight denotes to the natural philosopher the crater of an extinguished volcano.

A merchant, whose habit of body is thin and meagre, but who still possesses great activity and muscular energy, had engaged in expences, to which he deemed his fortune inadequate. A low nervous disorder harassed him during twelve months; his powers of judgment were impaired; his fancy was heated; he talked incessantly, but in a low tone; the slightest circumstance fluttered and alarmed him. He was persuaded with difficulty to invigorate and brace his constitution by daily drinking a pint of wine, and by daily walks. A still life, seclusion in a village, and the minute and friendly attention which was paid to his comfort by his family, recovered him to all his former habits and all his youthful industry.

A magistrate, with whom the writer of this essay was acquainted, experienced from the dread of public censure on a delicate occasion, a bitter month of mental and nervous depression. His muscular and square frame trembled, his poetical imagination teemed with a thousand caprices, and gloomy apprehensions represented to him life as a certain scene of future disgrace. His prudent wife prevailed upon him to try the effect of a journey to his distant friends. The solitude of their own carriage, which moved slowly, the curiosity of the rural scenes in a remote country, which he had never visited, and the calm friendship of a surgeon who had been acquainted with all his family from his infancy, recruited his exhausted spirits, revived his attachments, and roused all his energies. No effects of the temporary disorder have remained.

The wife of a merchant, was, during a month, a victim

of low nerves. She retired to her chamber, convinced that her dissolution was approaching! yet her frame was calculated for exercise and activity. Her diet had been moderate, and she indulged in walks daily and regular; success had crowned her with wealth, and her husband and children adored her. Her external fortune was splendid, but the state of her mind was thus suddenly dismal and desolate. A foolish physician had prescribed bleeding to her, though it would have proved inevitable death. A wiser practitioner requested her to eat nutritive soups, and rich viands of easy digestion. He gradually convinced her, that her disease was seated in the imagination, not in the stomach; and that her resolution to attempt her former habits of exercise would be crowned with success. She determined in one week upon the effort; she succeeded: she has never experienced a relapse, while the unhappy month appears a troubled dream.

A very studious character in the same neighbourhood, laboured for two months under a similar affection. It commenced in a high nervous complaint, and when it had reduced the sufferer to a low state of spirits, it fortunately disappeared. His constitution was radically strong, his feelings intense, his heart warm, and his attachments ardent. A predisposition to pensive melancholy attended him at school. When an old companion quitted the school to enter the stage of life in some distant city, he was heard to sigh deeply at the departure of a young friend, whom probably he should see no more; he repeatedly retired into the fields to weep the loss; and reclined on the bank of some lonely stream, keenly deplored the separation. Epitaphs and gloomy descriptions, and solemn or pathetic music, were the singular choice of his boyish years. A mother, too fond and too indulgent, awakened in his soul those affectionate raptures, to which the rude and harsh scenes of human life afford a terrible contrast. The mind was disqualified by such tenderness of treatment, to bear with manly firmness the opposition of rivals, the malice of enemies, the taunts of pride, and the ingratitude of friends. His father was capricious, alternately too severe and too lenient, too indignant, and too flattering. Such a conduct subjected the boy to the opposite passions of fear and of love, of humility and of pride. His master at the public school bestowed unbounded applause on his progress, and hailed his literary prospects: but he poured, by a wretched abuse of learned authority and of puritanical eloquence, into the inexperienced fancies of his pupils,

pils, a dark and frightful vision of the future evils which they were instructed to expect. Hope, the sunshine of the youthful breast, was damped, and exchanged for dull despondency. Two tutors of fanatic opinions, dismal as those of the master, attempted in the college at which he was entered, to continue the despair and the gloom in which he had been educated. A series of disappointments, and a succession of sicknesses caused by excessive studies, blasted his fairest promise of eminence, and thus all the prizes which he had gained, and all the commendations of the president and the master, yielded no emolument and no promotion.

The nightingale plunder'd, the mate-widow'd dove,
The warbled complaint of the suffering grove;
To my life as it varied, gave sentiment new,
The object still changing, the sympathy true.

In a few years, when an accident gained him a living, his past misfortunes were augmented by the nervous disorder, which was aggravated by temporary causes of a domestic and private nature. He had refused to his body, by the protraction of his studies to a late hour, the necessary portion of sleep. His whole frame was shaken by a ride to too great a distance on a sultry Sunday, and by the sudden suppression of perspiration in a damp church. He ought to have retired to sleep immediately, but he was interrupted in his plan. Nature will be avenged on our inattention: he was afterwards unable to sleep during three tedious nights. His resolution was firm and his courage was unshaken, in this wakeful state of mental suffering; but his fancy was too active and too vivid to admit repose. His powers of recollection never failed him, though his judgment acted in a slow and languid manner. A nervous head-ache distressed him, and employed all his thoughts upon the manner in which it could be relieved. As he lived remote from the medical friend, in whose skill he placed his confidence, he prescribed a diet for his own case. The extremity of his pains would have reduced him to a skeleton, had he not supported nature with a nutritious diet. Opium would not only have agitated and injured his muscular frame, but would have been rejected by his stomach; while the breathing a vein would have weakened his constitution, and would not have alleviated his anguish. During the vigils of these three nights, his thoughts flowed with rapidity, and his reflections were desultory. But the sweetest sensation ever experienced, was the refreshment which he derived from the first hour of returning sleep on the fourth day.

day. It produced a profuse, but an invigorating perspiration. The whole body seemed awakened to new life, and to supreme delight. Every sense was soothed, and joy seemed diffused through all the limbs. No head-ache remained, no disagreeable symptom. Such a concussion, however, was given to his constitution, that his complaint was followed by depressed spirits. A prudent retirement to a healthful village, a temperate diet of fruits and jellies, and an abstinence from vinous and spirituous liquors, completed his restoration in one month. He has suffered from it no diminution in his bodily strength, and no loss in his mental powers. His profession conduces to his still and gentle life, and his religious principles forbid his indulgence in revenge or anger, or in any sensations but those of charity and benevolence.

A clergyman in our neighbourhood was disappointed in his dearest hopes by the death of a young lady, to whom he was engaged: and dejection succeeded. He ceased to love life, and invoked during many months, death as his expected friend. The solitude of a residence in a village increased the disorder, and his too active thoughts, which devoured his tranquillity, "made the meat they fed on." His companions gradually recalled him, by soothing his distress, to more active scenes. He travelled the tour of southern Europe. Fortune reserved for him a second matrimonial engagement, which rewarded him for his former sufferings. And all his advanced life has been adorned by numerous charities to the poor, by personal visits to their families in sickness, by donations of medicine or loans of money, and by the medical advice, which a medical education enabled him to give to the poor, or to his companions. "*Haud ignarus mali, miseris succurrere discit.*" while his recollection of his misery from the attack on his own nerves has softened a heart naturally kind, it has re-animated his attention to the afflicted. The attentive reader will learn, we trust, from this collection of nervous cases, the precautions and preventives which he should employ against the commencement of nervous disorders, and the diet, the arts, the measures which he should adopt, should they unhappily surprise him. Total change of scene and even manner of life is generally requisite, with absence from every object which strongly affects the patient; and the mind ought to be engaged by new attentions and new diversion. The medical treatment of such complaints is exceedingly well understood by really regular physicians of extended practice; such reside chiefly in London.

London. So much delicacy, learned attention, and profound wisdom is there exhibited, in the management of such cases, that, I think, nothing can be added to their skill. The wisest caution in country towns is, to shun application to empirics of any description. Such a sufferer should be doubly cautious against nervous attacks, if his nature be very proud, or timid, or delicate. He should guard against sudden alarms in the night, or any sudden dangers in the day. He should inure his mind to bear scenes, the first view of which revolt his feelings and give a moral shock to his mind. He should habituate his fancy to contrasts. He should persevere in acquiring fortitude and firmness. He should seek no scenes of turbulence and indulge in no excess: but should his fortune permit, "keep the noiseless tenor of his way." Should he enjoy leisure, gentle study and successive exercise will be indispensable to his health. Should he act a part on the public stage of life, and enter on a crowded theatre of action, let him occasionally indulge in retirement, and frequently relax from his labours. The nervous constitution may suffer equally from an excessive tension of its fibres as from an excessive indolence. The fair sex in *our* age must be doubly warned against those habits which create nervous disorders. For though they are not as hereditary as the gout or the consumption, the child will acquire by an imitation of its nervous mother, a terrible predisposition to the complaint. Hence none of the wretched romances or novels, which convey to the irritable imaginations of girls ideas of false delicacy, of premature womanhood, of vanity and confidence, of pride and pomp, of parade and fashion, should ever pass into the hands of the young. Hence female education should wisely prepare them to encounter the difficulties and the cares of married or domestic life: and they should not be taught to expect an unvaried scene of ease and competence, or an incessant succession of "lovers, friends, and honourable characters." Such deceitful colourings and pictures of society, such "skies of gold and seas of amber," will inflame the female imagination, will inspire hopes of a happiness which they must never taste, and will conceal from them the miseries incident to human life. Evils thus unforeseen will shock their timorous nerves: deaths, bankruptcies, or sickness, will destroy their spirits, and sink them into despondency: hysteric and hectic affections will lead to convulsions, and palsies will introduce decrepitude, dotage, and premature death.—We will not allow our imagination to

to rove in pursuit of the other forms of nervous disease or debility : the present enumeration of them will be sufficiently terrific and appalling.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IF you rejected my last Communication, because it contained personal and irrelevant observations, I hope this will not meet the same fate, from the same cause.

The high, and I fear, extravagant encomiums, with which Dr. Jackson set forth the sanative powers of the spider's-web, not only in intermittent but in other fevers, would naturally have a tendency to elevate expectation. Being one of those persons who wish to try every thing for the cure or alleviation of disease, that comes fairly recommended, or has a chance of success; and, after reading Dr. Jackson's paper, I immediately set about selecting the most recent cob-webs I could find, in order to exhibit them in an obstinate case of intermittent fever then under my care. I scrupulously attended to the Doctor's directions in making up the pills and in exhibiting them, but held out no extraordinary expectations to the patient, nor informed her what she was taking. To my own, as well as the patient's disappointment, the rigor came on and went through its course as usual, succeeded by the same degree of fever; nor could I discover, by a strict examination, that the patient had felt any alteration whatever in regard to her sensations. The pills were, in this case, evidently inert and useless. About the same time, a neighbouring surgeon was induced, from Dr. Jackson's report, to try the cob-web also; the result was, (as he informed me) that the disease was not at all arrested in its progress, nor had the pills any discoverable effect. How these apparent inconsistencies, in regard to Dr. Jackson's report and mine are to be reconciled, I cannot tell? You suggest a probability, that the webs which Dr. Jackson employed, were produced from a different species of spider: it may be so; though I think, that in the numerous cases in which Dr. J. appears to have given them, he would have met with the different kinds. An error must exist somewhere, perhaps Dr. J. will be able to throw more
light

light upon the subject; for surely, if there are cob-webs that possess such important medicinal powers as Dr. Jackson has described, the medical profession would be extremely culpable in passing by the subject without further investigation.

A Correspondent of yours, a Mr. Scott, is perfectly right in conjecturing me to be the writer of the communication upon "*Arsenic in Intermittent Fevers.*" I think every practitioner would agree with me in disapproving of female interlopers, especially if they hesitate not to exhibit such a potent and poisonous article as arsenic. Who would not expect to see mischief? Upon further consideration, surely Mr. Scott will "*altogether disapprove*" of such bold and inconsiderate practice, though, at present, he seems to entertain a high notion of the abilities of "*Lady Doctors,*" more especially in "*simple complaints.*"

I agree decidedly with Mr. S. that a timid and uncertain exhibition of our most useful medicines is too often met with; but this extreme, in my opinion, is quite as safe to the patient as the contrary, and much less hazardous to the credit and reputation of the practitioner. Mr. Scott's situation is widely different from that of a country surgeon; he may exhibit his medicines in what quantity and form he pleases with impunity; and the constitution of a sailor will hardly bear a comparison with that of a weak delicate female. But a country practitioner is often watched with unceasing attention; patients are not easily persuaded that a medicine should act violently in order to do good; or, if he commits a mistake, it may be detected, and is not soon forgotten, perhaps he is discarded; the patient has influence with friends; and there are persons who would dwell, with studied aggravation, upon the error, in order to shake and ruin the confidence of the patient in the practitioner. This is by no means an uncommon case, and is more especially met with by the younger branches of the profession.

Mr. Scott's case will go but little way to corroborate Dr. Jackson's testimony in favour of the cob-web. The abhorrence and fear excited in the lady by swallowing the spider, will sufficiently account for the disappearance of the rigor. The operation of fear upon the system will produce even death itself; and a much less degree of it, would be sufficient to cure the paroxysm of an ague.

The indiscriminate manner in which Mr. Scott condemns all anonymous publications, surprises me extremely; if he had only been a constant reader of your pages,

pages, he must have met with many anonymous papers, replete with science and knowledge. A man may have facts of the greatest importance to communicate, and yet may have many reasons for with-holding his name; situated as he is, there can scarcely be a motive or a wish for concealment, but situated as I am, I must once more subscribe myself,

AN ESSEX PRACTITIONER.

August 4, 1809.

I have subjoined a Case, and leave you to decide upon the propriety of inserting or rejecting it. It furnishes no practical results of importance, but is, I think, sufficiently extraordinary to deserve recording.

JAMES CLAYTON, aged 64, a healthy strong man, was admitted into Guy's Hospital, in the spring of 1808, under the care of Mr. Cooper, for a disease of the scrotum. He gave the following account of himself and of the origin of the complaint. In 1792, he was a private in the expedition to Holland, under the command of the Duke of York, and being exposed in the retreat of the army to severe cold, his scrotum was frozen; the part according to his description first became white, and soon changed to red and afterwards black; at the end of a fortnight the scrotum burst, and great part of it separated so as to expose and lay bare the testes; at the commencement of the complaint he was obliged to march on foot, but soon after the separation of the parts, he was carried upon a waggon, and after marching and riding for near a month, he found temporary quarters in a barn; during his stay here, the wound healed, the testicles being covered, as he said, with new skin; this took place about two months from the separation of the scrotum; during this period, the only application made use of was a poultice composed of bread, lard, and water; the discharge was but small in quantity; he remarked that the scrotum and penis afterwards continued much enlarged.

After landing in England, he was discharged, and laboured as a husbandman for his livelihood, without inconvenience from his former complaint, till about Christmas, 1807, fifteen years after his return from Holland, when being much exposed to wet and cold in his occupation, the scrotum began to look red and swell, with much pain; this swelling increased and became larger than his two fists, and after suffering much pain for three weeks, the principal part of the scrotum separated and again laid the testicles

cles bare. The man now sent for medical advice, and the surgeon to whom he applied sent him to Guy's Hospital, at which time he was in the following state.—His health was good, and his constitution appeared pretty strong. The line of separation was in a healthy granulating state; the left testicle was larger than the right, and almost completely exposed; the right testicle was smaller and not so much exposed. The bulb of the penis was seen covered partly by the accelerator urinæ muscle; the testes were but slightly sensible, the man not complaining upon their being gently pressed or handled; the penis was very large and flaccid. The man continued for several weeks in the hospital, during which time the granulating process gradually proceeded; nothing material was done on account of his obstinacy. Constitutional symptoms of disease now appeared; he complained of shortness of breath, with pain and uneasiness in the chest, and a cough; some medicines were ordered, but these symptoms increased, and he soon after died, as supposed, of Hydrothorax. The unusual confinement in the air of an hospital, probably, assisted in bringing on and hastening his death.

It was Mr. Cooper's wish to remove the left testicle, and then to bring the separated edges of the sore together by sutures, and this could not be done unless the testicle was removed; but the man would not consent to the operation though he was repeatedly solicited and advised. As no other probable assistance could be afforded, the parts were left to nature, and no doubt the wound would again have healed by granulation if the man had lived.

I regret I cannot send you a sketch of the parts. Mr. Cooper pointed out the singularity of the appearance repeatedly to the pupils, and, if I mistake not, his assistant made a drawing of it.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I Conceive nothing adds more to the advancement of medical or chirurgical knowledge than the plain statement of rare cases, with their treatment, whether attended by success or failure; and as the object of your valuable miscellany is to diffuse widely the various improvements of our profession,

fession, I hope the following case of Scirrhus Parotid Gland, successfully extirpated, will be thought worthy of insertion.

In sending this forth to the public, I do not pretend to any new operation, for we find it mentioned as far back as Heister, who says, he has "happily removed many parotid and submaxillary glands;" but his directions for the operation and cure, appear to me more calculated to deter, than encourage the operator; indeed, from our increased knowledge of anatomy and physiology, no surgeon of the present day can possibly profit by the rules he has laid down.*

Whether the parotid gland has been removed by any of our modern surgeons I know not, I never saw it done, nor have I met with any of my medical friends who have, yet I can assure those who may meet with a case similar to mine, that it may be done very safely and effectually, by a steady careful dissection, and a clear anatomical knowledge of the parts.

In February last a cottager's wife, the mother of three children, and again pregnant, aged 26, of healthy stamina, consulted me for a large oblong prominent tumour extending from under the lobe of the right ear, to about an inch below the angle of the lower jaw, of which she gave the following account. In November, 1803, she discovered a small tumour under the ear, when recovering from a tedious confinement of her first child; but as it was without pain, she took no notice of it for two years, when the increase in size rather than any uneasiness, caused her to apply for medical aid; various topical applications were used without effect; what they were I am not acquainted.

On examination I found an irregular knotty tumour, with a prickling lancinating pain, and enlarged veins meandering on its surface. From its situation and strong attachment at the upper end, there could not be a doubt of its being the parotid gland; and whether to remove it, or leave my patient to languish to that ultimatum of misery, the universal effect of cancer, I at first wavered. Having made up my mind, March 9th, I removed the disease by making an incision through the integuments, the whole length of the tumour, a little circular; I then made a second at the same point as the first, giving it an opposite direction, and united with the other in the inferior part, figuring an oval, careful to preserve sufficient skin to cover the wound when the

* Vide, Heister's Surgery, p. 46, Part II.

the tumour should be removed; I then dissected away the integuments, and as I found the least attachment at its lower end, I raised the tumour with a small hook and dissected it upwards, taking up the vessels as I divided them; in this I found no difficulty, except in two arteries which lay deep between the condyloid process of the lower jaw, and the mastoid process of the temporal bone; these I conceived to be the temporalis externa, and the transversalis faciei. This part of the operation was rather perplexing, from the deep and very firm attachment of the tumour under the ear, yet without any considerable loss of blood, I succeeded in securing the bleeding vessels with a small curved needle; I then brought the lips of the wound together by sutures and adhesive plaster, applying a soft thick pledgit of tow, spread with the cerat. lapid. calam. and a calico bandage over the whole.

I will not take up your time with a detail of each day's appearances during the cure, suffice to say it healed kindly without any thing particular occurring, except a small abscess, which I opened; the ligatures, seven in number, came away in due time, and the wound was completely healed on the 20th day after the operation.

The effects of the operation were such as might be expected on the division of the pes anserinus; that side became immediately paralytic, with the mouth drawn to the opposite side of the face*; my patient complained of great numbness, and often a painful sensation during the cure, as if nettled violently.

August 1st, These unpleasant symptoms are entirely gone off; still she has an imperfect use of the muscles both in mastication and articulation, though very evidently improved; the mouth has resumed its proper place, and the eyelids have regained their sensation and action completely; she says that side of her face is generally colder than the other; she does not experience any want of saliva in chewing her food; the muscles connected with the operation do not appear to have lost any of their plumpness, and except when she speaks, no difference can be observed in the two sides of the face.

I am, &c.

WILLIAM LUNN.

*Clayfield Hill, near Rotheram,
August 10, 1809.*

* It appears strange if Heister ever removed the Parotid Gland, that he did not mention this circumstance, which must unavoidably happen in this operation.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

PERMIT me to offer, through the medium of your very excellent Journal, a few remarks upon a paper by Mr. W. Simmons, of Manchester, published in the Edinburgh Medical Journal. This performance is entitled "*An Apology for the Cutting Gorget*," and is *grafted*, as Mr. Simmons expresses it, upon "*a few observations on Lithotomy, by Mr. Lawrence*." At first sight of such a title, an advocate for the cutting gorget would naturally enough expect, that in the opinion of Mr. S. there were defects in that instrument to apologise for; such, for instance, as not effectually dividing the prostate; occasionally dipping into the rectum; or the like. This however is by no means the case. Mr. Simmons has no complaint whatever to prefer against the cutting gorget. He has found no defect in that instrument to apologize for; what is much more praise-worthy, in my opinion, the scope of Mr. Simmons's production, is to afford the whole professional body irrefragable proof, by twenty cases of lithotomy, performed during twenty years, that the gorget is a most perfect instrument; though not quite so easy to manage, by the bye, as Mr. Lawrence would have the world believe.

And here I may be allowed to digress, as a very material circumstance invites discussion, or at least, inquiry. This is, what description of proof Mr. Simmons's irrefragable proof is? If I rightly apprehend the question, it only amounts to this, that Mr. Simmons, "during twenty years of practice, has operated with the cutting gorget upon twenty patients labouring of stone, with so much success, as to render him satisfied with the instrument." Now it certainly is very comfortable for every operator to feel satisfied with his own performance, both in lithotomy and every other operation: but that any degree of satisfaction, or self complacency, can amount to irrefragable proof of any thing whatever, is somewhat questionable; and as Mr. Simmons has neither stated the proportion of successful cases, nor pointed out the obstacles he may have encountered, nor the accidents that may intervene, I am induced, for the sake of information, to make the inquiries, which will close my few observations. I do this with less hesitation, because I am confident, that the same frankness which has induced Mr. Simmons to come forward voluntarily

rily to inform the professional world, will incline him to descend to such particulars as will supply all deficient information. Nor do I take an exception, that Mr. Simmons should choose for himself, success as a criterion of the fitness of that instrument. For although, in the same page, he attempts to detract from the merit of the celebrated Cheselden, by attributing the success of that great operator, not so much to the skilful operation he performed, as to his before unheard-of good fortune, "in meeting with so many patients labouring of stone, who were at the same time free from any disease of the kidneys, and whose habit did not predispose to inflammation or tetanic affection." Yet if Mr. Simmons with his favourite instrument, has equalled in success Mr. Cheselden with the knife, I shall consider such success as proof irrefragable in favour of the gorget, as far as twenty cases of lithotomy can make it so; all his patients having been free from disposition to tetanic affection, &c. &c. notwithstanding. But to proceed.

As it is my intention at some future period to avail myself of your useful Journal, in conveying to the public some remarks upon the defects, as well as excellencies of the cutting gorget, I shall excuse myself at present with this remark. Though I have used that instrument with as much success as my neighbours, and have felt confidence in it; yet when I reflect upon the great success of Cheselden's operation, and see, in the present day, anatomists of Mr. A. Cooper's eminence adopt the knife, after ample experience of the cutting gorget, I think it an example so well worthy of imitation, that I shall omit no opportunity of giving the knife a fair trial. Not however, in order that I may boast of my superior anatomical knowledge, or manual dexterity, but because I hope thereby to benefit my fellow creatures more effectually, and feel an ardent desire to imitate perfection whenever I discover it. For I am not, as Mr. Simmons expresses his feelings, "far from being inimical to improvement," but upon all occasions most anxious to adopt it. And I feel highly indebted to Mr. Lawrence for his candid and manly statement of a solitary case; concerning which, he has, in my opinion, left nothing to surmise; Mr. Simmons, therefore, has very prudently excused himself from hazarding his conjectures. In Mr. Lawrence's case, there is no concealment under an appearance of frankness. Mr. Lawrence gives a candid statement of the steps of an operation, whose success was complete, as far as respected the extraction of the stone;

but its termination was unsuccessful, and he does not conceal it. In fact, Mr. Lawrence was not so fortunate in his subject for operation, as Mr. Cheselden is reported to have been; otherwise, it might have been suspected, that the integrity of the patient's constitution, not so much the skill of the operator, or superiority of the operation, was the cause of success.

I have already over-stepped the bounds which I had prescribed to my remarks, and shall therefore leave the remainder of Mr. Simmons's performance to the comments of Mr. Lawrence's abler pen; and hasten to make a few inquiries respecting the particular facts, the omission of which renders Mr. Simmons's proof incomplete. For this purpose, I would inquire, what proportion of unsuccessful cases have occurred in Mr. Simmons's practice? Has Mr. Simmons ever experienced difficulty in introducing the gorget, such as to oblige him to withdraw it, and make a second effort at introduction? Has Mr. Simmons ever experienced so much resistance to the extraction of a stone, as to require a considerable effort to overcome it? As Mr. Simmons reports, "that in twenty *different* instances, he has not had occasion to enlarge the wound in the bladder in *one single instance*," I beg leave to inquire the size of the largest stone Mr. Simmons has extracted? Under what circumstances would Mr. Simmons recommend the enlargement of the wound? and in what particular manner would he effect its enlargement? Has Mr. Simmons ever known on inspecting one of his patients after death, that the side of the bladder had been grazed to some depth by the cutting edge of the gorget? Upon what principle does Mr. Simmons prefer Hunter's gorget to the double cutting gorget of Mr. A. Cooper? If Mr. Simmons will oblige me by an answer to these inquiries, I shall feel great satisfaction; he will, I trust, cheerfully comply with my request; and when I shall have received this information, and have made a fair trial with the knife, I shall then think myself qualified to draw some valid comparison between the gorget and knife; and hope you will again permit me to avail myself of your excellent medium for publication.

I am, &c.

THOMAS SMITH.

Carlisle, July 10, 1809.

Dr.

Dr. ALDER's *Proofs of his Theory from the Practice of Physic.*

(In Continuation.)

IN aid of the demonstrations already given, I wish now to offer some *Proofs from the Practice of Physic.*

It must be understood that my subject does not demand of me to lay down any plan of my own for the treatment of fevers; and that (as I said before) it requires only that I specify how the modes of practice hitherto used agree with my indications.—My indications (as far as I can see at present) are

1st. To prevent an impeded passage through the lungs.

2dly. To obviate it when coming on, or formed.

3dly. To provide for or palliate its consequences.

And I apprehend that under these three indications may be arranged nearly the whole of the practice of physic.

I consider the practice in the first place as divided into two parts; the first relating to the prevention, and the second to the treatment of diseases.

I profess, 1st. to treat only of the prevention of fevers; but as the prevention of an impeded pulmonary transmission is the prevention of most diseases, it is impossible for me in some degree not to treat at the same time of the prevention of other diseases.

1st. To prevent an impeded pulmonary transmission, certain measures ought to be adopted suitable to every particular case: certain other measures proper for cases, as arranged under species, genera, orders, and classes. But the arrangement I would adopt is somewhat different from that found in Nosologies.

I must here, in a slight degree, allude to all the causes of an impeded pulmonary transmission, as care must always be taken to ascertain what these are in every case, and to remove or lessen them. But as I trust these causes are tolerably fully and clearly stated in my outlines, and as I wish to avoid as much as possible repetition, and the trouble of treating of diseases in general, I will be content with respect to a general specification of these causes, with referring to Part the 1st. of my Outlines. And I conceive it will be a considerable help to any gentleman who thinks it worth his while *fully to comprehend my meaning*, to attend to the ways in which I have shewn these causes act.—But it must not be expected that gentlemen can by a *transient glance*, make themselves masters of these causes

and their modes of action, so as to derive much practical use: as, *in number*, they are so numerous, as to comprehend almost all the agents which act upon the human body; and *in their mode of action*, many of them so circuitous as well as intricate, that for a person to understand this well, he must come prepared with a correct and clear knowledge of the physiology and pathology of all the more important parts of the body; must know all the different susceptibilities, feelings, movements, and effects of the soul, and must besides constantly refer to the *materia medica*, and the discoveries in the meteorological and gaseous philosophy.

These causes of an impeded pulmonary transmission are divided into, 1st. Diseases, states and actions of the body; 2d. Passions and affections of the mind; and, 3d. External agents. And their mode of action will be found to be sometimes separately, sometimes in conjunction: sometimes upon the organs of respiration *directly*, (as distinguished into blood-vessels, air-vessels, muscles, cartilages, &c. and still minuter divisions,) and sometimes *indirectly*, and through the medium of the stomach or bowels, &c. or of each other.

But I intend to make a practical use of what I have there written, as far as my memory and other abilities will allow me, and is applicable to the present case.—Though at the same time I cannot but foresee that in doing this, according to my present plan, I shall be compelled to lay aside that systematic precision which I endeavoured to observe in my *Outlines*, and to take that manner and style which are more used in works of practice.

The articles used for the prevention of diseases, and particularly of fevers, are moderation in diet, mercury, bleeding, gentle purgatives, &c.; and on the other hand, the cold bath, bark and wine, a generous diet, and exercise, &c. also cheerfulness, and good air, &c.; and however contradictory many of these may seem, there are authentic testimonies that they all respectively have in different cases been used with success.

Bleeding, I am informed from a gentleman who practised in the West Indies, was performed upon a great number in one regiment there immediately after a campaign, and at the very time they changed a life of exertion for one of idleness by going into barracks; and those who were bled escaped free from fever, while most of the rest were soon seized with one which was very malignant, and many of them died. —Young, robust, plethoric people are very

very apt to catch a fever in hot countries where the air is bad; while women, who have the periodical evacuation, those who have lived much on vegetables, as French people and negroes; and those who have just gone through a slight course of mercury, &c. are found to be much more secure; nay, even the weak and the aged oftener escape, that is, provided these last are free from all strong disposition to congestive diseases. The reason of this must be, that the plethoric *in such situations* are more liable to venous congestions. It does not uniformly happen that while such men are employed in an active life they escape; many are seized with fevers and other complaints in such places while on the most active duty: but when they change active to an inactive life, it certainly has happened that they have suffered most. They did so in this case, and Buonaparte's army did so in Syria.—But we are not, nevertheless, (I think) to conclude that it was *simply* the exercise which preserved them, any more than we are from what followed, that it was the rest altogether which made them ill. *Assuredly*, want of exercise *alone* is not one of the most powerful causes of fever; the Franks (as they are called) in eastern countries, during bad epidemic states of the air, seclude themselves; yet they, above all others, remain most secure. And as for the converse, we find that many, during laborious and even during common corporeal exertion, (whether they have been much and long accustomed to it or not, but more particularly if they have not) are in many instances seized with fever: and barracks are not always the healthiest places in the world; and they are not always fixed on the healthiest spot. However, there is in many kinds of exertion a peculiar pleasure, and something to infuse ardour into the mind; while there is, on the other hand, much inquietude among plethoric robust people under inactivity. Sailors wearied with disappointments, and garrisons besieged, and in despair, are very apt when the air is bad, to be attacked with fevers or the scurvy; while on the other side any thing which raises the mental ardour of the former, or gives sanguine hope to the latter, quickly brings their bodies into a state of convalescence almost inconceivable. Dr. Falconer in his *Treatise on the Passions*, and Dr. Alderson on the *Factitious Metallic Tractors*, detail many cases which go much farther than to support this.

But retracing my steps; bleeding these plethoric people in such cases unquestionably has done good, and has prevented fever! *How* it has done it is not difficult to see.

it would take off the superabundant blood and distension from the veins, and particularly from the lungs, and in doing this, much also of the præternatural heat and inquietude of the body; from which the excretories would be relaxed, and that perspiration allowed for a considerable time, which before was the effect of interesting exercise, and thus bring the state of these peoples' body somewhat nearer to the condition of that of those mentioned who often escape. And with respect to the condition of all these people, it must be perfectly clear, that when the blood is taken off by *menstrual evacuations*, when it is derived to the surface by a previous course of *mercury*, when it is allowed freely to escape from the surface by any inflammatory diathesis constricting the vessels of the surface, being prevented by living on *vegetable diet*, by *gentle purgatives*, or *mercury*, or even in many simple cases of *weakness*, or *advanced age*; or when this inflammatory diathesis is taken off by *bleeding*;—I say, it must be perfectly clear that in all these cases the blood will be much less inclined to congest inwardly, and much less apt to form great congestions there. And in addition, slight congestions, or indeed any congestions there formed in these latter cases, will have much less danger in them, and will occasion much less mischief.

THE COLD BATH.—This, in warm climates, is too a preventive of diseases, and of fevers. It acts in several ways, 1st. it condenses the volume of the fluids, and abstracts heat: and, 2dly, while it takes off the heat of the skin and of the body, it by doing so, 1st. decreases the morbid irritability and inquietude of the whole body; and, 2d. it takes off that irritative diathesis before spoken off, as constricting the excretories. For perspiration may be checked by heat as well as by cold, and much oftener, and generally much more completely is so. But it is the heat of the body from an irritated state, and not external heat (further than as it causes this) which checks perspiration; and to prove the truth of this assertion, I need do no more than appeal to common observation. Those people who have a body properly prepared, have a free outlet by all the secretions and excretions, and can bear much external heat very well. While those who have somewhat of a turgid and irritated state of the vessels, will scarcely void any thing by the excretories, and are much incommoded or injured by heat. And when the corporeal heat is much greater, as in pneumonia, &c. and in fevers, the excretories are so constricted, that they will scarcely let off

off any thing, though the blood be ever so violently driven to them. And in such of these cases as cold can be safely used in, the cold bath will relax the excretories and let off the sweat.—But, independent of these, the cold bath has another effect, it checks the motion of the blood in the veins, and prevents it from hurrying so fast up to the lungs. I have used it in two cases of great difficulty of breathing, accompanied with heat of the body, with a most decided advantage. Two stronger proofs, I think, could not present themselves than these of the efficacy of the cold bath in preventing the blood during a morbid heat of the body from hurrying up to the lungs; as one of these cases certainly (but I think both) were attended with a straightened thorax; and the difficulty of breathing was very great, and (except a little præternatural heat) the sole complaint.

I come now to articles apparently of a contrary description to almost all of the preceding; and which yet, nevertheless, have (according to the most respectable testimonies) frequently been used as preventives of some kinds of fever (or at least of fever in some situations) with much effect;—these are, BARK, WINE, AND A GENEROUS DIET. I know it has been recommended in several parts of the fenny districts of this kingdom, to use bark and wine, and a good diet, to prevent the autumnal fevers frequent in such places. And grog is much resorted to on ship-board. But these articles are not to be used except under certain circumstances; they appear to me to be adapted to a cold and damp atmosphere; as the former are for a hot one. But all of these are not so diametrically opposite in their nature as to preclude the propriety of using them in some degree in both. BARK we know is a medicine which *may* be given with good effect in a warm climate. And wine, with discretion, and a nourishing diet, often answer the same indications. They all, however, have better effect when alternated with articles of a somewhat different description, and particularly now and then with laxatives. It is necessary to have the stomach and intestinal canal in good order, and where these remedies will effect this, they may be of service. It is necessary also that the strength be not much sunk by mere debility; and to prevent this from happening, and to remove it, they are useful. But when the strength is sinking from *disease*, they may be much misapplied; as the remedies in such a case, it is clear, must be appropriated to the disease, and these in many cases may not be suited to it.

Under a cold atmosphere, it is much more necessary to take stimuli than it is under a hot or warm one: as nothing but these can, when a person is well, enable him to go about his occupations, or indeed to resist the influence of the cold. And among these a good diet certainly is the best. But as when the air is bad, the stomach may get out of order, a little bark may be requisite. A generous diet does not in a cold country expand the fluids, heat the body, and induce a morbid state of irritability in it as it does in a hot one; and of consequence, does not assist the action of bad air in the former as it does in the latter: but on the contrary, if the vascular action of the system be not kept up so as to resist cold, cold by constricting the skin, and by that means preventing the free flow of blood from the internal parts, may in some degree assist bad air. In an unhealthy season, great nicety is required in the admission and use of stimuli.

I come now to articles which have had more effect in the prevention of diseases and of fevers, and the contrary of which have had more influence in producing them, than any other whatever; I mean, *CHEERFULNESS* and *GOOD AIR*.

I have in this and other works, written much to shew the power of these agents and their contrary, and the extensiveness of their application; and I mean shortly to add something more. But whoever has been much conversant with practical writers, cannot fail to know they have much power and are much in action. How good air operates is evident enough, if gentlemen will but take the trouble of thinking about it. It gently stimulates the lungs, and makes them transmit their blood freely. *This is the only way in which it can operate*; but certainly if it do operate its beneficial and excessively benign effects *in this way*, its operation is *the strongest proof possible of the truth of my theory*.

There may be much more room for doubt about the mode of operation of *cheerfulness*, and its operation may too be more *complex*. But I have no room in this letter to enter upon the consideration of it. Dr. Falconer has paid a minute attention to it; so has Tissot.

(To be continued.)

July 10, 1809.

On the salutary Effects of Topical Cold, in Two Cases of Strangulated Scrotal Hernia. By Dr. KINGLAKE.

ANXIOUS to avail myself of every opportunity afforded by my professional experience of recording important practical facts, I have thought it right to submit to public notice the subsequent Cases of Strangulated Scrotal Hernia, in which, prompt and decided relief was obtained by a sudden application of cold to the scrotum and adjoining parts.

A man in this town, aged about 50, had for several years been subject to an occasional descent of a portion of intestine into the scrotum. It at first, as in similar cases, shewed itself in the groin, in the usual situation of inguinal hernia, from thence it progressively advanced until it reached the scrotum, from whence, the patient had in general been able by his own exertions to return it into the cavity of the abdomen; he had also habitually worn a truss to obviate its renewed descent; but in the instance under consideration, either the truss failed in doing its office, or the exertion of the patient in walking a long journey, prevented it from affording the accustomed support, so that the intestine descended in an unusual quantity, and soon became painfully distended and severely strictured at the abdominal ring. The patient made every effort to return it, but could not accomplish it. The pain and swelling now rapidly increased, accompanied with vomiting and rigors. In this state of the case, Mr. Bagster, an ingenious surgeon of this town, was called to the patient's assistance, who after fruitlessly exerting his best endeavours to reduce the prolapsed part, had determined on injecting a tobacco-smoke clyster. The extreme torture the patient suffered, and the imminent danger that existed from the violence of the attending inflammation, occasioned my being consulted before any thing further was done. On seeing the prodigiously increased size and inflamed state of the scrotum, and learning that the effect of topical cold had not been tried, I directed it to be very freely applied.

Mr. Bagster immediately enveloped the scrotum in a large coarse cloth dripping from a bucket of cold water standing in the room. The patient violently shuddered on the water coming in contact with the inflamed part, and the volume of the swelling instantaneously diminished under its impression; perceiving this effect, I applied

plied one hand to the basis of the scrotum; and moderately pressed the hernial tumour with the other from below upwards, in the direction of the abdominal ring, and in less than one minute the prolapsed intestine returned into the cavity of the abdomen, occasioning by the suddenness with which it passed an audible sound. The patient was immediately freed from all pain, the stomach became settled, and no farther complaint of any sort was made. He has since, (now several months) remained in perfect health, and has prevented any farther descent of intestine by cautiously wearing a suitable truss.

In this case, the prolapsed intestine was so tightly compressed by the abdominal ring, and the quantity that had descended was so large, that the reduction of it, without lessening its bulk, appeared to be absolutely impracticable. The medicine given with a view to move the bowels could not be retained on the stomach, every thing swallowed was almost instantly rejected, which occasioned much additional pain in the incarcerated part; nor was it probable that clystering would have afforded the desired relief. The topical cold answered every purpose that could be wished. Not two minutes intervened from its application, to the complete replacement of the fallen intestine.

The other Case of the advantages of topical cold in strangulated hernia, occurred since that which has been recited. The subject of it was a middle-aged man; it had also existed as an habitual scrotal hernia for some time, but how long I do not know.

The patient had occasionally returned it without difficulty; but in the instance referred to, he could not render himself the accustomed relief. Tension and pain occurred at the abdominal ring, the prolapsed portion of intestine became vastly distended with air, forming with the scrotal and inguinal integuments an enormous swelling. In this state, Mr. George Norman first, and afterwards Mr. William Norman, both respectable surgeons at Langport, were called to the patient's assistance. These gentlemen had, conjointly, with much address, unavailingly tried the accustomed modes of relief during several hours. The case becoming hourly more threatening, by the increasing violence of inflammatory pain and tumefaction, I was desired to visit the patient in consultation. Finding, on inquiry, that topical cold had not been in the number of the means that had been fruitlessly employed, it was, at my recommendation, immediately resorted to. Cloths soaked in a pail of cold water, were repeatedly applied to the tumefied

fied part, and also to the thighs and legs, during about half an hour. The tensive hardness of the swelling soon diminished, and within an hour became so reduced, as to admit of the patient himself forcing back the prolapsed part by the lateral pressure which he made on the tumour by approximating his thighs, a mode in which he had been accustomed to effect its return on less difficult occasions. The re-placing of the hernial parts within the cavity of the abdomen, afforded the pain-worn patient immediate ease. The stomach ceased to be affected, and the pulse quickly exchanged its small, hard, and rapid beat, for a full, soft, and slow action.

In both these cases, topical cold proved the very remedy that could be desired. It was physically impossible, in either instance, to have effected the reduction of the protruded parts, without having previously diminished the tensive magnitude of the swelling. The stricture at the abdominal ring had the feel of unyielding solidity; the whole volume of the tumour was indeed most unimpressibly hard. The pain of the hernial swelling was extremely acute, with which the stomach sympathised by frequent efforts to vomit, whilst the heart and arterial system were agitated by rapid and unequal movements. Under these circumstances, stimulating the intestinal canal by whatever means effected, could hardly be supposed capable of liberating the confined parts. If intestinal excitement could avail, it already abounded in a distressing degree, and extended its morbid influence to the upper particle of the alimentary canal. No extent of bleeding compatible with life was likely to have diminished the scrotal swelling sufficiently to have admitted of the desired reduction. The powerful influence of topical cold, therefore, in the cases detailed, holds out a decided recommendation of the practice in similar instances.

That which experience has ascertained with regard to what the topical application of cold water is capable of effecting in cases of extreme hernial tumefaction, a just estimate of the nature of the circumstances forming the difficulty would have suggested as highly probable. The redundant heat prevailing in those painful cases, at once dilates the solid parts, and greatly rarifies the air contained in the cavity of the prolapsed intestine, the united effect of which goes to occasion the irreducible enlargement referred to. Topical cold in those instances acts salutarily by transferring heat, and thus contracting the expanded dimension into which the dilating influence of inflammatory

tory temperature had forced the hernial parts. The solid parts would in consequence contract, whilst the aerial contents of the prolapsed intestine would be condensed, and thus facility would be afforded to the reduction of parts which could not be returned in their undiminished bulk.

The operation of dividing the abdominal ring for the replacement of hernial parts, should on no occasion be resorted to before having persevered in the free application of cold water for at least one hour, during which time every collateral assistance should be also employed to forward the desired reduction. It deserves to be regarded as a practical rule, in cases where patients have been in the habit of occasionally returning by their own dexterity such hernial prolapsions as may befall them, that in difficult instances, after the tension and bulk of the swelling may have been somewhat diminished by topical cold, but not sufficiently to admit of immediately replacing its contents, that the patient should be directed to endeavour to effect the reduction in what may have been the accustomed manner. The experience derived from former success, added to the sensations of the patient, will be the surest guide to the best mode of making the most advantageous exertions for relief.

Topical cold in cases of irreducible hernia is not proposed as a new remedy. It probably has been often employed; indeed, it is only to be wondered that it is not become the established practice. The want of confidence in its efficacy, must have arisen from the insufficient manner in which it has been used. Its anti-inflamman powers are great, and it may be presumed will in general be found adequate to reducing within sufficient limits, the inflammatory enlargement attending hernial stricture.

Although the preceding instances relate more particularly to long standing hernia, yet it may be justly inferred, that the treatment would be equally effectual in cases of a recent descent of any portion of the contents of the abdomen through the abdominal ring.

The inflammatory irritation produced by the increasing stricture on the prolapsed parts is similar, whether the case be new or old. The only material difference is, that in the one case, the aperture of the abdominal ring has been rendered by repeated distension more capacious, and permits a larger quantity of parts to be protruded before painful compression be induced on them than the other; but when this has been produced, the necessity for relief is the same, and the danger of delay equally imminent. In recent

cent cases, therefore, as well as in those of long standing, the remedy deserves to be unweariedly applied; for although it should be eventually found not to have availed in rendering reduction practicable, yet it will at least have been importantly serviceable in repressing the progress of inflammation, in obviating gangrene, and in increasing the prospect of success from dividing the abdominal ring.

I would in these cases advise, after a sufficient trial of topical cold, that the patient should be put into a general cold bath, and be there retained in a suitable position for being aided in pressing back the prolapsed part for ten minutes at a time, and that if reduction should not have been effected, to repeat the cold bathing at intervals of half an hour, during at least three or four hours, before the attempt to relieve in this way should be abandoned as hopeless. The warm bath usually had recourse to on these occasions, by stimulating and distending the prolapsed part, is more likely to increase than to diminish the difficulty of reduction; and would rather tend to expedite than to retard the accession of gangrene. It sometimes indeed relieves pain, but (as in cases of enteritis) this is perhaps effected by destroying the little tone on the affected part that prevented the lifeless or gangrenous state from actually occurring.

If an adequate use of topical cold in hernial stricture of any description should become a prevailing practice, it is probable, that its decided efficacy will greatly lessen the danger that has hitherto accompanied these cases, whether attempted to be replaced by the hand, or consigned for the same purpose to the precarious aid of the Surgeon's knife.

I am, &c.

ROBERT KINGLAKE.

Taunton, August 14, 1809.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THERE is now living at Dunstow, in Oxfordshire, one William Goodwin, the son of George Goodwin, a carpenter, who, when he was about 12 years of age, was kicked

kicked by a horse a little below his stomach, rather towards the right side. He soon after became out of health, and complained of a pain in his bowels, which swelled very much. He had a fever and strong fits, in which he sometimes continued an hour or more; was delirious, and confined to his bed for half a year; and when he left it, was carried to and from it like a child. During this time he lost by degrees the use of his speech, his left arm, both his legs, and his appetite for his usual food and malt liquor; eating nothing but raw cheese, raw peas, and fruit of all kinds, whether native or foreign; but he principally subsisted on raw cheese, raw peas, and drank water. When he became a little better he moved about by means of a pair of crutches. But though he walked down stairs and steps in a natural way, he could only ascend them by walking backwards. After continuing in this state for seven or eight years, he went to the farm-houses in the village, to do such work as a cripple could perform; for by this time he had recovered the use of his left arm, and was tolerable healthy and cheerful.

In this improved state of health he continued for five or six years more; and about two years ago, laid aside, by very slow degrees, both his crutches. As his strength returned, his appetite for common food returned also. First he wished for a very small bit of cake or pudding, which though he ate it, did not agree with him; it was the same with other kinds of food, till he could eat all sorts of them; still, however, he continued dumb.

About a year ago, he was again so ill, that his life was thought to be in danger. During this last affliction, he one night said to a boy that slept with him, "I can speak." The youth being much surprised, informed some other branches of the family, who got up, and found it to be true. From that time his speech returned by hasty degrees, and in a few weeks his health was also restored. At this time he appears, to the admiration of his neighbours, perfectly recovered, save that his memory seems in some instances impaired; and I suspect, from his countenance, &c. that all his mental powers have not yet regained their proper vigour. He goes to the work of a day labourer, and is a member of a volunteer corps in that neighbourhood.

Almost every fact in this account I received this day from the young man himself, and his mother, at their house in Dunstow; and the substance of it I had received

ceived several times before from their neighbours. I hope some medical gentleman will favour us with a philosophical solution of these phenomena.

I am, &c.

JOSEPH JEVANS.

Bloxham, June 26, 1809.

To Dr. ADAMS.

SIR,

IN my Report of the Progress of Medicine, for the year 1808, it was stated that the occurrence of *phthisis pulmonalis* was more frequent in the South-west of Devonshire, than in London.

I have reason to believe that this is not a correct statement; and as the ascertainment of unequivocal facts, and the communication of them to the medical world, is one of the principal objects of your Journal, I cannot doubt but you will readily admit the following explanation.

Among Dr. Woolcombe's tables there is one, the intent of which is to determine the proportional mortality from consumption. In this table is contained the deaths from consumption at Bristol, London, and Plymouth, in nearly corresponding periods. And it appears that the proportional mortality from this disease at Bristol, was 1—to 2.2; at London 1—to 3.2; at Plymouth 1—to 4.28.

Admitting this calculation, "it will be found that the phthisical mortality of Plymouth has of late years been nearly one fourth less than in London, and less by nearly one half than in Bristol."

W. ROYSTON.

*Princes Street, Cavendish Square,
August 15, 1809.*

CRITICAL ANALYSIS
OF THE
RECENT PUBLICATIONS
ON THE
**DIFFERENT BRANCHES OF PHYSIC, SURGERY,
AND MEDICAL PHILOSOPHY.**

Medico-Chirurgical Transactions; published by the Medical and Chirurgical Society of London. Vol. I.

(Concluded from our last, pp. 152—166.)

ARTICLE 19.—Observations on the Distemper in Dogs. By EDWARD JENNER, M. D. F. R. S.

This is a truly valuable paper, inasmuch as it describes a canine epizootic with great accuracy from its commencement through all its forms, with the appearances on dissection. The disease begins principally with inflammation in the substance of the lungs, and all the mucous membrane connected with it, even to the nostrils, and the membranes lining the bones. These are sometimes so inflamed as to produce extravasation of blood, or rather effusion, with coagulation on the surface.

“ The breathing is short and quick, and the breath is often fetid. The teeth are covered with dark looking mucus. There is frequently a vomiting of a glary fluid. The dog commonly refuses food, but his thirst seems insatiable, and nothing seems to cheer him like the sight of water. The bowels, though generally constipated as the disease advances, are frequently affected with diarrhœa at its commencement. The eyes are inflamed; and the sight is often obscured by mucus secreted from the eye-lids, or by the opacity of the cornea. The brain is often affected as early as the second day after the attack. The animal becomes stupid, and his general habits are changed. In this state, if not prevented by loss of strength, he sometimes wanders from his home. He is frequently endeavouring to expel, by forcible expirations, the mucus from the trachea and fauces, with a peculiar rattling noise. His jaws are generally smeared with it, and it sometimes flows out in a frothy state, from his frequent champing. During the progress of the disease, especially in its advanced stages, he is disposed to bite and gnaw any thing within its reach. He has sometimes epileptic fits, or quick successions of general, though slight convulsive spasms of the muscles. If the dog survives, this affection of the muscles continues through life. He is often attacked with fits of a different description. He first staggers, then tumbles, rolls, cries as if whipped, and tears up the ground with his teeth and fore-feet. He then lies down senseless and exhausted. On recovering he gets up, moves his tail, looks placid, comes to a whistle, and appears in every

every respect much better than before the attack. The eyes, during this paroxysm, look bright, and unless previously rendered dim by mucus, or opacity of the cornea, seem as if they were starting from the sockets. He becomes emaciated, and totters from feebleness in attempting to walk, or from a partial paralysis of the hind legs. In this state he sometimes lingers on till the third or fourth week, and then either begins to shew signs of returning health (which seldom happens when the symptoms have continued with this degree of violence) or expires. During convalescence, he has sometimes, though rarely, profuse hæmorrhage from the nose. When the inflammation of the lungs is very severe, he frequently dies on the third day. I knew one instance of a dog's dying within twenty-four hours after the seizure, and in that short space of time the greater portion of the lungs was, from exudation, converted into a substance nearly as solid as the liver of a sound animal. In this case, the liver itself was considerably inflamed, and the eyes and flesh universally were tinged with yellow, though I did not observe any thing obstructing the biliary ducts. In other instances, I have also observed the eyes looking yellow.

"The above is a description of the disease in its severest form; but in this, as in the diseases of the human body, there is every gradation in its violence. There is also another affinity to some human diseases, viz. that the animal which has once gone through it, very rarely meets with a second attack. Fortunately, this distemper is not communicable to man. Neither the effluvia from the diseased dog, nor the bite, have proved in any instance infectious; but as it has often been confounded with canine madness, as I have before observed, it is to be wished that it were more generally understood; for those who are bitten by a dog in this state, are sometimes thrown into such perturbation, that hydrophobic symptoms have actually arisen from the workings of the imagination. Mr. John Hunter used to speak of a case somewhat of this description in his lectures.* Having never, to a certainty, seen a dog with hydrophobia, I am of course unable to lay down a positive criterion for distinguishing between that disease and the distemper, in the precise way I could wish; but if the facts have been correctly stated, that in hydrophobia the eye of the dog has more than ordinary vivacity in it, and as the term implies, he refuses to take water, and shudders even at the sight of it, while in the distemper he

* A gentleman who received a severe bite from a dog, soon after fancied the animal was mad. He felt a horror at the sight of liquids, and was actually convulsed on attempting to swallow them. So uncontrollable were his prepossessions, that Mr. Hunter conceived he would have died, had not the dog which inflicted the wound been fortunately found and brought into his room in perfect health. This soon restored his mind to a state of tranquillity. The sight of water no longer affected him, and he quickly recovered.

looks dull and stupid, is always seeking after water, and never satisfied with what he drinks, there can be no loss for a ready discriminating line between the two diseases."

Such is this valuable record, for which we are under many obligations to Dr. Jenner. But we are not satisfied in three points of no small importance. First, as to the name; though we doubt not, among the farriers in Gloucestershire, the disease may be called *The Distemper*, yet we suspect the same name is given to many other canine diseases in other parts of England, and perhaps even in Gloucestershire itself. We have seen young dogs about the period of their advancement to puberty, with all the symptoms of epilepsy recurring very frequent. This has been called by the breeders "the Distemper," though it was neither contagious, nor attended with any pulmonary symptom, unless a foaming of the mouth can be called such. We mention this, not to undervalue Dr. Jenner's communication, but to induce him and other philosophers to study, with the diseases of animals, the vernacular names given to them in different parts of the kingdom.*

Another objection we have, is, to the certainty with which the author assures us, that the disease resembles those contagions to which the human race is liable, viz. "that the animal which has once gone through it *very rarely* meets with a second attack." This fact should be better ascertained before we determine that the disease here described is any thing more than the canine *febris carcerum*, perhaps determined to those particular organs by some constitution of the atmosphere.

Our third objection is, to the diagnostic distinction between this disease and rabies. It is but justice to Dr. Jenner to repeat his remark, that having never seen a dog with hydrophobia, he cannot lay down a positive distinguishing criterion. But it is well known, that in some dogs, whose bite has induced rabies, no difficulty of swallowing, nor disgust at the sight of water, has occurred.

ARTICLE 20.—*Two Cases of Small-pox Infection communicated to the Fetus in Utero, under particular Circumstances, with additional Remarks.* BY EDWARD JENNER, M. D. F. R. S.

In the first of these Cases, the mother having previously passed through small-pox, was, a few days before her delivery, exposed to the sight and smell of a most disgusting subject under that disease. The child, when born, was free from disease, but on the 5th day after became indisposed, and on the 7th variolous pustules appeared, which matured in the usual way. The mother was no way indisposed.

"This case," says Dr. Jenner, "decidedly proves, that the small-pox virus may affect the human frame, even to its inmost recesses,

* We shall feel particularly thankful if any country gentleman, whether practitioner or not, will favour us with communications on these subjects.

recesses, although apparently secured from its effects, and yet give no evidence of its presence by exciting any perceptible disorder."—We are not perfectly satisfied with this reasoning. The mother and child, though nourished from the same sources, are distinct animals; and though we well know, that persons who have felt the effects of the variolous and some other morbid poisons, will for ever after be found insensible to their effects, yet we have no reason to suppose the effluvia are not absorbed by them, and thrown out again at the common emunctories. But should these effluvia, in the course of circulation, be applied to an animal still susceptible of the disease, there can be no reason, that we know, why that animal should not be affected. In this manner Mr. Hunter conceives a child in utero may be affected by venereal matter received by its mother in actu coitus.

The other case is perhaps more curious, and still more interesting. Whilst small-pox was rife in a village, and two children inoculated in a family, the mother, at that time in the last month of her pregnancy, was vaccinated one day after the inoculation of her children; the vaccination succeeded in the usual form. Five weeks afterwards she was delivered of a female child, which had all the appearance of small-pox eruption in its early stage. This was the 11th of June. On the 19th the infant expired.

There is something peculiarly interesting in this case. Either the effect of small-pox *effluvia* was superseded in the woman by vaccination, as it may be by the common process of small-pox *inoculation*; or the woman received the effluvia in such a state, that it was conveyed to the fœtus at the time when she was rendered unsusceptible of it by the previous vaccination. The latter seems most probable from the date of the different events. Mr. Gervis, who communicated the paper to Dr. Jenner, concludes with the following words.

"In addition to the circumstance of the mother's conveying the variolous infection to her unborn child, without feeling any indisposition from its action on her own constitution, I must remark that there cannot be a stronger proof of the efficacy of vaccine inoculation than this case affords. But, happily, proofs are not wanted, or I could give my testimony to a great extent."

ARTICLE 21.—*Historical Account of Phillip Howorth, a Boy, in whom Signs of Puberty commenced at an early Age.* By ANTHONY WHITE, M. B. Assistant Surgeon to the Westminster Hospital.

This most interesting history, as we remarked of a former article, though highly worthy of record, can furnish no particular practical hints. We therefore announce it, principally, that future inquirers may be directed where to find it.

The child was born at Quebec Mews, Feb. 1806. He appeared large and healthy; his head was covered with hair of a considerable length; the sutures were closed. At seven months he cut the two

lower incisors, and in a quick succession twenty teeth appeared, but not in their regular order. At the age of twelve months he showed marks of disease, which by the event proved to be symptomatic of approaching puberty. All the marks of that change were soon apparent, excepting, that only the rudiments of a beard appear, even to the date of the communication; the pubes and scrotum are however covered with black hair. He has already lost one of his upper teeth. We conceive these are only the temporary teeth; but as the author has promised the Society a continued communication of the future progress in his subject, we must wait for that information.

In August 1808, the boy's height was 3 feet 2 inches; his weight 47 pounds; his health perfect;* his habits partaking of the child, from a want probably of the knowledge of any thing beyond the confined circle of his birth; but his temper, though mild, for the most part manly; his appetite voracious; his features particularly expressive; his muscular strength considerable.

On the whole, we think this case resembles most the account contained in one of the early volumes of Dodsley's Annual Register, we believe almost the only one on record, not referred to by the author of the paper.

The volume closes with an account of presents of books received, and the names of the donors. We cannot conclude our remarks without congratulating the public on the accumulation of so many useful facts, heartily wishing the Society may continue equally successful in collecting, and judicious in selecting materials for a future volume.

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Medical Report for Nottingham, from March 1807 to March 1808,
By JAMES CLARKE, M. D. Physician to the General Hospital,
and to the Vaccine Institution.

THE first case here related is in many respects highly important; we shall therefore transcribe it in the words of the author. The patient was married; had only one child, who was ten years old; found no reason to suspect herself with child; the symptoms were menorrhagia, pain in the abdomen, which was somewhat enlarged; frequent vomiting of food; faintness, and costiveness.

"October 21st. She has been much better, and thought herself nearly well, but was yesterday seized with pain much resembling labour. The surgeon being sent for, arrived after she had, as the attendants said, miscarried. On careful examination, no embryo was discovered;

"* Minime præter eundem est, quod hic puer virilis, masturbatone interdum utitur. Semen tali modo paratum, ipse ego bis vidi; et, me iudice, perfectum et bene elaboratum evadit.—This has taken place, the mother informs me, from the completion of the second year."

discovered; but the discharge consisted of two quarts of hydatids, mixed with pulp like albumen, and a little blood; the hydatids were semipellucid vesicles, about the size of hazel-nuts, connected together by small necks, like bunches of grapes. She has this morning passed some more of the same nature, but nothing like an embryo. Two days since she passed, with a gush of blood, a mass about the size of the palm of the hand, which from her description was albumen. She can this morning turn in bed without any pain, and feels very pleasant and light; the abdomen has sunk to its natural size; her gums and mouth are affected by the mercury; for the last two days she has experienced frequent desire to pass urine, of which she has voided more than usual. Belly regular; pulse 96, regular, and moderately full; some thirst. The medicines omitted; an aperient to be taken immediately, a saline mixture in the day, and a gargle to be used for the mouth.

" 23d. Feels some pain in the hypogastric region; belly costive; pulse full, and rather hard; slept ill; no appetite; some fever; passes plenty of urine; slight red discharge; tongue clean; breasts much enlarged, painful, and full of milk; they were yesterday drawn by a child.

" Continue the medicines. Repeat the purgative.

" 25th. During the operation of the purgatives some more hydatids were passed. Free from pain in the abdomen; some pain in the head; red discharge continues; pulse rather quick and sharp; urine plentiful; appetite improved; less milk in the breasts; has walked out to-day."

The patient gradually recovered. We recollect another instance, not indeed in all, but in many respects similar. A patient in St. Bartholomew's, soon after weaning her child, and the apparent cessation of any secretion of milk, had many symptoms of pregnancy; her breasts swelled and secreted milk. This continued till she was relieved of what is usually termed a false conception; after which the breasts ceased to secrete for a day or two, and then recommenced with the same regularity as if the patient had been delivered of a child.

Sympathy of the breasts with the uterus is so general, that we cannot be surprised at many of the changes we see taking place under different affections of that organ, nor can we be too cautious in our decision on many suspicious cases.

The next case is no otherwise remarkable than as furnishing another instance of the importance of early blood-letting; as is too often the case, the patient and his friends had done all the mischief they could before the faculty were consulted.

On the succeeding case we must make the same remark. On this occasion we cannot help requesting one important piece of information of Dr. Clarke, What is the condition of the inhabitants of Nottingham and its environs? What is the situation of the manufacturers? Are they better fed and lodged than some other manufacturers? As far as we can perceive by his reports, his pa-

tients are much affected with those diseases which arise from plethora, and we hear comparatively little of scrofula, or that low fever, of which Dr. Wilson speaks, among the manufacturers at Worcester, which never will bear the lancet. Does this arise from better food, better ventilation, or a more northern latitude?

Even a paralytic case, in the old and feeble, seemed more relieved by purgative remedies than by any other means. At last, it probably was, in great measure, superseded by a smart paroxysm of fever attended with diarrhœa. That convulsions in children, especially if attended with costiveness, should yield to purgatives, is what might be expected in most classes of life.

The candour with which Dr. Clarke relates every part of his practice, induces us to offer a suggestion or two on the following case.

“*Chorea.* The symptoms of this disease often shew much variety, but the one about to be detailed presents much novelty.

“Miss N. —, æt. 19. December 1st, 1807. Was yesterday evening suddenly seized with a constant and involuntary motion of the lower jaw, as if in the act of mastication, attended with much oppression of the præcordia, and convulsive respiration, sometimes with a sense of suffocation, which is immediately excited upon any attempt, however slight, to swallow liquids or solids, which, as soon as they touch the fauces, excite a complete and violent paroxysm of this spasmodic affection, but wholly free from pain. Pulse 88, moderately full, and perfectly regular; belly regular; catamenia regular.

“Knows no other cause for this complaint than fatigue, and close confinement to a sedentary occupation. About nine months since, she experienced a slight attack of the same affection, which continued two days, and suddenly left her without any medical assistance; she has always enjoyed good health.

“She was ordered this morning fifty drops of the tincture of opium, for a dose; about an hour afterwards, five grains of calomel, followed by a dose of common purging mixture; and in six hours after that, she took thirty drops more of the tincture of opium, in a cordial draught.

“2d. Purgative operated freely; slept well last night, and free from spasm. The motion of the jaw is not so violent this morning; but the head, arms, and legs, have been much agitated, as in chorea; has not taken any nourishment without inducing the suffocating sensation; convulsive respiration, or catching of breath, and oppression of the præcordia undiminished; great hunger and thirst, but fears to take any food; pulse 88, regular; feels no pain at any time. During the slight intermissions, she is in good spirits, and apparently free from disease.

“R. Assafœtidæ gr. xv. Mist. camphor. 3x. Spirit. æther. nitros. gutt. 40. Tinct. opii gutt. 30. m. f. Haustus 4ta. quaque hora sumendus.

“R. Opii

“ R. Opii pulv. gr. iv. Ol. cinnam. gutt. j. Mucilag. q. s. ut. f. pil. Hac nocte sumenda et cras mane repetenda.

“ 3d. Took two of the draughts, and the pill at night and this morning; slept well in the night, and has continued all the day strongly under the influence of the opium; has not experienced any spasm during the whole of to-day; jaw free from agitation; no difficulty or fear in taking food; no remains of convulsive respiration. The disease has moved into the arms, which are at times violently convulsed, but quite still during sleep; the convulsion is much increased on waking, particularly if roused by any noise. Pulse natural; free from pain; no stool since yesterday.

“ To drink lemon-juice; the opium pill to be repeated at bed-time, and the purging mixture in the morning.

“ 4th. Involuntary motion continues in the arms and hands; not so constant, but more violent, *and not diminished in bed*; slept well; pulse natural; takes food freely; belly costive. Repeat the purgative.

“ R. Ammoniaceti cupri. Opii aa gr. jss. Conserv. q. s. ut. f. pil. bis indie sumenda.

“ Repeat the opium pill at bed-time.

“ 5th. The purgative operated freely; spasms less violent, and chiefly in the arms; sometimes the breathing is affected, but that very slightly; pulse natural; spirits good; urinary secretion has been in every respect natural. Continue the medicines.

“ 8th. The involuntary motion has been for the last two days entirely confined to the head, very slight, and at times totally suspended, particularly after a strong paroxysm; pulse natural; appetite good; has taken two of the day-pills, by mistake, for one dose; has been sick every night; belly very costive; took some castor oil this morning. Omit the pills.

“ R. Ammoniaceti cupri gr. j. Opii gr. jss. Conserv. q. s. ut. f. pil. bis indie sumenda.

“ Repeat the opiate at bed-time.

“ 12th. Catamenia appeared on the 9th, before the usual period; the sickness still continuing, she has omitted the day-pills; has experienced very little involuntary motion, but yesterday evening she had a very severe attack, followed by a restless night, with horrid dreams, and repeated startings; she has at present much involuntary motion of the head, and some affection of the voice; spirits very much depressed, and the mind very anxious; appetite indifferent; catamenia absent; belly costive.

“ Has taken of calomel and gamboge, each five grains, this morning. To repeat the opiate pill at bed-time.

“ 15th. Has continued much better; some pain in the bowels, which are constipated; much sickness after her medicines. The opium has been omitted, and one grain of hyoscyamus substituted for it, but, from the increasing nausea, it also was discontinued.

" *R. Extracti gentian. Carbon. ferri præcip. Pil. aloes c. myrrha aa ʒj. M. f. pil. 36, quarum sumat iij. bis indie.*

" Repeat the purging mixture.

" 18th. Has continued nearly free from involuntary motion: general health appears good; countenance healthy; belly regular; sleeps well; appetite moderate; wishes to visit her relatives. To continue the pills, and to take occasionally the purging mixture.

" January 30th, 1808. Has returned two or three days. During her absence, she experienced a return of the spasms: the medical attendant prescribed small doses of opium, and the arsenical solution. She complains of much soreness in the throat and stomach, with griping pains; she has lost flesh, and feels feeble; countenance sickly. This evening, without any known cause, the spasms returned with their former violence, attended with a sense of suffocation; strong involuntary motion of the arms, and some action of the lower jaw, with repeated sighing; pulse very feeble; belly regular; catamenia regular. To take some purging mixture immediately; three grains of opium, with one drop of oil of cinnamon at bed-time.

" 8th. The opium has been gradually diminished to one grain, combined with two grains of hyoscyamus; she has taken a febrifuge medicine in the day; the paroxysms of the disease have been severe, but terminating in sleep; although violent, they have been less frequent; and, for the last two days, she has been wholly free from them. She is much debilitated, and complains of weakness in her right leg, which, it has been lately observed, she draws after her when walking. The opium was entirely omitted one night, but from an accidental cause; a paroxysm was induced, which continued violent the greater part of the night, and even strong during sleep; the soreness and griping pain have been removed. Belly, which has been very lax, is now regular; appetite improved; good spirits; she can now write, which she has not accomplished since her first attack.

" To continue the opiate and the febrifuge.

" March 26th. During the period since the last report, she has continued her opium at times; and vegetable tonics, as colombo, gentian, &c. have been substituted for the febrifuge; a blister has been applied to the side, to relieve pain in that part; has for some days bad pain in the head; countenance flushed; pulse full; great heat of the forehead.

" Leeches were applied to the temples, and a strict vegetable diet recommended.

" *R. Pil. galb. comp ʒiss. Pil. aloes, c myrrh. ʒss. M. f. pil. 24 sumat iij. bis indie.*

" November 25th. Since the last report, she has taken the fetid pills occasionally, and used the cold shower-bath twice in the week, during the whole summer; she has repeatedly lost her voice during two or three days. The paroxysms of disease to which she has

has been subject, have been purely hysterical, nothing like the former complaint; she has persevered in the vegetable diet: the pains in the head and side were soon removed; her countenance and general appearance is perfectly healthy; she has gained flesh and strength. She has this evening felt nausea; unpleasant taste, with a load at stomach, for which she is to take an emetic.

“ 30th. A severe paroxysm of fever came on yesterday, without any known cause; belly regular.

“ To repeat the febrifuge medicine.

“ February, 1809. The febrile affection, mentioned in the last report, subsisted about ten days, since which she has remained in every respect in most perfect health, and has again returned to common diet.

“ The motion of the lower jaw was very rapid and violent, not to be restrained by holding the jaw. The convulsive respiration, or catching of the breath, strongly resembled the hydrophobia symptom, as noted in Hill's case, in this Number; the sensation of suffocation was extremely distressing, and in the first two or three days, produced even by the sight of food. During the whole of the paroxysm she never experienced any pain, but always complained of fatigue in the parts affected; the pulse never was affected, either during the paroxysm, or afterwards. The catamenia were, in every respect, natural. Her employment was book-keeping, at which she was sometimes necessarily confined; her temperament was nearly sanguine; her disposition particularly amiable. She experienced great inconvenience in not being able to take food; hunger and thirst became almost insupportable. The slightest sudden movement, noise, or stream of cold air, to which she had the greatest dislike, produced great agitation. When the involuntary motion was confined to the head, it often resembled the agitation of paralytics; the feces were generally nearly natural, perfectly so in respect to colour. The report of the 30th January mentions much constitutional affection; certainly an unexpected change had taken place in a few days, which she attributed to the arsenical solution. In February, the paroxysms terminated in sleep; this, with the other symptoms before noticed, gave some apprehension of a conversion of disease to epilepsy, which was prevented only by the plan adopted. She did not experience merely a loss of voice, but often of the power of speech, and sometimes even of the power of moving the lips, which, though unattended with spasms, were generally consequent on a paroxysm. When this and other hysterical symptoms appeared, the cold-shower-bath was added to the former treatment. The violent paroxysm of fever in November must be considered a salutary action, and may be supposed to have removed the original disease.

“ There are many things remarkable in this case, particularly the symptoms so strongly resembling hydrophobia. There was the same abhorrence of food, not from inability to swallow, but from the suffocation such an attempt produced. The effect that a stream

of

of cold air produced was similar to that in hydrophobia. Sufficient food is now offered for the speculative theorist."

Our speculations on the subject shall be very concise. If this complaint arose from fatigue and close confinement to a sedentary employment; if about nine months before she experienced similar symptoms in a slighter degree, and those symptoms suddenly left her without any medical assistance, we do not perceive, by the account, the necessity of doses, which to us appear very powerful, both in opium, calomel, and gamboge. Should the young lady be again afflicted in a similar manner, might it not be safe to trust a little more to nature, when so little was gained by art.

A case of Epilepsia, in a young woman of about three months standing, was cured under the use of purgative remedies with tonics, and at one time cold bathing.

A case of Diabetes, treated according to Dr. Rollo's plan, without advantage, has been much relieved by Mr. Wat's treatment, but the issue not yet ascertained.

Dyspnœa Aquosa. This is a case of that species of bronchitis, which Dr. Badham has distinguished by the term *asthenica*.

"Mary Wilford, æt. 56, married, spinner, came under the care of the Reporter, as an out-patient, February 23d, 1808. Complaining of much pain in the head, particularly over the orbits; much cough, which returns by fits, but irregularly attended with dyspnœa; stricture across the chest, without pain; cannot lie down in bed; feet and body swell towards night; fevered; pulse feeble and intermitting; urine scanty; belly costive.

"Has been subject to *asthenica*."

This we conceive must be a misprint of *asthma* or *asthenia*. If the latter, we wish a word more adapted to common understandings had been used.

We believe no one questions that purgative medicines will promote absorption.

A case of incontinence of urine yielded to tinct. of cantharides, in those moderate doses of twelve drops, to which we were accustomed, but which would appear nothing in the hands of bolder practitioners.

The report closes with a curious case of fractured vertebra.

"A man fell backwards from the threshold of a workshop, about fourteen feet from the ground: he was taken up in a state of insensibility, and carried home. In a little time he was able to point out the seat of injury; but an attentive examination did not enable the surgeon to discover the nature of the accident. He complained of much pain when any pressure was made on the back of the neck; the lower extremities were paralytic; the stools and urine passed involuntarily; and he died on the fourteenth day after the accident.

"DISSECTION.

"The vertebral column of the neck, dissected from the muscles, was carefully removed from the body. A fracture was immediately discovered,

discovered, which took its course through the spinous process, and completely through the body of the fifth vertebra; the lateral portions of the vertebra being sawed away, shewed distinctly the internal view of the fracture. It then appeared evident that, upon the slightest motion, the sharp edges of the fracture must have pressed upon the medulla spinalis. There was no dislocation, nor the slightest displacement of bones, the fracture being perfectly simple, without the smallest spicula of bone. The sheath of the medulla spinalis was laid open the whole extent; at the seat of injury it contained much pus, which had proceeded up to the seat of the fourth vertebra, but there was not the least appearance of injury of the medulla below the seat of fracture. Much coagulated blood was formed under the integuments covering the fifth vertebra. The reporter very much regrets that he had not an opportunity of procuring a more detailed account of the symptoms that ensued from this injury."

Would it not in all such cases be desirable, during life, to attempt cutting down to the vertebræ, in order to ascertain their situation. In this instance the matter was seated within the *theca*, which it might not be safe to cut into; but, perhaps, an early attention to the parts might have prevented the suppuration. We offer this only as a suggestion, well aware of the hazard attending such an operation.

ARTICLE 2.—*Case of Hydrophobia, with an Account of the Appearances on Dissection.* By HENRY OLDFIELD, Surgeon, Nottingham.

IN this case, which adds another to the dreary catalogue, the patient was bitten in the scrotum, and the dog's tooth had penetrated deep into one finger of the left hand. The wound in the scrotum was pared and causticated. That in the finger was only cauterized. Whether amputation of the latter would have secured the patient we cannot say, but when the symptoms occurred, they were attended with pain in the hand only.

Tracheotomy was performed, and though without success, yet it may be useful to record that it was unattended with danger.

On examining the body after death, inflammation appeared on the mucous membrane of the trachæa, extending from the glottis to the subdivisions of the bronchiæ, with considerable thick mucous secretion; considerable erythematous inflammation about the cardiac part of the stomach.

"Another case of the hydrophobia," says our author, "has lately occurred in a village near Nottingham, any particulars of which I am not in possession of, except that the disease occurred about a period of six weeks after the bite, and was extremely rapid in its progress. I mention it because the dog that bit this individual belonged to a man in this town, and was not suspected to be mad until ten days after he had bitten this unfortunate sufferer. He eat and drank heartily, shewed no signs of indisposition, hunted as usual, and occasionally went into a neighbour's house, among children,

children, without injuring any one of them; but on the morning of the tenth day, he was observed in the street, snapping at every dog that passed, and was immediately taken in and destroyed.

“This is a very curious and important circumstance, inasmuch as it tends to shew, that canine madness, in its incipient stages, is very difficult of detection; and that a dog, at this period of the disorder, is capable of communicating the infection, which, I believe, is not generally understood.”

ARTICLE 3.—Case of Aphonia cured by Purgatives. By RICHARD JONES, M. D. Surgeon, 2d. Dragoons.

This paper contains a case of Aphonia, and another of Hysteria, cured by purgatives. It should be added, that one of the patients was habitually costive, and the other had just arrived from a voyage of twenty-eight days, during which he had not had an evacuation by the rectum.

ARTICLE 4.—Case of Purulent Ophthalmia occurring in an aged Person, with Remarks on the Origin of that Disease. By WILLIAM SIMMONS, Surgeon, of Manchester.

This paper shews that purulent Ophthalmia may arise without the cause ascribed by Mr. Ware; but we cannot well suppose, that in Mr. Ware's extensive practice he has not often traced it from the cause to which he ascribes it.

ARTICLE 5.—Discrepance of Opinion in Two of Dr. Wilson's Papers, pointed out. By JAMES WOODHAM, Esq. London.

This paper being of itself a review, it does not become us to make any further remarks on the subject.

ARTICLE 6.—Observations on the Treatment of Diabetes. By ROBERT WATT, Surgeon, Paisley.

To this paper Mr. Watt attaches the following motto. “Does not the cure of some diseases depend upon the same principle as the suspension in cure of gonorrhœa by a fever.” JOHN HUNTER.

The paper abounds with good sense. As it is in some measure controversial, we shall not engage in it any further than to show the general drift of Mr. Watts's argument. The cure of diabetes and other chronic diseases by depletion, he seems to impute to that restorative power which the constitution takes up after being much reduced by an acute disease, or from any other cause; and conceives, that to such as dislike the constant repetition of animal food, such a diet may prove as little nutritive as a confinement to vegetable matter.

ARTICLE 7.—Two Cases of Carditis. By W. HENCHMAN CROWFOOT, Esq. Member of the Royal College of Surgeons.

These cases are well worth recording, inasmuch as they show how much more frequent inflammation of the heart and its membranes occurs than is by some suspected.

The first was unfortunately not seen by Mr. Crowfoot, till the symptoms

symptoms had continued too long to admit of any assistance. It should also be remarked, that the patient had suffered by a similar complaint two or three years before, from the effects of which he had never perfectly recovered.

"On opening the thorax, the pericardium was found *closely adhering* to the *whole* surface of the heart, the apex of which was, by that means, confined down to the diaphragm; a considerable portion of ossific matter was deposited between the two lamina of the pericardium, and every part of the heart afforded marks of most severe inflammation."

Is it not probable, that some of this disorganization may have been the effect of the first inflammation, and have laid the foundation of that subsequent ill health of which the patient complained, previous to her last attack.

The second case is peculiarly interesting, from the connection which has been lately remarked between rheumatism and inflammation of the heart.*

The writer remarks, that all the usual remedies for acute rheumatism were used, except bleeding. "Towards the end of January," says he, "the pain in the side, attended with great distress also at the heart, became the most troublesome symptoms, but seemed to alternate with the extremities." The nature of the disease, however, it is candidly acknowledged, was not suspected till the patient, naturally of a weak constitution, was too much reduced to bear bleeding. We submit it to the author, whether in the advanced stage of a future case, which must otherwise terminate fatally, this *remedium anceps* would not be justifiable.

The great good sense and candour which mark the character of the author in every part of his paper, render any apology on our part as unnecessary, as it would be improper to urge our opinion any further.

ARTICLE 8.—*Account of some Experiments relating to certain Opinions of Bichât, communicated in a Letter from Dr. PHILLIP WILSON to Dr. ANDREW DUNCAN, Jun.*

We have often had occasion to admire the ingenuity of some people in making a plain thing obscure, and then developing this obscurity in such a manner as to fancy themselves, and sometimes persuade others, that they have made a discovery. This kind of reasoning very much resembles those ingenious puzzles invented by grown people for the amusement of children.

"A herring and half for three-halfpence, how many will there be for eleven-pence?" Had the question been, A herring for one penny, how many will be for sixpence? The answer would have been too easy to have led the mind into any labyrinth, and both the proposer and solver would have lost their claim to any merit.

Dr. Wil-

* See our account of Mr. Dundas's paper in *Medico-Chirurgical Memoirs*.

Dr. Wilson is accused of having adopted some of Bichat's opinions, without acknowledging their source. First, let us see what these opinions are, and whether they are worth quarrelling about, before we determine who had the claim to priority.

"The following, says Dr. Wilson, are the opinions which I am accused of borrowing from Bichat.

"1st. That the brain exercises no direct controul over the motion of the heart, or other muscles of involuntary motion.

"2d. That the death of the brain occasions that of the heart, by interrupting the breathing, which it does by destroying the powers of the diaphragm, and intercostal muscles.

3d. "That the functions of life may be divided into organic and animal; that is, in more common language, vital and animal; of which the latter are subject to constant intermissions and renewal, their organs requiring intervals of rest; the former incessant, their organs being endowed with an excitability, which is never impaired, except by disease or death.

"4th. That organic contractility, that is, vital excitability, has no relation to a centre, but exists in every part, independently of its existence in any other, while animal contractility, that is, animal excitability, in every part, depends on the existence of a common centre.

"5th. That respiration is placed, as it were, between what Bichat calls organic and animal life, that is, between the two sets of functions, the vital and animal; partaking of the former in as far as it influences the state and circulation of the blood in the lungs; and of the latter, in as far as it is performed by muscles wholly of voluntary motion; the intercostal muscles and diaphragm."

"These opinions," say Dr. W. "were published by Bichat, in the year 1799.

"The first, namely, that the brain exercises no direct influence over the motion of the heart, &c. I endeavoured to defend, in a paper presented to the Royal Medical Society of Edinburgh, in the year 1791 or 1792, I forget which. The paper is divided into two parts, the first is wholly occupied by arguments in favour of this opinion."

If the paper is a long one, it must have required great ingenuity to find a long string of arguments to prove what every one may see or feel whenever he pleases, and what was thought so simple by one, who left nothing unproved by experiment, which required proof, that he only mentions it in answer to some unfounded opinions which had prevailed concerning the cause of the blood's motion.

"The heart's motion," says Mr. Hunter, (*Treatise on the Blood*, p. 148, "does not arise from an immediate impulse from the brain, as it does in the voluntary muscles."

After this, we shall not trouble our readers with the sagacious experiments Dr. Wilson undertook, to show that such an affection

of the brain as suspended all voluntary motion, produced no effect on the heart. It is a pity he had not seen some *dead drunk* sailor, in whom, though most of the voluntary actions are suspended, yet the heart is little altered in its actions; the rabbits might then have been spared.

"The second opinion, namely, that the death of the brain occasions the death of the heart, by interrupting the breathing, which it does by destroying the powers of the diaphragm and intercostal muscles, I also stated," says Dr. Wilson, "in the paper presented to the Royal Medical Society, and shall beg leave to copy verbatim what I said of it in a course of lectures which I gave in Edinburgh in 1796. 'Why does the motion of the heart continue in apoplexy, while that of almost all the other muscles of the body is lost? Most cases of apoplexy arise from the application of mechanical or chemical agents to the nervous system. But it would be easy to adduce experiments, capable of proving that mechanical, and, as far as they have been tried, chemical agents, applied to the brain, although they affect violently the muscles of voluntary motion, are incapable of deranging the motions of the heart. But why should the motion of the heart be instantly destroyed in certain cases of apoplexy produced by a more powerful cause than usual? It would not be difficult to show, that the muscles of inspiration are altogether muscles of voluntary motion, and, consequently, that they must cease to act when the powers of the nervous system are destroyed. But when they cease to perform their office, the blood no longer undergoes the usual change in the lungs, which is necessary for the continuance of the heart's motion.'

The nearest dependance of the heart, says Mr. Hunter, (*Treatise on the Blood*, p. 150) is on the lungs; the stoppage of respiration produces a stoppage of circulation, or the heart's motion. And in the preceding page: "We have as regularly the stimulus for respiration; the moment one is finished, an immediate demand taking place; and if prevented, *as this action is under the influence of the will*, the stimulus of want is increased."

Thus, what Dr. Wilson taught in a *Course of Lectures*, in 1796, we see was published, but not as a discovery, by Mr. Hunter's executor, in 1795; and if Dr. W. had enjoyed the happiness of attending Mr. Hunter's course about twenty years before, he would probably have heard something of the kind as early as that period. We mean something *of the same kind* that Dr. Wilson taught in his lectures, because in them he comes nearer to Mr. Hunter than to Bichât, in his eagerness to claim a priority to whom he falls into an error, which may be pardoned in the French philosopher, but is not so easily excused in a countryman of Mr. Hunter.

Bichât, we see, deals *death* about with as much ease as Buonaparte, and without staying to consider what he is doing. Mr. Hunter, on the contrary, thinks it worth while to tell us what he means by death. Dr. Wilson, in his paper, as far as he quotes from his former writings and lectures, says nothing about *death*,

but

but speaks only of *motion* or *action*. But after Bichât had so familiarly introduced this gloomy tyrant, the English physician could not be behind hand with him.

"On examining this rabbit, (says he, in the paper now before us) 25 minutes after the solution was injected, I found the muscles of voluntary motions flaccid, and the *animal dead*. *The motion, however, of the intestines was still strong* in many parts of their track, and continued so for 36 minutes longer, during which I observed it." p. 304.

Now this is one of the most extraordinary phenomena in a *dead animal* we have ever heard of; and the bare mention of it, shows the absolute necessity of determining what we mean when we speak of death.

Let Dr. Wilson beware how he copies *wild theories from a neighbouring nation*. It is impossible to say how far this disorganizing system may extend, if we admit it into physic. In the year 1796, before he was tainted with French principles, we find him reasoning only about the heart's *motion*, but now he tells openly the second opinion, namely, that the *death* of the brain occasions the *death* of the heart, by interrupting the breathing, &c."

Why did he not refer to what Mr. Hunter had proved by experiment in the passage before quoted? As this work was published a year before Dr. Wilson's lectures, the recollection was probably fresh in his memory at that time, though now obliterated by the flowery language of the French philosopher. If he turns to the passage in Mr. Hunter, he will find that *the stoppage of motion* is by no means synonymous with *death*.

"Thus, says Mr. Hunter, in the passage above cited, "in my experiments on artificial breathing, the heart soon ceased acting, whenever I left off acting with my bellows: and upon renewing my artificial breathing, it, in a very short time, renewed its action."

We shall conclude this remark in the manner we are often obliged to do, by expressing our wish, that whenever philosophers undertake to reason, they would first explain their terms, and then adhere to such explanation. It may be said that every one knows what is meant by death. How then can we say that an animal is dead, when the peristaltic motion continues? By the effect produced on the brain all voluntary motion was suspended, and the muscular rigidity, if universally extended to all the muscles of voluntary motion, must have prevented respiration; but we have no proof that if respiration had been artificially renewed, the action of the heart might not have been recovered.

(To be concluded in our next.)

Report of the Diseases of Edinburgh for July, 1809.

By JOHN ROBERTON, M. D.

For several days, about the beginning of the month, the weather was moist, and there were occasional falls of rain. This was succeeded by some days of pleasant and agreeable weather; but these again being succeeded by easterly winds, fogs of greater or less density, especially after sunset, overspread the neighbourhood of the city. This sort of weather, intermixed with occasional good days, continued till about the middle of the month, when we had, for a day or two, considerable gales of wind. Several days of pleasant weather then intervened, but easterly winds and fogs succeeding them, rendered the weather damp and disagreeable. We had again some gales of wind, succeeded by thunder and showers of rain, after which, till the termination of the month, the weather continued very fine.

During the first third of the month, the barometer was rather low, but after that till about the middle of it, it began to rise. From this time till the end of the month, the barometer varied considerably, but never was very high.

The thermometer also varied considerably. In the good days, it rose high, sometimes beyond 70° , at other times, especially at night, and during the easterly winds and fogs, it sunk even below 40° .

Fever, cynanche tonsillaris, catarrh, rheumatism, and hydrocephalus, seem to have been the prevailing diseases of the month.

The fevers, which were of the typhoid form, have been much more common than usual. They have appeared in almost every degree of severity, and although they seem to have principally affected infants and children, they have also been very common among those of maturer years.

The cases of cynanche tonsillaris, which have occurred in practice, have in some instances been very severe, and in others very slight. They probably owed their origin to the damp and foggy weather which prevailed during a great part of the month. Confinement to the house for a short time, with the use of gargles, cathartic medicines, and, in severe cases, with the application of a blister over the throat, effected a cure. When catarrh, which was by no means uncommon, existed along with cynanche, nearly the same sort of remedies removed both.

Rheumatism, both chronic and acute, has prevailed rather extensively. Acute rheumatism was commonly and
(No. 127.) T speedily

speedily removed by the repeated use of sudorific medicines, and afterward by the use of friction to the affected part. Chronic rheumatism, like all other chronic complaints, compared with diseases in their acute state, has been more difficult of removal. The administration of mercury in various forms has given relief; arsenic also has produced some abatement of the symptoms. Indeed, these internally, and the frequent external application of friction with saponaceous balsam, mixed with tinctura opii, have been almost the only means of cure to which we have lately resorted.

I have lately met with various cases of hydrocephalus internus. It is much to be regretted, that the complaints of infants, and children in particular, have been rendered unnecessarily complex, not so much from their nature as from the preposterous catalogue of names which have been applied to them. Instead, however, of their being, as we have all been taught to believe, so very complex, they possess much more of one general character than the complaints of adults. This is a fortunate circumstance, as in the age of infancy, an expression of the feelings, indicative of certain states of disease, is not to be obtained.

It is owing to the mistaken views which I have alluded to, arising from our indolence of disposition, in taking for granted what has been said by others, rather than taking the trouble to think for ourselves, that multitudes of different, inefficacious, and often hurtful drugs, have been ridiculously administered in these cases, while the only simple, rational, and effectual plans of practice have been either neglected or too sparingly used to produce any beneficial effect.

This complaint, arising, almost in every instance, from a previous inflammatory state of the whole system, as may be ascertained by the pulse, the reduction of such a state is the grand object of the physician. For this purpose, it is almost always found sufficient, while we at the same time attend to the thoroughly clearing of the alimentary canal of dark coloured fæces, to make our applications as near the head as possible. Thus, leeches to the temples and a cap blister over the whole head, will, when attended to, during the first two or three days, effect a cure in almost every instance.

P. S. I shall send some remarks, with cases, dissections, &c. for insertion in the Journal, in a short time.

Princes Street.

An

*An Account of Diseases in an Eastern District of London
from July 20, to August 20, 1809.*

ACUTE DISEASES.			
Febris Intermittens - -	1	Amenorrhœa - - - -	3
Cynanche Tonsillaris -	4	Dysmenorrhœa - - - -	1
Catarrhus - - - - -	3	Enterodynia - - - -	4
Dysenteria - - - - -	2	Hypochondriasis - - -	3
Rheumatismus Acutus	2	Rheumatismus Chronicus	9
CHRONIC DISEASES.		PUERPERAL DISEASES.	
Tussis - - - - -	5	Menorrhagia Lochialis	3
Tussis cum Dyspnœa -	4	Abscessus Mammæ - -	4
Hæmoptysis - - - - -	2	Rhagas Papillæ - - -	5
Pleurodyne - - - - -	3	Dolor Post Partum - -	7
Hepatitis Chronica - -	2	INFANTILE DISEASES.	
Hydrothorax - - - - -	4	Convulsio - - - - -	2
Icterus - - - - -	1	Febris Mesenterica - -	3
Leucorrhœa - - - - -	4	Diarrhœa - - - - -	7
Dysuria Ardens - - - -	3	Dentitio - - - - -	4
Menorrhagia - - - - -	4	Vermes - - - - -	3

In several former Reports, a great number of cases of pneumonic inflammation were taken notice of, several of which, it was observed, would probably terminate in hydrothorax and anasarca. This has been verified in a number of instances, some of which still continue under medical treatment. In these cases a variety of circumstances occur. In some of them the original disease so far disappears, that the patient returns to his former habits, and any inconvenience that he feels is attributed to weakness induced by the disease, or by the different evacuations necessary in the course of cure. After some time he finds that his feet and ankles occasionally swell, particularly towards evening, and this appearance gradually extends up his legs and thighs, and in the morning his face and upper extremities appear enlarged. After some time difficulty of breathing occurs, and the disease assumes the character of hydrops pectoris, which too frequently proceeds to a fatal termination. In one of the cases referred to in the list, considerable relief was experienced from vesications forming in the lower extremities, from which a large quantity of water has been discharged, and the anasarca swelling, which was becoming very general, considerably diminished. In another case, by the advice of a female friend, blisters were applied to the legs, which produced inflammation and mortification that soon put a period to life.

INTELLIGENCE.

INTELLIGENCE.

ROYAL COLLEGE OF SURGEONS.

The Jacksonian Prize-Subject for the year 1810, for the premium of 10*l.* to the Author of the best Dissertation on a practical Subject in Surgery, is the BITE of a RABID ANIMAL. Candidates must be Members of the College, not on the Court of Assistants. The Dissertations must be in English; and the number and importance of facts will be considered the chief points of excellence in the compositions. Each dissertation must be distinguished by a motto or device; but no dissertation, motto or device, must be in the hand-writing of the author. Every dissertation must be accompanied by a paper, sealed up, (not with the seal of the author) containing the name and residence of the author; and having, on the outside a motto or device, (not in his own hand-writing) corresponding with the motto or device on the dissertation. Dissertations must be addressed to the Secretary, and delivered at the College before Christmas-Day, 1810. The adjudication will be in the month of April, 1811. The prize-dissertation will be preserved in the Library of the College. The unapproved dissertations, with their correspondent unsealed papers, will be returned, upon authenticated applications. Every unapproved dissertation, which shall remain three years unclaimed, and its correspondent paper, unopened, will be burnt in the presence of the Jacksonian Committee.—The Prize-subject for the present year, 1809, is Fractures of the Bones of the Trunk, and the Treatment of them; dissertations upon which must be delivered before Christmas-Day next.

DURING the last month an Ophthalmia has prevailed so generally, that it may be considered as approaching to an epidemic in some districts. The young have been more frequently attacked than adults, and in some places it has appeared to spread by contagion; but most probably this has not been the case. It has been thought to prevail earlier, and more extensively about the west end of the metropolis, and places on the west of it, especially Chelsea. The number of soldiers who have been affected with the Egyptian Ophthalmia, which is contagious, and who have been sent to the York Hospital at Chelsea, has probably given rise to the opinion of its contagious nature. But this disease is in all respects unlike that, being only a moderate inflammation of the adnata, and, in most cases, requiring no other remedy than the frequent application of cold water, and seldom continuing more than three or four days.—When any thing like an epidemic makes its appearance, practitioners seek for the cause of it either in contagion, particular winds, or weather, but neither of these appears to have any share in producing the above complaint.

The whooping cough having been more general than for some years, after a pretty long cessation, affords a fair opportunity for judging

whether that disease is to be considered an endemic, or a common contagion. We shall be glad of any communications on that subject.

Captain DICK, of the 21st Light Dragoons, having witnessed the good effect of the *Arctopus echinatus* of Linnæus, in his regiment at the Cape of Good Hope, has, much to his honour, brought over a sufficient quantity in substance and in tincture, to make ample experiments of its virtue. The charge is intrusted to Dr. ADAMS, who will make as early a report as such experiments will admit.

A few years since, Messrs. FOURCROY and VAUQUELIN remarked, that a concrete sugar, or manna, exuded from the receptacle of the flowers of the pontic dwarf rosebay (*Rhododendron ponticum*). M. Bosc has recently observed it afresh, and presented to the National Institute some grains of this substance, collected from the receptacle of the fruit, several of which were about $\frac{1}{16}$ of a line in diameter. Their taste and appearance do not differ perceptibly from the purest sugar-candy; but it is necessary to be upon our guard against this appearance, on account of the deleterious properties suspected in the plant. This manna, according to M. Bosc, is dissolved during the night by the moisture of the atmosphere, melted in the day by the heat of the sun, and does not exude from plants of a vigorous vegetation. These are the reasons why it is so seldom seen. Plants growing in pots, and sheltered from the dew, as well as from the sun, are most likely to furnish it. The grains above mentioned, were collected from a plant, in which all these circumstances united.

UNIVERSITY OF GLASGOW.

The Medical Lectures in the University of Glasgow, will begin on Wednesday, the 1st of November, at the following hours.

Dietetics, Materia Medica, and Pharmacy, by Dr. MILLAR, at Ten o'Clock in the Forenoon.

Midwifery, by Mr. TOWERS, at Eleven.

Theory and Practice of Physic, by Dr. FREER, at Twelve.

Anatomy and Surgery, by Dr. JEFFRAY, at Two o'Clock in the Afternoon.

Chemistry and Chemical Pharmacy, by Dr. CLEGHORN, at Seven.

Clinical Lectures on the cases of patients in the Royal Infirmary, by Dr. FREER and Dr. CLEGHORN. The first Lecture by Dr. FREER, on Tuesday Evening the 14th of Nov. at Six o'Clock.

Dr. Brown will commence his Lectures on Botany, about the beginning of May next.

The following gentlemen have obtained the degree of Doctor in Medicine, from this University, within the last twelve months.

Mr. JOHN MONTEATH, from Scotland.

Mr. ROBERT MUIR, from Scotland.

Mr. WILLIAM YOUNG, from Scotland.

Mr.

Mr. ROBERT PERRY, from Scotland.

Mr. ROBERT NEILSON, from Scotland.

Mr. FRANCIS CAVENAGH, from Ireland.

Mr. WILLIAM LANGMORE, from England.

Mr. JOHN CROZIER, from Ireland.

Mr. MICHAEL DILLON, from Ireland.

Mr. JOHN WHITTAM, from England.

ST. THOMAS'S AND GUY'S HOSPITALS.

The Winter Courses of Lectures at these adjoining Hospitals, will commence the beginning of October, viz.

At St. Thomas's.

Anatomy and the Operations of Surgery, by Mr. CLINE and Mr. COOPER. Principles and Practice of Surgery, by Mr. COOPER.

Practice of Medicine, by Dr. BABINGTON and Dr. CURRY.—Chemistry, by Dr. BABINGTON, Dr. MARCET, and Mr. ALLEN.—Experimental Philosophy, by Mr. ALLEN.—Theory of Medicine, and Materia Medica, by Dr. CURRY and Dr. CHOLMELEY.—Midwifery, and Diseases of Women and Children, by Dr. HAIGHTON.—Physiology, or Laws of the Animal Economy, by Dr. HAIGHTON.—Structure and Diseases of the Teeth, by Mr. FOX. N. B. These several Lectures are so arranged, that no two of them interfere in the hours of attendance; and the whole is calculated to form a complete Course of Medical and Chirurgical Instructions.—Terms and other Particulars may be learnt at the respective Hospitals.

THEATRE, LONDON HOSPITAL.

Dr. DENNISON and Dr. BYAM DENNISON will commence their Course of Lectures on the Theory and Practice of Midwifery and the Diseases of Women and Children, on Monday October the 2d, at Eleven o'Clock in the Forenoon.—For particulars apply at Dr. Dennison's, 37, Broad Street Buildings, or to Mr. Price, at the Hospital.

Early in October, Dr. ANDERSON will commence a Course of Lectures and Lessons in Chemistry and Pharmacy, at his House, 47, Frith Street, Soho.—The Lectures will contain the Institutes of Chemistry, illustrated by various and appropriate experiments; and in the Lessons, their practical application to the operations of Pharmacy will be shown and fully explained.—Fee to the Lectures and Lessons, Four Guineas.—Private instructions in Pharmacy.

Dr. BUXTON will, on the 2d of October, commence his Autumnal Course of Lectures on the Theory and Practice of Medicine, at the Medical Theatre, London Hospital.

Mr. CARPUE will commence his Lectures on Anatomy and Surgery, on the 1st of October.—Particulars may be known by applying to Mr. Carpue, No. 50, Dean Street, Soho.

Dr.

Dr. CLARKE and Mr. CLARKE will begin their Winter Course of Lectures on Midwifery, and the Diseases of Women and Children, on Thursday, October the 5th.—The Lectures are read every day at the House of Mr. Clarke, No. 10, Upper John Street, Golden Square, from a Quarter past Ten o'Clock in the Morning till a Quarter past Eleven, for the convenience of Students attending the Hospitals.—For particulars apply to Dr. Clarke, No. 1, New Burlington Street, or to Mr. Clarke, No. 10, Upper John Street, Golden Square.

Dr. CLOUGH, Physician Man-midwife to the St. Mary-le-bone General Dispensary, &c. will commence his Winter Course of Lectures on Puerperal Anatomy, Physiology, and Pathology, on Monday, the 9th of October, at Ten in the Morning, at his House, No. 68, Berners Street; and (for the convenience of Students attending other classes) his Evening Course on the Tuesday following, at Seven o'Clock, and will be continued at the same hour on Tuesdays, Thursdays, and Saturdays, during the winter. In the course of these Lectures, Dr. Clough will have an opportunity of elucidating each subject by appropriate specimens of anatomical preparations; and of explaining difficult and laborious cases, by an interesting series of distorted pelves, from the first degree of triangular shape to that of the greatest on record, wherein the Cæsarian Section was performed; and the anatomy of the gravid uterus, by models formerly in the collection of Dr. Smellie and Mr. Cruickshank. These will render this part of the Course peculiarly interesting and valuable.—A Syllabus and Prospectus of which may be obtained as above; and at J. Callow's Bookseller, Crown Court, Soho.

Dr. CLUTTERBUCK will begin his Autumn Course of Lectures on the Theory and Practice of Physic, Materia Medica, and Chemistry, on Wednesday October 4, at half-past Nine o'Clock in the Morning.—Further particulars may be known on application, at his House, No. 1, Crescent, New Bridge Street, Blackfriars.

Dr. HOOPER will commence a Course of Lectures on the Theory and Practice of Physic, the Materia Medica, and Chemistry, on Monday, October the 23d, 1809, at Eight o'Clock in the Morning, at his Lecture Room, in Cork Street, Burlington Gardens.—Three Courses of the above Lectures will be delivered in the Year; which will commence in February, June, and October.

Dr. REID will recommence his Course of Lectures on the Theory and Practice of Medicine, on Wednesday the 4th of October, at Nine o'Clock in the Morning, at his House, Grenville Street, Brunswick Square.—The subsequent Lectures will be delivered at the same place and hour, on every Monday, Wednesday, and Friday, until the conclusion of the Course.

Mr. ROBERTSON will begin his next Course of Lectures on the Principles and Practice of Midwifery, and the Diseases of Women and Children, at Mr. Bell's Anatomical Museum, No. 10, Leicester Street, Leicester Square, on Friday, the 6th of October, at a quarter past Ten in the Morning.

Dr. SQUIRE, Ely Place, Holborn, will, on Tuesday the 2d of October, begin a Course of Lectures on the Theory and Practice of Midwifery, and the Diseases of Women and Children.

At the Theatre of Anatomy, Blenheim Street, Great Marlborough Street, Mr. BROOKES will commence his Autumnal Course of Lectures on Anatomy, Chemistry, and Surgery, on Monday the 2d of October, at Two o'Clock.

Mr. JOHN TAUNTON's Lectures on Anatomy, Physiology, Pathology, and Surgery, will commence on Saturday October the 7th, 1809, at Eight o'Clock in the Evening *precisely*, and be continued every Tuesday, Thursday, and Saturday, at the same hour.—Particulars may be had on applying to Mr. Taunton, Greville-Street, Hatton-Garden.

Mr. THOMAS's Lectures on the Principles and Operations of Surgery, will commence early in October, as usual. A Prospectus may be had at his House, Leicester Place, or at the Theatre of Anatomy in Windmill-Street.

Mr. WILSON will commence his Lectures on Anatomy, Physiology, Pathology, and Surgery, on Monday the 2d of October, at Two o'Clock, as usual, at his Theatre of Anatomy, Great Windmill Street.—A room is open for Practical Anatomy, under the direction of Mr. Wilson and Mr. Brodie, where demonstrations of the parts dissected are given daily from One until Two o'Clock.—Mr. BRODIE will commence his Lectures on the Principles and Practice of Surgery in the beginning of October, as usual.

Dr. Saunders has published a fourth edition of his Treatise on the Structure, Economy, and Diseases of the Liver. This edition contains an Appendix, giving a more particular account of the Hepatitis of India, with observations on the prevalent use of mercury in the diseases of this country.

CORRESPONDENCE.

An "Old Correspondent" complains much of the difficulty of understanding the names of some diseases often mentioned in periodical and other works. He instances *Gastrodynia*, a word he complains not to be met with in his Greek Dictionary, nor, though he conceives a visceral disease, in either of the late learned works on the complaints of the peritoneal cavity.—We sincerely lament with him, that an art, of all others the most difficult and the most important, should be rendered more difficult by an unimportant and useless addition to its terms; and we allow with him that it might be as easy to write *pain in the stomach* in English, as to have recourse to a Greek combination. Indeed, the English expression appears to us preferable, in as much as it is more precise.—If our Correspondent is not amusing himself and us with his Queries, we recommend him on these occasions to refer to the two volumes of Cullen's Nosology instead of his Greek Dictionary.

We must be better acquainted with Mr. Thompson's sources of information, before we insert his sceptical remarks on the accounts we receive from eye witnesses.

Dr. Walker's and Leodensis' Communications will appear in our next.

A Paper from Mr. Davies; another from an unknown Correspondent, signed Observator; and a Dissertation on the medicinal effects of the Galvanic influence, have been received.

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SHORT HISTORICAL ACCOUNT OF DISPENSATORIES, OR
PHARMACOPŒIÆ.

IT is well known that the early physicians were the dispensers of their own medicines, that they were surgeons also, and prepared their own salves. Very soon, however, a part of this office devolved upon the nurses, or more immediate attendants on the sick, who, on that account, were called *Θεραπευοι*, or servants, from which we have the term *therapeutics*, for that branch of medicine which relates to remedies and the mode of exhibiting them.

We should remark on this occasion, that in proportion to the poverty and uncultivated state of a community, is the number of domestic servants in each family. Where manufactories are in their infancy, and the consumption of manufactured articles small, the sources of industry are proportionally few, and the support of a considerable part of the community is by the bounty or protection of the great. On this account, it will be less surprising, when we find a Roman citizen having in his family a Greek servant, who was expected to be sufficiently acquainted with the composition of well known remedies, to prepare, and even administer them to the household. If the case became urgent, the *medicus* was consulted; and in more distinguished houses among the Romans, he was not uncommonly a domestic servant, probably either a Greek slave, or a freed man.

It will easily be seen, that in such a state of society, remedies would multiply almost in proportion as the practitioners were numerous. But this would be of little consequence, as long as the practice of each was confined to a single family. As, however, these warlike people became less disposed to spend their lives in camps, they became more sensible of the value of health, and even of life; and the celebrity of some individual physician would soon render his services more generally demanded.

(No. 128.)

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Thus we find, at a very early period, that the gratitude of the great usually induced them to liberate their *medicus*; if he had been their slave, to admit him to their familiarities, and show every external mark of respect during life and after death. Such characters could not fail to attract the admiration of the public, and to induce such whose friends were in danger under disease, to apply for their assistance. Still, however, the different branches of medicine remained for a considerable time without any accurate distinction. The physician could easily avail himself of the remedies which the family dispenser or *Θεραπευτής*, supplied, or direct others to be procured of which he might have a higher opinion.

From this we may easily trace the steps which rendered apothecaries and authorized dispensaries absolutely necessary, for the preservation of the public health. Every person who could boast possession of a receipt from a celebrated physician, might believe himself, or easily persuade the ignorant, that nothing more was necessary than to apply it when a similar disease occurred. We all know how difficult even the adept sometimes find it to distinguish diseases, and above all, how ready the ignorant are to confound symptoms with diseases, and to assimilate them all. Hence the possessor of a medicine for a disease will readily find applicants; and, as by the kindness of Providence, most diseases will ultimately, however slowly, yield to the powers of the constitution, the remedy would have the credit of the cure.

These possessors of secret medicines, whose whole object was to make the most of their traffic, appear to me to have availed themselves of the public credulity, in a manner which has escaped the notice of former writers, and tended to render pharmacy infinitely more expensive and complicated. — I should add, that though this is only a suggestion of my own, yet it is supported by so many and such conclusive evidences as appear almost a demonstration. When their remedies had proved successful to any public spirited and wealthy character, his wish to serve the interest of mankind would induce him to extend the benefits he had received as far as possible. This he conceived might easily be done by purchasing the receipt, and making it public. The medicaster, in his sale, would have two things in view; first, to preserve the dignity of his remedy, and next, if possible, to preserve his traffic after he had parted with his secret. To do this, before the invention of chemistry, two means would readily occur.

eur. The first would be to render his receipt so complicated, that all would admit the probability of virtues in some of the ingredients; or if not in some individually, at least, in the possible combination of some or of the whole. The next would be, to render it so expensive, as would justify the high value he had set upon them, and also to lead others to believe that it would be as cheap to continue to purchase as to make for themselves.

It was observed by a late ingenious physician, that the Theriaca and Mithridate had been changed at different times. The object of this was with some, if possible, to simplify so strange an assemblage; but with others, no doubt, to render it more complicated, and to boast the superiority of their own. In other compositions it is hardly possible to doubt, that the addition of precious stones and of the precious metals, could have no other object at first than knavery. The credulity of others was afterwards brought in aid; and in these, as on many other occasions, the best intentioned, laboured to support the dissolute, the profligate and designing. To such a cause as this we must impute the virtues at one time attributed to the *aurum potable*, to the bezoar, to the sapphire, carbuncle, the hyacinth, pyropus, and amethyst, and even to the pearls that formed a part of the celebrated confectio cardiaca, which was so accurately prepared at Apothecaries' Hall, (and perhaps there only,) till the appearance of the Dispensatory in 1787.

I have dwelt so long on a subject apparently unimportant, to show the absolute necessity of some well authorized Pharmacopœia for the protection of the public, and to place honest men in a situation which may turn their integrity and industry to a proper account.

Let us now direct our attention to the progress of Dispensatories. The first of these, we may readily conceive, made a part of the cookery books, and were preserved among the stores of the housekeepers. In many of the modern languages, a *dispense* is the term used for the store-closet, and a *dispensaira* is the house-keeper. The analogy is evident enough, as the office was to regulate the *dispendium* of the various articles necessary in a family. Among these, broths, jellies, lozenges, candies and conserves, have always made part of the cookery book; and we shall find, in the first London Pharmacopœia, published by the College, a recipe for chicken broth, under the name of aquæ caponis. It is true, the air of mystery is preserved, for after the broth is boiled, it is to be ren-

dered unpalatable by a variety of additions. Borage water, bugloss water, as well as their leaves, the leaves of roses and violets, and a small quantity of cinnamon; and to complete the absurdity, a portion of the crumb of bread; after which the whole is directed to be distilled in a glass retort.

In the same publication, the articles conserves and sugars conclude with a note, by which the reader is jocularly asked, why we should not leave the rest to confectioners, so called, and the ladies? *Confectionariis ut vocitant, & fæminis generosis quid non de cetero relinquamus?*

Among medical writers, the earliest physicians intermix their dispensatories with their other writings. The works attributed to Hippocrates, contain a great number of remedies; but we are by no means certain, which are to be considered as the production of the Father of Physic. Dioscorides is a name familiar with every one; but we can hardly be said to have an intelligible Pharmacopœia of an earlier date than Celsus, and the greater part of his receipts are for external application.

A few centuries after, the Moors, being in possession of the most refined part of Europe, introduced what little they knew of chemistry into pharmacy, and from that time the system of mystery was improved to its highest. The technical language was unintelligible, and even the marks by which it was expressed were symbolical; of all this nothing now remains but the characters by which our weights and measures are designated; and as this is the only relic of barbarism with which medicine is chargeable, I could wish it were abolished with the rest.

From this time we can find nothing but a farrago of receipts collected from the Arabs or Moors, the ancient Greek writers, and some solitary formulæ, which by accident acquired celebrity at different times, and were afterwards recorded with the names of their inventors, or perhaps of the persons who were relieved by them. To these we shall presently refer, when we explore the sources of the first London Pharmacopœia; but it is impossible, on this occasion, to pass over a work published at Venice, in 1562, twenty years after a regular dispensatory had received a senatorial sanction at Nuremburgh. This work is entitled *Mesve Greco. & Arab Medicorum quæ extant*. It contains every thing written on disease and remedies, by the most celebrated Arabians, comprehending, besides Mesve, Avicenna, Albucasis, and Saladin; but the most curious

curious thing that strikes the reader, is nearly an hundred closely printed pages, of canons for preparing the more simple remedies. These are not indeed all imputable to Mesve, but to his various commentators, and particularly to Sylvius, and the publisher Andrew Marino.

By this, and many other instances, it will appear, that though the senate of Nuremburgh had adopted a dispensatory as early as 1542, yet the practice was by no means general. However, it is plain, from the preface prefixed to the first London Pharmacopœia, that the English College had been backward in so useful an undertaking. Perhaps it may not be so difficult to account for this backwardness. The College were probably more alive to the magnitude of the undertaking than other establishments, whose reputation was less considerable, and who consequently had less to apprehend from committing themselves too early. There is even reason to believe that their first publication was so much in request, and so long in agitation, as to encourage the boldness of some speculators, who taking advantage of the public eagerness for such a work, ventured to print it in a crude state. This, however unjustifiable, had the effect of forcing the College to execute their long meditated design, and exactly a century after they had received their charter from Henry, their first Pharmacopœia was published.

At this time it may appear strange, how the business of pharmacy could have been conducted without such an authorized work from the College. But the work itself, in some measure, explains that difficulty. In their preface they remark, that it may be thought unnecessary to add one to the number of Pharmacopœias, when there was scarcely a city, or university of any importance, that did not furnish one. Admitting, it is added, that many of these have satisfied themselves with what has been done by Mesve, Myrepsus, and Alexandrinus, still each city has chosen to have its own *Antidotarium*. The Romans, the Venetians, the Florentines, and they might have added among those included in the *quos non taceamus*, Bononians, Antwerpians, have all their Antidotaria; and why should not the Londoners possess theirs? For the want of this, they observe, that the apothecaries were often in doubts and uncertainties, whether they were to be directed by Cordus, Fernelius, or by what other authority. Hence we may suppose that each physician, when he wrote his prescription, was under the necessity of adding by what Dispensatory each composition was to be prepared; and

this might probably, in some instances, extend to even the MS. prescriptions of living authors.

In the first attempt at a London Pharmacopœia, we see many proofs of this. A great number of the compositions have the names of the inventors, or of the authors from whom they are immediately derived, attached to them. Mesve seems oftener referred to than any other. But Fernelius, Nicolas, Myrepsus, and Alexandrinus, have each of them their share. Even individual receipts are extracted from authors who have not written precisely on pharmacy, but on different branches of medicine. Galen's name stands at the head of several receipts: from Fallopius de Morbis Gallicis, we have an aqua aluminis magistralis, probably intended for gonorrhœa, or fluor albus in women. Fracastorius de Morbis contagiosis, furnishes a diascordium, and Langius an aqua bezoartica. There is also a philonium Persicum of Mesve, and philonium Romanum of Nicolas. Besides which, there are prescriptions which appear to have been productions of physicians, at that time members of their own body. In a copy of their first Pharmacopœia, preserved in the library at Bolt Court, are several heads of receipts marked in MS. as Dr. Mounteforde's and Dr. Mayerne's, the latter of whom was, at that time, first Physician to their Majesties.

Having given this general view of pharmacy, before the institution of Dispensatories, and their early infancy, I shall endeavour to show the manner in which they have gradually risen to greater perfection, and offer a hint or two towards the means of their further improvement.

I have never met with the original Dispensatory, as published at Nuremburgh; but the above library furnishes an edition, printed at Antwerp, in 1568, which is valuable, inasmuch as it affords us some account of the respectable author, to whom we are indebted for so valuable a performance, and also of the peculiar circumstances to which we owe the first authorized work of the kind.

Valerius Cordus, we are informed, was the son of a celebrated Physician. As in his epitaph he is called Simoisius Hesus, or the Hessian Archimedes, we may conclude he was a native of that part of Germany. Before he had finished his studies, and whilst engaged in a journey to Italy for that purpose, he made a transient visit at Nuremburgh. Here he was introduced to all the literary characters, and among the rest to the physicians. To the latter, during
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some conversations on the subject of pharmacy, he produced a collection he had made of the best receipts he could procure from all the writers on medicine. It is very probable, that his father's experience had first suggested the idea, and instructed him in the selection. The physicians were so much struck with the sight of a compact set of formulæ, that they requested him to give the apothecaries of Nuremburgh the benefit of his labours. Cordus, who probably had before conceived the advantage to be derived from an authorised Pharmacopœia, made many objections to offering a work so important to the health of the city, without the authority of the senate. The book was therefore presented to that body, who directed the college of physicians to peruse it in the presence of the author. When the college had signified their approbation, every apothecary was directed to prepare his medicines by the receipts it contained. And to this event we are indebted for the institution of public Pharmacopœias. We cannot help regretting, that the valuable youth, to whom we owe this first attempt, died soon after his arrival at Rome.

It would be extremely unjust to criticize the production of a mere student, brought into public light by the desire of the magistrates and faculty of a city of which he was a stranger. It may, however, be worth remarking, that though Cordus professes to give the compositions of the Arabians, who are known to have been the inventors of distillation, yet we have no mention of ardent spirits in any composition, excepting in a process for making an imperfect ether from spiritus vitrioli. In this place, the alcohol is called vinum ardens acerrimum ter sublimatum, by which I conceive must have been meant rectificatum, for the word distillation is only used when the process of procuring oil of vitriol, or essential oils, is described. Equal parts of this vinum ardens and oil of vitriol are directed to be put into a cucurbit, to the top of which an alembic is to be luted with much care. This was to be placed in a furnace, and half buried in cinders. The recipient was then to be luted, and the same quantity of ardent wine as was at first put in is to be drawn off. After this the remainder was to go through another distillation, and a separation of the oil from the water: the oil is directed to be preserved with great care, because you would get but a small quantity from a pound of the austere oil of vitriol, and that small quantity would soon evaporate. This oil was celebrated for dissolving tough humours of the liver and lungs, and also for preventing the formation of calculi

lus in the kidneys and bladder, as well as for curing ulcers in the latter.

Besides this, we meet with directions concerning the mode of distilling essential oils and waters, but they do not properly make a part of the dispensatory.

About twenty years after this is dated the Cologne dispensatory, under the name of *dipensarium usuale pro pharmacopœis inclytæ reipublicæ colonien ex commissione nobilium procerum, &c.* Here we might have expected some improvement; and if we wanted only additions, we shall meet with enough. I know not whether the authors of this dispensary were the inventors of the *aqua caponis*; but in justice to the London College, whose *Pharmacopœia* appeared sixty years after, we remark, that their *Aqua Caponis*, if not equally efficacious, is a little more simple, and less cruel. The London College presume, that the animal will be killed and plucked before it is drawn, or *evisceratus*; but the *Coloniens* prescribe the manner of killing the animal, which is to be first teased or hunted to death, *plurimum fatigatus*. The rest of the process is more elaborate, and the impediments somewhat more numerous. At the end, the author observes, that physicians might draw their swords to determine the virtues of capon water, with some other humorous remarks, which seem to refer to local circumstances and characters. On the whole, this work is destitute of order, and more complicated than the *Nurembergh*; it shows however a somewhat greater progress in chemistry, and the utensils as well as manipulations are more numerous, as well as more minutely described.

What the gradual progression of pharmacy was from this time until the appearance of the first London *Pharmacopœia*, I have neither had leisure nor industry to trace. But the form of this work is sufficient to show how extremely slow the progress of every art is, till it arrives at such a state as to catch the attention of the public, or to excite emulation among those who cultivate it. In *Cor-dus's* dispensatory I have remarked, that no notice is taken of simple distillation, but as an article of chemistry. In the London *Pharmacopœia*, the number of distilled waters amounts to 170, among which are the *aq. Bursæ pastoris—Brassicæ—Scabiosæ et Spermatidis ranarum*; substances, none of which can be expected to yield any thing to the still. It is but justice to remark, however, that in this list, we meet with one very powerful and almost unmanageable remedy in the common mode of using it by infusion, this is the tobacco plant, which cannot fail I should

should conceive to yield an essential oil, that might be turned to some account.

All the spirituous waters are also compound, that is, distilled from more than one ingredient besides the spirit. Though ardent spirits were not unknown, yet many of these waters, particularly the *aq. hysterica*, afterwards *brioniæ compositus*, are directed to be distilled from wine. There is a prescription for an *aqua vitæ*, *ad usum pauperum*; this is distilled from equal parts of sweet wort and the dregs of wine, with anniseed, in an alembic and refrigeratory. Among the compound waters is a receipt for *usquebach*, which is properly speaking a tincture, and the only one I have met with in the whole *Pharmacopœia*.

Medicated wines and vinegars follow; but in this, as in Cordus's dispensary, the most bulky part of the work is made up of syrups, confections, under the name of electaries and lohocks; pills, and unguents.

How much soever a late ingenious and much lamented physician may have been disposed to ridicule the *theriaca* and *confect. damocratis*, these were simple and unexpensive preparations compared with some others in this first *Pharmacopœia*. The *antidotus magna Mathioli adversus venena et pestem*, has a list of 126 articles, among which are several compounds, as the *species cordialium temperatarum*. *Spec. diamargareton*, and the *aq. bezoartica*, comprehending each a great number, and every expensive article; as castor, mosch, ambergris, all the precious stones, together with the two precious metals.

It would be very unfair in these days to examine critically the various preparations in a pharmaceutic work nearly 200 years old; but it is impossible not to mark the haste with which the whole is got up. Besides numberless other inaccuracies in the *aqua bezoartica brevis Langii*, we have in one part *Cinnam. dr. iijß. Carioph dr. ij.* And in another part of the same prescription, *Cinnam. dr. iij. Carioph dr. iijß.* This can no otherwise be accounted for than by the great hurry in which the work was produced, in order, as soon as possible, to supersede the spurious production.

The date of the next London *Pharmacopœia* which I have been able to collect, is 1651. This in many respects comes nearer to the present form. It contains a chapter of tinctures. They are few in number, and excepting the *Tinct. Castorei*, of little efficacy. There is a *Tinct. Fragorum*, a *Tinct. Scordii*, and a *Tinct. Theriacæ*, made of spirits distilled from Cretan or Canary wine, vinegar, the two
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long compositions of mithridate and theriaca, digested in a bath heat. If Mathiolus's antidote is omitted, the number of heavy preparations is in many respects increased; and the aqua caponis still holds its place.

Dr. Powell has favoured us with a catalogue of the different Pharmacopœiæ published by the College, according to their dates. From such diligence, and such means of information, we cannot doubt the accuracy of the result. But the prefaces to those of 1650 and 1677, somewhat obscure the subject to those who have not the opportunity of seeing the rest.

The duodecimo edition of 1651 begins with remarking, "Ante duos, supra sex, lustra, annos visum est collegio nostro edere suam pharmacopœiam." If we take the lustres at five years, this will make a period of thirty-two years, which deducted from fifty makes eighteen, the date of the first Pharmacopœia published by the College.

The edition of 1677 begins, "Ante tres supra decem lustra visum est, &c." This, according to the former computation, would reduce the period to which the writers allude, to 1632, which agrees with one of Dr. Powell's dates. Both these have a dedication in the same words to King James. This dedication is copied from the first Pharmacopœia of 1618, at which times James the 1st. reigned.

The editions of 1627, 1632, and 1639, must have been published during the reign of Charles the 1st. That of 1650 during the inter-regnum and before the protectorate; and that of 1677 during the reign of Charles II.

The last has indeed an inscription between the title and the old dedication, in which the College place their Pharmacopœia under the protection of the reigning monarch, but still the dedication to James is retained. There is an edition of 1681 in the library at Bolt Court; but this was evidently only a republication, without any alteration, and probably without the notice of the College, as not only the preface and dedication are copied from 1677, but also the College list.

The alterations in all these are so gradual and so little worth notice, that it is probable no attention was thought necessary after the first edition, to require the royal mandate for their reception among the apothecaries. In the materia medica, indeed, the progress towards simplicity seems to have been retrograde; for besides retaining all the disgusting component parts of several animals, and their excrements, the edition of 1677 has an addition of *secundina*: of what animal no mention is made. In all these the preface varies but little, and no copy that I have seen after the first contains the Royal proclamation.

From this to the appearance of a new Pharmacopœia, a longer period elapsed than between any of the former. This is less to be wondered at, when we consider that the progress of improvement in natural knowledge had now become such as very much to increase the difficulty of compiling a work which had received no considerable improvement for nearly a century. But if the undertaking was arduous, fortunately, there were not wanting men the best adapted for it. This edition has the Royal proclamation; it is inscribed (without a dedication) to George the 1st. and the preface, which we shall presently notice, was new.

This Pharmacopœia (of 1720) was published under auspices the most favourable. The venerable name of Sir Hans Sloane appears as president, nor was he at that time in his wane. Only the year before he had been chosen to that honourable office, and he could boast as his coadjutors the elegant and accomplished Mead, the industrious and candid Frend, and Jurin, who laboured so hard to reconcile the world to the reception of small-pox inoculation. Among the licentiates indeed the name of Sydenham appears, but not the great man to whom the world owes so much: nor indeed a single name that, as far as we can judge, could assist the College in their labours, or even adorn their list.

But no assistance was wanted! We may venture to assert, that so complete a work of any kind was not produced so early in the 18th century. The preface, with only a single exception, and in that I am incompetent to judge, appears a perfect specimen of latinity, modesty, and genuine urbanity. The arrangement is as complete as in the knowledge of those days could have been expected. The reference to their predecessors, to the state of the shops under the long neglect of amending the Pharmacopœias, delicate; and most of all, the manner in which the surgeons of that date are introduced in a style highly complimentary and worthy of the professors of each branch.

Twenty-five years afterwards appeared another Pharmacopœia. The list still retains most of the same names, but alas, many of them were mere names. Sloane had then reached his 80th year, Mead had exceeded the usual term of mortality, Frend was no more, and Jurin's attention had been distracted by controversy. The stately Hulse, the profligate Barrowby, the pedantic and noisy Brown had succeeded. What could the modest Heberden do, at that time the last of the list, and probably but just
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torn from his alma mater, the scene of calm repose or of learned industry? It is impossible not to be struck with the different language in which two works, proceeding from the same sources, are ushered into the world. "Our ancestors, says the venerable Sloane and his coadjutors, seem most happily to have consulted their own dignity and the public service, when they took upon themselves the care of publishing a Pharmacopœia, an undertaking not less laborious than necessary; and since, by the favour of the sovereign, they were appointed the inspectors of medicine, not only in this city but throughout England, they would have been wanting in their public duty, had they omitted such an office. This office, undertaken with zeal, they accomplished with industry, &c."

Let us hear the language of their successors. "It pleased the President and the College to subject the London Pharmacopœia to a new inquisition, which indeed the safer and more compact mode of prescribing among the more celebrated physicians seemed to require." Then follows a mode of reminding the reader of their privileges, without any expression of gratitude to the sovereign, as on the former occasion. After which, without any acknowledgment of the labours of their predecessors, all the follies of antiquity are brought to open day-light, and we are almost taught to believe, that the framers of the former Pharmacopœia, some of whom were then living, had been the inventors of antidotes against poisons, of which they were constantly afraid; or that, like old women, they consulted oracles, dreams, and astrologers, superstitiose et aniliter, petierunt ex oraculis insomniis & commentis astrologis."

It must be admitted, however, that the work was materially improved; and if the larger compositions are retained, an apology is made for yielding, in some instances, to customs which they recommend to posterity to lay aside.

The next revision of the Pharmacopœia was in 1787. To notice the preface of this edition would be superfluous; though long, it cannot be called tedious; though everywhere classical, it is no where pedantic or obscure; and whilst the errors of more remote antiquity (*prisci*) are slightly hinted at, a just praise is given to those more immediate predecessors, (*antecessores*) who near half a century before, "*summa diligentiae et judicii laude id expleverunt munus quo nunc fungimur*. By this time, as the writers remark, chemistry had begun, with the discovery of a new science, to invent new names. It has been thought

thought by some that the College were premature in adopting them; and I well recollect, that my friend Austin, who was at that time a chemical lecturer, inclined to that opinion. It would ill become one, whom chemistry has for a long time left at an immeasurable distance, to offer an opinion on this subject. Thus much may, however, be remarked, that the same objections to altering names might be extended to the terms of Majestery, Regulus, Panacea, and Catholocon. Let us take only a single example: *Hiera picra*, the very sound of which appears now ridiculous, is from a language admitted to be the most musical of any in the world. It was however thought right to change it for Latin, and *tinct. sacra* usurped its place; this is now *tinct. aloes composita*. These alterations, necessary as they may seem, are trifling, compared with others still more important. In short, to retain the obsolete names, and such they would be to the rest of the world, would be to assume an air of mystery unbecoming a liberal art.

If it is urged that the learning of new names adds to the difficulties of acquiring a science already too much for the life of man, it is easily answered, that to the rising generation they are not more new than the older, and their elders will rarely have occasion to accuse others of want of candour, if they do not immediately fall into the new language.

This new language is introduced by an art which was formerly more immediately connected with medicine, but which is now branched into so many forms, that the principles only can be expected to be retained by physicians, or by apothecaries practising in the present state of the profession. It is said that mistakes have occurred from the change. This is highly probable; but if the late proposal of writing always at full length were adopted, this difficulty could scarcely occur.

Some have objected to the language in which *Pharmacopœias* and extemporaneous prescriptions are written. In Portugal, and I believe in Spain, it is always in the language of the country. However, a general language is by many thought more desirable, as intelligible in every part of the world. The London College has done wisely in authorizing a translator, which obviates every difficulty of that kind in their *Pharmacopœia*. Still there is one objection to the use of Latin, which may not immediately occur to every reader, and that is, the natural wish of every writer, in that language, to render his sentences as purely classical as possible. This will sometimes produce an

an unnecessary obscurity, principally by transpositions, which should be as much as possible avoided. In the preface it may be admissible to indulge the effusions of a good taste, and a happy recollection of classical phrases: but I am mistaken if even this wish has not formerly betrayed the writers into a figurative mode of expression, hardly justifiable. It is worth remarking, that the preface to all the Pharmacopœias, excepting those of 1745 and 1787, contain an allusion to the same figure from the *ars poetica*. The first, in its *epilogus*; the others, in their preface. The *epilogus* is so full of figures, that the reader may, at first, be at a loss to know which of them refers to *ad incudem denuo revocavit*: besides, that *revocare ad incudem*, is a phrase scarcely admissible. The preface to the edition of 1720, though perfectly chaste in all other respects, seems chargeable with the same want of propriety in the use of this term. The recent publication preserves the original phrase, *incudi reddere*.

Nothing can be more pleasing than the recurrence of certain sounds from the favourite work of a favourite author; and, on a disputed passage, I shall not be so hardy as to offer an opinion,* especially as the propriety of every other part of the preface is a fair presumption, that the authors have judged correctly in this.

It may be a little flattering to an English reader, that in all the Pharmacopœias I have had leisure to examine, and as far as my knowledge enabled me to judge, those of London are the most correct in their latinity. I shall only instance one of the irregular words, as these are the most certain means of detecting the scholarship of the writers. In the Paris Pharmacopœia, published in 1758, we have the word *ostreum*, evidently arising from the recollection of the neuter plural *ostrea ostreorum*. In the Swedish Pharmacopœia of 1787, we have *ostrearum testæ*, from the recollection of the singular fæminine *ostrea*. The English Pharmacopœia of 1746 and of 1787, have, as might be expected, avoided both these errors.

* If I recollect rightly, Rollin, in his introduction to the *Belles Lettres*, objects to the passage, because a lathe has no connection with a mallet or forge. *Et male tornatos incudi reddere versus*. Bentley, I believe, has *ter natos*, and some other Critic, *formatos*.

Those who have seen a gentleman artisan turn a piece of metal, may easily comprehend the force of the expression, for if once the cutting instrument is directed wrong, every attempt at recovering the error is fruitless, and the only remedy is, to commit the metal to be hammered over again, and to begin the work afresh. The allusion seems to follow, that instead of patching a lame verse, it is better to make a new one. I before remarked, this was not the case with any Pharmacopœia during the 17th century. *Ad incudem revocare*, appears also an improper association of words.

In the first London Pharmacopœia, the arrangement of weights is from the grain to the pound. This was continued in every subsequent edition till the publication of 1745. In this, the arrangement begins with the pound, which rendered necessary the detail of the different weights in use in the kingdom. Perhaps the original plan might have some advantage. It begins by fixing the grain according to the standard of weighing money, which is I believe the same throughout every part of the world. From this, without noticing any other kind of weights, it was easy for the College to ascertain their own. In doing this, however, they proceed to the scruple, the drachm, and pound, and give the symbols of each. Here is a manifest impropriety in intermixing such characters with Roman weights. The notice of these characters was first omitted in the Pharmacopœia of 1745. I cannot help wishing that they were omitted in all extemporaneous forms. There is at least a great impropriety in using such characters to distinguish scruples, drachms, and ounces, whilst we assume a classical affectation in marking the numbers of each by the old Roman characters. These last are not only much more inconvenient than the Arabic, but more liable to be mistaken if only written in the common running hand. In the first Pharmacopœia also, there was some attempt at introducing the Roman measures; but they accord very ill with those in modern use. Thus we find the cochleare, cyathus, hemina or cotyla, the libra, the sextarius, and congius. These refer to the uncia and drachma, without any mode of fixing a standard for any. The scale is rendered still more obscure by the sextarius being rated according to the Roman measures, at a pound and half, and the congius at six sextarii, or nine pounds and half. In the editions of 1650 and 1677, the hemina and cotulus are omitted, but no standard is proposed till that of 1720, in which the wine pint is specified as the pound measure. The Pharmacopœia of 1745, omits also the cochlea, and adds the P or M, to distinguish weight from measure. The same plan is pursued in the edition of 1787. In this, for the first time, attention is paid to the thermometrical heat and specific gravity. The recent publication has the advantage in all these respects; the introduction of the word octarius cannot be objected to as a substitute for the libra, and the addition of the minimum is highly important. As, however, the symbols are no where used in the work, I could almost wish they had been omitted. But this rather belongs to my last proposal, of offering a few hints whenever another impression shall be again thought necessary.

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The new work appears to possess much merit, and to be liable to as few objections as can be expected in such an undertaking. Respecting weights, I can see no reason why we should not confine ourselves, like most experimental philosophers, to grains altogether, or at least omit all the intermediate divisions from them to ounces or even pounds. By these means we might avoid all the Roman names, as well as technical characters. In the measures the word congius is objectionable, as marking a Roman measure different from our gallon. I can see no objection to gallo or gallonium, as the Pharmacopœa of 1745 had pinta for our pint.

The great difficulty in the construction of a Pharmacopœia is the chemical arrangement, and the accurate and ready recollection of the various affinities. Chemistry is a science much too extensive to be accurately followed by any other professional man. In one respect too, it places the most experienced practitioner in the most unfavourable view, for whilst he is improving a practical art, which can only be imperfectly learned by the closest attention during a long life, he must be inattentive to those discoveries which are daily arising in a science depending so much on experiment. Hence the student of to day, in chemistry, will be better informed than the veteran who could instruct him in the more important branches of his profession. Add to this, we are all too apt to value ourselves on new acquisitions, and if we feel our inferiority in some respects, to retort the same on others. Hence the office of the College, in forming a new Pharmacopœia, must be full of difficulties, some of which it will not be in their power to meet, but by the assistance of others. On these accounts, I cannot help doubting, whether it might not, for the future, be better to leave this task to others, and to offer only their approbation to such as they have reason to believe is the most unobjectionable. It has been said, that both Edinburgh and Dublin exceed the London College in the facility with which they complete their Pharmacopœias. Nothing is more probable. They are both the seats of Universities, where encouragement is given to professors, and where to teach, which is the best means of learning, is the highest honour to which some of their members aspire. Besides this, they have more leisure, because the line of professional engagements is more confined.—These are only a few of the difficulties which attend such an undertaking. Let us then reflect how easy it is to find fault, how dignified to overlook errors if they exist, and how small must be the merit of bringing before the public view such as the authors themselves are ready to admit.

Observations

Observations on the Schirrous-contracted Rectum;
by Mr. WHITE.

I AM persuaded there is no humane practitioner who hath seen this disease, but must feel desirous of contributing his aid towards extending the knowledge of so distressing a malady; especially, as an early discovery of it may be the means of saving many of our fellow-creatures from extreme sufferings, and the fatal consequences attendant on so terrible a complaint.

It may be, perhaps, a too generally received opinion that this disorder seldom occurs, because it has been so little noticed in modern systems of Surgery. I am, however, convinced from experience and observation, that the principal reason why it is not more generally known, is owing to an imperfect investigation, in consequence of which, it is mistaken for other complaints of the alimentary canal, that are attended with similar symptoms. Out of upwards of thirty-six thousand patients, who have come under my immediate notice in the course of twenty-three years, I have met with only ten cases of Schirrous and contracted Rectum: but then it should be observed at the same time, that all of these cases have occurred within the last five years, from which circumstance, it may be fairly inferred that the disease is frequently overlooked.

Practitioners unacquainted with the disorder, will be apt to attribute symptoms of its early stage to habitual costiveness, or hæmorrhoidal affections, and those attendant on its more advanced progress to chronic diarrhœa, or dysentery. Van Swieten remarks, "It is even highly credible that such schirrous swellings lurk oftener within the bowels than is commonly believed, and there give birth to the most stubborn maladies." It is evident from cases which are recorded, that some of the old practical writers were acquainted with this disease, though they have not given us a complete history of it, as may be seen in Wiseman's Chirurgical Work, and in Van Swieten's Commentaries.

We are, however, greatly indebted to Mr. Sherwen for a very valuable paper written by him, and published in the second volume of the Memoirs of the London Medical Society, wherein the symptoms of this disorder towards its ultimate progress, are detailed with much accuracy and minuteness.

It appears from what I have seen, that persons of different temperaments, age, and sex, are indiscriminately attacked with this complaint, though most commonly those in the decline of life: and as Mr. Sherwen observes, "it comes on in the most gradual and imperceptible manner; slow in its progress, but terrible in its consequences, it yields not to medical assistance, but must, under the best management, become ultimately fatal. It admits however of palliation, and if early discovered, will also admit of the last moments of the patient being rescued from unavailing, mistaken, and distressing attempts to cure. It is therefore an object worthy of the most serious attention of every humane practitioner."

"There is no disease to which the human frame is incident that is more liable to be misunderstood. Diarrhœa, dysentery, tenesmus, cholic, painful distention of the abdomen, inflammation in the bowels, and iliac passion, which are each of them formidable, and often fatal diseases in themselves, may be successive symptoms only of the schirrous rectum. Under some one of these appearances it is highly presumable, that many patients have died without the real cause having ever been assigned or suspected; and even when it is suspected, and becomes an object of manual investigation, it may easily be mistaken for an enlargement of the prostate gland, or a schirrous uterus.

"The patient gradually experiences a difficulty in evacuating fæces of a thin consistence. There is a principle of accommodation in the human system which enables him to go on for a great length of time without applying for aid. As the passage becomes obstructed, the fæces acquire a thinner consistence, and the first complaint he makes, is of a looseness."

I shall here take the liberty of remarking on the preceding passage, that although it is true this disorder sometimes arrives at the above mentioned stage, before application is made for relief, yet it does not follow from thence, that a diarrhœa is the primary symptom: because the history of cases clearly demonstrates, that the complaint does exist for a considerable length of time before a diarrhœa comes on.

The symptoms which indicate the presence of this disease in its early stage, and which may be deemed pathognomonic, are habitual costiveness, pain in the bowels, particularly in the course of the transverse arch of the colon, and sigmoid flexure; flatulency; uneasiness in the rectum,

rectum, attended with some difficulty in expelling the fæces, which gradually become scanty, smaller figured than naturally, and often discharged with a squirt.

In the fourth volume of the *Memoirs of the Society*, there are likewise some observations worthy of notice, by Mr. Robert White. After enumerating the principal symptoms of the disease as described by Mr. Sherwen, he observes, "But, from what I have learnt in this disorder, when these symptoms supervene, particularly that of scanty alvine excretion, it admits only of temporary relief. The point therefore to be aimed at in this complaint, is to ascertain a train of symptoms which collectively may lead to an early detection. I am also of opinion that the following symptoms will urge the necessity of manual investigation, by inducing a suspicion of the malady. When a person somewhat advanced in life is troubled with frequent constipation, complains of fulness and weight in the stomach, with repeated inclination to discharge the contents, and uneasy rumbling in the belly, and distention in the lower part of it, with a sensation of numbness towards the upper part of the sacrum, extending down the rectum, repeated fruitless efforts being also made to pass a stool, attended with a sense of constriction and tenesmus, high up in the rectum, and the flatus which seemed to the patient to occupy the intermediate space, bursts forth; clysters failing as well as medicines, and the complaint unattended with fever or pain; it will be reasonable to expect some mechanical obstruction in the passage. This opinion will be farther strengthened, if the above symptoms return without evident cause, no well formed stool regularly intervening."

I shall now resume the history, as further detailed by Mr. Sherwen. "He continues in other respects in good health; his appetite is but little impaired; reiterated scanty evacuations, amounting in the whole to a sufficient quantity to keep the stomach easy, preserve a sort of balance in the intestinal canal; but by degrees the cavity of the gut becomes less permeable; opiates and testaceous powders have, perhaps, been had recourse to, and the frequent needing to stool abates. The patient and his friends flatter themselves that he is getting well, but he now gradually falls off in his appetite for food. The absence of stools is for some time attributed to this cause, till the lower part of the abdomen, by degrees, acquires a remarkable prominency, attended with uncommon rumbling of wind in the belly, like the

gurgling of water in a bottle.* These two last circumstances perhaps afford pathognomonic symptoms of this disease, more especially when accompanied with frequent but scanty discharges of thin, dark coloured, slimy fæces; often not more than a tea-spoonful, seldom exceeding at one discharge a larger quantity than a table-spoonful. By degrees a total suppression of stools takes place; the tumour in the abdomen increases; the uncommon rumbling of wind becomes more audible, so as to egagage the attention of the friends and visitants of the patient. The distention gradually increases, till the stomach is oppressed, and a vomiting comes on. The vomiting is not very frequent at first; but by degrees, every thing swallowed is vomited up. Severe pains are felt from distention in various parts of the abdomen, and a true iliac passion of the chronic kind comes on, and continues as long as the patient lives, unless he is accidentally relieved by a free discharge of thin fæces, which will sometimes give respite to his sufferings; in consequence of which, the appetite for food will again return; the patient will appear getting well; but the anxious solicitude of his friends at this period, will urge him to get down a considerable quantity of generous nourishment, till a repetition of the same scene will take place, and the unhappy man is alternately tantalized and worn out either by a stoppage or a purging."

The following is particularly worthy of attention, because it will assist in discriminating this disease from a common dysentery. "A common tenesmus is generally sudden in its attack, or it follows severe purgings and dysenteries, where the preceding circumstances have been well defined. It is often the consequence of drastic cathartics, and is always attended with considerable pain, and most frequently with a mucus discharge tinged with blood, instead of fæces; whereas, that which accompanies the schirrous rectum, is attended with little or no pain, but with powerful ineffectual strainings; during which, there will often be a discharge of wind, and the mucus squeezed out is slimy, but always more or less black and excrementitious, very seldom tinged with blood. In the common tenesmus, the impetus seems entirely spent
on

* This symptom has not been conspicuous in any case I have met with, and Mr. Robert White, in the paper alluded to, observes in the history of a case, that the gurgling, rumbling noise, considered by Mr. Sherwen as particular marks of this disease, were so trifling as not to be noticed, until a total obstruction took place.

on the sphincter ani, and there is more or less of a protrusion of the gut; but in a straining from schirrous rectum, the patient is not sensible of that extreme distress at the fundiment which is experienced in the other; and as soon as a small portion of excrementitious mucus is voided, he is able to rise immediately from the stool; but in a common tenesmus he is under the necessity of straining long, even after the expulsion of all that he knows from his feelings will at that effort be evacuated; and after he is able to rise from the stool, there still continues a burning pungent sensation, urging to a continual expulsion; whereas, in the tenesmus of which I am treating, after the patient has strained hard, whenever a small quantity of thin fæces arrives at the anus, it is squirted out with slight efforts, and little or no uneasiness follows; nor does the countenance shew that extreme distress attendant on a spasmodic stricture of a common tenesmus."*

If due attention be paid to the preceding description, I am persuaded the disease may be often detected in its early stage by manual investigation. On examination, different appearances will be manifested, according to the progress of the disease. In the beginning of the complaint, perhaps only a diminution of the natural diameter of the intestine will be discovered; and, although the patient may occasionally experience much pain in the bowels, attended with some difficulty in the expulsion of the fæces; yet, at this period, the fæces will not be found lessened in their diameter, because the muscular coat of the intestine is still capable of being dilated to a proper extent. Sometimes there are strictures resembling muscular rings (as in Case vi.), without any other thickening or induration of the intestine, which is ascertained on the introduction of a bougie, for the muscular action of the gut will be plainly discerned when the bougie passes thro' the strictured part: which is not the case when the rectum is thickened or indurated to any great extent, because the natural action is then lost.

Most frequently however, and unfortunately, the disease is not discovered until a very considerable thickening and induration of the intestine has taken place, which is generally in the middle and superior extremity of the rectum, where the colon terminates. Sometimes the

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schirrus

* Although I have selected the most material parts of Mr. Sherwen's valuable paper relative to the symptoms of this disease, yet the whole of it deserves insertion.

schirrus fills up nearly the whole cavity of the rectum, which feels hard and uneven; and often there is an erosion of its internal membrane, with a serous or sanious discharge. I am sorry that I have not had an opportunity of inspecting the diseased parts after death; this defect, however, is amply supplied by the accurate description given by Dr. Baillie, in his *Morbid Anatomy*, of the general appearance of this disease on dissection. "The schirrus sometimes extends over a considerable length of the gut, viz. several inches; but generally it is more circumscribed. It exhibits the same appearances of structure which were described when speaking of the schirrus of the stomach. The peritoneal, muscular, and internal coats are much thicker and harder than in a natural state. The muscular too is subdivided by membranous septa; and the internal coat is sometimes formed into hard irregular folds. It often happens that the surface of the inner membrane is ulcerated, producing cancer. Every vestige of the natural structure is occasionally lost, and the gut appears of a gristly substance. When schirrus affects the gut, the passage at that part is always narrowed, and sometimes so much so, as to be entirely obstructed. The obliteration, or stricture, would sometimes appear to be greater than in proportion to the thickness of the sides of the diseased gut; this, most probably, depends upon the contraction of the muscular fibres of the gut, which, although diseased, have not altogether lost their natural action. When the passage is very much obstructed, the gut is much enlarged immediately above the obstruction, from the accumulation of the contents in that part of the intestine. While this disease is going on in a portion of the intestine, adhesions are formed between it and the neighbouring viscera, and the ulceration sometimes spreads from one to the other."* It appears highly probable, that the glandular structure of the rectum may form the predisposing cause of this disease; and it is also presumable, that the accumulation of hardened fæces, and their pressure on passing through the intestine, may prove the general exciting cause. Dr. Baillie observes, "There is certainly more of glandular structure in the inner membrane of the great intestines towards its lower extremity, than in any other part of it, and this sort of structure has a greater tendency

* Drawings of this disease, and appearances on dissection, may be seen in the 2d and 4th volumes of the *Memoirs of the London Medical Society*; and also in Mr. Bell's 1st volume of *Operative Surgery*.

dency to be affected with schirrus, than the ordinary structures of the body; the gut, too, is narrower at the sigmoid flexure than any other part, and therefore will be more liable to be injured by the passage of hard bodies; these, by their irritation, may excite the disease of schirrus in a part which was predisposed to it."

If the disease should be happily discovered in its early stage, and not seated beyond the lower extremity of the sigmoid flexure of the colon, much benefit may be expected from the judicious management of the surgeon: The principal indication of cure in this complaint, consists in the dilatation of the passage: hence, different methods have been proposed for the accomplishing of that end. The first case recorded by Wiseman, he attempted the dilatation of the gut with tents made of gentian root, and also of deer's suet; but these means failing, he informs us that he divided the contracted part several times with an instrument; after which the excrements came away big, and the patient was not only able to expel them well, but also to retain them; and on a subsequent examination he could not find any remains of the disease. In another case, he made use of the actual cautery, with a view to destroy a cancerous excrescence in the rectum; but afterwards the patient was seized with a pleurisy, succeeded by a dysentery, which terminated fatally.

Mr. Sherwen recommends bougies of horn, softened by means of boiling water. Dr. Darwin has recommended introducing a leathern canula in the gut, and then either a wooden maundrill, or blow it up with air so as to distend the contracted part as much as the patient can bear, or bougies made with mercurial plaster, spread on leather. Dr. Darwin has also suggested the trial of lunar caustic, as used in strictures of the urethra. Mr. Charles Bell recommends bougies made of sponge, soaked in strong mucilage, or dipped in wax; which may probably answer very well when the disease happens to be seated very low in the rectum. Mr. Bell also advises small doses of calomel to be given occasionally, and purged off once or twice a week.

Mr. Robert White likewise suggests the probability of mercury being useful in this complaint. "From analogy (he says) it may be conceived that as the employment of mercury causing a ptyalism of some duration, is so serviceable in the schirro-contracted œsophagus, benefit may be also obtained from it in the like manner in the schirro-contracted rectum."

In attempting the dilatation of the passage, I have not made use of any other means than the common rectum bougies; which I think are best calculated to answer that purpose. The young practitioner, however, must be careful to adapt the size of the bougie to the degree of obstruction in the passage, which, as far as is practicable, must be previously ascertained by introducing the finger into the rectum, and afterwards a large common bougie as high as the colon; for unless this circumstance is particularly attended to, considerable mischief may be done to the diseased part by inducing inflammation, and increasing pain. If the bougie be too large, it should be gently, slowly, but at the same time steadily introduced, until it passes the obstructed part, and enters the colon. I generally suffer it to remain about an hour, and repeat it every second or third day; for if introduced oftener, there will be danger of exciting too much irritation. If the bougie is previously warmed a little, it will yield better to the curvature of the pelvis, and pass much easier to the patient, and with less trouble to the practitioner.

It is proper to remark, that laxative medicines are not only necessary to be administered in the constipated state of the bowels attendant on the first stage of this disease, but also in its more advanced progress, when diarrhœa supervenes; because the evacuations are seldom of sufficient quantity to relieve the bowels without the aid of them. Castor oil I think preferable to any other. Aloetic purgatives should be carefully avoided, for it appears that aloes may have some share in producing the complaint, as so much of it is taken by every description of persons, and its peculiar effect on the rectum is well known.

It is also of importance to attend to the regulation of the patient's diet; and should consist (as Mr. Sherwen remarks) of that sort of food "which contains the greatest quantity of nourishment in the smallest compass." Jellies, sago, arrow root with milk, gruel with milk, beef tea, thin chocolate, fresh fish; very little animal food, fruit, or vegetables should be allowed. For common drink, water, or barley water. Every thing seasoned or salted, spirituous and fermented liquors, must be carefully avoided. The quantity of food should also be attended to, (as well as the quality) which ought to be as moderate as possible, for a strict attention in these respects will greatly tend to alleviate the sufferings of the patient.

Might not an aqueous diet be worth a trial in this disease,

as

as recommended by that sensible and judicious surgeon, Mr. Pearson, in cancer uteri?

CASE I. About five years since, I was requested to visit Mr. C——, about 45 years of age, who had been affected for a considerable time with pain in the rectum on going to stool, and difficulty in expelling the fæces, attended with a falling down of the gut. On examination, I found a partial prolapsus of the anus on one side, accompanied with inflammation; there was also a pouching of the integuments, as noticed by Mr. Hey in his *Practical Observations on Surgery*. At that time, I confess I was not experimentally acquainted with the diagnosis of schirrous rectum*, therefore did not examine farther than the prolapsed part. Means were prescribed, with a view to lessen the local inflammation; and laxatives to keep the bowels open. As the symptoms in a short time became more violent and alarming, in consequence of the increasing difficulty to the passing the fæces through the rectum, which brought on considerable distension of the abdomen, with increase of pain, and other symptoms characteristic of iliac passion, I was led to investigate more particularly the state of the rectum, which was very much indurated and contracted, as not to allow of the smallest rectum bougie to pass up farther than an inch. In the course of a few days the patient died.

CASE II. Mr. C——, about 30 years of age, applied to me about three years since, for a complaint which he supposed was the piles, that being the opinion of the medical person to whom he had previously made application; but, instead of obtaining relief, he was growing worse. He informed me, that for several years he had been of a costive habit, and had experienced some difficulty in expelling the fæces; but as that only produced a temporary inconvenience, he paid no attention; particularly, as he otherwise enjoyed perfect health. He had also observed for several years, that his stools were smaller in diameter than they had been formerly; and lately they had been discharged with a sudden squirt. His pain had now become considerable in the rectum, not only at the time of his having a motion, but at other times in the day. The former case had made so deep an impression on my mind, that I was convinced this person laboured under a schirrous rectum, particularly as soon as I saw the figure of his stools,

* Neither had I seen Mr. Sherwen's paper on this subject.

stools, which were small in diameter and scanty in quantity. On examining the rectum, I found it contracted about three inches up, and also at its superior extremity. At first I could only pass a large common bougie, but by degrees I was enabled to introduce a moderate size rectum one. For some time, he appeared very much relieved, and his stools became more copious and free, and of a natural figured appearance; and was able for a while to follow his business. Yet, however, soon afterwards, the intestine became more thickened and indurated, with increase of pain; accompanied by a thin acrid discharge, and loose stools, which sometimes passed away involuntarily. Suppuration also took place on one side of the anus, which broke externally. I advised ung. hydrag. to be rubbed on the verge of the anus. Various anodyne injections were occasionally thrown up. Cicuta, &c. were given; but nothing gave him any ease but large and repeated doses of opium. As he grew worse he was advised by his friends to go to a neighbouring infirmary. The surgeon under whose care he was admitted, treated it as a common fistula, and laid the sinus open, which, however, afforded him no relief. As soon as he was able he returned home, and sent for me, when I found his complaint greatly aggravated; and after several months severe sufferings, he died.

CASE III. William Lovell, about sixty years of age, applied to me (about the same time as the last mentioned person) who had laboured under the complaint for some time, in consequence of which he was very much weakened. He was costive, and complained of great pain on his going to stool. On examination, I found the rectum in a schirrous state, and particularly contracted about the middle of the gut, and at its superior extremity. At first I could only pass a large common bougie, but by degrees a moderate size rectum one. For some time he appeared better, the fæces passing easier through the rectum. The relief, however, was not permanent, for the indurated and contracted state of the intestine increased, with increase of pain, which he laboured under several months, and then died. A short time previous to his death, a suppuration took place on one side of the rectum, and broke externally at the anus.

CASE IV. I was requested about two years since, to visit Miss C——, aged 23, who complained of having frequently acute pain in the bowels, and was of so costive a habit, that she often went a week without having a motion, the expulsion of which gave her always considerable pain,

pain, whether she went so long or not. Her appetite for food was very indifferent; she was often sick, and brought up bile. Not being relieved by the use of laxative medicines, I suspected the cause of the complaint to be in the rectum. On examination, I found the whole length of that intestine considerably lessened in its diameter, so much so, that it was with some difficulty that the smallest rectum bougie was made to pass; there did not however appear any sensible thickening or induration of the intestine. Bougies were occasionally introduced for some time, from which she derived considerable benefit, as her motions passed much easier and freer. About four months since I was requested to visit her again, when I found her labouring under symptoms of diseased liver, to which supervened symptoms of hydrocephalus internus, and about a week after she died.

CASE V. Two years ago I was requested to visit Mrs. F——, about 35 years of age, who complained of excruciating pain in the rectum, attended with a diarrhœa, and a considerable discharge of matter. She was very much reduced, and exceedingly weak; her pulse was quick and feeble, with other symptoms of hectic fever. On examination I found the gut in a very diseased ulcerated state, and an opening in it, which communicated with the vagina. She lived a few weeks after, and her sufferings were mitigated as much as possible by the use of opium.

CASE VI. Mr. C——, about 28 years of age, applied in the autumn of 1808, and informed me that he had been occasionally unwell about six years, in the course of which time he had consulted different medical gentlemen, and had taken a variety of medicines, without receiving the least benefit. He complained of pain, which was sometimes very acute, in the course of the transverse arch of the colon, and sigmoid flexure. His bowels were costive, and whenever he had a stool, it was attended with pain in the rectum, and always felt afterwards as if some fæces remained behind, which he had not been able to expel. The motions were small figured, scanty, and discharged with a squirt. His appetite was very good, but felt himself generally worse after eating a hearty meal. His strength was not sensibly diminished, as he was able to follow his business as usual. On investigation, I found the rectum considerably lessened in its diameter, as it was with some difficulty I could pass the smallest rectum bougie. There were two strictures, one about three inches up, and the other at the superior extremity of the intestine. The
gut

The gut however had not an indurated feel, though it appeared lessened in its diameter. I explained to the patient the nature of the disease, and enforced the necessity of using bougies, with a view to overcome the obstructions, to which he very readily consented, particularly as every other means had failed in procuring him relief. From persevering some time in the use of the bougies, the passage was so much dilated as to admit of the introduction of the largest size; and the natural action of the intestine was so far recovered, that he often had evacuations, (without the need of taking medicines) which were more copious and easier in passing. Yet he still had occasionally returns of pain in the course of the colon, which no doubt had been weakened and distended by the long continuance of the complaint. He went into the country about three months ago, when I requested him to continue the occasional use of the bougies.

CASE VII. Mr. H——, about 60 years of age, applied to me in June 1808, and complained that he had been troubled with a purging for several months, attended with considerable pain in the rectum, particularly when the fæces passed. He was very much reduced, countenance pale, and face rather œdematous. His appetite for food however remained tolerably good. By the advice of an eminent physician he had taken medicines (such as are commonly prescribed in diarrhœa) for a long time without experiencing any benefit. On examination, I found the cavity of the rectum nearly obliterated by the schirrous state of that intestine, and was only able to pass a moderate size common bougie, which I introduced a few times. The fæces often passed involuntarily, and there was also frequently a considerable sanious discharge. His pain was very great, which could only be mitigated by the use of opium. He lived about six months after I first saw him.

CASE VIII. Ann Davy, about 45 years of age, complained of great pain about the anus, particularly on going to stool. Her motions were loose, and there was also a considerable serous discharge. She had been ill several months, and was daily growing worse. On investigation, the anus projected, which had a schirrous feel, and the whole length of the rectum so indurated and contracted, as scarcely to admit the introduction of a common bougie. Bougies were used a few times; but as the pain and irritability of the part increased, they were not continued. Opiates were given occasionally; and when the
evacuations

evacuations were not sufficient to relieve the bowels, elect. sennæ, &c. I have not heard of her for several months, as she went to live at some distance.

CASE IX. Occurred about a year since; I only saw the patient three or four times. He complained of having frequently considerable pain in the course of the transverse arch of the colon, and difficulty in expelling the fæces. He was costive. Previous to my seeing him, he had been using bougies, as the disease had been discovered while he happened to be in London. The strictured parts were about the middle and superior extremity of the rectum. I advised him to continue the use of the bougies, which he was able to introduce very well himself. I have not seen him for several months.

The Tenth CASE is at present under my care, and may take some future opportunity of communicating the result. The pain is considerable at the sigmoid flexure of the colon, but as yet, the rectum is not particularly indurated.

I shall conclude with remarking, that symptoms of iliac passion did not supervene to any of the cases which proved fatal, except the first.

I am, &c.

W. WHITE.

Bath, August 29, 1809.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IN the present advanced state of medical knowledge, I should have thought that the doctrine of superfætation was entirely excluded from the minds of all scientific men, had not my attention been called to the subject by perusing a Case inserted in your Journal for last month, and communicated by Mr. Fawell. It is not from the vanity of being a contributor to yours, or any other periodical publication, that I have undertaken the task of commenting upon that communication, but, because none of those Gentlemen, who by the extent of their medical knowledge and practice, are best able to explain the varying phænomena of Nature, have favoured your readers with any comment thereon in your number for this month.

month. I do not make pretensions to advance any thing novel.

Were I to say, that no such thing as superfœtation can take place in the human frame, perhaps, I should not transgress the bounds of truth. The knowledge of dogs bringing forth pups, evidently of different breeds, has not passed unnoticed by the advocates for the doctrine, but does not the construction of the uterus in many such animals, sufficiently account for that circumstance? A bitch may have been lined by half a dozen different dogs, and bring forth a pup evidently of each breed; this may, at first sight, look like superfœtation, *or rather super-conception*, which so far may be allowed, yet, at the time of birth, every pup is perfectly matured, and generally in a living state. Now, this would not be the case, if the different impregnations had taken place at much distance of time from each other; and we never hear of pups being produced of different ages, without the evident existence of disease in those pups.

I recollect, some time ago, reading of an animal said to be capable of having fœtuses of different ages in utero at the same time; but from not being at that time in the habit of noting down what appeared to me in the course of my reading worthy of observation, unfortunately I am not able at present, to call to mind the work in which the subject was mentioned, nor the name of the animal. However, allowing the fact, are we from thence to conclude, that the same may take place in the human uterus? I conceive, that if it is not altogether impossible, there is the greatest improbability of it. It is true, that authors have not been wanting in the recital of such cases; but in those which have fallen within the sphere of my reading, upon consideration, I think they may be accounted for upon different principles than those of superfœtation.

When the natural economy of mankind, and the changes which take place in every healthy human uterus soon after conception are considered, the possibility of a further impregnation, at a period so distant as three or four months, (which must have happened in the case before us) is entirely precluded.

The advocates for the doctrine, bring forward the story of a woman in North Carolina, who had a white and a black child at the same birth. She was supposed to have had connection with a black man first, and afterwards with her husband, who was a white. In the account I have read, we are not informed whether both were
living

living or dead. I have no reason to doubt the authenticity of the story, nor indeed am I at all inclined to do so, for, if I am not mistaken, it is allowed, by those who have paid attention to the subject of human impregnation, that the os uteri is not closed immediately after conception has taken place, but that some time is necessary for that change to be effected. In this manner, the story may be sufficiently elucidated, and the wonder diminished; but, though I should allow thus far the doctrine of superfætation, (or more properly that of super-conception) yet, I cannot for a moment suppose, that after the os uteri has been perfectly closed (which it must be after conception) it will be at any time during a state of uterogestation in such a state as to favour the admission of any thing; and I am not one of those, who think that impregnation can take place any other way than by the actual admission of the semen into the cavity of the uterus.

In every other case that I have read, the fœtus or child which has appeared to be youngest, has been dead at the time of its birth; but the accounts of the apparent period that has elapsed since that event took place, do not so directly coincide. Mr. F. in the case in question, gives it as his opinion, that the child had been dead a few days, and I should think founds that opinion upon the circumstance of putrefaction not having taken place. But will it authorize the opinion? There are such various ways to account for putrefaction not having taken place, that I am inclined to think not. The presence of air is supposed to be in a great measure, if not absolutely, necessary to occasion that event. Then, if no air had been admitted, would putrefaction have taken place? I am aware of the liquor amnii, when discharged in the regular course of labour, being sometimes so fœtid as to render it almost impossible to remain in the room with the patient. This is mentioned as a sign of the child being dead, and is no doubt occasioned by putrefaction. Here then, putrefaction has taken place in utero, but has not air found admission in these cases at some period of uterogestation? I think that it has, for upon the death of the child taking place, the ovum suffers a partial or more general detachment, which is proved by a slighter or larger sanious discharge from the uterus coming on then, and surely the admission of so subtle a fluid as air might take place at that time. Yet, in the case before us, no putrefaction had taken place, nor were the waters offensive. This I account for by its being a case of twins, though
one

one child was deprived of all vital principles, yet the other still enjoyed them fully. Had air been admitted into this uterus, would not both have been dead?

It may be that the child had not been long dead, the vital powers may not have been extinguished above five or six days. If so, it may be asked, how will you account for the smallness of its size? I answer, by disease having taken place in the child. We are not without instances of children being affected with various diseases there. A child has been born loaded with the small-pox; another, with a stone in the bladder. We are daily in the habit of seeing children affected with disease, so far from increasing in size, apparently decreasing; and this event is equally likely to take place in utero as the disease.

Again, if the doctrine of superfœtation be allowed, will it be unreasonable to suppose, by the same laws through which this is effected, that the fœtus last conceived would not be expelled from the uterus, till it had completed its full period of uterogestation, notwithstanding the first born may be at its own proper period? This we know would be impossible to be the case, since, if the action of the uterus be brought on by any cause, or at any period of pregnancy, it will not cease till the whole of its contents are evacuated.

My opinion of the case is simply this; the woman has conceived twins, and at a certain period of pregnancy, one of the fœtuses has died. That this might take place, is very possible, and, nevertheless, the other child may not be in the least affected with the change that has happened to its fellow, since there is no communication whatever between the fœtuses in utero, each receiving its support from its own placenta, and being enveloped in its own membranes.

LEODINENSIS,

August 8, 1809.

Dr. ALDER'S *Proofs of the proximate Causes of Diseases, from the Practice of Physic.*

(In Continuation.)

IT appears it would be improper for me to dilate much here upon the articles of cheerfulness and good air as preventives of disease, as I mean to notice them rather fully

as

as remedies for disease, and their opposites as the causes of disease. The article of exercise too, I think, need not be much more fully noticed here. All these are good, so far as they make respiration free and easy, and transmit the blood from the veins into the arteries, and thence regularly and equably all over the body, and they are best conjoined. Exercise, indeed, is seldom of any advantage without one of these, and sometimes not without both; for it hurries the blood up into the lungs, and if the respiring organs, while it does so, are clogged either by reason of very deeply afflicting passions, or a very remarkably impure state of the air, or by both, so that the blood cannot pass through the lungs so fast as it arrives there; exercise, by being long persisted in this case, and the respiring organs not becoming more free under it, *it must do harm*. And I think that, in general, mental affliction and bad air together, will so clog the respiring organs, that exercise cannot do good; though I believe, one of them (unless very severe) for the most part will not. For exercise *in itself*, has naturally a tendency to invigorate the muscles of respiration, and to make *more air respired in a given time*, than there was before it was used.

Proofs from the Treatment of Diseases.

The remedies employed for the cure of fevers, appear somewhat contradictory; they are, bleeding, purging, mercury, the cold bath, wine and bark, opium, electricity, pure air, pleasing the mind, keeping the stomach and bowels in good order, the tourniquet, and some others of less powers. But all of these, I conceive, however contradictory they may appear, may be so used as to do good, and to coincide with my theory.

I apprehend that the statements of Dr. Rush and Dr. Jackson, in favour of bleeding in fever, are faithful, though at the same time I am equally persuaded that wine, opium, and bark, have done good; and that these, as well as several others of the remedies named above, *do appear* contradictory. Every one knows that fevers often demand different or opposite remedies, from being different in their kind; and that fevers are often said to be different in kind, chiefly or solely, because they have yielded to different or apparently opposite remedies. But yet, at the same time, I believe most know, that from the symptoms of these fevers, and the time and place of their occurrence, there often is sufficient ground to say, that the same kind of fever has yielded to *apparently* opposite remedies.

It shall be my task only to shew in what way these different remedies *may be* of service in fevers.

Bleeding.—In bleeding, there *often* is an immense difference between venæsection and arteriotomy, and particularly in fevers; for in fevers (and in many other diseases) the veins will often be found turgid, while the arteries are not; and often too when the arteries are ill-supplied, (shewn by the pulse being very small and feeble). In these cases arteriotomy would (at least in general) be absurd. But in these cases venæsection has often been used with success, the respiration becoming more free after it, and the pulse fuller and stronger. Many cases of asthma, of enteritis, and of pneumonia, &c. as well as of fevers, yield confirmation of this truth. And many cases of apoplexy and epilepsy, as well as many more of fever, would do so too, did not the great turgescence of the veins prevent the blood from flowing freely from the arteries into them, *in consequence of which the arteries are full as well as the veins*. That full labouring kind of pulse which, sometimes, is not much different to the touch from a natural pulse; and which nevertheless is attended with a complete debility of the body, and is called, when in its extreme, "*the apoplectic pulse*," is owing *to the arteries not being able to empty their contents regularly into the veins*; which indeed is often proved by the veins (particularly the jugulars) at this time swelling and violently beating. I maintain then, that venæsection is an operation well calculated to remove disease in many cases, although the arteries are ill-supplied, and the body is feeble: and that in many other cases, when the arteries are full, venæsection is preferable to arteriotomy; their fulness being owing to an impeded outlet for their blood into the arteries.

That venæsection is good in fevers, when the *veins in the head* are so very turgid as to threaten apoplexy, epilepsy, mania, or violent delirium, I believe *most* will admit; for it has so commonly been had recourse to in these cases, and has so usually been found successful in them, that but few can deny it. But yet we find, that much inapplicable or false reasoning has been made to bear against it in these cases; and, what is more strange, by men *who use it in such cases in practice*. The present Dr. Monro, sen. has found, that the brain is not compressed under a heavy weight; and, as it is surrounded on all sides by an almost unyielding bone, many ask, how can the head have more blood at one time than another? But this question is nothing to the purpose; for, if the
veins

veins are overloaded, so as to cause danger, we must deplete them, although the arteries should have less blood than usual; and if the blood press upon the brain, so as to do much mischief, and threaten much more, we must prevent it from making that præternatural pressure, although we know it cannot compress it; and cannot, of course, be more abundant in the head than it was before. Some too, greatly relying upon this kind of reasoning, and other kinds equally bad, grow bold enough to assert, that the bad symptoms which arise in these cases, are owing to want of energy in the brain, and are for giving this energy by stimuli. But, if the brain have lost part of its energy in such cases, we must restore to it what energy it has lost *by removing the causes which have deprived it, and do deprive it, of that energy*; but we cannot *always* say in such cases, that the brain has lost any energy; for while a pressure upon the brain, either from blood or from any other cause, sometimes produces debility, it sometimes produces the reverse, as is exemplified in many instances of delirium, phrenitis, and mania. Some object to bleeding in cases of fever, where they allow it would *immediately* do good, by saying, it takes that blood away which will *afterwards* be wanted. And Dr. Gregory, after stating this objection, says, he has known several cases of fever where this remedy had been employed, end in dropsy; which termination of them he attributes to the bleeding. But it must be observed, that this objection, is in part a matter of *opinion*, and in part only a matter of fact. If bleeding remove a state of the body, which immediately threatens life, (and the supporters of this latter objection allow that it often immediately does good) it would be prudent in such cases to use it, although the blood taken away would afterwards be wanted, and although the patient, in recovering, might run *some hazard* of dropsy. But I indeed am somewhat inclined to doubt, whether those patients labouring under such a state of fever as can be much and instantly relieved by venæsection, would have more strength when the violent symptoms had abated, if bleeding, (that is, venæsection) was not used, than they would have if it was; (provided that in such cases they got over the violent symptoms;) and, I am somewhat unconvinced, that when dropsy comes on after a fever has subsided, in which bleeding has been successfully used, that the dropsy is to be attributed to the bleeding; for it appears to me, that the supporters of both these ideas are led by what they think theory, much

more than they are by plain facts, and their theory seems wrong.

These Gentlemen seem to think, that debility is a necessary consequence of loss of blood; and that the dropsy is the consequence of debility: but neither of these positions is quite correct. For, in innumerable cases, it is *disease* which causes weakness; and in these cases strength cannot be restored, *but by removing the disease*. And that which removes the disease, *may be purging, or bleeding, &c.* If great weakness, or dropsy, appear in the latter end of fevers, in which purging or bleeding has been used, this is by no means *proof* that such were occasioned by the bleeding: there seems no other ground for supposing that they were than merely this, that *they followed it*; and things succeeding others are not necessarily to be attributed to them. Great weakness and dropsy, &c. do often follow fevers, whatever may have been their mode of treatment; but I should have much less apprehension of them after a fever *well cured*, than after one which was suffered to go on pretty much in its own way; provided both were equally dangerous, and other circumstances were equal. I do maintain, that when bleeding is properly employed in fevers, it does not cause debility. I might go on too to shew, that the dropsy, which sometimes follows fevers, is not exactly the effect of debility, but that it arises from a turgescence and subsequent relaxation in the excretories and vessels terminating in them; and, that though the debility *may occasion the relaxation*, it was venous plethora which caused the previous turgescence; but debility not being the consequence of a judicious use of bleeding in fevers, renders this unnecessary.

Bleeding may be used with propriety in fever, not only to relieve the head, but also to relieve the lungs, the liver, the intestines, or any part which is becoming dangerously congested. And all these parts frequently become dangerously congested in fevers; but it must not be understood that I am speaking of the common fevers of this country, or of any country; or of any particular kind of fever; *but of fevers in general*. And these perhaps are not in a practical point of view, to be treated on any *one* principle more efficaciously than this one which depends upon the manner in which venous congestions affect these organs.

In those bad fevers in which (as we have seen from dissections) that venous congestion overloads the lungs, the liver, the head, intestines, &c. or some of them, so as quickly to
produce

produce the most extensive and dreadful inflammations, &c. bleeding (and that very early) often seems the only remedy which can be depended on. But as to any minute description of the cases in which it should or should not, or need not be used; of the time for using it; of the quantity of blood to be drawn at once; and of the number of repetitions, I fear I have not sufficient room for it. And indeed, such are the contradictions among authors and practitioners, and such is the danger of misapplying my principles in such a disquisition, that I do not think I could do it justice, without taking a very extensive as well as minute prospect of it; while at the same time, for the very same reasons, there is but little chance that any thing which I might advance would much assist me in my present object, as this is *not to lay down a plan for practice*, but to ascertain which are good practices; and to shew, according to my system, *why they are so*.

However, I think that as both the trials made, and my Theory, suggest that venæsection may and should be used in the cases specified, so also they will assist a person at the bed-side, to discern these cases, and also to time, modify, and proportion the bleeding to such cases; and when I purposely treat of the practice of physic, (as I mean shortly to do) I shall enlarge on this subject.

I do not think that bleeding is generally requisite in any of the following cases; in mild remittents and in mild continued fevers; in intermissions, or even in remissions; or in the sweating stage. I think too, it is seldom requisite for the mere purpose of checking arterial action. And I could adduce some instances in which it has done injury in several of these cases. Dr. Lind, for example, mentions one case where it was injurious in the remission of a fever, for which fever, (as appears by other cases) it was proper; and I can give no better account of the cause of the disrepute into which venæsection in fevers had fallen among many, than that it was usually contemplated *as used in these and similar improper cases*. It is not required in these cases, because the venous congestion has subsided, is subsiding, or will subside, without any danger; and it is pernicious in some of them, as it might facilitate or aggravate its return. For example, if used in an intermission, it would prevent the heart and arteries from receiving their due supply of blood, and would of consequence sink the pulse and strength below the natural standard, or the state they were in previously; by which means the blood would not be derived sufficiently to the external parts; these would contract, and a new congestion would be much more readily

readily formed in the lungs. This happened in Dr. Lind's case. It is seldom useful, and frequently not safe to check the free flow of blood by the arteries; as this takes it out of the veins; and danger seldom arises from mere arterial action. In most cases of fever, (excepting those where there is a very considerable phlegmonic inflammation) the patient is safest when the blood gets freely into the arteries, and in many he is quite safe.

September 5, 1809.

[To be continued.]

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

PERMIT me to occupy a page or two of your Journal, in the statement of some observations, which I have to make upon a subject of much importance to the most numerous class of the medical profession.

The time draws near, when the Winter Courses of Lectures upon medical subjects, commence at the different hospitals and private schools in the metropolis. This is the period, when the younger branches of the profession, who are just emancipated from the trammels of apprenticeship, bend their steps towards London, to "finish", as it is termed, their education. The qualifications which young men possess, at the termination of their apprenticeship, must vary, according to the advantages of their situation and education. Many there are, who under the direction and assistance of an indulgent and scientific master, have laid a happy basis on which to prosecute their future studies. Many have not possessed these advantages; for there are masters, in the medical as well as in other professions, who, as if careless of the future interests of their apprentices, are only anxious that their medicines are compounded properly, and that the business of the surgery be not neglected. If a young man, thus situated, reads, it is without method, and, probably, with little benefit. Or, if he chuses to spend his leisure hours in idleness, it passes unheeded by his master. Such a youth will but rarely afterwards prosecute his studies with success, or shine in his profession; he enters upon the practice with disgust,

gust, because he feels no confidence in his acquirements.

Most of the young men, resorting to London to attend the lectures and practice of the different hospitals, arrive without having formed any previous plan, or obtained much previous information; generally speaking, they are unacquainted with persons who are capable of recommending them to the different lecturers, or of giving them any assistance in professional objects.*

The first, and not the least important affair, which engages the pupil's attention, is procuring lodgings or rooms; if he applies for information at the hospital, as is generally the case, he finds no difficulty in obtaining recommendations; many fellow pupils are ready to step forward with advice, and the stranger thinks himself happy in being able to occupy the same rooms as an old pupil, from whose society he hopes to obtain much information and comfort. Perhaps in these respects he is fortunate; his companion may be every thing he could wish or desire, steady, studious, and communicative. But if, on the contrary, he should be a rake and a libertine, his situation must be dangerous; and if he does not change his abode, the probability is, that he will ultimately fall a victim to the insidious and designing counsels of his companion, who will lose no opportunity of reducing him to the same level with himself; if he succeeds, his money and time will be spent at the theatres, billiard tables, and in idleness. He will be seen occasionally at the lecture room, but even there he will generally be found either sleeping or interrupting the more studious and attentive pupils. To study is a task too heavy for him, and he relinquishes it altogether.†

If a young man is not provided by his friends with a situation before his arrival in town, but is left to look out for himself; if he is a stranger, and has no young friends that he could depend upon, I would advise him to take rooms solely to himself, and, I am convinced, that if

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economy

* These observations, altogether, are more particularly applicable to Guy's and St. Thomas's Hospitals.

† These remarks are strictly true, though I hope they will apply but to few. Last Autumn and Winter, I knew a young man, a student at St. Thomas's, who, for four months together, might be almost constantly seen at the billiard rooms in the Borough; several times have I seen him playing for half-a-guinea a game! Before his arrival in town, which was at the beginning of October, he had never seen a billiard table!

economy is an object, this will be his best plan ; he should be extremely cautious whom he admits to intimacy and friendship ; they should be few in number, and those from whom he is likely to obtain information as well as pleasure. The studies necessary to qualify a surgeon-apothecary are numerous and expensive, so that a student in such a situation, ought to find but little time to waste on idle and expensive amusements. Let him not neglect to pay a proper regard to Sunday : his situation is a dangerous one for moral and religious principle, and he must learn to treat ignorance and immorality with silent contempt.*

But the most important object for consideration, is the plan which the pupil ought to adopt and follow in his studies. Many, I think I may add most, young men are sent to town with only general advice, perhaps of this kind : Remember your time will be short, therefore study all you can, and, if possible, attend all the lectures ; but first enquire at the hospital, there you can gain satisfactory information, and form your judgment accordingly. The pupil follows this advice, and he is recommended, directly or indirectly, to enter himself a pupil to them all at the same time ; and as an inducement to this, the lectures " collectively," if a person enters as " perpetual pupil," are cheaper than if they were entered upon " singly," (with one or two exceptions). If a pupil adopts this plan, he receives cards of admittance to Lectures on Anatomy, Surgery, Medicine, Chemistry, Midwifery, Physiology ; Theory of Medicine, Therapeutics, &c. and Philosophy, and without consideration or proper advice, he at once enters upon the study of all these subjects, and thinks to master them all at the same time. To a mind the most comprehensive, this would be an unequal task, and all that the pupil can acquire, will be superficial knowledge, which will very soon be forgotten. He may enter upon his studies with ardor and enthusiasm, but such a variety of objects requiring attention, in very quick succession, will but too often create confusion and disgust. I do not mean to deny, that a man destined for the medical profession should be well versed in every department of the

* Could it be believed that young men, who a few months before left steady families in the country, could be so far lost to shame and sunk in depravity, as to spend their Sundays in card-playing and in drinking, &c. Yet such scenes as these, more than once, came to my knowledge last winter.

the studies and sciences above mentioned; they are all connected with the science of medicine. My only object is, to state, that a student, at the commencement of his studies, should begin only with two or three rudimental or fundamental branches of his profession; and as his mind enlarges, and when he clearly comprehends the elements, let him then enter upon those studies that may be necessary for completing his scientific and medical pursuits.

It is generally admitted that anatomy is the basis, the foundation upon which the superstructure of a medical and surgical education is to be erected. Few practitioners have had merited fame, or left behind them any tracts of deep knowledge in the science of medicine, but such as have evidently bestowed pains and made some progress in this essential study. This is the only real and substantial basis for comprehending, with perspicuity, the structure of parts in health, and the changes produced by disease. It is this accomplishment that conducts a professor of the art to a clear comprehension of the parts under disease or concerned in operations.

If the student, during his apprenticeship, has obtained a moderate knowledge of medicine and *materia medica*, perhaps he could prosecute the study of chemistry with advantage at the same time with anatomy. This science, as connected with medicine, is unquestionably of primary importance, and but few young men, during their apprenticeship, acquire much knowledge of it; for this reason, men who have been in practice some years, are generally but slightly acquainted with chemistry and the new nomenclature. They prescribe in the language of our old *Pharmacopœias*, and because they will not, or cannot find time, to keep pace with the rapid and important improvements in this science, they neglect them altogether. This observation will extensively apply to country practitioners; chemistry, as a science, is as yet but little cultivated among them; and I know several instances where pupils have been prevented, by their parents or masters from attending with the rest of their studies, chemical lectures, which by them were considered unprofitable and unnecessary.

When the pupil has gained a good knowledge of anatomy, he should then enter upon the study of surgery and physiology. In this study, a caution is particularly necessary; pupils are apt to direct too much of their attention to "capital operations," which should be considered as information likely to be seldom demanded, as the least creditable means of cure, and, with few exceptions,

as last resources. Before an operation is performed, the surgeon has to decide upon the propriety and necessity of it, which requires great judgment, with much practical and discriminative knowledge; and this the pupil will learn in the lecture room and in the wards of the hospital, rather than in the operating theatre. In some of the hospitals in town, operations are conducted with much parade and show, which has every imposing effect upon the mind of inexperienced youth.

The theory and practice of midwifery may be attended to at a time most convenient to the student. If he remains in town during the summer months, he will have an excellent opportunity for attending to this important part of his studies, as his attention will not be divided by other lectures.

It is obvious that punctuality in attendance to lectures is of the utmost importance in every department, and should be particularly insisted upon by the professors. Neglect and inattendance (which are but too common) should in some way be punishable; perhaps, the best means for a lecturer to insure attendance, would be, to withhold his certificate in case of irregularity. It is now the practice for lecturers to give certificates, specifying "diligent attendance, &c." to pupils indiscriminately; thus, he who has scarcely been in the lecture-room during a whole course of lectures, obtains the same honorary compliment from his preceptor, as he who has scrupulously attended every lecture.

Within these few years, it has become much more common for young surgeons to aspire to the honour of becoming "Members of the Royal College of Surgeons." If the College was established for the purpose of excluding from the profession, ignorant and unlearned men, surely their examinations should be more severe. Is it not a severe reflection upon the College, to pass a young man after asking him only three questions? * Could they, with propriety, decide from such a slight examination, that he was a capable and fit person for practising the art of surgery? I have more than once known, very young persons obtain

* A fellow pupil of mine, in the Spring of 1808, obtained a diploma, being asked only three common questions! Another was asked only six; and many have I known who have not been asked twenty. [Perhaps, in these instances the Examiners might have a personal knowledge of the candidates' acquirements.—Ed.]

obtain diplomas, before they had attended lectures or hospital practice three months! and even those who never touched a human body with a dissecting knife! The honour and dignity of the College must suffer from such remissness on the part of the Examiners. And I hope, for their interest, as well as of the profession at large, they will be more attentive to the importance of their situation.

That these hasty remarks, which were written from personal experience and observation, may be of some benefit to the profession, is the sincere wish of

A YOUNG PRACTITIONER.

September 5, 1809.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I Wish to offer to the notice of your Readers, a statement on the subject of Vision, which I have occasionally made to some eminent physiologists and anatomists in this Metropolis. Without doubting the reality of the facts which I stated to them, they all professed them to have escaped their observation. Perhaps, some of your readers may have observed them, and may be able to account for them. Of the facts I am perfectly assured, and now go to state them; after which, I may venture a conjecture on their cause.

If, after an unduly extended vigil; if after more than usual exercise; if after more than a moderate use of wine, all of which may occur in the case of travelling all night; I look at such objects along the road in the morning, as hedges, woods, &c. a thousand fantastic shapes, of the most undefined and evanescent figure, seem to hover before my enfevered view; as I remember to have, once, happened to me in approaching Chantilly, from Paris. If, at such time, I look at any ordinary range of railing or pallisadoes; or, at a gate formed of a succession of vertical bars, the vision is not much disturbed; but, if I cast my eyes on a similar arrangement of parallel lines, in a horizontal direction, they are dazzled beyond all endurance.

These different effects of parallel lines, on the enfevered eye, accordingly as they are presented to it, in a vertical
or

or horizontal direction, are, most distinctly noticeable in viewing large capital engravings, like those of Rooker or Lowry. One may look, with some composure, on the columns of architecture, &c. where the tincts are made out with vertical lines; but the masses of sky or water, produced by horizontal lines, it is impossible to gaze upon with steadfastness. A very fine artist, (of whom I was a pupil) in drawing, etching, and engraving figures and landscape, pointed out to me, in ascertaining which of the masses of lines, crossing each other in an engraving, were produced by the *aqua fortis*; that it was only necessary to hold the print, in such direction, that the etched lines should become horizontal. I have often tried the experiment, and found that those parallel lines which were brought to bear on the eye, in this way, became a great deal more distinct than the others.

A few days ago, in reading a proof, there occurred a word in it (Talleyrand) in which I thought there were two ls. The printing was very small; the light but faint, at the time; I could not be certain. I bethought me of the engraver's method of obtaining most distinct retinal impression in the undisturbed eye. I turned the proof so, that the lines of it fell vertically on my eye. The lls were, consequently, transverse to the line of my nose. I at once saw there were two, and put upon one of them my *deleatur*.

The facts are before you. How are they to be accounted for? At this I only conjecture. What is the object or final cause? Of this I have no idea. On this most wonderful part of the animal economy, I seem to be calling your attention to the very threshold of the temple of intelligence.

Externally, the optician can explain to us the porch, its partitions, their forms, how occupied, &c. He has constructed instruments on their principles. The physiologist can give us some idea of the changes in this wonderful porch, necessary for the admittance of the different messengers, as they come from distances more or less remote; or, as they are more or less vividly clothed with light; or rather, as they are, literally, rays more or less refrangible, more or less, I will say, intensely mixed, or vivid.

Internally, we are at once lost, if we attempt to comprehend the hidden economy.

The observation may appear trite, and is applicable, no doubt, to the simplest laws of physiology. If attraction,

tion, the first law of creation, if crystallization, whatever modification of it this may be; if these, in the inanimate creation, in unorganized nature, be incomprehensible, the simplest laws of physiology must be ever beyond our reach. But I allude not here, to the general doctrine of the impressions on the retina, passing to the sensorium, through the nerves; nor, to the clumsy doctrine of there being any necessity for decussation of nerve, for rectifying what has been supposed to be an *error loci aut positionis*, in objects being inverted on the retina; I allude to the more tangible peculiarities of the optic nerve bearing the messages to the sensorium. At the time of writing this, the characters arise on my view. I turn my head to the right; then back again; then to the left. The letters appear just the same in these different positions. I close one eye, right or left, and observe the same effects. Now this same optic nerve, this grand road between the visible and intellectual world, between the optical porch and the most secret recesses of mind, must have been in very different conditions of tension, on turning my head, as already described.

On turning it, e. g. to the left, must not the optic nerve of the left eye become stretched? yet I find not its vision to become more acute. Must not the optic nerve of the right eye become relaxed? yet I find not its vision to become less acute.

When, at any time, we bring our eyes to bear, most earnestly, on any particular object; when we bring our utmost attention to it, we seem, at that particular instant, only capable of distinctly seeing one particular point in that object, (it is almost a mathematical point, a nothing at all.) A small portion of line from such point, to the right and left, will make more sensible impression on the retina, than the same portion in a perpendicularly transverse direction to it from the same point. This is the doctrine; now, for the conjectures.

Is not the retina an expansion of the optic nerve, fibres going off from it radially, at the place of its entering into the formation of the eye? Are not these indefinitely ramified as they spread over the great chamber of the vitreous humour, where they may be infinitely reticulated with each other, and with the every where present cellular tissue, or universally connecting membrane? Will not a line presented to the eye, as an object of vision, be more sensibly felt by the optic nerve, or will it not excite or stimulate it more, if its image on the retina fall,

fall, coincidently, on any of the radial fibres of the optic nerve, than if it fell upon them transversely? If so, then let us consider what would be the effect, on our vision, of a different disposition, in the organs of it.

If the optic nerve entered the eye immediately opposite to the pupil, we should not, there, possess any distinct point of direct vision; an object, directly before it, would be invisible. Each eye would be as unguarded against the direct approach of an extraneous body, as is that of a one-eyed man against the oblique approach of an object, coming downwards and inwards upon the pupil; in which way, I think, I have read of a one-eyed man losing his sight from a thorn, in passing a quickset hedge. In viewing, directly, any right line, it would fall (the centre of it excepted, which would be invisible) on, directly, the radial fibre, on both sides of the darkened spot; producing, probably, a painful degree of excitement. We could not then, as at present, fixing our attention on a small field of vision before us, let the great picture of the hemisphere, duly painted on the retina, lie unheeded. Every object, on whatever part of the retina, would, along the corresponding radial fibres of each, rush to the optic nerves and sensorium. Objects, the most remote from the centre of the hemisphere before us, would thus be incessantly obtrusive upon the attention.

If the optic nerve entered the eye at any distance from the point of direct vision, in a vertical direction, upwards or downwards, a line falling on the pupil, in a vertical direction, would produce the greatest excitement, and give the strongest vision; if it entered the eye at any distance from the direct point, in a lateral direction, inwards or outwards, a line in a horizontal direction, would, as at present, give the strongest vision of such object. In both instances it would, probably, produce a dazzling effect.

As the eyes are now constructed, a right line cannot be presented to them, the image of which shall cross the darkened spots of each eye, and directly or coincidentally fall on the nervous fibres radiating from them. The line that would cross the darkened spot of one eye would be remote from it in the other.

The darkened spots are more nearly horizontal than vertical to the points of direct vision. The radial fibres, consequently, pass through the points in a direction more approaching the horizontal than the vertical direction. To this I attribute the more distinct vision of horizontal than of vertical lines. Perhaps, men with only one eye have
most

most distinct vision of right lines, when they bear upon that eye in such oblique direction, as to fall on the point of direct vision coincidentally with the radial fibres passing through it from the place of insertion of the optic nerve. If the fact, pointed out to me by the ingenious artist in Dublin, have been hitherto unnoticed by physiologists in general, the conjecture may be not irrational; I therefore venture to offer it. Perhaps some of your readers, of leisure, may have the opportunity of determining this not absolutely incurious point in the physiology of the eye.

Your Journal being professedly physical as well as medical, physiological, &c. I now go to offer you some observations on a sort of little optical illusion, which every body must have observed, and which may have often been accounted for; but as I do not remember to have ever heard or seen any explanation of the little phenomenon, I still retain the simple ideas which I first conceived of the cause when a youth. I think, on passing parallel railing at a distance, where all seems fixed and regular, if any object happens to intervene, suppose a post or bough of a tree, that part of the railing which we see directly beyond the sides of the intervening object becomes distorted or irregular. The same appearances take place on a smaller scale, if in viewing the parallel lines in a print, we pass a pen, pencil, pin, or any other body, from line to line between the eye and the print. I shew my want of reading, perhaps, in not knowing how this is explained. I once entertained the notion, and I still suppose it may be a correct one, that the atmosphere is condensed on the surface of all hard bodies, by the more direct, or rather firm, resistance which they make to its pressure, than the body of elastic air, occupying their place on their removal can do. If this notion be correct, then, in looking at parallel lines, as already described, or at any other object, we see them as through a lens.

JOHN WALKER.

Salisbury Court, 23, viii, 1809.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

BEING well convinced of the great circulation of your publication, the Medical and Physical Journal, I request your insertion of the following, as it probably may corroborate the opinions of several, and in some measure dissipate the prejudice of others. Having attentively listened to the various opinions of many professional men, as to the effects produced by "Venereal Virus," I resolved to try experiments on myself, judging that that would be the most certain means of satisfying a dubious mind; I therefore took from the chancre of a patient as much virus as I could procure, and applied it to my urethra. In the course of twenty-four hours I was attacked with the usual symptoms of a confirmed gonorrhœa. Being perfectly satisfied that the virus of a chancre would produce gonorrhœa, I determined, (after being cured of the effects of my former experiment) vice versa, to try whether the virus of gonorrhœa would produce chancre; I therefore obtained some gonorrhœal virus, and applied it behind the preputium. I found, in the course of a few days, small excrescences, afterwards an ulcer, though not much resembling that of a chancre. I did not interfere with it; and as I perceived that it neither increased nor occasioned any bubo, it led me to conclude, that the virus only acted as a corroding matter, not near so virulent in its effects as that of a confirmed Syphilis.

I am, &c.

London, Sept. 8, 1809.

J. EDWARDS.

The Reader will find experiments, with a somewhat similar result, in an Inaugural Dissertation published by Dr. W. Harrison, and inserted in the London Medical Journal. The only difference is, that in Dr. H's experiments, gonorrhœal matter induced no irritation. In Mr. Hunter's experiments, the gonorrhœal matter induced chancre.—Mr. Howard is at a loss to reconcile Mr. Hunter's experiment with Dr. Harrison's; Mr. Edwards's might seem to increase the difficulty: but it is more to the purpose to mark the agreement of all three in the effect of chancrous matter applied to the urethra. That the application of matter from three different gonorrhœas should produce three different effects, proves only what has been often remarked,

remarked, and what must occur to every thinking mind, viz. that there are gonorrhœas from many causes besides the venereal poison, and that some of these are contagious, others not; but that only the venereal gonorrhœa will induce chancre. This subject is considered very much at large in the new edition of Mr. Hunter's work. A.

On the Medicinal Effects of the Galvanic Influence, when employed on different Parts of the Human Body, or upon Animals during Life.

IN that valuable Journal, the *Monthly Magazine*, so respectably known as the vehicle of much *erudition, critical acumen, natural knowledge, and of general science*, a paper was lately inserted, proposing to the humane, a considerably novel means of applying the very interesting, new, and energetic agent, galvanism, from a moderately sized battery, in the resuscitation or restoration to life, of persons apparently drowned.

That this influence is in many respects, and when better understood, perhaps in all, not only analogous to, but actually synonymous with, ordinary electricity, seems to be the general opinion, at the present day, entertained by philosophers and men of cultivated minds, well acquainted with the doctrines of the sciences, and especially attentive to the phænomena of this, which every one apprehends will at no distant day constitute an important pillar both of chemistry and physics, or at least of a very numerous class of the phænomena of nature; and very likely of those arts which having been improved gradually by man, in a favourable condition of society, have so much conduced to its comfort and amelioration, and to that dignified rank which he holds in "*Beings endless chain*; of which he is such a "*distinguished link*."

We may with justice congratulate the sons of science at the present luminous period, upon the happy results which have attended investigations in this new tract. Not only has electricity and its agencies been ably illustrated by galvanism, but it promises fairly to lay open the sources and origin or foundation of chemical affinities, or the *doctrina corporum individuorum*, and certainly to illustrate in some degree the phænomena of *pathology*, and vitality, in which point of view, what might not be the advantages

it will render to the physiologist, and in consequence to mankind.

The elucidation of the subtle principles of latent heat, or the *caloric* of modern chemists, has been admitted to have occurred to at least some extent, and possibly hereafter, and at no very distant period, this hitherto mysterious and *insulated* branch of knowledge, *magnetism*, may not be without analogous illustrations, dependent on a reference to similar means.

The identity of light, caloric, and electricity, have been shrewdly conjectured, by some men whose opinions are held in esteem and viewed with reverence, because they are connected with the well earned fame such characters have acquired by successful labours in this field, in which still so much remains to be done.

That GALVANISM and ELECTRICITY are considerably analogous, has been apprehended, not merely from the correspondence of the effects produced upon the recent limbs of animals, after amputation, and especially in such as are termed cold blooded, when in contact with, or in the near neighbourhood of the *torpedo*, *gymnotus electricus*, or *eel* of *Surinam*, together with many others of the same tribe, and which announces such a correspondence between *animal* and *ordinary electricity* and *galvanism*. Tho' the effect of the *shock*, as it is generally termed, be perhaps merely in each instance, a modification of the same primitive great principle; yet the effects of common electricity and the galvanic energy are conspicuous in their energies upon inorganic matter.

This is proved by the usual and well known attendant sparks, coruscations, and phosphoric illuminations, the kindling of most combustible bodies, as carbon, phosphorus, sulphur, the metals, and not merely such as have been heretofore, by the elder chemists, termed *imperfect*, *ignoble*, or *semi*, (because alterable by exposure to fire, air, moisture, or acids) but also from the effects of these most powerful agencies upon the *noble* metals, such as gold, platina, &c. which were not acted upon by the above means under ordinary circumstances. Not to mention the deflagration which in both cases occur, when these influences are made to pass, by suitable conductors, through mixtures of the highly oxygenated and readily decomposable salts, as the hyper-oxymuriate of potash, the oxymuriate and nitrate of the same alkali, or of soda, or of the earths or metals. In these last instances, effects are produced *in vacuo*, similar to those presented in the open air, and especially in
pure

pure oxygen gas or vital air, for which purposes, gold or platina wires are preferably employed.

Hence imitations, much admired and very instructive, of *volcanoes*, *thunder*, *lightning*, the *aurora borealis*, and of other natural and astonishing phænomena, are exhibited and illustrated in the schools of chemistry.

And it were very much to be desired, that more attention had been paid, and more experiments made, upon animal electricity, for by analogy and comparison much is learned in the inductive sciences, and certainly such as rest upon experiments are so. The torpedo ought to be the subject upon which the train of inquiry I allude to should be founded. I will not here deny that valuable results have attended the curious anatomical labours of a Hunter, or the ingenious, if not correct, reasonings or theories of Volta or of Galvani. But it may be permitted to me to hope, that pursuits, in which the very obvious good of the human race is much concerned, will not cease to be inviting. The endeavours to gratify an honourable and praiseworthy curiosity, have their use—still, *experimenta desiderantur*. And whoever shall seriously set about cultivating this promisingly prolific field, will be gratified by an abundant harvest. It is matter of much gratification to us to know, that the needful apparatus are far from costly, and that with the labours of the learned, as far as they have yet proceeded, every publication teems, from the thin folio of a common ephemeral Journal, to the more voluminous and erudite transactions of philosophers.

I know not, Mr. Editor, when treating on a subject of such magnitude, almost where to pause, nor indeed precisely, when or where to begin.

Nothing can be more obvious than that the galvanic influence, passed through parts chronically affected by disease, must induce some considerable change in them, when we know from the instructions of Aldini, and our own experience, that the most horrible contortion and grimaces are excited in the subject recently deceased, and especially since we have been, by fatal occurrences, made evidences of the consequences which the electrical fluid produces when passed through the more sentient parts of the system.

Is not this capable of happy illustration by the following simple, yet well known and satisfactory experiment.

EXP.—Pure distilled water, at such temperature as excludes all possible presence of azot or nitrogen in solution, carefully introduced into a tube of inconsiderable diameter,

and moderately strong, and to which two small wires of pure gold, approaching each other within half an inch, and which are previously passed through perforated corks or rather wax, will be decomposed when their other terminations touch the two poles of a galvanic battery of moderate size, say of fifty successive series or pairs of plates; (of course the larger the more speedily is the effect accomplished.)

As soon as the contact is made, a rapid disengagement of hydrogen and oxygen gases respectively, and at the different terminations of the wires within the water, is abundantly perceptible. A quantity of water is decomposed, and disappears equal in weight to the weight of the gases disengaged. It is true that these gases will be held in solution in part, and in a very strong vessel might possibly in their nascent state again combine; but the sides of the containing vessel will sooner give way by the elastic force of the air, *ex interno*, where thin glass is employed.

Note.—The writer is not unaware of the production of water by the mechanical compression of its constituent gases; but if so then an inordinate force is requisite for this purpose, and a much more powerfully resisting apparatus than that which is here alluded to.

The above experiment may be performed by an electrical machine. Indeed, the effect was first accomplished of decomposing water by electricity, with the powerful apparatus of Dr. *Van Marum*, at *Haarlem*, in the presence of several Dutch chemists of high celebrity, which we believe is well known to every chemical philosopher in this country.

But it is the application of this property of the galvanic fluid or electric energy to which we would call the attention of your numerous readers; and that the conclusion is just which we do draw, anatomical dissections after death will prove.

For the production of gases from any, or all the animal fluids, when inclosed hermetically, and operated upon in the same manner as the water in these glasses, is still more obvious; and there can be no doubt but that when death is induced by passing strong shocks through the brain, by attaching galvanic conductors, and using powerful machines, or a considerable number of discs of copper and zinc in the batteries; that if death be the consequence, it will be from oppression, or compression of the brain by the extravasation and consequent affusion of fluids from their proper vessels upon the brain itself; these vessels
being

being ruptured, as glass is fractured by the disengagement of air on the decomposition of the contained fluids. It might be urged that the elasticity of the sides of the vessels of the human frame might hinder this effect, but their resilient faculty may not (under the circumstances of very powerful shocks) be equal to the necessary resistance; and upon these grounds, as well as because all experience teaches the consequence of too powerful shocks, we would recommend a practice different from that employed in cases when electricity has been indicated; and yet probably more efficacious in the end, certainly more grateful to the patient, and beyond all comparison less troublesome to the medical superintendant, whose time and engagements preclude him from directing the most obvious and most powerful means, the means of electricity.

“When men are united in a state of improved society, and have been in habits of enterprize of common concern, the necessity of a rapid and distinct communication of ideas will make a forcible impression on them.” Why the bee and the beaver so much cultivate the cares of a common-wealth, is as obvious as the adage itself is trite. In this duty we are unwilling to be last.

In what follows, as well as what has been said, some may find redundancies and omissions, and other deficiencies and imperfections; but there is one point on which there will be no diversity of sentiment, the importance of the subject, especially to that class of society whose labours, toils, and study, devote them professionally to succour the sick, and attempt relief when hope has almost deserted the deplorable objects of their good intention to relieve.

The galvanic current admits of easy application to almost any parts of the body, and will enable us doubtless, hereafter, to understand well the doctrine of consent between such as are most distant and apparently unconnected, or which the anatomist can find no particular reasons for considering as more especially connected by nerves or otherwise, than with other distant parts generally. Thus, in *indolent* tumours, a gentle current of electric matter has been often recorded as attended with effects most beneficial. The wires need only be prescribed at a moderate distance from the tumour, or diametrically opposite, and so as that the tumour should be strictly interjacent. Or even the conductors connected with the opposite poles of a galvanic pile or battery, may be presented to the base of the tumour on each side, or as the circumstances and conditions of the case naturally enough suggest, or as a medi-

cal attendant, acquainted with all concurrent circumstances, would advise. All that is farther requisite should seem to be, that no higher or more intense a stream of electric fluid is to pass the tumour than can be well and without particular pain borne. Indeed, in many instances, as in cases of *hydrocephalus internus*, in infants or of those of more tender age, and who are too well known to be the frequent victims of this perverse malady, the influence might be applied between the mouth and *occiput*, by closely attached and connecting wires with a small battery at the foot of the bed while they are still asleep. It must be obvious that a very small power need only be here applied. The object is not to prevent extravasation or organic lesion of any containing vessel, but to create activity in the more torpid absorbents, by means whereof, accumulated and offending matter may be removed. For what are medical artists more than the accoucheurs of nature? It would be needless to advise early application, the importance of all remedial powers must be recommended as soon as these powers are indicated by the proper indices which characterize respective diseases.

*Principiis obsta, sero medicina paratur,
Cum mala per longas in valere moras,
Sed propera nec te venturas differ in horas,
Qui non est hodie, cras minus aptus erit.* OVID.

And our English couplet to the same purpose :

The young disease which must subdue at length,
Grows with our growth, and strengthens with our strength.

Independent of the agency of external powers, we know that the mind itself has no inconsiderable influence, under particular circumstances, in determining the flux of blood to different parts, and produces thus in the pervasion of vessels, usually empty or not inordinately filled, a considerable and distinct effect. The lively red of the cheeks, suffused by the bloom of health, or induced by delicacy, connected with energy of thought or great sensibility, shews that this part of the skin varies in its properties from others, which, under the same impressions, do not undergo similar changes. The same immediate causes do not alike produce it in all persons, though the remote or ultimate means must be the same in all, as certain affections of the mind ; such as joy, shame, &c. The arterial vessels which assist in composing the internal fabric of the *cheek*, are larger and much more numerously dispersed than in other parts. The cheek has been compared to a beautiful piece of fillagree, wherein the minute capillary arteries, fine hair-like fila-
ments

ments branch out, and are variously interwoven in numberless ramifications, which imperceptibly diminish until they terminate in colour, tint, and healthy bloom upon the surface. This curious mechanism is invariably the same in all; and if it does not produce the same lively hue in each, we must attribute the effect to obstruction, constriction, or diminution of size of the vessels from some other cause.

But to return.—From what has been said, the superior simplicity in the application of the galvanic energy, capable of being made imperceptibly efficacious, or of being, as to its intensity, incalculably extended, (should occurrences demand it) no comparison exists between its power thus applied and that of common electricity, excited by ordinary machines; for the Leyden phial once discharged, exhibits no more power until renewed by continued excitation and recharge, whereas the galvanic electricity, as we may venture to term it, seems to accumulate a strength so gradually diminishing, as to be almost imperceptible after the conclusion of the most needfully protracted operation. In addition to which, the patient himself can in most cases be put into possession of the means of continuing in many chronic affections, the operation, and of lessening or increasing the intensity of the agent, according as he may be inclined; and in these cases his feelings will be his best, most faithful, and most unerring guides.

Moreover, it has been asserted, that when the vigilant powers of the mind are suspended, as during sleep, all external agents, and especially those which are connected with muscular energies, excite an increased action; admitting this to be true, and that while the body is obedient to the will, as when we are awake, a sort of offset to the energies of extraneous and especially unusual stimulants is made; yet it should not be forgotten, that as gradually will the powers of the battery diminish. We are, however, under the necessity of supposing, that the imagination has indulged itself too far when these conclusions have been deduced from the effect of the Leyden jar, when discharged through a paralytic limb, which of the same intensity, is said to be greater as to muscular energy during sleep.

Pietet, who has recorded some very valuable and successful applications of electricity at *Geneva*, upon patients (when all other means had failed) expressly declares it to be his decided opinion, that it had in none in which

he had superintended its energies, known it to succeed, except when small shocks were continued, and that for a considerable length of time.

"Gutta cavat lapidem non vi sed sæpe cadendo." But an immense number of small shocks, or a continued but moderate and *tolerable* stream of galvanism being employed, produces a much greater effect, and in some instances speedily, as the following fact evinces.

The writer witnessed, in the presence of ——— Becher, D. D. of Southwell, near Mansfield, the sudden effects of the galvanic influence when passed through the eye, by bringing the conductors of a moderate battery into contact with the *recti muscles*, and, indeed, alternately passing the *aura*, which was as often as the patient, a girl, could bear it interrupted so as to give shocks. She could not, when the operation commenced, distinguish a radish which was in a salad dish on the table; but in less than three-quarters of an hour, occasionally resting, she actually threaded a small needle, presented to her for that purpose by the Doctor's lady, who with several clergymen of that place were present. She had been taken as a poor girl to work at a neighbouring cotton mill, with a view to take up such ends and piece them, as from time to time broke in her part of the spinning machinery. She was turned away for doing more harm than good at the mill, in this calling, to which from the material deficiency above alluded to, she had been for some time exposed. It is now some time ago, as much as three years; she may have since had a relapse, but this is not known to the writer.—Her age was about 14.

The cases, in which this well-known stimulus may be expected to succeed, will be obvious from a knowledge of many cases of electric agencies, to the expert physician. For it will be too much to expect that it should be employed with safety or success in all; nor must it be apprehended, that the tractors, (which have been upheld, not merely by maniacal impostors, but the most artful, expert, audacious and interested quacks) have any such powers; indeed, they can have none, unless through the medium of imagination upon the minds of the debilitated and the feeble, in whose nervous *fancies* constantly hovers the image of agony—of agony unsuspected—and which has consigned them as a too easy prey to an artifice of which they might possibly become the unhappy victim. But it is to be hoped delusion has vanished here, as it has from the wiser children of the New World long ago, and that Perkinism
and

and Mesmerism are no longer protected by the laws of any enlightened land.

From defect of energy of the brain, or from loss of tone of any of the organs of sense, as the olfactory, aural, palatal, or optic nerves, the galvanic influence, applied agreeably to our instructions, may be of obvious utility; but it must always be presumed, that no organic læsion has occurred in any instance, at least, where this power is expected to be efficacious. In paralytic cases indeed, it promises much success. From what has been already said, it will be held as doubtful in apoplexy. Indeed, it is not easy to see of what use it could be here. Some think, where there is not any præternatural determination to the head, or accumulation of blood in the vessels of the brain it may be attempted with safety. To decide in these instances, is, perhaps, very considerably difficult; and to advise, when we do not see the ground clear, is to inculcate a conduct which might lead to personal disrepute in practice; and the prevention of valuable applications of an interesting and powerful remedy, where such remedy is in reality indicated.

The cuticle, when slightly removed by blister or otherwise, gives a much more perceptible effect to a moderate pile or small number of series of the metals respectively employed for exciting the effect; but this mode is little used from the unpleasant sensations excited on the parts when the conductors are presented.

It is very likely, that in phonology, when the organs of speech are without deficiency, except of nervous energy, as in cases of stammering, galvanism might be applied with advantage, by passing a current through them as already directed in other cases. At least, we think this worthy the attention of those who profess to cure the deficiencies of articulation, which often proceed from ill contracted habits, or from general or local debility. But this is merely a hint, which will be, perhaps, advantageously taken by those who engage themselves on this occasion with industry and penetration. There may be other causes of the "*Vox faucibus hæsit*."

A Case is recorded, in which it is stated, that by passing repeated shocks between the nape of the neck and the tongue, the party succeeded in restoring the organs of speech to a person who could not express a word so distinctly as to be understood; the operation was accomplished in a few minutes, and it is not stated that any pain was attendant on the process. We understand, that at
Edinburgh,

Edinburgh, there are actually stammering schools—Query, Has this principle been yet employed, either there or in London, with the above view?

In paralytic limbs, when the wasting has not been considerable, and especially in the more recent cases, the pallid appearance is succeeded by a considerable rube-facience, becomes often intumescent, accompanied by a tingling sensation, with gentle, and in some instances, very considerable perspiration, all of which are to be accounted favourable omens; clinched fingers, and other contractions, have in like manner given way. Œdema is often seen to disappear, by the adhibition of moderate shocks, and thus occasionally a favourable termination, with the aid of few auxiliary internal means, except indeed such as are naturally indicated by temporary circumstances, are required.

It has been thought to be of probably much value, as an application in cases of tetanus or lock jaw; and for dispersing gouty rigidities, or such as are consequent to gout in joints. It is very desirable that the cases of lock jaw should be attended to in this way.

Whether any, and what, might be its effects in particular cases, such as cancer and white-swellings, as they are termed, we yet remain to learn.

Whether a nerve be alive to the stimulus, especially of galvanism, may be ascertained by trying whether the muscle can contract or not. Thus, in amaurosis, if the nervous flash is not perceived when the conductors pass from the apparatus to the recti muscles of the eye, it is obvious that no human art can re-produce the blessing of sight.

In the common electrical experiments, if a paralytic patient make part of a ring or circle, through which the Leyden phial is attempted to be discharged, it will be found impossible to do so, when the limb is completely deprived of its nervous energy, so sensible is the fibre to the stimulus so calling forth its energy.

In chronic cases we have said that its uses are great; and even in chronic rheumatic affections it has its value; but in acute cases, what can be expected from it? One would *a priori* imagine, that it would not at any rate diminish the malady.

Galvanism is thought to afford a valuable diagnostic, in cases where we cannot by the pulse or other means, distinguish whether rheumatism be acute or chronic. In the former case, it never fails to add to the irritation and
painful

painful symptoms, which are deeply diminished by it in the latter.

In cases of amenorrhœa, it is well known that electricity has been employed with the most favourable results; and if so, galvanism must be especially recommended.

For the same reason, it is worthy of trial in obstructions of the liver, and complaints arising in that region. We hope to be enabled speedily, to furnish farther details on this subject.

In diseases of the mind, galvanism has been said to have been, when judiciously employed, particularly in *melancholia*, attended with success. Very many opportunities unfortunately present themselves to ascertain these facts. Why have we not any accounts of the experiments which ought to have been made, especially after the successful report of *Aldini*? These diseases are deeply connected with such as are corporeal; it is to be lamented that they have not been more studiously attended to.

That physiologist, who undertakes to continue and extend the principles of modern electro-chemical science, as galvanism has been very properly termed by the ingenious Professor Davy, will deserve well of the laudable cause of humanity. The chemical physiologist need not now be informed of the importance it would be to medical science, to bring every hypothesis to the test of severe experiment: for chemistry is at the present day, different indeed from what it was at that unfortunate period, "when the extravagance it had introduced into medicine made the alliance dangerous." The method of the immortal Bacon should be employed in all cases; "where we would endeavour to rectify the mind, guard it against error and illusion, and conduct it to the fountains of Nature and of use." It is thought, that if this practice were more generally pursued, the business of invention would not long continue that casual thing it is; but be reduced to an art, which of all others is perhaps most wanted."

I shall abruptly conclude this Essay, in the language of *Solon*,

Ἐργμασιν ἐν μεγάλοις πᾶσι νᾶδεν χαλεπον.

—Omnibus in magnis difficile ut placeas.

LOCK JAW and TETANUS; by JOHN HOWSHIP, Surgeon.

A Case of Tetanus, in which there was the most favourable Opportunity for ascertaining the good Effect of Pressure, either in Cases of Tetanus, or of Epilepsy, where the Disease is consequent to remote and local Irritation in the System.

(In Continuation.)

ON the 23d of October 1805, his Majesty's ship Neptune, while cruising off Cadiz, lost her foretop-mast in a squall. To get up another, it was necessary to bring the ship too, and the tackles not being perfectly cleared, in letting go the anchor, one of the men had his thumb very severely jammed, being drawn into the block at the cat-head.

James Warring, 20 years of age, a very robust strong man, had received this contusion on the thumb of his right hand. There were two lacerated wounds, one small in comparison with the other, the deepest having exposed the bone. The organization of the parts had suffered so severely from the contusion, that on the evening of the 17th day afterwards, when he was brought on shore to the Naval Hospital, Gibraltar, there did not appear to be any the slightest disposition to suppuration in the wounds.

On the 15th day he had been seized with pains, which his surgeon stated were confined at that time to his breast; so free was he supposed to be from spasmodic complaint, that his disorder was considered to be pulmonic inflammation, and therefore when he first spoke of his pain and difficulty of breathing, $\bar{3}$ xij. of blood were taken from him. A very short time, however, threw more light upon the true nature of the case, and in the two days that passed between the time of his first complaining and that of his being brought on shore, he had taken $\bar{3}$ ij. of solid opium; besides which, he had had strong solutions of opium applied as embrocations about the affected parts.

On the evening of the 17th, when first brought into the hospital, his jaws were closely knit together, although more rigidly fixed while the fits of increased violence of spasm were upon him. These exacerbations of pain and spasm were not of long continuance, and returned after the short interval of half a minute only. The characters of the complaint in this particular instance, differed somewhat from those frequently observed in other cases, in relation to the course and situation of the spasmodic twitches.

The evident exciting cause of the disease being in this instance so distant from the centre of the nervous system,
little

little doubt was entertained of the possibility of instituting such a degree of pressure as would effectually prevent the passing up of the irritating impression from the wound; at any rate it was determined to make the experiment, and a strong screw tourniquet was therefore applied in the usual manner, rather high up on the arm.

The instrument was screwed pretty tight, so that the patient made complaint on account of its pressure, but the convulsive twitches still continued in violence and frequency unaltered, so that every one of the medical gentlemen present agreed, that, as yet, the spasms were not in the least relieved.

The manner of attack was very uniform, and nearly this, with horrible pain; the angles of the lips were drawn back, the jaws held most closely together, and the body and lower extremities so contracted as to be raised up completely from the bed into the form of an arch, the points of support being the occiput and the heels. The whole series of muscles, posterior to the spine and limbs, being in this case affected by the same spasm.

The approach of this most terrible pain is first perceived in the generality of cases of tetanus, by the respiration becoming noisy and laborious, as well as by the moans of the unhappy sufferer.

The tourniquet seemed to have given no relief whatever, but as the last degree of pressure had not yet been produced, the screw was now turned tighter, and still tighter, till it was not possible to move it any farther.

This last operation created very great pain, to so intense a degree, that the poor man cried with agony, and begged for God's sake, that the band might be slackened. While the whole of the soft parts of the arm within the circle, were to the greatest possible degree compressed, he at first suffered three attacks of spasm with the interval of 30 seconds; these were more severe, as to pain, violence, and extent, than any he had before experienced. A much less severe spasm then followed: he lay at rest for two minutes, when a slight twitch was again felt. In this way he continued to feel them for about ten minutes; all the spasms, latterly, being manifestly less violent than they had been prior to the compression of the limb.

The man was himself questioned, and said, yes, he was relieved, and did not feel so much severity in the spasms, as he did before the instrument was last tightened.

In this manner was the experiment made, and thus it was ascertained, how far pressure or compression is capable of procuring relief in certain states of morbid irritation in nerves.

Pressure

326 *Mr. Howship's Case of Lock Jaw and Tetanus.*

Pressure, in this case; had certainly been productive of relief, in having considerably diminished the severity of pain, and blunted the sharp edge of suffering; but it is at least equally clear, that the limb would have been eventually and very quickly destroyed, had this degree of pressure been continued.

From the satisfactory nature of the experiment, both in the effects on the body, and those upon the limb, it was considered perfectly unnecessary to lengthen out the continuance of this destructive pressure beyond ten minutes, when the screw was turned back, and the band slackened; it is curious, that the moment the effect of the instrument was diminished by the back turn of the screw, the same moment a spasm came on, in precisely the same degree of violence as before the application of the tourniquet, and very much more severe than those felt latterly, during the establishment of the compression.

The tourniquet was now removed from off the arm, and by the time this was accomplished, it was perceived that every character, both as to period and expression of the spasm, had resumed exactly its former appearances, the exacerbation of convulsion returning as before with only half minute intervals.

Upon the same day (the 17th) mercury was ordered, and the ungt. hydr. was rubbed in on various parts of the body; it was exhibited internally also; the warm bath was at the same time directed, and the immersion to be repeated every second hour.

Between ten and eleven the same night, after a period of apparent ease, this man was observed to shake and tremble; this increased upon him till the convulsive tremour was so severe as to be compared to a violent attack of ague; during this time he was insensible, and upon the subsiding of the tremour the vital actions seemed to be perfectly exhausted; the skin cold and relaxed, the heat not returning, he soon after expired.

In the first period of the disease, while the patient was on shipboard, the cold affusion was tried repeatedly, and his own surgeon, who stated these particulars when the man was brought to the hospital, was convinced, with benefit and relief to the patient; why the same plan of treatment was not followed up is hard to say; perhaps the senior medical officer might have had a natural antipathy to cold water.

(To be continued.)

4, Mill-street, Hanover-square,
Sept. 16, 1809.

On

On the Influence of Cold applied to the Scrotum, in restraining Bleeding from the Nose. By Dr. KINGLAKE.

A Case sometime since occurred in this place, of a middle aged man, who suffered under a protracted and unyielding bleeding from the nose. The usual modes of treatment were unsuccessfully instituted, the patient became daily more and more exhausted, until life itself appeared to be eminently endangered. Under these circumstances, it was proposed, that the restrictive influence of suddenly applying cold water to the region of the genitals, more particularly to the scrotum, should be tried. This was done by means of a large folded cloth wetted in that fluid, which induced a sense of strong shudder throughout the frame, and almost immediately restrained the bleeding. Nor was the effect transient; no further effusion of blood occurred.

The salutary influence of cold applied to the genital parts in bleeding at the nose, has not been discovered by recent experience. At so remote a period as in the time of Diemerbroeck, nearly 150 years since, it was successfully employed. Diemerbroeck records the efficacy of the remedy in the following words; speaking of hæmorrhage from the nose, he says, "A gravi casu vena in nasibus disrupta et operta fuit, hincque sanguis affatim et impetuosè largo ductu effluxit haud minus quam si mediana brachii incisa fuisset. Oxycratum cervici et collo circumjectum, nasibus quoque et fronte applicatum, atque in nares infusum fuit, ligaturæ extremarum partium etiam injectæ sed omnia hæc nihil profuerunt. Interea æger ab ingenti sanguinis effluentis copia, animo linquebatur. Cum autem reliqua ista nihil juvarent, nec chirurgus qui venam secaret ad manus esset, mantile quadruplicatum aquæ frigidæ immergi jussi ac testibus circumponi quod cum bis reiteratum esset, præter astantium spinionem hæmorrhagia substitit, et æger ad se rediit.—Observatio xi.—Opera Omnia."

The sudden application of cold to the forehead, neck, and between the shoulders, in cases of obstinate bleeding at the nose, is a familiar and often an efficacious practice; but it has been more rare to prefer the region of the genitals as best suited to give full effect to its beneficial operation. The principle on which it acts, appears to be that of reducing within diminished limits, the dilating influence of vital heat, by which a general contraction is induced throughout the sanguiferous system, and thus any
accidental

accidental aperture of vessel from which blood might be effusing may be effectually closed. As the contracting effect on this occasion must be proportionate to the intensity of impression made by the application of cold, it is but just to admit, that it must be stronger when brought into contact with the genital parts; than with any other situation, in as far as these parts exceed in degree of temperature and sensibility, what is found to exist in any other portion of the system. It is therefore reasonable to conclude; that both the shock of the impression, and the consequent contractile influence will be proportionately greater, and in the case referred to; will prove more efficacious than if the remedy were to be applied to any other part of the cuticular surface.

It may be justly inferred from fair analogy, that if topical cold on the genitals should be more influential on the action of the sanguiferous system, than when applied to any other part; it would be equally availing in threatening cases of menorrhagia, hæmæmesis, hæmaturia, hæmoptysis, hæmorrhoids, &c. The remedy is simple, and of easy application; and if its reputed efficacy should prove to be well founded, it is not unworthy of professional adoption.

I am, &c.

ROBERT KINGLAKE.

Taunton, September 14, 1809.

The subject of a Reform in Medicine being again introduced, we are desired to lay the following Papers before our Readers:

Horncastle, Bull Inn, July 27, 1809.

AT the Anniversary of the Lincolnshire Benevolent Medical Society, held this day, Dr. Fawcett, the president, in the chair; when the business of the society was concluded, Dr. Harrison addressed the meeting on the indispensable necessity of an improved regulation in the education and admission of future practitioners; especially for the provincial districts of the United Kingdom, which being, under the present laws, out of the jurisdiction of the Royal Colleges of Physicians and Surgeons, are therefore most in want of medical enactments. He also stated what had already been done to attain this important object; and that the bill, now on the table, for regulating medical education

tion and practice, was intended, if a sufficient fund could be raised in the mean time, to be presented to parliament in the approaching session.

Mr. Pettener, of Louth, the president for the ensuing year, then read the bill to the members present; after which, the following resolutions were moved by Dr. Bousfield of Spalding, and unanimously adopted.

First, That the bill, as now corrected, appears to be well calculated to serve the best interests of the community, by supplying all parts of the empire with confidential practitioners, as the present establishment retire from their functions; and also, by restoring the faculty to the full enjoyment of their profession; in preventing future candidates from entering upon medical practice, until they have been properly educated and examined.

Second, That the bill, by suppressing the most dangerous empirics, and imposing restraints upon the rest, will be productive of immediate advantages to society at large.

Third, That it appears to this meeting, that the amount of the present subscriptions is quite insufficient for carrying this bill through parliament, and the meeting thinking it desirable to accomplish the same by voluntary contributions, are of opinion, that if all who are impressed with the necessity of the measure, will undertake to exert themselves in their respective neighbourhoods, an adequate fund may be easily raised—since, after providing for the general defence of the country, the preservation and recovery of health should claim the first consideration, from all ranks and descriptions of people.

Fourth, That the thanks of this meeting be given to Dr. Harrison for the address he has just read, which it recommends him to prepare for publication; also for his unwearied endeavours to obtain an improved condition of the profession, and which the meeting hopes he will not remit, until the object is fully accomplished.

Fifth, That a copy of these resolutions be delivered to Dr. Harrison for the committee of medical practitioners in London, who have co-operated with him in this business; authorizing them to make such use of the same as they may think proper.

THOMAS TAYLOR.

(CIRCULAR.)

London, September 23, 1809.

SIR,

I Have the honour to forward to you the enclosed resolutions, and hope no apology will be deemed necessary for again calling your attention to the present defective state of medical education and practice in the country, or to the advantages that will arise to the community at large from obliging future members of the profession to be properly qualified before they engage in their respective occupations.

I beg leave to inform you, that the bill, alluded to in the resolutions here annexed, was drawn up last summer by a gentleman of high legal rank, and much in the confidence of government. It has since that time been submitted to many persons, practising in the different branches of medicine, and to others not of the profession; by all of whom, I am happy to add, it has been highly approved. Though the bill had been carefully revised, no attempt was made to present it to parliament last winter, principally for want of an adequate fund to pay the fees of parliament and provide for contingencies. The pecuniary resources of the committee appointed in London to conduct the undertaking are still very deficient, and I write to request the favour of you to endeavour to induce the faculty and others of your acquaintance to assist you in procuring subscriptions from such as are favourable to the measure, whether they be in the Profession or not, that the Bill may be offered to Parliament early in the approaching Session. The names and amount of all subscriptions, with the expences incurred, will be given to the Public in a future stage of the business.

The declaration concerning the Royal Colleges of Physicians and Surgeons is founded chiefly on the opinion of Mr. Sergeant Williams, who, in answer to the Queries proposed to him at the desire of the Committee, respecting the jurisdiction of the Royal College of Physicians, observes, " The result of the whole is this: The great object cannot be attained. Any person, with a degree or without one, or with a licence from the College or without, may practise physic in England at a greater distance than seven miles from London, whether he be fit or not, without any person to controul him; otherwise than that, by the common law of England, if a person is guilty of
mala

mala praxis, whether it be for curiosity and experiment, or by neglect, he is guilty of a great misdemeanor and offence, for which he can be indicted. But he is not under the controul, or supervision, or correction of the College of Physicians, or any other; or liable to any penalty for so doing, notwithstanding the statute 14th and 15th of Henry 8th, and therefore this mischief can only be, and I conceive ought to be, remedied by the Legislature."

From want of authority in the Corporations of the united Kingdom to controul the provincial Faculty, and examine into their fitness to enter upon practice, a very large majority are now exercising the different branches of medicine, as regular practitioners, with fictitious titles or purchased diplomas, by which frauds the Public are deceived often to their utter ruin, and well educated men are cruelly deprived of their fair emoluments. Among these, several have undergone the essential parts of a liberal education, only overlooking the forms, and are worthy of all the confidence that can be reposed in them; but as they are liable to be confounded with ignorant pretenders, it will certainly be for the safety as well as the advantage of the Community, to fix an adequate restraint upon the conduct of those, to whom they commit so valuable a treasure as their health. If we may credit reports, the medical establishments of the Army, Navy, and East India Company are equally incompetent; and is it politic in us to expose unnecessarily the protectors of our independence and of our dearest interests, when, under Divine Favour, the prosperity of the Empire can only be affected by want of numbers?

It appears from the opinion cited above, that in the country the vilest Empiric is as much at liberty to exercise the curative art, as the most skilful and regular practitioner. Quacks, aware of their ignorance and misdeeds, artfully conceal them, by compounding and dispensing their own drugs. A sagacious writer, adverting to their numerous contrivances to impose upon the credulous invalid, observes, "As matters stand at present, it is easier to cheat a man out of his life than of a shilling, and almost impossible to detect or punish the fraud. In order to reduce the shoals of Empirics to some order, and place them under an impartial tribunal, it is directed in the bill, that such as cannot obtain certificates from three or more magistrates assembled in sessions, are to be immediately suppressed, and as the remainder die away, their places are to be supplied by responsible persons.

With a view to correct other abuses, it is proposed, that no unadmitted Practitioner shall be suffered to act as Physician, unless he be a graduate of some University. Surgeons must possess diplomas from a College of Surgeons. Apothecaries are to submit to a five years Apprenticeship. Accoucheurs to be Physicians, Surgeons, or Apothecaries, who have spent twelve months in the study and practice of Midwifery.

To instruction is to be added in all cases strict examinations, and the names with the titles of the Faculty are to be annually published in a Register. Such are the leading features of the proposed Bill, which differs in several particulars from the "Outline" formerly published; and it is expected that by instituting these several defences against designing intruders, Society at large will be essentially benefited, because no Person will venture hereafter to engage in medical practice, until he has obtained his authority from a respectable source, and is therefore entitled to the confidence of his Patients. Thus at the same time that the present race of medical men of every description, except empirical Pretenders, are legally confirmed in their accustomed titles and occupations, a lasting improvement will be gradually established.

I have the honor to be, Sir,
Your most obedient humble servant,
E. HARRISON.

P. S. I hope to be honored with an answer to this Address. To obtain the freedom from postage it must be directed as formerly, "Dr. Harrison, Horncastle," under cover to "George Harrison, Esq. Treasury, London."

It is much to be lamented that for want of a Medical Register a large majority of the provincial Faculty must necessarily be overlooked in this circular application. As the omission arises from their names or residence not being known to the writer, he trusts they will be pleased to accept this apology, and come forward in aid of the common cause as much as they would have done had they been individually solicited.

CRITICAL ANALYSIS
OF THE
RECENT PUBLICATIONS
ON THE
DIFFERENT BRANCHES OF PHYSIC, SURGERY,
AND MEDICAL PHILOSOPHY.

EDINBURGH JOURNAL, No. XIX.

(Concluded from our last, pp. 152 — 166.)

We copy the following, to give Dr. Wilson the credit of a very fair remark on the flimsy basis of some of Bichât's opinions, which are not only unfounded, but for which he has not even the credit of originality.

" The following digression, as connected with the subject before us, will I hope be excused. Bichât has adopted an ingenious opinion of the late Dr. Johnstone, of this place, that the cause of certain muscles being subjected to the will, and others independent of it, is, that the former are supplied with nerves directly from the brain, the latter with nerves passing through ganglia. It is surprising that Bichât should adopt this opinion, while he admits that the observation on which it is founded does not hold in every instance; for it is evident that, if it fails in any one, we must look out for some other explanation of the phenomena."

" But," continues Dr. Wilson, " it does not seem necessary to have recourse to this, or any other hypothesis, to explain why certain muscles are subjected to the will, and others independent of it, if we find that, in every instance, the former are excited by a stimulus communicated through the brain, the latter by a stimulus directly applied to the muscles themselves; for even a muscle of voluntary motion, if the stimulus which excites it be directly applied to the muscle itself, acts involuntarily. If we sprinkle salt on the denuded muscles of a limb, or wound them with an instrument, they are thrown into involuntary contractions. We shall find, on inquiry, that this is really the case; that all the muscles of voluntary motion are excited through the medium of the brain; of involuntary motion, by stimuli immediately applied to the muscles themselves."

Thus, then, muscles of voluntary motion, act involuntary if a stimulus be immediately applied to them; nor does this arise from any consciousness conveyed to the brain, for this action is excited even when the limb is removed from the trunk. What then, we would ask, has the death of the brain to do with the life or death of these muscles? As long as the brain retains its proper functions, and the muscles live, each retaining its communication with the

other, so long the *actions* of these muscles may be expected to be regular, and no longer.

But can we wonder if the voluntary muscles act irregularly from any violence done to the brain, which, whether the seat of volition or not, we find under every derangement produces an effect on the will? Or can we be surprised if the heart and peristaltic motion are little affected by such derangement of the brain, when we know that the muscles of the heart and intestines act without any immediate concurrence of the will? But what has this to do with the *death* of the brain?

The three remaining opinions, we are told, the reader will find considered at length in the first volume of Dr. Wilson's Treatise on Febrile Diseases, the first edition of which was published the same year that Bichât's work appeared at Paris.

It has often been a matter of surprise, that the same discoveries should occur at the same time to different philosophers, in different parts of the world. But considering the communication of knowledge, and the steps by which the establishment of one fact leads to another, this is less remarkable than that men in different countries, should, at the same time, be led to the adoption of physiological enigmas on the same parts, and nearly in the same language.

For the sake of perspicuity, we shall repeat the 3d and 4th propositions, opinions, or whatever these gentlemen may please to call them.

"3. That the functions of life may be divided into *organic* and *animal*; that is, in more common language, *vital* and *animal*; of which the latter are subject to constant intermissions and renewal, their *organs* requiring intervals of rest; the former incessant, their *organs* being endowed with an excitability, which is never impaired, except by disease or death.

"4. That organic contractility, that is, vital excitability, has no relation to a centre, but exists in every part, independently of its existence in any other; while animal contractility, that is, animal excitability, in every part, depends on the existence of a common centre."

In the beginning of the first of these paragraphs, life is divided into *organic* and *animal*, and at the close of the same, it appears that both are *organic*; consisting, one of them, of a set of *organs*, which require intervals of rest; the other, of *organs*, whose *excitability* is never impaired but by disease or death. Without attending to the inaccuracy of terms, even the distinction of properties is inaccurate, for the heart has its alternate rest as well as its action; its diastole being a state of inaction, and its systole of action, or to use common language, of dilatation and contraction,* requiring intervals of rest. Thus, though the functions of this vital part are incessant, its actions are not.

If

* See Hunter, ut supra.

If the excitability of these vital organs is never impaired but by disease or death, the same may be said of the animal, for all the muscles of an animal may be excited to act by a sufficient stimulus, long after they are separated from the brain; in short, as long as they retain life: and if this excitability becomes gradually more feeble, the same may be said of the heart.

The 4th proposition is one of the most ingenious little puzzles of all the rest.

“Organic contractility, that is, vital excitability, has no relation to a centre.”

It is certain that those organs which are immediately and constantly necessary for the purposes of life, act without any reference to the brain, or common sensorium, whatever it may be. But have they not a general relation to the parts immediately connected with them, and from thence to the whole? The heart is so constituted, that whilst the lungs perform their functions, and the order of circulation is uninterrupted, its actions are regular. But any cessation, or irregularity in these, produces an irregularity or cessation in the actions of the heart. Thus the heart, which is more particularly instanced as a vital organ, has a relation to a common centre, or to a circle, and for its customary actions requires its customary stimulus. Independently of this, it may be excited into action by a stimulus immediately applied to itself, in the same manner as any voluntary muscle; “whilst animal contractility, continues the proposition, that is, animal excitability, depends upon a common centre.” It is true, the muscles of voluntary action require a communication with the brain, in order to act in conformity with the will, by which we suppose is meant the “common centre;” but these, as we before observed, may be excited into action without any kind of connection with the brain, or any other part.

A muscle taken from a living animal may be made to contract; “even a muscle,” says Dr. W. “of voluntary motion, if the stimulus which excites it be directly applied to the muscle itself, acts involuntary.” This sentence is intelligible; but immediately follows, “all the muscles of voluntary motion are excited through the medium of the brain, of involuntary motion by stimuli immediately applied to the muscles themselves.” Yet we have just seen, that either of them may be excited by stimuli immediately applied to the muscles themselves.

The whole of this, as it may be truly called, reasoning in a circle, amounts to thus much; that in every animal there are certain parts subservient to functions absolutely necessary to the support of life, which act according to the necessities of the animal, uninfluenced by the will; and other parts which only act in conformity to the will; that, as far as we can judge, the brain appears so necessary to the communication of the will, that without its influence, the parts subject to the will, either cease to act, or act in an irregular manner; but that for the due action of parts

subservient to the functions of life, a communication with the brain is not necessary.

All this, as we before remarked, is simple enough, if divested of the undefined terms, *organs* and *death*. Not that we object to either of these words as such; but we wish to know what a philosopher means, when he uses them. Mr. Hunter defines what he means by both, and carefully distinguishes between death and disorganization of certain parts; in consequence of which, though the actions necessary for the support of life can never be recovered, yet the individual parts for a time retain life. If the French philosopher and his English imitators had done so, they might have been intelligible.

Another difficulty they might also have avoided, had they distinguished between regular actions from customary stimuli, and mere contractions of muscles from unusual stimuli.

"Every one," says Dr. Wilson, "admits that the muscles of the limbs are muscles of voluntary motion, and that they are stimulated through the brain, and that the heart and blood vessels are muscles of involuntary motion, stimulated by the blood which is immediately applied to them." That the muscles of the limbs are subject to the will, and the muscles of the heart and blood vessels act without the will, cannot be questioned; but we are not so soon convinced that the latter are stimulated by the blood. "The flowing of the blood into the heart, (says Mr. Hunter, p. 148 and 149), has been assigned as a cause of its contraction; but even that will not account for it, although it will for many of its phenomena, yet not for all; for a local stimulus is too mechanical to produce all the variety attending the action of this viscus; it would not be attended with that regularity it has in health, nor that irregularity which we find in disease; neither could it ever stop, unless when *absolute universal death* * took place, nor resume its action if ever it did stop. We find, that those parts which have occasion for the immediate stimulus to produce action, have that action very irregular, as, for instance, the bladder of urine and the intestines," &c. It is unnecessary to transcribe any further. Our readers will perceive, this profound thinker and experimental philosopher, saw plainly that only one stimulus could be assigned for those actions which do not depend on the will, yet are necessary for life. That such a stimulus cannot depend on accidental circumstances, but must be constant, as the *necessity* which the constitution feels for the action of such parts. They can therefore only be referred to those laws which we may trace, but which it is in vain to attempt explaining. Those laws by which the growth and various changes of the animal are regulated, which are permanent, whilst only the customary actions

* This term Mr. Hunter has explained with much accuracy; have the other gentlemen explained what they mean by partial death?

tions of life are required, but which vary under every change, either healthy or diseased, in the condition of the animal. Those laws by which the absorption or augmentation of different parts successively take place, by which the late fœtus learns to breathe; the new formed fly to use its wings; by which adhesion takes place under inflammation, and suppuration sometimes follows previous to restoration of the diseased part.

Some of our readers may think we have dwelt too long on such a subject; but our wish was not only to give Dr. Wilson an opportunity of clearing himself of the charge of plagiarism, but to convince him, if possible, that there was nothing to steal. Others may accuse us in our blind partiality for Mr. Hunter, of giving Bichât too little credit. To these we can only answer, that we have taken him on the word of Dr. Wilson, and if we are mistaken, our sheets are open for such as wish to defend either.

ARTICLE 9.—*On the Cases in which the Use of Arsenic is indicated.*

By JAMES JENKINSON, Esq. Surgeon, Oxford.

In this very judicious paper, Mr. Jenkinson shows the folly of some writers, in expecting that a remedy is to cure every form of a disease which goes under the same name.

ARTICLE 10.—*Effects of Arsenic.* By G. N. HILL, Surgeon, Chester.

We hope that Arsenic, like many other valuable remedies, will not fall into disgrace by being too indiscriminately applied. These remarks, however, of Mr. Hill, may furnish some practical hints on the propriety of exhibiting other remedies at the time that arsenic is used.

ARTICLE 11.—*Account of the fasting Woman of Tetbury, who has at present lived above two Years without Food.*—By BENJAMIN GRAINGER, Member of the Royal College of Surgeons, London, and of the Royal Medical Society of Edinburgh.

We shall only take notice of such parts of this paper as we have not given at different times in our own Journal.

“An hypothesis has been started by some of my medical friends, that Ann Moore is an impostor. But what particulars of the case, according to this hypothesis, are impostures? Is the loss of appetite real or feigned? Was the tremendous pain after eating an imposture? The abolition of alvine excretion, and the suppression of urinary discharge, are they, according to this hypothesis, impostures? And yet I may with propriety remark, that there is such connection among the different particulars of the case, that the admission of one would go far to prove the existence of another.”

“It is the opinion of some, that Ann Moore is nourished by materials which the body absorbs from the atmosphere. Air, surely, is not aliment; and water, which is contained in the atmosphere, is rather a vehicle of aliment than aliment itself. In health, when the functions of the system are in vigour, water will pass through

through the organs of assimilation into the emunctories, without having undergone any important change. The oxygen which is consumed in the process of respiration cannot stand in the place of chyle, for the nourishment of the system. But it is questionable, whether a combination takes place between the oxygen of the atmospheric air, and the venous blood in the lungs, by respiration. Venous blood, it is said, differs only from arterial blood, in containing disengaged carbonaceous matter. The extreme branches of the pulmonary arteries expel this carbonaceous matter from the blood, and, in consequence, the venous blood of the whole body is transmitted from the pulmonary arteries into the pulmonary veins, *arterialized*."

We pretend not to determine what the nature of these changes in the lungs is; but this is certain, that they appear more necessary than food, as the animal suffers more from the privation of air than of food. Even a bad air appears to be more injurious than the worst kind of food; for with the greatest variety of aliment the body suffers without air, and with the advantage of pure air, a very meagre diet is sufficient to preserve health and strength. Nor are we quite satisfied that water is a mere vehicle of aliment, without being aliment itself; far less that it passes through the organs of assimilation without being materially altered. It is well known that fish will live without any other food than what they derive from distilled water, provided that water is changed often enough, and the surface exposed to the common air.

That the human race cannot live on air in common is very certain, for we believe no one ever tried the experiment very long without falling a sacrifice to it. But it is not easy to say what resources the constitution may have.

"With regard (says Mr. Granger) to the proximate cause of this disease, *inedia prodigiosa*,* I have nothing to offer. Thus far, I think, we may advance, that it is a disease of the whole system, and that the process of assimilation is suspended. The stomach being no longer an organ of digestion, food acts upon it as a foreign body, and creates that excessive pain referred to the region of the stomach, on the same principle as a particle of water, or of any other foreign body, would excite violent irritation in the windpipe. Whatever the cessation of the functions of the chylopoetic viscera may depend on, I do not think that dissection will throw any material light on the subject; for it is not easy to conceive, how such a morbid state of the viscera can satisfactorily be explained by a visible change of structure."

For our own parts we pretend not to determine what the proximate or remote cause of such a disease may be; but for those who wish to form theories, it seems rational enough to suppose the origin of

* The *anorexia mirabilis* of Sauvage has an extensive signification, not only including the disease at present under review, but also diseases in general, in which individuals have fasted long.

of such a state may be in the stomach, or some of the chylopoetic organs. If these are in such a state as to be unequal to their office, every other means of supporting life will be roused. Probably, dissection may throw no light upon the subject; for an organ may be diseased, without showing to our senses any marks of disease. On the whole, we forbear giving any remarks on so intricate a question, especially as we have no means of experiment, that is, of actually seeing, examining, and watching the subject. It ought, however, to be recollected, that the case is not without precedent, and that the correspondence of symptoms, between this and other events on record, entitle the whole to a grave consideration.

ARTICLE 12.—*Apology for the Cutting Gorget.* By W. SIMMONS, Surgeon, at Manchester.

This Apology is in Answer to Mr. Lawrence's Observations on Lithotomy. We are glad to take this opportunity to remark, that Mr. Simmons's paper appears to be candid and judicious. That it is liable to some objections is certain; but as our Journal contains an article in which these are remarked on with sufficient point, we shall content ourselves with transcribing a few passages which are particularly animadverted on.

"The ingenious Mr. L." says Mr. Simmons, "hath favoured the profession with a few *Observations on Lithotomy*," in the last Number of your Journal, the scope of which is, to supersede the use of the *cutting-gorget* in that operation, and substitute, in its stead, the common scalpel, with a slight alteration. In order to strengthen his recommendation, he hath subjoined a case, which case, however, if not directly militating against his own doctrine, the advocates of the gorget may be inclined to think, is, at least, not greatly in favour of it. But, as the case is a solitary one, and the termination of it was fatal, I shall excuse myself from offering any further conjecture concerning it.

"In the operation of lithotomy, I have always employed the *cutting-gorget*, and with so much success, as to render me satisfied with it; though far from being inimical to improvement, where the change is really such, and founded upon just principles.

"In the introductory part of the observations before me, the author has taken occasion to remark on the uncommon success of Mr. Cheselden, as a lithotomist; and not wishing to deprive our countryman of any applause he may be justly entitled to, most willingly do I accord with this opinion. In justice to others, however, let it be observed, that dextrous as Mr. Cheselden undoubtedly was in performing this operation, he was no less fortunate to meet with so great a number of patients labouring of the stone, who were at the same time free from any disease of the kidneys and bladder, which might hurry on to a fatal termination; or whose habit did not predispose to inflammation, or tetanic affection, from which, even where the operation had been ably executed, and the patient was apparently out of danger from it, I have had occasion to witness a fatal event.

"For

" For effecting the division of the prostate gland, and neck of the bladder, Mr. Cheselden employed the common scalpel; which, in process of time, yielded to the cutting-gorget, an instrument invented by Sir Cæsar Hawkins.

" To exalt either of these gentlemen at the expence of the other, is far from my intention; both were eminent in their day, and both are now no more, so that praise, or censure, is alike indifferent to them. But it is for the interest of science, that the question now agitated again, should be dispassionately canvassed; and, taking success for the criterion, I hope presently to shew, that whatever the merit of the scalpel in lithotomy may be, so far is it from being unfortunate that English surgeons did generally adopt the cutting-gorget, that it is still a valuable contrivance, and worthy of being retained in surgical practice. But to proceed:

" The reason maintained by the author for his preference of the scalpel to the gorget, is scarcely consistent with his usual correctness. To suppose that Sir Cæsar Hawkins was ignorant of the anatomical structure of the parts concerned in the operation of lithotomy, would be entirely gratuitous. Nor is there more reason for suspecting the anatomical acquirements of many other surgeons, who have pursued his method of operating. Disclaiming, therefore, this mode of defence, I shall transcribe the passage on this subject for another purpose. " Sir C. Hawkins then (says the author, p. 138) may enjoy all the credit of introducing into one of the most difficult and dangerous operations of surgery, an instrument which can be employed by any individual, of any profession, or trade, who has the simple faculty of combining the motions of his two hands, so as to keep the gorget and staff together, as well as by the most skilful anatomist, and most experienced surgeon." With all proper deference to the author, this is, in my opinion, the highest commendation that ever was bestowed upon any surgical instrument; and how well it is merited by the gorget, my own experience of its use, for nearly twenty years, will bear irrefragable proof.—Yet, in stating my sentiments thus frankly, I hope not to be understood, as meaning to depreciate the importance of anatomical researches, or of dissecting-room surgery; nor am I insensible of the value of manual dexterity. But, to have rendered " one of the most difficult and dangerous operations of surgery," so simple, and easy of execution, as in the above quotation this author has described it to be, is so far from being a demerit, and on that account to be rejected, that it is a point of excellence, rarely, if ever attained, and ought to be aimed at in every other difficult and dangerous operation."

Mr. Simmons's paper concludes thus: " Such then is the *apology*, which I have to offer, for continuing to use the *cutting-gorget* in the operation of lithotomy. Yet, open to conviction, if by a still more ample experience, I should alter my opinion in favour of the common knife, I shall then without hesitation adopt it.

it. And I have ventured to graft my *apology* upon the observations of Mr Lawrence, because, though I may differ from him in opinion, on this occasion, yet, from the perusal of his other works, I have derived both pleasure and improvement."

The disease and operation, alluded to in this Controversy, are both of them deserving the highest consideration. For that reason we have admitted so many and such various remarks, hoping, that every advantage may be derived from the collision of opinions, arguments, and authorities.

ARTICLE 13.—*Case of very copious Hemorrhage from the Urethra, in Consequence of the Application of a Bougie, armed with the Argentum Nitratum, to a Stricture.* By SAMUEL COOPER.

This account is given with much candour, and concludes with the following paragraphs:

"The bleeding began about a quarter before eleven in the forenoon, and continued, more or less, till eight in evening.

"The case seems to me worthy of being recorded, on account of its exhibiting an example, in which the quantity of blood lost was unusually great, and in which the effects of the hæmorrhage on the constitution were such, as to forbid exposing the patient again to the same accident, lest it should bring on fatal consequences. The gentleman's health has been already so much reduced, that both Mr. Cline and Mr. Abernethy, who have been consulted, recommend no attempt to be made to remove the stricture, till the state of the constitution has been improved.

"Having always been an advocate for Mr. Home's plan of treating strictures, no one can suspect me of publishing this case with a view of bringing the method into disrepute. I still give a general preference to the employment of armed bougies, because they seem to me most efficacious; and the above case is the only one in which the fear of hæmorrhage has ever induced me to abandon this mode of treatment."

In the introduction Mr. S. Cooper remarks, "that it would be the height of imprudence ever to subject this particular patient again to another hæmorrhage of the same kind." We would wish the author to recollect, that, as it is impossible to ascertain *a priori*, what the consequence may be in any other subject, it may be advisable in all to defer the use of the armed bougie, till every other attempt is found unsuccessful.

ARTICLE 14.—*Hints to young Practitioners, and Observations for the Benefit of those whom it may concern.*

As we trust few of our readers can be pleased with, or improved by these hints, and as our Journal is not intended for the use of such readers, we shall decline any further notice of this paper. That we may not be misunderstood, or suspected of misrepresentation, we shall transcribe the author's concluding quotation.

"——— *Abite pudor; verumque fidesque;
In vestrum subeantque locum fraudesque, dolique,
Insidiæque, et vis, et amor sceleratus habendi.*"

A Prac-

A Practical Materia Medica, in which the various Articles are fully described, and divided into Classes and Orders, according to their Effects: their Virtues, Doses, and the Diseases in which they are proper to be exhibited, are fully pointed out. Interspersed with some Practical Remarks, and some select Formulæ: to which is added, a General Posological Table; intended principally for the Use of Students and Junior Practitioners. 12mo. London, 1809.

It cannot be necessary to urge the convenience of a practical materia medica of the bulk of this before us. The execution seems in all respects unexceptionable, as far as is consistent with the brevity of the whole.

" Medicines, says the author, in his introduction, are to the medical practitioner, what utensils or instruments are to the mechanic; unless he knows all their uses, he cannot succeed in his designs, and will be like a mechanic attempting to work without knowing the use of his instruments.

" If the time required to ascertain the qualities of one single medicine is considered, it must surprise and please us when we perceive the present improved state of the materia medica.

" The virtues of many medicines are very numerous; they agree with some constitutions only, from particular idiosyncrasy; they are specifics in some disorders, are proper at particular periods, and under peculiar circumstances. It is necessary to know the powers of each medicine, the symptoms requiring its exhibition, and the particular circumstances of constitution which may forbid it. If there was but one circumstance in diseases, the exhibition of remedies would be simple and easy; but there are almost always several diseased actions going on at the same time, nor is the disease similar in two persons; v. g. in common diarrhœa, although the indication of cure be the same, yet the same remedies are not often proper in two persons; in one there may be hard stools with mucus, in another, soft mucous stools, or colicky pains, or vomiting, or spasms, or dry skin, or skin natural.

" A medicine then is defined to be a substance or combination of substances which corrects the diseased action of a part, or of the whole, of the body. It may be taken from every one of the kingdoms, is modified much by art, and is often changed or much adulterated by druggists or dealers.

" The views in this volume are the following:

" 1. The *name* of the medicine and its synonyms—and here it is much to be regretted that in most vegetable remedies, the generic name is at present only used.

" 2. The *more evident properties*: i. e. the physical, and to a certain degree the chemical. By the *physical* properties are meant, those which it has in common with other substances, as figure, extent. All drugs have in a great measure the same chemical properties.

" 3. The *effect* produced on the human frame, both in health and disease.

" 4. The

" 4. *The manner in which it is supposed to act.* Medicines have distinct principles; their powers operate more on one part of the system than another, as the stomach, skin; and every medicine produces two kinds of events, that is, their primary and secondary operation; v. g. opium is at first a stimulant, and afterwards a narcotic.

" 5. Under what restrictions it may be given.

" 6. Its various forms, and the compounds into which it enters. The multiplicity of the articles, and their great difference point out the necessity of some arrangement; but as to the manner, this has varied. The general principle on which these arrangements are formed, is founded on the evident or external character, or on the medicinal effect."

After enumerating the various divisions adopted by different writers, the author prefers the last, or that founded on medicinal effects. This is certainly the most convenient for the physician, who has little else to do with any article, but to learn its effect on the human body; but for the apothecary, we conceive any other arrangement might be better. However, as the greater part of that branch of the profession have now a medical education, probably the present form may be the most extensively useful.

A plain Statement intended for the Information of the Public, on the Comparative Advantage of the Cow-pox and Small-pox Inoculations, with an Abstract of the Report of the Royal Colleges of Physicians and Surgeons, on the Cow-pox. By T. SMITH, M. D. late Physician to the Nottingham General Hospital, and Fellow of the Royal Medical Society of Edinburgh, 8vo. London 1809.

NOTHING very new can be expected from a publication professing all that is contained in the title page. If the object is merely to afford a cheap summary of the arguments in favour of vaccination, we apprehend that this has been already done in a more pointed and compact form by the "Reports of the Colleges, with remarks," and sold for the benefit of the small-pox hospital.

A Treatise explaining the Impossibility of the Disease termed Hydrophobia being caused by the Bite of any Rabid Animal. By WILLIAM MARYAN, Surgeon, Rotherhithe Wall, 8vo, London, 1809.

THIS is an ingenious little pamphlet, but to us by no means satisfactory. Without disputing or even doubting the accuracy of every case as stated by our author, we still remain convinced from what has occurred to our own observation, that hydrophobia may arise from the bite of a rabid animal.

" A disease, says Mr. Maryan, which may be considered coeval with hydrophobia, *witchcraft*, did once exist over the whole of that now enlightened part of the world called Europe; but since the introduction of printing, the progress of the Arts, and the increase of learning in this quarter of the globe, that disease has

has been abolished; and, I have no hesitation in declaring it to be my firm belief, that when the nature of the disease, to which I am now calling the attention of the world, becomes more generally understood, and more fully investigated, it will be found to possess as little foundation as that above alluded to."

In answer to this, we cannot help remarking, that the suspicion of witchcraft, or which is the same thing, of fascination, is much older than of hydrophobia from a rabid animal; and also that whilst the suspicion of the first has gradually gone into disuse with the improvement of human knowledge, the existence of the latter is become daily more confirmed.

We are far from wishing to undervalue the author's good intention, industry, or faithfulness. We particularly regret that we are obliged to admit with him, that no true diagnostic symptom of hydrophobia has hitherto been discovered in dogs, or any other animal, (excepting man.) The difficulty of swallowing certainly does not occur in the canine species, nor has it been remarked in cats.

The following case being authenticated by the names of the author and patient, is very well worth recording with as much publicity as possible.

"The Case of Mr. Castleman, of the Grove House, Camberwell.—Mr. Castleman was bitten by a mad dog in the spring of the year 1771, as he was attending his dogs to take the air in coupling time—A large dog sprang upon one of his, from a hedge, with great fury: he ran to beat him off, when this assailant seized him fast by the leg, and severely lacerated it; being, however, at last disengaged, he returned home, and his mind became considerably alarmed for the consequences. The dog, which belonged to a farmer in the neighbourhood, was observed by his master, on his reaching home, who, fearful lest he might be going mad, had given orders for him to be secured by a strong chain; this was effected by fastening him to a tree in the orchard. Every thing within his reach became the subject of attack, and at the expiration of two days he died. Three weeks had elapsed, when Mr. Castleman, finding himself getting worse, sent for a Physician, who resided in the neighbourhood, and who, on his arrival, enquired if Mr. C. had been bitten by a mad dog; on Mr. Castleman replying in the affirmative, the physician concluded immediately that that was the cause and origin of his illness; mercurials were therefore, both internally and externally, administered, to destroy the supposed *Virus*; Mr. C's spirits every day grew worse, nor could he obtain rest, even at night; no—

"Tir'd Nature's sweet restorer,
"Balmy sleep——"

was a stranger to his eyelids; his appetite he lost, and irritability and debility had taken place of tranquillity and health.

"In this situation the physician of the adjoining village was consulted, in addition to the former one; they were both of one opinion, viz. that the disease was occasioned by the bite of a mad dog.

—Mr.

—Mr. Castleman now concluded that death must ensue; but, hearing of Dr. Hamilton's "*Treatise on Madness*," he caused it to be purchased; he there learned, that people had been affected, and that death had been the consequence, even though a space of ten or fifteen years had elapsed since the cause. The perusal and study of Dr. Hamilton's treatise very much increased his distress, and he gave himself up for lost. In this state he continued for three years, continually and deeply impressed with the idea, that he should bite some one or other of his friends, and entail on them the dreadful calamities under which he was then suffering; the certainty that this would be the case, was ever uppermost in his thoughts, producing in him the greatest despair that it is possible for human nature to picture or describe. It was in this stage of his disorder that a physician from London was consulted, in addition to, and in the presence of, those before mentioned; he confirmed their opinion, that their patient was labouring under hydrophobia. To ascertain this, a glass of water was brought, at the sight of which, Mr. Castleman declares, he was as much alarmed as if a highwayman had stood before him with a drawn sword, and was going to run him through the body; from all appearances therefore, they concluded, not only that hydrophobia had taken place, but that it was very far advanced. They retired to an adjoining room, to consult what was to be done. Mr. C. anxious to know their real sentiments, listened to their conversation, and indeed, with the greatest attention and interest. He heard one of them observe, that he thought the medicine too powerful; and another, that in desperate cases, like the present, desperate remedies only would be likely to succeed. Mr. C. himself, had but a confused idea of the word hydrophobia, conceiving, that whenever it did take place, it would act something like a two-edged sword, and immediately deprive him of existence. When the physicians returned into the room, he enquired how the hydrophobia would act when it attacked the patient. They informed him it would produce a dread, or fear of water, and added, which you seem to have on you, and if you could swallow a little water, it would be much in your favour.

"The physicians left him, and when they were gone he reflected on their observations, and began to conceive he had no dislike to water; he sent for some, and found that he had no difficulty in swallowing it. When his medical attendants called the next day, he related the circumstance to them; they observed, it was a very favourable symptom, and if he could take liquids frequently, there would be no danger. Mr. C. did take liquids frequently, and very speedily recovered; and he has since often declared that his recovery was owing to his being made completely to understand the meaning of the word hydrophobia.

"The painful sufferings of Mr. Castleman, which he endured uninterruptedly for three or four years, and his great partiality for dogs and sporting, have induced him to pay particular attention

to the disease of the canine species, and, in no stage of madness in dogs, could he perceive they ever refused water, or had any difficulty in swallowing; he declares it, therefore, to be his firm opinion that dogs cannot convey any disease to the human race; he is further strengthened in this opinion by his having been since bitten, twenty times at least, by dogs in the same disease, without its ever producing either mental or bodily complaints.

"Mr. Castleman has frequently attended people in the neighbourhood, where there have been mad dogs; and when any person has been bitten, he has always prevented any disease taking place by convincing the sufferers of the perfect safety of their situation; telling them that there was not any danger; acquainting them of the utter impossibility of dogs communicating disease to man; and by endeavouring, in every possible way, to dispossess the mind of fear."

Satisfied as we are that unfounded apprehension has embittered many a valuable life, yet we cannot admit this as a proof that there are no such diseases.

Analysis of the Carbonated Chalybeate, lately discovered near Stow, with Observations on the Effects of Carbonic Acid and Nitrogen Gas on the Animal Economy, &c. with Extracts from some of the best Authorities we have, relative to the Use of Chalybeates; to which is subjoined a Glossary of the Technical Words necessarily made Use of in the Work. By R. FARMER, 8vo, London, 1808.

WE announce this more as medical news, than from any knowledge of our own. The chalybeate water of Stow, if this analysis is correct, contains considerably more iron and carbonic acid gas than either Tunbridge, Cheltenham, or even Spa.

We conceive the glossary announced in the title page must be omitted, at least in our copy.

Report of the Diseases of Edinburgh for August, 1809.
By JOHN ROBERTON, M. D.

WE have not, within the recollection of the oldest persons among us, had, at the same period of the year, so much, and such heavy falls of rain as has happened during the present month. Besides, the thunder and lightning, especially during the first half of the month, was excessive; not only, as is most customary, during the day, but often for whole nights together; the flashes, accompanied by the most tremendous peals of thunder, were uncommonly vivid.

For several days near the beginning of the month, we
annually

annually have some heavy falls of rain, known by the name of *Lammas* floods; but this season, as just observed, has far surpassed any former one, and consequently has been injurious to the country in various respects. About the beginning of the last third of the month, however, the rain was less constant, though, when it did occur, it was very heavy; and, about this time, especially towards evening, there were easterly winds which enveloped the city in fog. The month terminated with one or two good days.

The barometer, though low, did not sink so far as, from the heavy falls of rain, might have been expected.

The thermometer, for the most part, stood about 60°: it was indeed sometimes higher, but that was about its general range.

Fevers of a bad kind, catarrh, cynanche tonsillaris of a very bad kind, rheumatism, and bowel complaints, have been the most prevalent of the month.

The cases of fever have become of a more contagious and malignant nature than during the whole previous months of summer. In some numerous but poor families, it is not uncommon to find the greater part of them confined to bed by such fevers, and in many instances they have proved fatal, independently of the greatest care and attention that could be bestowed upon them. As noticed on a former occasion, I uniformly order the poorer sufferers from this disease to be instantly removed to the Royal Infirmary, and those differently situated to be carried to the highest and best aired rooms in the house. These means, even independently of medicines have always been attended with the happiest effects. This, itself, points out a principle, had we thought enough to adopt it, which at all times would most certainly lessen the severity, if not put a total stop to the rapid propagation of such diseases.

Catarrh still continues to rage with unabated violence; indeed, it of late seems to have increased in every respect, both in the number affected, and in its severity. This is evidently owing to the dampness of the weather, and to our exposure to the fogs after sun-set. In some habits, I have found the removal of the symptoms of this complaint extremely tedious, especially in consumptive habits. Their removal, however, in general, was effected by confinement within doors for a few days, and by cathartic medicines, occasional sudorifics, and the habit of bathing the feet in hot water immediately before going to bed.

Cynanche tonsillaris, though not universally prevalent in

in the city, has appeared in various parts of it in a very bad form. Although it has principally been met with among infants and children, yet it has also appeared in those more advanced in life. Its approach has been sudden, and its termination often fatal in a very few days. Several infants have died of it, and even some advanced in life, notwithstanding the most active means that could be used.

Rheumatism, both acute and chronic, is still very common, even more so than last month. For the removal of acute rheumatism, bleeding, where necessary, with sudorific medicines and friction, have been generally successful. In my last Report, I mentioned the successful application of mercury in various forms, and the internal administration of arsenic. The last of these substances, however, cannot, from its activity, be with safety used on all occasions; and as I have found the following pills of great service in chronic rheumatism (a circumstance which I omitted in last report) I should recommend them, at least, previous to the exhibition of arsenic.

R. Sulphur. antimonii, ppt. Submuriatis hydrarg. aa. gr. xxiv. Pulv. resin guaiac. gr. xlviij.

M. bene dein adde tinct. opii. q. s. ut fiat mass. quam divide in pil. xxiv.

Sig. Two pills to be taken at bed-time, and one in the morning.

Bowel complaints have been very common, and the young seem to have suffered in a greater proportion than those more advanced in life. This may probably be owing, in some degree, to the dampness of the weather; but I believe it is principally to be attributed to the immoderate use of fruits, especially of those not sufficiently ripe.

So violent have some of these cases been, that I have known a stout healthy child, for instance, reduced in two days in a most extraordinary manner; indeed, so much so, as even to alarm the relations with the fear of immediate danger.

Under this complaint various remedies were had recourse to, often coarse enough in their composition. Garlic and brandy seemed to be a favourite remedy among the good old wise matrons, and often before they would allow that their favourite remedy was ineffectual, the disease had frequently proceeded to an alarming state of severity.

Conceiving that the majority of these cases had their origin

origin in the improper use of fruit, I have, in almost every instance, found, that the first and most effectual remedy was the administration of a smart emetic, after which a smart dose of any kind of physic: these, in the generality of cases, entirely removed the bowel complaint. In others, however, I have found it necessary to add to these the warm bath. This seemed to accelerate the evacuation of black hardened fæces, which being previously lodged in the intestines, probably gave origin to the original complaint. In one or two instances, there was, accompanying this complaint, a considerable degree of inflammation in the bowels. Under these circumstances, I have found a large blister, applied over the abdomen, to have the most beneficial effects.

Princes Street.

An Account of Diseases in an Eastern District of London from August 20, to September 20, 1809.

ACUTE DISEASES.		Fluor Albus - - - - 5	
Typhus - - - - -	2	Dysuria - - - - -	3
Febris Intermittens - - -	1	Dysmenorrhœa - - - -	5
Erysipelas - - - - -	1	Rheumatismus Chronicus	5
Rheumatismus Acutus	2	PUERPERAL DISEASES.	
CHRONIC DISEASES.		Mastodynia - - - - -	3
Tussis - - - - -	8	Lactea - - - - -	2
Dyspnœa - - - - -	4	Menorrhagia Lochialis	4
Tussis cum Dyspnœa - -	10	Dysuria - - - - -	3
Hæmoptysis - - - - -	2	INFANTILE DISEASES.	
Hydrothorax - - - - -	3	Erysipelas Infantile -	2
Hæmatemesis - - - - -	2	Tabes Mesenterica - -	2
Syncope - - - - -	2	Convulsio - - - - -	1
Hysteria - - - - -	1	Vermes - - - - -	4
Hypochondriasis - - -	3		

INTELLIGENCE.

A Correspondent of NICHOLSON'S Journal, has discovered a process for obtaining from ginger, an acid, which he proposes to call, zingiberic. One ounce of the best white ginger was infused two or three days in six ounces of nitrous acid; after which, rather more than an equal quantity of water was added, and the whole was kept at the heat of 212°, adding water to supply the loss

loss by evaporation, till the nitrous smell had disappeared. Carbonate of lead was then added to saturation, and the solution filtered, after which the lead was precipitated by sulphuric acid, and a second filtration was made. By evaporating the filtered liquor, an acid similar in appearance to short white pieces of raw silk was obtained, which oxidates zinc and iron, and dissolves potash, soda, and ammonia, barytes, strontian, lime, magnesia, and the oxides of zinc, iron, lead, and copper. The zingiberic acid differs from the sulphuric, sulphurous, carbonic, oxalic, tartarous, citric, mucous, succinic, and camphoric acids, in forming a soluble salt with barytes and lime; from the nitric, nitrous, muriatic, acetic, acetous, sebatic, malic, and prussic, by remaining in the solid form at 212° ; from the benzoic and suberic, by its greater solubility; and it does not, like gallic acid, precipitate copper of a brown colour.

The following very curious case we should have recorded earlier, but that we expected it to appear *first* from a gentleman of the Hospital in the transactions of some Society.—A sailor, at Guy's Hospital, who had frequently been in the practice of swallowing pocket knives, shut, either out of bravado, or for trifling wagers. It appears that he was first induced to make so hazardous an experiment by having believed that he had seen another do it in America; and when laughed at for his credulity, he thought there was no argument so convincing as performing the exploit before his incredulous audience. The success of his first experiment emboldened him to repeat his story, and confirm it by proof. He observed, however, that the three first which he swallowed, passed through him not in the order in which they were swallowed, but reversely, and this led him to believe that there was plenty of room for them to pass each other, and that there was no danger of any stoppage or interruption in their progress through the intestinal canal. The reader will be anxious to know of what size or kind the knives were, he will most probably conclude they were small penknives; they were, on the contrary, such knives as are usually carried by sailors and labourers to cut their food with. It appears that he had continued in this practice for several years without experiencing any material inconvenience; no long time, however, before his admission into the hospital, he had swallowed one which took a position directly across the stomach, and in that position it became confined, and produced the disease which ultimately proved fatal. On examination after death, not only the fatal instrument, but thirteen others were found within the stomach and intestines, in all of which the horn of the handles was nearly digested, and the iron and steel of some considerably corroded, probably by the acid which he had taken with a view to dissolve the one which caused his death.

Dr. EWELL, of Washington, in America, has given an account of the successful internal exhibition of the acetate, or sugar of lead, in several diseases, particularly in profuse hæmorrhage, and in cases of salivation. He is also of opinion, that it is worthy of a trial in dysentery, at least after evacuants have been used.

M. PAR-

M. PARMENTIER, whose labours are always directed to some useful end, has made public a new method of preparing the extract of opium, which appears far superior to all those hitherto known. It takes from that substance the smell by which it is distinguished, and which is always in proportion to its malignant qualities. The manner of preparing 24 ounces of opium is as follows: Macerate it in rain-water for five days: then boil for a quarter of an hour with two pounds of pulverized charcoal: strain and clarify with white of egg, and, by evaporation, you will obtain twelve ounces of extract.

M. LENORMAND has succeeded in producing a fine colourless varnish with copal. All copal is not fit for this purpose; and to ascertain such pieces as are good, each must be taken separately, and a single drop of pure essential oil of rosemary, not altered by keeping, must be let fall on it. Those pieces which soften at the part that imbibes the oil, are good; reduce them to powder, which sift through a very fine hair sieve, and put it into a glass, on the bottom of which it must not lie more than a finger's breadth thick. Pour upon it essence of rosemary to a similar height; stir the whole for a few minutes, when the copal will dissolve into a viscous fluid. Let it stand for two hours, and then pour gently on it two or three drops of very pure alcohol, which distribute over the oily mass, by inclining the bottle in different directions with a very gentle motion. Repeat this operation by little and little, till the incorporation is effected, and the varnish reduced to a proper degree of fluidity. It must then be left to stand a few days, and when very clear be decanted off. This varnish, thus made without heat, may be applied with equal success to pasteboard, wood, and metals, and takes a better polish than any other. It may be used on paintings, the beauty of which it greatly heightens.

M. FOURNIER has invented an apparatus for determining, with precision, the quantity of spirit contained in any liquid, to which he gave the name of *alcoholometer*. This instrument is composed of a glass tube, six or seven inches long, and placed vertically on a cap of copper, and having a graduated bar of the same metal attached to its centre. At the place where the bar enters the tube adjusted to its base, there is a screw, by which it is hermetically closed, and which prevents the liquid to be analysed from spilling. This little apparatus stands upon three legs: at the foot is a lamp with spirit of wine, placed under the copper cap, and directly beneath the bar, to heat it quickly. On one of the legs is a moveable ferrule with a damper, for the purpose of moderating at pleasure the action of the flame, and thus preventing the liquid in the tube from running over.

MEDICAL THEATRE, ST. BARTHOLOMEW'S HOSPITAL.

The following Courses of Lectures will be delivered in this Theatre during the ensuing winter:—On the Theory and Practice of Medicine, by Dr. Powell; on Anatomy and Physiology, by Mr. Abernethy;

Abernethy; on the Theory and Practice of Surgery, by **Mr. Abernethy**; on Midwifery, by **Dr. Thynne**; on Chemistry, by **Dr. Hue**; on Comparative Anatomy and Physiology, by **Mr. Macartney**; Anatomical Demonstrations, by **Mr. Lawrence**. The Lectures will begin on Monday, October 2, at Two o'clock. Further particulars may be known by applying to **Mr. Wheeler**, Apothecary to the Hospital.

Mr. CARLISLE will commence his usual Course of Lectures on the Art and Practice of Surgery, on Tuesday, October 11, at Eight o'clock, P. M. at his House in Soho Square. These Lectures are intended to comprise such Pathological Remarks as are applicable to the Theory and Management of Surgical Practice. Other particulars may be known by inquiry.

Dr. SATTERLEY's Course of Clinical Instruction will begin the first week in November, at the Middlesex Hospital; the attendance on the patients will be continued daily, and Lectures will be given once a week, or oftener, when it may be necessary, at eleven o'clock. **Mr. CARTWRIGHT**, Assistant Surgeon to the Hospital, will undertake such occasional demonstrations of Morbid Anatomy, as may be required for the illustration of the respective cases. The objects of the Course will also be extended to such remarkable peculiarities in the diseases of Children, as may occur in the Foundling Hospital. **Dr. YOUNG** will begin his Elementary Lectures on Chemistry, Physiology, the Practice of Physic, and the Materia Medica, about the middle of December; he will deliver them on Mondays, Wednesdays, and Fridays, at Seven o'clock in the evening, throughout the season.

Mr. MOOR, Surgeon Dentist to her Royal Highness the Duchess of York, will commence a Course of Lectures on the Structure, and Diseases of the Teeth, on the first Thursday in November, in which will be explained the Complete Practice of the Dentist. Further Particulars may be known at his house, No. 6, Palsgrave Place, Temple.

CORRESPONDENCE.

We have received two communications, containing very useful hints on **CUPPING**.—That of our Correspondent at Manchester is by some accident imperfect. If it is not too much trouble, we shall be thankful for a transcript.—The present copy shall be returned if it will be useful in refreshing the author's memory.

As **Mr. Thompson** expresses a wish to publish his paper with animadversions, we have returned it, and should his publication come before, he will not have occasion to accuse us of partiality.

ERRATA.

Page 124, line 8 from the bottom, for *former*, read *fomes*.

Page 235, line 19, for *most* read *almost*.

28, for *particle* read *portion*.

THE
Medical and Physical Journal.

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A successful Case of Amaurosis; by Dr. JAMES GERRARD of Liverpool.

JOHAN LAWRENCE, aged 32 years, labouring under amaurosis, admitted into the Liverpool Infirmary the 15th of September, 1791. He is a robust man, a common sailor; has in that capacity experienced all vicissitudes of climate, and has always been accustomed to live freely in every respect.

The disease began in the West Indies, about six months before, without his having been previously exposed to a stronger degree of light than he had frequently before experienced, or any other cause that he could assign.

At this time he was sent to the hospital at Port Royal, Jamaica, where he says various means were used without the least benefit.

He afterwards came to England, and was sent into Haslar Hospital, where, *he says*, the disease was called gutta serena. After remaining there about a month, he was discharged without receiving any relief or encouragement to hope for it. On his admission into the Liverpool Infirmary, he was ordered to use the cold bath, to take the Peruvian bark in powder, and three times a day to instil into the eyes a few drops of an infusion of Cayenne pepper in cold water, in the proportion of one grain to an ounce.

Notwithstanding its having been filtered through paper, it occasioned very considerable pain and a plentiful flow of tears; but the patient being a man of great resolution, he steadily persevered, and was very soon recompensed for his suffering, by the evident advantage which his sight daily received; and though this was but transient in the beginning, yet he was so sensible of it himself, that after having bathed but twice, and taken only a few doses of the bark, he discontinued both, in order to give the infusion a satisfactory trial. Upon finding the effect greater and more lasting on repetition, he used it more frequently and freely

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than had been directed, or than might have been thought prudent.

As this circumstance seems to have contributed very materially to the success, it appears necessary to describe the particular manner of his using it, which was to lie down on his back, whilst one of the other patients poured the infusion copiously into his eyes; and this was repeated five times a day, although the pain was so great as to occasion an agitation of the whole body. In a few days he was so sensible of the benefit he had derived, that he desired the other patients to hold up different objects betwixt him and the window, to try whether he could tell what they were. On the first attempt he saw them very imperfectly, but he experienced such improvement daily, that he could soon distinguish the church steeples, and other distant objects; and in three weeks from the time of his admission, his sight was so perfectly restored, that he could see as well as ever he had done in his life, and as distinctly as any other patient in the ward. Considering this an uncommonly successful case, I afterwards mentioned it to my colleague, and also to some of the faculty of the dispensary, and regretted that I had not claimed their attention at the time.

An opportunity of correcting that omission, however, occurred last November, when I accidentally met the very man.

I considered this a very fortunate circumstance, as it afforded them the satisfaction not only of seeing him, but also of hearing this account confirmed by himself two years afterward; at the same time he also related some events which had occurred to him since he left the Infirmary, which are perhaps worthy of notice, particularly, that immediately after he was dismissed in October, 1791, he undertook a coasting voyage, in which he was much exposed to the inclemency of the weather, at that season of the year, and was wrecked on the coast of Scotland, in the month of December following; and that besides several other short trips, he had since been a voyage to Africa, where he had continued six months upon the coast. Notwithstanding these trials, and his having lived as freely as before, he had experienced the enjoyment of his sight without interruption or abatement during the whole period.

Upon examining his eyes at that time, there was no defect in either, but on the contrary, the iris in each possessed the power of contraction and dilatation in an
uncommon

uncommon degree, as appeared by the change which evidently and rapidly took place in the pupils, merely on turning his face to the light, or from it; a circumstance which shewed a great degree of sensibility in the retina..

Having now related the case, it is proper to communicate the circumstance which gave rise to the practice, which was mentioned to the Faculty of this Infirmary by the late Mr. Robert Scott, Surgeon of artillery, Woolwich, in justice to whose memory I must acknowledge, that it was on his suggestion that the remedy was first tried here. The occurrence happened in the Bahama Islands, whilst that gentleman was there with the army. Several people were directed to husk some capsicum; amongst them was a blind old man; during his being thus employed, one of his eyes itched; on rubbing it he had excessive pain, owing probably, and as it was supposed, to a particle of pepper getting into his eye; to the man's great surprise, however he could afterward see for a while; the hint was taken, he used an infusion of the pepper, in the manner already described, and he recovered his sight.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

MRS. G——, upwards of 70 years of age, of a slender habit of body, and sallow complexion, applied to me in August, 1808, on account of a cancer which she had in her right breast. The mamma was enlarged to a very great size, of an irregular figure, and considerably indurated. The integuments were discoloured; the veins enlarged; there were several soft protuberances, and the skin over them had a shining red appearance, as if ready to break; which event I daily expected for some time. There was also, towards the left side of the breast, a large fungus, which projected considerably beyond the integuments, and had gradually increased since the breast broke in April, 1808. On the right side of the fungus there was a deep cleft, the surrounding edges were hard, and retorted. There was a profuse serous discharge, (extremely offensive to the smell) so much that several thick folded cloths were commonly wet through, although the part was dressed twice a day. Under the breast there were several small,

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hard,

hard lumps; of a livid colour. There was no attachment to the pectoral muscle, nor any enlargement of the axillary glands. She complained of a pricking pain in the breast, as if a pin or needle was making its way through the skin; the pain however was not so great as might have been expected from the extent of the disease, as she was able to endure it without having recourse to opium. Her strength was declining, and appetite impaired; pulse was quick and feeble; and occasionally she had profuse night perspirations. The following is Mrs. G———'s own history of the disease, previous to her application to me.

"DEAR SIR,

"I think it is rather more than eight years since I first discovered a little swelling in the back part of my right breast, which had been attended some time before with a considerable itching, but without any pain. A few months after, I applied to a medical gentleman in Bath, who seemed to think very lightly of the case, and only advised an application of spirit of Mindereri to the affected part. I occasionally took a little bark, and lived more upon a cooling diet than usual. As the swelling seemed to increase a little, I applied again to the same gentleman, but he did not advise any other method, only observed, that he had seen more injury occasioned by the knife and caustic in these cases, than had happened by letting the disease alone. For many years after, the complaint proceeded very slowly; there were also three small knots attending it, but scarcely giving any pain. In November, 1807, as the disease had very much increased, I was induced to go to London, where I consulted several of the most eminent of the Faculty, who differed in their opinion respecting the case, as some of them advised taking off the breast, whilst others were opposed to it, therefore I did not consent to the operation. After this I went into the country a few months, and then returned to London, when one of the surgeons who had seen the breast before, was rather surprized to find it had not broke. As it appeared nothing could be done except removing the breast; in the month of March 1808, I came to Bath, and early in April the breast broke, and soon after had several pieces of black flesh at different times taken out of the wound, which were very offensive to the smell. The complaint became much worse afterwards; general swelling increased, and fungus flesh to a considerable degree, with increase of pain. Towards the end of August I applied to you, since which I have received much benefit, as the application of the powder has reduced the painful fungus flesh, which had

had arisen to a vast height, and happily also put a stop to the offensive smell from the wound, and it seemed in a great degree to abate the general pain likewise. 'Tis astonishing how little pain has attended it, not depriving me of one night's rest. I can never be sufficiently thankful to Almighty God for these alleviating mercies.

"I remain, &c.

"G. G."

Having read the cases of cancer published by Mr. Carmichael, wherein he had employed the different preparations of iron with so much success, I proposed to Mrs. G—, a trial of the same means; and as a further encouragement, shewed her the cases as detailed by Mr. Carmichael: after which she very readily consented, and the plan was immediately adopted; although, I confess, with very little hope of affording any relief in such a deplorable case,

I directed her to take ten grains of the carbonate of iron twice a day, which was afterwards increased to fifteen grains each dose. The fungus was thickly covered with the phosphate of iron, and also introduced into the cleft, over which was laid some mild ointment, spread upon soft linen. In consequence of this mode of treatment, a daily sloughing took place, and I had the pleasure of seeing, in the course of a few weeks, not only the fungus reduced to a level with the surrounding integuments, but to a considerable depth below. It is also worthy of observation, that there was no longer any fætor accompanying the discharge; neither did it return, although some time ago, I left off the powder a week; the reason of which was, Mrs. G— thought the application gave her more pain than formerly; the cause, however, was evidently owing to a large black mass which protruded through the ulcerated surface, for after removing it she was easier. Previous to that period, and likewise since, I have occasionally detached several hydatids; and about three weeks ago, a cluster of them, resembling a small bunch of grapes, appeared on the surface of the ulcer, which I removed with the knife, without exciting pain. The hydatids were so soft as not to bear the pressure of the forceps, being nearly of the consistence of jelly.

The above mentioned favourable appearances were also accompanied with an evident improvement in Mrs. G—'s

general health; as she grew stronger, and her appetite for food became much keener than it had been before she was attacked with the complaint. It is now thirteen months since the phosphate of iron was first applied, and I am persuaded the breast is not more than half the size it was at that time: it is also much softer, and the integuments are of a more natural colour, and the surface is become even. The right side of the ulcer, which assumes the hydatid form of the disease, is very soft, and a probe may be passed to a great depth without exciting pain.* The edges of the ulcer on this side have a soft natural feel, but the ulcerated surface on the left side of the breast has more of gristly appearance, and the edges are not so soft as those on the right side. On pressing the under part of the breast towards the left side, a discharge of white matter commonly follows, and where she feels most uneasiness. Some of the lumps which were under the breast have entirely disappeared, and two which remain are become soft, and the skin is less discoloured. The discharge from the breast is still copious. She has no night perspiration.

I am, &c.

W. WHITE.

Bath, Oct. 12, 1809.

SOME ACCOUNT OF THE GUMS, NOT INCLUDED AMONG THOSE CALLED FŒTID.

MOST of those concrete substances brought from abroad under the name of gums, contain a considerable quantity of resin in them. They are usually much encumbered with pieces of stalk, leaves, and often of common earth. To purify them from these, it is sometimes found sufficient to soften them by heat, and strain them; at other times, it is necessary to dissolve or rather diffuse them in a considerable quantity of water, and after straining them, again to inspissate them with heat. If the gum thus strained contains much resin, the quantity of water must be very great, and much pains must be taken, lest in cooling a separation should take place between the resin, which is more insoluble, and the gum. In all these operations there will be danger lest some of the volatile particles, which are
often

* On touching, however, a part near the centre of the ulcer (which appears more fibrous than the surrounding surface) exquisite pain is immediately excited.

often the most efficient, should be dissipated. On this account those gums which are brought over in the original lachrymæ, or tears, are preferred.

Having in one of your former Numbers examined the foetid gums, I shall now notice a few others which did not come under that description.

The Gum Arabic and Senega are perhaps more strictly gums than any other that pass under that name; that is, they are perfectly soluble in water, and indissoluble in spirit or oils, losing none of their properties by mixture in boiling water and subsequent evaporation, and burning to a black coal when submitted to fire, without melting or inflaming.

The properties of gum arabic are so generally known that we need make but few remarks upon it. It is admitted to be the produce of the Egyptian Acacia, *Mimosa milotina* of Linnæus. When gum arabic is dissolved in water, it will admit the addition of any acids, and even of saline mixtures; but if alkalies are added, a coagulation takes place, and the gum separates in clouds. The same happens if spirit is added. The mucilage of gum arabic is however extremely useful in forming a kind of emulsion with water and many substances which are not of themselves soluble in that fluid. Oils, resins, and balsams are readily broken and diffused by a proper mixture of gum, and even rendered palatable. But these emulsions are separated by those substances which coagulate the gummy solutions, particularly by the alkalies.

The gum Senega seems no way to differ from the gum arabic, excepting that its colour is more inclined to yellow, and it is oftener found with pieces of wood and other impurities. However, they are so much alike, that the clearest pieces of the Senega are often picked out and sold as the gum arabic.

Gum tragacanth partakes of most of the properties of the former gums, but can scarcely be called soluble in any menstruum. It thickens an almost incredible quantity of water, and if more is added, in order to render the mixture thin and transparent, the consequence is a separation of the particles; the gum falling in clouds to the bottom. It is the produce of the *Astragalus tragacantha* of Linnæus, and grows wild in warmer climates. Though it bears the cold of ours, it does not produce its gum, which is brought to us from Turkey in the form we see it.

Most, if not all the other gums, contain a considerable portion of resin, and some may be truly called resins.

The ammoniacum, is a gummy resinous juice brought from the East Indies, and from Egypt likewise. We are ignorant of the tree from which it is derived.

Rubbed carefully with water, it forms an emulsion, called in our dispensatories, *Lac ammoniaci*. On account of the gender of lac, we are too apt, from an indolent inattention, to call it *lac ammoniacum*, an error we should always avoid. These apparent trifles are so grating to classical ears, as often to lessen their opinion of those who use them.

Ammoniacum is a truly valuable remedy as a pectoral. It is not so much in use as it deserves, partly, on account of its disagreeable taste and smell. When given in pills, it is not found equally efficacious, probably, from its slow solution in the stomach, or from its passing off entire.

The gum Anime is reserved as a specimen, but its very contracted use renders it deserving of little notice. It is the produce of the *Hymenæa courbaril* of Linnæus, a native of the Brazils and New Spain. It is almost entirely soluble in spirit of wine, as is the gum Elemi, the produce of the tree called by Linnæus, the *Anyris Elemifera*, brought like the former from the Spanish West Indies.

This gum has a strong and not unpleasant smell; whether it has any medicinal virtues internally is not certainly known, but probably not. As an external application, it forms a considerable ingredient in the *linimentum Arcei*, which has always been considered a good digestive ointment.

Gumboge is the produce of the *Gambogia gutta* of Linnæus; it is said to have derived its name from Cambodia, in the East Indies. Whether this is the case or not, it is certainly produced in other settlements of the East. It is much more an article in trade as a pigment than a medicine, affording a most beautiful yellow, which by an alkaline salt is changed into a florid blood red. As a medicine it is very powerful, but more uncertain in its operation than is convenient in an art abounding enough in uncertainties. It was once highly prized as an hydrogogue, but the violence of its operation, and its tendency to prove emetic, has very much lessened its use. With the addition of calomel, it is said to lose its emetic qualities; but when it passes the stomach, its cathartic powers are sufficient of themselves, without the addition of any other uncertain remedy.

The Guaiacum is the resinous gum of a tree called by Linnæus *Guaiacum officinale*. It grows principally in Hispaniola,

Hispaniola, but is found also in Jamaica and some other West India islands. This concrete resinous substance is the inspissated juice exuding from incisions made in the trunk. It is brought over in irregular masses of a dusky green, and sometimes reddish. There is a mixture of gummy matter, which seems to contain none of the properties of the resin, which last is easily separated by spirit of wine. The virtues of gum guaiacum are much greater than they are usually estimated. Our excessive fondness for novelty has made us overlook many well-known remedies, and none more than guaiacum. In chronic rheumatism, more particularly, those troublesome local affections, known by the names of sciatica and lumbago, the guaiacum is a truly valuable remedy. It should always be given in doses sufficient to purge, and even freely where the constitution will bear it, which is generally the case. I have seen delicate subjects bear a very violent operation from this remedy, and feel considerable relief. It is neither my wish, nor would it be proper on this occasion to enter into any inquiry into the *modus operandi*; but I could almost say, that gum guaiacum proves at once purgative, cordial, and strengthening, relieving pains in those deep seated parts which are hardly affected but by this and similar remedies. If it has fallen into disgrace, it has been by those who have employed it in acute or highly inflammatory cases of rheumatism. In these, the only relief we can expect from it is its purgative quality, which is not always induced, and where it is, other purgatives are preferable, in addition to every other antiphlogistic remedy. This error in applying the same remedy to the acute and chronic state of a disease is not confined to guaiacum or rheumatism. It is much too common in a variety of other diseases; but in all, the practice marks the lowest degree of empiricism. The acute and chronic gout require treatments as different as the plethora of the juvenile Dives, and the emaciation of Lazarus.

The Kino is a gum but lately introduced into medicine. For many years it was, in familiar language, called Dr. Fothergill's gum, on account of a paper of that candid and industrious physician in the *London Med. Obs. and Enquiries*. It is there called *Gummi rubrum astringens gambiense*. Kino, in the *Edinburgh Pharmacopœia*. In the *New London Pharmacopœia* it is called *Arboris nondrum descriptæ Afrianae gummi-resina*. This gum, as far as its chemical properties may be depended on, contains besides the two principles of mucilage and resin, a peculiarly astringent

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gent property, by which its solution, whether in water or spirit, may be entirely precipitated, so as to leave the liquor limpid, and almost pure. Acids of any kind render the solution turbid, and produce a precipitate. However, by further experiments it is proved, that the astringent or colouring matter is more completely taken up by spirit than by water.

The virtues of kino are not yet sufficiently ascertained, to determine the rank it should hold among the astringents. As far as we can learn by its sensible properties, it must be considered worthy of attention. In common practice, we know but little of dysentery, the dreadful disease of camps, and among the unsheltered poor of less fortunate countries. Whether it has any powers beyond the Catechu or *Terra japonica*, as it is usually called, I pretend not to determine.

Some of our Correspondents having expressed a wish for a Description of the new Process of procuring the Sulphuric Æther, we have translated the Article at length from the *Annales de Chimie*.

Observations on Sulphuric Æther and its Preparation.
By Mons. BOULAY, Pharmaceutist of Paris. Read at the Society of Pharmacy, May 15, 1807.

THE use of sulphuric æther is now so extensive, and its consumption so considerable, that it affords a fair scope for the manufacturer in the large way. But its manipulation, though highly simple, is well worthy attention, and appears capable of amelioration, both with respect to œconomy and the purity of the product.

In its formation, whether by simple distillation of a mixture of concentrated sulphuric acid and alcohol, or by the addition of fresh alcohol to the residuum, the whole of the product is not equally sweet, and in spite of careful rectifications, the last portions always retain an odour more or less disagreeable, and which is to be attributed to the oil in intimate union, from which it is almost impossible to separate it completely.

From the learned researches, and the theory given by Messrs. Fourcroy and Vauquelin on this fluid, it appears, that the attraction of sulphuric acid for water, aided by heat, causes the transformation of alcohol into æther.

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This re-action of the principles of alcohol, exercised under the influence of the sulphuric acid, precedes the carbonization of the mixture, the formation of the sweet oil (oil of wine), the disengagement of the sulphurous acid, and the other phenomena which arise on pushing the operation to the end. We may rest assured that no farther formation of æther will take place when these products make their appearance; and that whatever passes afterwards is nothing more than what is separated from the residue which contained it in its formation. It will be advisable then to oppose, or at least to protract the appearance of these products, which announces the complete decomposition of the alcohol; and by the addition at proper times, of fresh quantities of this liquid, to keep up the proportions, so that the ætherization may continue to a longer period. In order to produce this effect, it appears necessary that the sulphuric acid should never exceed two-thirds of the quantity contained in the retort, and that the proportion of alcohol should never be less than that of the remaining third.* By this means we prevent the sulphuric acid from burning the alcohol and its constituents, and obtain none of the results of a decomposition too far advanced, which injure the [æther operation] formation of æther, but which immediately follow it. We thus obtain, at all times, a better product in greater quantity; and the termination of the production of æther will be, when the sulphuric acid, weakened and impeded by the water formed during the process, has not sufficient power to act on the alcohol.

The kind of funnel, which afforded me such assistance in producing æther by the phosphoric acid,† and which is applicable to many other chemical operations, afforded me the means of putting these opinions into practice by the following process:

A serpentine tube of glass, plunged into a vessel of cold water, was adjusted to a large tubulated retort of the same materials placed in a sand-bath. The extremity of the curved tube entered into the neck of a large receiver, from which a communication was established by means

* The proportions of sulphuric acid and spirit of wine constantly adopted, (equal parts of each) appear to be the most proper. Nevertheless, it must be remarked, that in spite of the utmost care to separate the alcohol which first passes over, the product which follows only attains the lightness and fineness of true æther towards the middle of the operation.

† Vide *Annales de Chimie*, No. 135. The Number preceding the one from which this is translated.

means of a siphon, with a second receiver filled with water. Some sulphuric acid concentrated to 66 degrees, six kilogrammes, for example, was introduced into the retort. A funnel with a double stop-cock was passed into the tubuline, so that the stem reached nearly to the bottom of the retort, and through the sulphuric acid, Ten kilogrammes of alcohol (at 36 degrees of the aerometer of Beaume) were rapidly introduced, which by means of the funnel passed into the acid. The mixture takes place very well, though with violence, and is less coloured in proportion as the introduction is expeditious. Distillation is commenced by a fire placed under the retort, and when about two kilogrammes are obtained, ten kilogrammes more alcohol, at 40 degrees,* are added drop by drop, regulating the quantity introduced by that which passes into the receiver. The operation is continued till fifteen kilogrammes are drawn off, and the product is limped pale, has a more agreeable æthereal odour, and without any trace of sulphuric acid or sweet oil, yielding on rectification eight kilogrammes of pure æther, and alcohol of an æthereal odour highly useful for future operations.

The liquor remaining in the retort is then of the colour of beer, and transparent; it is composed of nearly the whole quantity of acid employed, alcohol, water, and without doubt, of a certain quantity of æther ready formed.

Heated a fresh, this residuum quickly takes on a black colour; and in this state, it may, on occasion, be used in the composition of Hoffman's anodyne liquor. Or, it may be used where the alcohol can do no harm, instead of the sulphuric acid, as, for example, in the formation of different salts.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE principles of no art or science demand more deliberate discussion, than that which intimately regards the welfare of our fellow-creature. It is on this account that I have

* I have remarked that alcohol at 36 degrees, is the best for the ordinary preparation of sulphuric æther, and that the mixture is less coloured at that degree than when it is less dilute; whilst, for the second addition the acid being already weakened, it is preferable to employ it at 40 degrees.

I have witnessed, with great satisfaction, the liberality and judgment with which the controversial department of the Medical and Physical Journal has been conducted. With this impression, I offer a few observations upon a paper published in the Edinburgh Journal, by Mr. W. Simmons, of Manchester. I am induced to make these observations, because the opinion which that gentleman attempts to controvert, is well supported by facts, and points out a preventive for a disease, occasionally most destructive to the organ of vision. I hope also to throw out a few additional hints, illustrating the subject.

Mr. Simmons's paper is entitled, "A Case of purulent Ophthalmia, occurring in an aged person, with remarks on the origin of the disease."

From the symptoms related by the author, it is not difficult to discern, that it was a violent case of that species of purulent ophthalmia, which has been introduced into this country from Egypt, and is now prevalent in Lancashire. I am the more confirmed in this opinion, because, on a late visit to Manchester, I was informed, that a man in the same ward, who attended upon the patient in question, caught the disease from him, and lost an eye.

The observations which the author hath grafted upon this case, and which apply almost exclusively to that species of purulent sore eye, which occurs in new-born infants, demand more attention, on account of their tendency. In these observations, Mr. S. attempts to combat an opinion * which is entertained by Mr. Ware, and many other practitioners of eminence, that the purulent ophthalmia of infants is frequently produced by fluor albus, existing at the time of birth in the mother, and affecting the child's eyes in passing through the vagina. This opinion is founded principally upon the frequent coincidence of these diseases, which are therefore considered by many practitioners, as standing in the relation of cause and effect to each other. In opposition to this opinion, Mr. S. states his ideas in the following words. "My own conviction therefore is, that the ophthalmia occurring in a child, whose parent, at the time of its birth, was affected with leucorrhœa, is merely a coincidence of circumstances in themselves wholly unconnected, rather than the result of cause and effect; and consequently, that the supposed

* Since writing these remarks, I find, by referring to Mr. Ware's pamphlet, and a paper by Mr. Gibson, of Manchester, published in the Edinburgh Journal, that Mr. Gibson first made this opinion public, although Mr. Simmons gives the credit of it entirely to Mr. Ware.—Quere, Had Mr. Simmons never read Mr. Gibson's paper?

posed origin of ophthalmia purulenta is purely hypothetical." After most attentively considering the terms of Mr. Simmons's conviction, and comparing them with the context, I still find great ambiguity in them, and am almost induced to suppose, that an error of the press has crept into this passage of his paper. For who can imagine, in any disease, *a coincidence of circumstances in themselves wholly unconnected?* What author has stated that the purulent ophthalmia (occurring in any way whatever) is *the result of both cause and effect?*—What advocate for the opinion, which Mr. S. combats, has contended, that the *supposed origin* of the ophthalmia purulenta from fluor albus, is otherwise than *purely hypothetical?* In my opinion, it possesses the greatest hypothetical purity, because it is well grounded in fact, and strongly supported by analogy. But, according to Mr. Simmons's mode of reasoning, the opinion is *purely hypothetical* for an opposite reason, viz. because it is not supported by fact. Mr. S. in fact, takes it for granted, that *purely hypothetical* and *ill-founded* are synonymous terms, and therefore considers the hypothesis demolished. By what arguments its destruction is supposed to have been affected, I shall now proceed to examine.

Mr. Simmons's first argument is this; "Within my own observation, the purulent ophthalmia has occurred where the existence of leucorrhœa *was denied.*" Mr. S. will, in candour, admit, that female delicacy might lead to concealment, and that a denial of its presence *was not sufficient proof* of the non-existence of the disease. But admit, though the disease did not exist at the time, has any author (I would ask) asserted, that leucorrhœa is the only cause of purulent ophthalmia?

Mr. Simmons's second argument is this; that a medical friend, who delivers from 50 to 50 women annually, had only met with 2 or 3 cases of purulent ophthalmia in his *whole practice*; yet *many* of his patients had the fluor albus upon them *preceding delivery.* It would have been more to the point, had Mr. S. been at liberty to state, that his friend's patients had fluor albus *at the time of delivery.* But admitting that this gentleman's patients were affected with fluor albus at the time of delivery, what author has ever imagined, that every child which passes through a vagina affected with fluor albus, will necessary have the purulent ophthalmia induced? Does every inoculation of vaccine or variolous matter produce the cow-pox and small-pox? Is every impure coitus followed by chancre or gonorrhœa?

Mr.

Mr. Simmons's third argument is this; that in Roscoe's case (the case published by Mr. S.), doubtless the disease had a different origin, for it is impossible to suppose, that at such an advanced age, an acute disease could have sprung from, or been at all influenced by such a cause." Doubtless, this aged man could not be born again; and it is even improbable, that the discharge of leucorrhœa had been conveyed by his fingers to his eyes. And it is more than probable, that the disease under which he laboured, was the Egyptian Ophthalmia, and consequently its origin is no longer doubtful.

Mr. Simmons's fourth argument, is an admission for the sake of argument. "But admitting, says he, for the sake of argument, that the discharge of fluor albus had possessed a property adequate to the alleged effect; the increased mucus discharge, preceding parturition, would dilute and carry off any former collection of this noxious fluid; and the vagina greatly shortened, undergo a process similar to ablution, by the dribbling, or sudden flow of the liquor amnii, *after the bursting of the membranes*, so as to render the opinion less and less probable." This explanation of the removal of a noxious discharge is very mechanical, and very unsatisfactory. Every practitioner must be sensible, both how small a quantity of infectious matter is sufficient to produce a fluid of its own nature, and how much that matter may be diluted, and still retain the power of contamination; that the fluid of leucorrhœa is capable of producing a fluid similar in appearance to itself, cannot be doubted. There are few practitioners who have not known instances of married men, who have repeatedly experienced a transient white mucous discharge from the urethra, at the same time their consorts laboured under fluor albus, yet no suspicion could be entertained of their conjugal fidelity. Excoriations of the glans penis, and gonorrhœa of the prepuce, are effects frequently produced by the same cause. Such are the arguments which Mr. Simmons has brought forth.

I shall now say a word or two with respect to the causes, which in Mr. Simmons's opinion, really produce the purulent ophthalmia, viz. *light, irritability, cold, and moisture*. These causes are by no means original, and are liable to this most serious objection, that since almost all infants are exposed to these agents, the disease, instead of being the rare occurrence, which Mr. S. and his medical friend have found it in their practice, should be as frequent a disease as any we are acquainted with, judging
from

from the universality of its causes. But let us, for a moment, attend to Mr. Simmons's convenient mode of reasoning. In the former part of his paper, he says, "But when we have considered the frequency of that female affection (fluor albus), and the comparative rareness of this species of ophthalmia, we shall, *I believe*, be inclined to doubt the validity of the opinion, (viz. that fluor albus ever occasions purulent ophthalmia): in the latter part of his paper, Mr. S. attributes this comparatively rare disease, to causes as common and universal as any he could possibly have selected. The same observation may be made with respect to a peculiar constitution of the atmosphere; an agent so general and widely diffused, cannot be considered with any degree of probability as the cause of the purulent ophthalmia of infants, a disease, as far as my experience or reading extends, in which no remarkable increase or decrease in frequency has at any time been observed. Had it ever occurred in Manchester, as an infantile epidemic, it is somewhat unfortunate that Mr. S's friend, who has been in the habit of delivering from 30 to 50 women annually, should only have met with two or three cases of it.

Upon the whole, it appears to me, that such causes as light, irritability, cold and moisture, as well as occasional injury in the birth, may sometimes induce simple inflammation of the eye; but something more than these is necessary to produce a specific disease.

If to any of my readers I have appeared to be unnecessarily minute in discussing a matter of opinion, respecting the cause of a disease, I beg leave to add, that in attempting to erase any impression which Mr. S's arguments may have made, I have been governed by this conviction; that his remarks may tend to induce some practitioners to neglect those simple means of prevention, which were recommended by Mr. Gibson, in his paper, on a frequent cause of the disease in question. The effectual ablution of the child's eyes immediately after birth, &c. in case of concomitant leucorrhœa, is so easy and inoffensive a measure, that I trust Mr. Simmons himself will not fail to recommend it in his practice, although he may still feel convinced that the supposed origin of the ophthalmia purulenta, is purely hypothetical.

I am, &c.

WILLIAM ARMSTRONG.

Richmond, Oct. 9, 1809.

To

Dr. JACKSON's Remarks on Cobweb.

To the EDITORS of the MEDICAL and PHYSICAL JOURNAL.

GENTLEMEN,

AS my account of the virtues of Cobweb, inserted in the Medical Journal of last May, is discredited by a person who signs himself an *Essex Practitioner*, you will be so obliging as to give the following Observations a place in your next publication. The *Essex Practitioner*, as not giving his name to his communication, deserves no notice on his own account; but, as cobweb is a remedy of value, I am desirous that it should be known generally, and that its character should be established publicly on sure grounds. Its power in stopping the course of intermittents does not rest on my authority alone; it is known to many as possessing that quality; and among others, a Lady who lives near the mouth of the Tees, on the Durham side of the river, in a situation where agues prevail in some seasons, has, in the course of her life, cured hundreds by means of this substance, which the *Essex Practitioner* terms inert. She does not prepare the subject previously to the exhibition of the remedy; and, as might be expected, she does not always succeed; but she often succeeds where the regular practitioner fails. She has not noticed the circumstances which mar its successful action, nor shall I at present attempt to define them, but simply state the facts. Cobweb was giving by her lately to two persons who were in the same house; one was perfectly cured; the other was not in the least benefited. Five were cured in one week; besides others in the course of the season, some of whom were extremely reduced and much wasted by the disease, which had obstinately resisted bark and the ague drop. She mixes the cobweb with treacle, and gives it in large quantity, perhaps to the size of a nutmeg. The person does not know what is given to him, consequently, imagination has nothing to do in the case. Relapse of intermittents cured in this manner is rare.—The Lady is a person of respectability, and though she would not, probably, chuse that her name should appear in the Journal, she would not, I believe, refuse her testimony to what is now stated, if any one should be disposed to doubt the truth of it.

That cobweb is capable of stopping the course of intermittents, is as well proved as any fact in physic; but it is also true, that it acts powerfully in all the other con-

ditions noticed in my paper of May; and I may add, in many others that I omitted to mention. I shall trouble you with only one testimony. In the month of last June, an army physician, who exercises his profession in civil life, and to whom I was a little known, accosted me, and took the opportunity of mentioning that he had employed cobweb in a troublesome case, in consequence of what I had said of it in the Medical Journal. The Case, he observed, was one of pain, distress, and watchfulness, of unusual obstinacy. The cobweb was ordered, faithfully prepared, and administered. The effect appeared to have surprized the patient; for he called upon his physician next morning to say, (if I recollect the words right, they were spoken in the street) That he had not passed a night with so much comfort for six years. The remedy was repeated; and it always gave ease and tranquillity, though the patient did not always sleep. The patient, who was a gentleman, left the place, and the physician thought it his duty to let him know the means that had afforded him so much relief. The physician is a respectable man, and though he might not chuse that his name should appear in the Journal, as employing so vulgar a remedy as cobweb, I do not suppose that he would refuse to state to the Editor, or other creditable person, the circumstances of the case to which I allude.

I shall add no more on the subject at present; the Essex Practitioner will, I doubt not, be sorry that he has committed himself prematurely.

I am, &c.

ROBERT JACKSON, M. D.

Castle Eden, Durham, Sept. 29, 1809.

To the Editors of the Medical and Physical Journal.

"Who shall decide, when Doctors disagree,

"And soundest casuists doubt, like you and me?" POPE.

GENTLEMEN,

IN my Paper on the Virtues of Cobweb, (in No. 127 of your Journal) I promised to take the earliest opportunity of exhibiting that substance, and am happy to say, that
I have

I have lately witnessed its good effects in a case of tertian ague, under my own care.

Andrew Yeaman, ætat. 19, trumpeter in the Staff-Corps, was embarked on board this ship in the late Expedition against Flushing, and had laboured under intermitting fever nearly a month, by which he was much emaciated, and reduced to an alarming state of debility. He had been stationed at Hythe, where I understand intermittents are very prevalent, (in consequence, it is believed, of the vicinity of the Royal Military Canal), and by his own account had taken large quantities of bark with wine and opium. Those medicines had never, in the slightest degree, shortened the duration, nor diminished the severity of the paroxysms, and seemed to have produced no other effect than, probably, that of preventing the fever from degenerating into a more continued type, or changing its period of accession. The intermissions, in this case, were most distinct, and unattended with any symptoms indicating disease, except extreme weakness, and a more ghastly paleness of the countenance than I had ever witnessed.

As I was most anxious to give the cobweb a fair trial, I requested my assistant (Mr. Farley) to be particularly careful in observing the patient's state and the effects of the remedy, both which he watched with the utmost assiduity; and I feel much pleasure in adding his testimony in behalf of its utility. A quantity of cobweb, not exceeding eight or nine grains, was gathered from the bread-room, and made into two pills; one, consisting of five grains, with sufficient mucilage of gum arabic to form it; and the other, of the remaining cobweb, prepared in a similar manner. The five grain pill was given on an empty stomach, a little after eight o'clock in the morning, (being two hours previous to the expected period of accession), and the other at the usual hour of the paroxysm, which was not felt at all. It may be proper to state, that no other medicine was given with the cobweb; and it will appear, that he did not take nearly the quantity prescribed by Dr. Jackson, as the ship was at sea, and I could not procure more than I have mentioned. The paroxysm never returned; but a slight rigor was felt about the second period from the exhibition of the cobweb, and easily yielded to two grains of opium, followed by bark and sulphuric acid, which completed the cure.—As far as I could learn, arsenic had not been resorted to on this occasion.

The "Essex Practitioner" and I, seem to entertain diametrically opposite opinions respecting the operation of the spider which was swallowed by the lady; and he thinks that case "will go but little way to corroborate Dr. Jackson's testimony." With him, in all probability, it will go no way at all, because he appears to be already convinced of the inutility of the substance in question; but with many others, it is to be hoped, it may have some little weight; and at any rate, it cannot in the least invalidate Dr. Jackson's high opinion of the sanative powers of spider's web. We need not be told, that fear "will produce even death itself;" but it requires no small degree of faith to believe that the slight degree of that passion, or rather of disgust, which would be excited by swallowing a spider, can at once dis sever the strong chain of a confirmed disease. It is a melancholy proof of the imperfection of the medical art, that its professors are sometimes obliged to attribute double, and even opposite, virtues to certain remedies. In my opinion, however, no medicine can have more than one mode of action, but attending circumstances may often alter its apparent effects; and I believe the credit which has been given to the supposed sanative virtues of fear, are more justly due to concomitant accidents.

Every one who has practised in climates unfavourable to European constitutions, must have seen the bad effects of fear in those countries; and almost every one will agree, that numbers, who might otherwise have escaped tropical diseases, have been prematurely hurried into Eternity by apprehension of death; whereas, others, constitutionally predisposed to disease, have been saved by that inestimable cordial—Hope. When a drunken man falls into the water, and is thereby instantly restored to a state of sobriety, (as I have frequently seen) how is his recovery to be accounted for? Is it to be attributed to fear? No: at the time of his immersion, neither fear nor any other passion agitated his bosom; before the accident he was in a state of exhaustion, from the inordinate stimulus of the liquor; he was, perhaps, on the verge of typhus fever; but when by chance he was plunged into the salutary bath, the action of the heart and large arteries became increased; and unless he suffered an extreme degree of cold, no febrile affection succeeded. In such an instance, therefore, fear cannot be concerned.

I know perfectly well, that authors of high celebrity have mentioned fear as one of the means of curing intermit-
tents;

tents; but what they term fear, I would call disgust; for it is well known that many people who are cured by bark and opium, have as great an aversion to those drugs, as to spiders or toads; yet the medicines succeed, because they really possess medicinal virtues.

In all probability, the "Essex Practitioner" has used tourniquets in intermittents, (as recommended, I believe, by Mr. Kellie, a naval surgeon) or, if he has not, and will give even a moderate degree of credit to their beneficial effects in the hands of others, I doubt not he will agree that in such cases the cure is effected, according to the suggestion of the ingenious proposer, by the tourniquet preventing the circulation in the extremities to which they are applied, and of course, "causing a more speedy and abundant return of blood to the heart." Exactly so do I conceive the cold water to operate on the drunken man, by diminishing the morbid heat and increased action of the extreme vessels; and the same is observable after amputation of a limb, or when any bulky part of the body is removed, unless much hæmorrhage occur during the operation; for the blood which used to circulate in the member which suffers amputation, remains in the body, and on that account, in robust constitutions, copious venesection is very generally required. I would not have it supposed from what I said in my last paper, that I doubt the veracity of the anonymous class of writers in general, but I must still think that the "Essex Practitioner's" arguments in favour of such signatures as he uses, are by no means conclusive; and I beg to apprize him of his mistake, in asserting that I may administer my medicines "in what quantity and form I please, with impunity;" nor can I see why the "constitution of a sailor will hardly bear a comparison with that of a weak delicate female."

The complaints of the former are, it is true, very generally of an acute nature, and less complicated than those of the fair sex; but in the decline of life, and when their vigour has yielded to laborious duties, there is no species of nervous complaint from which sailors are exempt; and we daily see among them hypochondriasis and hysteria, with all the miserable symptoms which characterize those diseases.

If he were better acquainted with the medical department of the Navy, he would be convinced that the practice of Naval Surgeons is "watched with as unceasing attention" as that of any Country Practitioner, and perhaps, with more prying and laudable curiosity. Their embar-

rassments must also be greater; for in the hour of difficulty and danger, the Naval Surgeon is most frequently obliged to form a prompt decision; too often he has no professional friend to consult with; and labours under many disadvantages, which will be readily conceived and acknowledged by generous minds, although I blush to say that some members of the medical profession on shore and in the land-service, have disgraced themselves by casting very unwarrantable reflections on a numerous body of men, by no means their inferiors in point of education, and, I trust, equally faithful and conscientious in the discharge of their duty.

On the contrary, a Country Practitioner can in all difficult cases, have easy recourse to the advice and assistance of his brethren; nor will the unfortunate issue of any case reflect dishonour on him, more than on the Naval Surgeon, if the evil should be supposed to arise from any novelty or rashness in the mode of treatment. In the event of such a suspicion attaching to the character of a Naval Surgeon, his pecuniary interests would not perhaps be so immediately affected; but that character on which he must ground his hopes of future advancement, would undoubtedly suffer in the opinion of those who dispense the naval medical honours, and of course his fortune even, would be eventually ruined thereby.

The Country Surgeon is not, I believe, obliged to give an account of his practice; but the Naval Practitioner is required to keep a very strict Journal, which must be submitted to the inspection, and obtain the sanction, of a medical board, before he can receive his pay. I further conceive it a part, and it is a very pleasant part, of my duty on this occasion, to mention that care, tenderness, and generosity which are extended to sick sailors, by their officers, who are by no means inattentive to the Surgeon's conduct; and it will be readily admitted that men of sound understanding, frequently adorned with liberal education, who associate with him, cannot be very incompetent judges of his professional abilities. Indeed, there are very few officers who have not some medical knowledge, naturally arising out of their intimacy with the surgeon, and that praise-worthy curiosity which I hinted at above; and I know several who have made very considerable acquirements in that way.

I must here beg your indulgence in allowing me to state, on the authority of a gentleman, a particular friend of mine, an instance in which cobweb has been peculiarly serviceable;

serviceable; and although I feel that I have almost already transgressed the bounds within which I ought to confine my paper, yet I trust the nature of my subject, and the few opportunities I may enjoy to communicate with you, will plead my excuse, and gain it admission into your most valuable Journal. Walter Sands, Esq. purser of his Majesty's ship *Camilla*, has been afflicted for many years with a very distressing asthma, which has proved fatal to his father, and called to an early grave two beautiful and accomplished women, his sisters. As the complaint appears to be hereditary, and in this gentleman to be aggravated by mal-formation of the thorax, no remedies gave any permanent relief, nor did change of climate procure any alleviation of symptoms. He has taken, at various times, under the direction of eminent physicians, the fox-glove in every form, with all other medicines which have been recommended; and frequently in a kind of despair has resorted to almost every empirical composition from which he could expect advantage; but in vain.

For a considerable time back he has never been able to lie down in his bed, on account of a sense of suffocation, which he always experiences in a horizontal posture, but is obliged to be supported half-sitting, by pillows, and even then is tormented to such a degree by incessant cough, so violent as often to induce vomiting, that he can seldom sleep before two or three o'clock in the morning, and his slumbers are often interrupted. About three weeks ago I was witness to his sufferings, which came on, on board this ship, after he had been dining with me, and I much regretted that I had no cobweb to administer, as I was well aware of the inefficacy of all other medicines in his case. I however mentioned the subject to him, and the following day he collected nearly a scruple of the spider's web, which he swallowed at bed-time, and to his utter astonishment, enjoyed sound and uninterrupted sleep all night; a blessing, to which he had been an entire stranger above six years. Since he began the cobweb, he thinks his health is improved; the cough has certainly abated; but he finds much difficulty in procuring a sufficient quantity of the web, and whenever it is omitted the complaint returns. Your suggestion respecting the different sorts of cobweb, appears rational, and those who have an opportunity to make experiments, will discover what species or variety of spider produces the most efficacious web. There are two kinds of those insects, common in cellars and moist places; one has a round body, brown speckled back,

and very short legs, which easily distinguish it from the other, whose body is oblong, and of a pale greyish cast, with very long and semipellucid legs. The web of the former has a very compact texture, and a rich bombycinous appearance; that of the other is much less compact, resembling a net in some degree; has no sensible taste nor odour (both which qualities are slightly perceptible in the other), and is destitute of that rich silk-like appearance which characterizes the first mentioned species.

If these few observations at all assist in drawing the attention of the Faculty to a subject which, I trust, would amply reward their labours, I shall be extremely happy, and my humble endeavours shall not be relaxed until I have clearly demonstrated the medicinal qualities of cobweb, or till I shall find by experience, that it does not possess the virtues which have been ascribed to it. I must further beg your indulgence, and that of the medical public, for the inelegant style of this letter, as I did not see your two last Numbers till within a very few days, on my return from the Scheldt; and as I am about to proceed to a foreign station, I am anxious that it should obtain an insertion in the next Journal, if possible, on which account, I venture to send it into the world "with all its imperfections on its head."

I am, &c.

JAMES SCOTT, Surgeon

H. M. S. Euryalus, off Dungeness.

Sept. 18, 1809.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IN answer to the inquiries of your Correspondent on the subject of cupping, I freely communicate the successful experience of twenty years. The operation of cupping, though a very simple one, and needing but little or no anatomical knowledge, will be found to require more address and practice than is necessary for many of the major operations of surgery. When neatly performed, twelve or sixteen fluid ounces of blood may be obtained in half an hour, unless the surface to be operated on be very deficient in vascularity.

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In all operations, so in this, it is necessary to have every requisite well arranged and at hand, as the moment the scarifications are made, the glasses should be fixed, and so again in removing and replacing them. Where the surface will allow it, the larger the glasses the better, not holding less than four or six ounces, the drawing powers being almost in proportion to their size; their shape should be that generally used, the bell. A scarificator, containing six good lancets, is more effectual than sixteen, as the resistance offered to a great number, prevents perfect incisions, so that frequently the surface only shall be scratched; even four lancets, if they perfectly enter the integuments, will be found, if the glass be well put on, to draw blood very readily.

There is some address, only to be learnt by practice, in applying the scarificator; a gentle yielding at the time the lancets are making their way through, will give more perfect incisions than when the instrument is too obstinately pressed against the part. It may be compared to the slight turn of the hand, which some operators give in extracting the cataract, when at the same time they scratch the capsule.

The lamp, if dexterously used, is certainly the neatest mode of rarifying the air, but few attain perfection in its use; hence, small bits of bibulous paper, dipped in spirits of wine, lighted, thrown into the glass, and the glass immediately fixed on the part, not suffering the paper to fall out, will be found the most certain method of exhausting the receivers.

On removing the glasses, the scarified parts are to be cleansed with sponge and warm water; the orifices to be well dried with a napkin, and a dry glass lighted as before, to be fixed on. Unless the operator is quick in his movements, it will be better to remove but one glass at a time, as the air tends to close the orifices.

Frequent practice, arrangement, and method will enable any one, professional or not, to perform this very useful minor operation with neatness, efficacy, and dispatch.

GALEN.

Sept. 16, 1809.

Original

Original Remarks on the Pathological Theory, and Practical Treatment of Hydrocephalus Internus, illustrated by Cases. By JOHN ROBERTON, M. D. Author of the Practical Treatise on the Powers of Cantharides in Gleet, Leucorrhœa, and obstinate Sores, &c.; of the Treatise on Medical Police, Diet, Regimen, &c.; and Extraordinary Member of the Royal Medical Society.

THERE are, perhaps, no diseases, the nature of which are so little understood, as many which are daily to be met with among infants and children.

In the present very imperfect state of our art, even with all the advantages of the most minute detail, which those of maturer years are capable of giving of their complaints, we are often, even the most industrious among us, much perplexed and frequently bewildered in our attempts to account for various derangements in the animal economy. In children, we have not even the advantages of communicating their feelings by words, consequently, their complaints must be still a matter even of greater conjecture, than those of individuals of maturer years. Fortunately, however, in regard to the more important symptoms in the complaints of children and infants, there seems less variety than we find in those of adults: consequently, our room for conjecture in their treatment is less extensive, and our chances of success from general rules, more certain.

In these complaints, as well as in those of almost every other sort, we too often have ourselves to blame for our want of success. These errors often arise, partly, from our choosing to take for granted what had been previously said by others, without taking the trouble to think for ourselves, and partly, from our overlooking those more general affections of the system, and applying a multitude of inefficacious, if not hurtful drugs, for the removal of trifling symptoms, which, comparatively considered, are of no importance, while the more important symptoms are permitted to commit the most dreadful ravages on the system, which must ultimately, if unchecked, destroy the existence of the patient.

This reasoning may be applied to, perhaps, almost every disease which Nosologists have, by torturing and twisting, at last been able, in order to suit some particular theory, to form them into what they call a system. But, on the present
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sent occasion, I would more particularly apply such reasoning to *Hydrocephalus Internus*. I am of opinion, now that small-pox has been driven out of this country, that this is *the disease* of children; that as many, if not more, die of it than ever died of the small-pox; but the names we have been in the habit of applying to this affection, such as *spaining brash, bowel-hicc, milk-fever, draughts, convulsions, &c.* while they yielded no information to the scientific inquirer, only served to bewilder the generality of people respecting its real nature. It will, however, be at all times found, that upwards of ninety cases in the hundred who die of either what is known among nurses, old women, and old women practitioners of physic, of which there are not a few, by the above and some other as absurd names, will be found to have water in the ventricles of the brain on opening the head after death. Now, as effusion of this nature can only take place, either in consequence of previous inflammatory action, or from a long continuance of debility from disease, this effusion must be caused by one or other of these affections. Certainly then, the medical attendant, if he knows any thing at all beyond his *bow*, and too often his ridiculously affected *grimace*, must be able to ascertain to which of these states the system is most liable during the prevalence of certain symptoms, and previous to the termination of this disease by effusion. This is, at all times, easily known by the state of the pulse, and by the general habit of body of the patient.

In by far the greater number, a generally inflammatory state of the system prevails previous to effusion into the ventricles; and certainly, in this form of the disease, it is much more manageable than in the other, where every individual function has become debilitated—often beyond the power of the most active remedies to restore to any permanent degree of healthy action.

The degree of torpor of certain parts of the system, as will appear from some of the cases which I shall subjoin, is, even while the system in general is, so far as we can judge by the pulse, &c. in the highest state of inflammatory action, astonishingly great. I may observe, that I have seen this state of the system become much worse a longer or shorter time before death, according to circumstances. I have even seen the body become so torpid, that neither warm baths would warm it, nor would any sort of blisters materially affect the skin. As this, however, is almost never present in the commencement of
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that diseased action, which if unchecked almost always terminates in effusion into the ventricles, we have ourselves to blame if ever we allow it to supervene, which, while it requires the most active treatment, may in almost every instance be prevented by it.

I may also subjoin one remark, previous to my detail of the cases, which I shall do in confirmation of what I have adduced, that had I, as a single individual, treated complaints of many children, whose cases now recur to my recollection, both under my own immediate care, and also under the care of those whose practice I have had opportunities of witnessing, they might have been entirely relieved of their diseases, but which, from that want of energy, which we too often have occasion to witness in the practice of physic, terminated fatally.

In this place I shall decline making any further remarks on the nature and treatment of this very generally prevailing disease, and refer my readers to my *Treatise on Medical Police*, now published, where a concise, but I hope, satisfactory examination of its nature, treatment, &c. are inserted.

CASE I. On the 19th of June, 1806, a boy, aged $4\frac{1}{2}$ years, was seized with stupor and almost constant inclination to sleep, during which he breathed with great difficulty, and his pulse beat with much rapidity and strength. A blister was immediately applied over his head, and, next day, it was found necessary to renew it, as the first produced only very partial vesication. Calomel and jalap, in large doses, mean while, produced only slight catharsis. The second blister did much better than the first, and, on the 22d, he seemed quite relieved; could answer any question that was put to him, and even was out of bed an hour or two. I ordered the cathartic powders to be continued.

On the 23d, his eyes were very much inflamed, and he complained of great pain in his forehead. In the evening he was seized with phrenitis, and next day died in convulsions.

On opening the cranium, the meningeal vessels were very distinct; the blood vessels from the corona backwards, extraordinarily turgid; and adhesions between the opposite hemispheres of the cerebrum, uncommonly strong. The vessels in the ventricles were extremely turgid, especially those of the choroid plexus, and there was a considerable quantity of watery fluid in all the cavities of the brain.

CASE

CASE II. Miss ———, aged 8 years, was in June, 1805, affected with pain of head, particularly when she stooped, and her eyes were of a dull, heavy appearance. Her bowels were torpid, and her pulse 160 and strong; her countenance was pale, shrunk, one of her eyes squinted a little; and although she had complained only two days, she was considerably emaciated. A cap blister was applied over her head, and smart cathartics of calomel and jalap immediately administered. After the blister had remained twelve hours, it produced no other effect than that of slightly inflaming the part to which it had been applied. I now sprinkled powdered cantharides over the whole surface, formerly occupied by the blister, which, by next day, produced several vesicles. During the last twenty-four hours, she had taken grs. xvi of calomel, and the same quantity of jalap, which brought on only slight catharsis. The stools were very black and fœtid, but there was no alleviation of her complaints. I accordingly ordered the calomel powders to be continued till her stools assumed a more healthy appearance; the blistered part to be kept open with epispastic ointment; and leeches to be applied to the temples. Together with the other applications, the leeches were applied thrice in ten days, when her pulse sunk to 100 per minute, her eyes became more lively, stools became of a natural colour, and although, during this time, she had taken grs. vi of calomel and the same quantity of jalap daily, she was much stronger than before the exhibition of these medicines. I therefore ordered the blister to be kept open for some days and the bowels to be freely opened. She is now (1809) free from every complaint, having had no relapse since the above period.

CASE III. A stout boy, aged 5 years, had never had any complaint till within two days before I visited him, when he became drowsy, did not seem to sleep, and complained of severe pains in his head. When I saw him, his pulse was 190 per minute, his face pale, pupils of his eyes dilated; and, while he cried, he rolled them so as sometimes to turn the pupils completely under the eyelids. His bowels were regular, but the stools were very fœtid. I ordered a cap blister to be applied, and smart cathartics to be taken. The blister was applied twice before a complete vesication was formed; the cathartics operated well; and in two days his stools became much less fœtid than formerly, during which time he voided no worms. In two days more, the pupils were contracted, and he was out of bed and amusing himself.

himself. I, however, ordered the cathartics to be continued during a few days, and the blister to be kept open. This patient in 1809 had no relapse.

A fortnight after, this boy's sister, 18 months old, became what the parents termed feverish, which had continued a week before they sent for assistance. When I saw her, her mother informed me that she was much relieved to what she had been, and had slept several hours during the day. The child was much emaciated; pulse 90. Two hours after, she died in convulsions; and on opening the cranium, I found the ventricles filled with water.

CASE IV. A boy, aged 3 years, was affected with pains in his bowels; he was costive, his pulse was 160 per minute, very strong, and he screamed almost incessantly.

I ordered him grs. xxiv of submuriate of mercury, divided into xii powders, one to be taken every two hours till they operated briskly, and the warm bath to be used. When he had taken eight of these powders, he had had no loose stool. I immediately ordered an injection, and a cap blister, and desired his mother to continue giving him the powders. The pulse was then 190. By the time he had taken twelve powders, he had four or five foetid green stools. The extremities now becoming cold, he was put in the warm bath, cathartics and injections were continued, and in a week he was completely well, his pulse having fallen to 100 per minute. The parents of this patient soon after left Edinburgh, consequently I do not know whether the child continued free from disease.

CASE V. A female child, aged 8 months, had, for three months past, been affected with cough, had frequently passed numbers of ascarides by stool, for the removal of which she had taken vermifuge medicines; in other respects, she was perfectly well. Her pulse suddenly rose to 180 per minute, when, suspecting her teeth to be the cause of this symptom, her gums were freely scarified, a cap blister was ordered, and smart cathartics were prescribed. Owing to the timidity of the mother, the blister was not applied till next day. The cathartics operated well, but she voided no ascarides. The child's senses remaining perfectly entire, the pupils of the eyes contracted as in health, and being without any other sign of disease, except the high pulse, she suddenly became convulsed, and her eyes turned upwards and fixed; the gums were again freely scarified: beef tea injections were given, and the
warm

warm bath used, which seemed to relieve her for a few minutes, but she relapsed and died in two hours.

On dissection, the adhesions between the dura mater and cranium were uncommonly strong; indeed, so much so, that I found it impossible to separate them without doing considerable injury both to the skull and the brain. The blood-vessels, which were not ruptured, were greatly distended, and water seemed to flow from almost every part of the substance of the brain. Independently of the quantity of fluid thus discharged, on removing the brain from the cranium there were several ounces collected at the base of the skull.

In this case I had an opportunity of opening the thorax and abdomen, but no collection of fluid was found in them, nor did they seem at all in a diseased state.

CASE VI. A female child, aged 14 months, became restless, would not suck, and cried bitterly, as if suffering great pain. Her pulse was 170 and full, her bowels regular; but when cathartics were given, the stools were black, and very foetid; next day the pulse was 180; a cap blister was applied, and, as the limbs frequently became cold, she was immersed in the warm bath to the neck. These symptoms continued a week, and during that time cathartics were freely administered, and the blister kept open; injections of beef tea, and the warm bath, were also used frequently. The pulse, however, did not decrease in frequency nor in strength till the tenth day after she was first affected, when it sunk to 170 per minute, and gradually decreased about ten beats every day till it became natural, and the child recovered completely. About two years after this, the child was again similarly affected; but as the mother would not allow such active measures to be used, death of course was the consequence, and on opening the cranium the ventricles were found filled with fluid.

CASE VII. A stout boy, aged 5 years, was suddenly affected with pains in his bowels and head; the pulse 180, and very strong. His bowels were ordered to be opened with calomel and jalap; leeches to be applied to the temples, and a cap blister to the head. His stools were very dark coloured, but there were no worms observed in them; in 24 hours he took half a drachm of submuriate of mercury, and the same of jalap, and his bowels were only moderately opened. I also prescribed beef tea injections,

to defend as much as possible the intestines against the action of such immense doses of physic. The mother, however, would not consent to put the blister on his head; neither were the leeches applied. Two days after, the pulse beat 250 per minute, and every day the progress of emaciation was more and more observable. The parents, therefore, became alarmed, and at last consented to apply the blister; but before vesication was produced, it was necessary to apply this twice, and the strongest epispastic ointment was barely sufficient to keep the sore open. In two days the pulse was 200; the child's senses were perfectly entire; the eyes quite natural; yet still it was necessary to give strong doses of physic to keep the bowels open. The face became œdematous, so that the eyes were scarcely to be seen for two or three days; the pulse being still 190, and very strong. The parents now became obstinate, and insisted on the blister being healed; which was accordingly done, notwithstanding all I could say to the contrary. For three weeks the pulse was never below 180, and it was frequently above 200 in a minute. Yet, the child was perfectly sensible till within half an hour of his death, when he became insensible, and died in convulsions; the pupils, however, never being dilated. The parents would not allow the head to be opened.

CASE VIII. A female child, aged one year, had been restless and unwell for a whole day; her pulse beat 180 per minute, and skin natural. Two of the incisores of the under jaw had completely cut the gum, but no other teeth seemed to be near the cutting. The child had been constantly costive since she was born, and had frequently been troubled with a slight cough. After having been repeatedly informed, that; till the morning of the day on which I was first desired to visit her, she had been in her usual health; I was at length told by the nurse, that three or four days before, the child's eyes appeared wild, and that she turned them as if looking towards her nose; the same day she also stretched her arms, fingers, and legs, as if in fits, and screamed dreadfully; but as these symptoms soon abated, she (the nurse) did not wish to alarm her mother by a relation of them. I prescribed calomel powders, in smart doses, and a cap blister to be applied over the head. The blister rose well, but the bowels were no more than moderately opened, even after gr. xviii. of calomel had been given, and the stools were of a dark brown colour. On the following day an erysipelatous affection was perceived on the fore part of the left shoulder;
a ghastly

aghastly paleness, or rather blueness, was observable in the face, particularly under the eyes and round the mouth, and the features were remarkably shrunk. Her pulse being 180 and strong, the powders were ordered to be continued in sufficient doses, to keep the bowels regular, beef tea injections to be given, and the warm bath to be used. These produced no alleviation of the symptoms, and the screaming and squinting of the eyes again returned. I now ordered pledgits of cloth, dipped in alcohol, to be applied to the inflamed part, which gave instant relief; and now, as it began to decrease above, it appeared inflamed further down the arm, but was finally cured by the application of the alcohol.

Three days after the first attack a slight convulsive affection was observed, though it soon went off. The blister was therefore to be kept open, the calomel powders to be continued, and the warm bath to be used.

On the fifth day the pulse was 156, and not so strong as formerly.

On the eleventh day, no unfavourable symptoms had occurred for a week before, and I ordered that strict attention be paid to the bowels. The blister had been healed two days.

In September 1809, this child remained perfectly well.

CASE IX. A female child, aged 8 months, uncommonly stout, and till now, never seeming to complain; the pulse being 190, and very strong, was, four days previous to the time I was desired to visit her, affected alternately with drowsiness and severe screaming. The bowels were constipated, and as several of the teeth seemed nearly thro' the gums, they were cut upon. A cap blister and smart cathartics were also prescribed; and during next day, the pulse was only 100 per minute. While I was almost regretting that such active treatment had been used, when perhaps much more mild treatment might have answered the purpose, the symptoms were in a few hours aggravated, the pulse being 180, but much weaker than formerly. There was considerable difficulty in voiding urine, and the child had something like convulsions, though they were very slight. The extremities now became cold, on which account I prescribed the warm bath to be used frequently, and the same evening, while in the cradle, after using the bath, she died. Her parents did not observe whether she died in convulsions, and they would not allow the head to be opened.

CASE X. A boy, eight months old, was, six months ago, affected with difficulty of breathing, accompanied with a cough somewhat resembling croup. A blister was then applied to the breast, with the administration of cathartics, which relieved these symptoms; but, on the 1st of January, he was again affected with the same symptoms as formerly, according to his mother's account; for I did not see him till the 9th of January. He had then several teeth; his pulse intermitted; his face was alternately red and pale; the pupils of his eyes were contracted as if in health; but there was a certain dullness in them, which, however, his mother asserted was their natural state, as she never observed them otherwise. I scarified the gums freely, and ordered smart cathartics, and in the evening found that several teeth had appeared in consequence of scarifying them, but without any alleviation of his other complaints. I therefore ordered a cap blister to be applied; and next morning, I was informed it had produced no effect on the head. I called an hour after, and was told that my patient had died a few minutes before.

DISSECTION, Jan. 10. The pupils of the eyes were so contracted as only to be about a quarter of an inch in diameter; and the tongue firmly impacted between the jaws. On cutting through the integuments of the head, a considerable quantity of blood flowed; water and blood flowed while sawing through the cranium; and then watery blood issued from the diploe, about three ounces in quantity. From the vessels of the dura mater, after the skull cap was removed, several ounces of blood flowed, and all the vessels of the membranes were uncommonly turgid, particularly those ramifying on the pia mater. On cutting into the substance of the brain, blood flowed; the ventricles were full of water; the choroid plexus greatly distended, resembling hydatids, and parts of it were uncommonly red. Coagulated blood existed on the surface of the cerebellum, where it comes in contact with the cerebrum, and the cavities in the base of the cranium were filled with water tinged with blood.

CASE XI. January 10. A female child, aged 3 years, was, about a week before I visited her, exposed to the effects of cold damp air, in common with two other children of the same family. They were all seized with a catarrhal affection, though the other two were now nearly recovered. Her parents, of their own accord, had given her, a few days before

before, a dose of physic which operated freely. The stools were of a brown colour. When I saw her, for the first time, she seemed restless; her pulse was 160, of ordinary strength; her eyes lively; but she had had no passage in her bowels since she took the cathartic.

I prescribed submuriat. hydrarg. grs. xxx. Sacc. alb. q. s. Divide in vi. æq. One to be taken in jelly every four hours, till they operate freely; and a beef tea injection to be given immediately.

On the 21st of January, by ten o'clock, sixteen hours after the physic was prescribed, she had taken four of the above powders, yet no effect was produced on her bowels, but beef tea injections were followed by a plentiful discharge of black fæces.

Her eyes looked very heavy, yet she was quite sensible; the pupils dilated when the light was obstructed, but on the application of light to them, they did not contract sufficiently. I ordered the powders to be continued, the beef tea injection to be repeated, the warm bath to be used, and a cap blister to be applied. In the evening the powders were all taken, but they had produced no evacuation, and the beef tea injections brought nothing away with them; the warm bath relieved her at first, but now it fatigued her much. I accordingly ordered an emetic to be given, and friction to be used all over her belly. As her mouth had become very sore, I ordered the calomel powders to be omitted, and after the vomit had operated, to give an injection of a decoction of senna; a tea spoonful of the decoction to be swallowed every half hour, till evacuation of the bowels was procured, and the friction to be persevered in.

On the 22d, the emetic had operated well, but still no evacuation of her bowels had occurred, although she had taken since the operation of the vomit about three ounces of a very strong decoction of senna. The pulse was now 180, and her abdomen was so sore to the touch that she could not allow friction to be applied. I therefore prescribed Ol. Ricini ʒss. to be taken immediately. About two hours after its administration, she had a small evacuation, very fœtid, hard, and black, and was relieved for a few minutes, when she became drowsy, and her extremities cold. The warm bath was applied, and orders left that another calomel powder should be given in a few hours, if she had no evacuation.

On the 23d, the powder given at nine o'clock produced two plentiful stools before morning, not so hard, but as

black and foetid as the former. I ordered the powders to be repeated, and a beef tea injection to be given. She seemed much relieved in consequence of it.

On the 24th, one powder was ordered to be given, and the warm bath and injection to be repeated; the pulse being 130.

On the 25th, she had several black stools since the preceding day, which were thin in consistence, but still very foetid. I ordered ʒss . of *Ol. Ricini* to be taken this night at bed-time.

On the 26th, she had free evacuation of her bowels since the previous day; the last stool which she had being natural in colour, I desired that the Castor oil should be continued, or a decoction of senna, to procure one or two stools every day, and the blister on her head to be kept open. The pulse was now 120, and not very strong.

On the 28th, she had stools natural in colour and regular, and had ate a piece of chicken with a keen appetite; her pulse being 110, I ordered the blister to be healed, and occasional doses of physic to be taken.

The child continued well when the family went into the country about a year and a half afterward.

Princes Street.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

HAVING observed in the last Number of your Journal, a request by a "Country Practitioner, that some of your Readers would detail the operation of Scarification with minuteness, and explain on what circumstances the success of it depends," I am induced to subjoin a few observations on that subject, which may perhaps be of advantage to him, if they are thought worthy of a place in your excellent Miscellany.

Before entering upon the subject of consideration, it may be necessary to premise, that scarification is an operation which I have very often performed. The scaricator here used, seems to be the same as that which the Country Practitioner speaks of, and the cupping glasses are also of the same shape as those which he mentions; but we have them of various diameters at the mouth, from

$1\frac{1}{4}$ to

$1\frac{1}{4}$ to $2\frac{1}{2}$ inches, so as to suit the part accurately to which it is intended they are to be applied.

To succeed in the first part (cutting part) of this operation. 1st. It is necessary that the scarificator have a good spring, and be otherwise in good order; and, 2dly, That too much depth be not given to the lancet before the instrument is applied. That the state of the spring may be examined, it will be necessary to try the instrument, and to regulate the depth of the lancets; it (the scarificator) must be half cocked, and then by turning the screw, we may expose any length (or what I mean above, by depth) of the lancets we please. It is a very common idea that the more length you allow the lancets, the greater will be the success. When I first began to use the scarificator, I also entertained this notion, and commonly turned the screw until it would turn no more, thus exposing as much of the lancets as I could; but experience soon taught me that this was not the way to succeed. 1st Because, if so much of the lancets could be exposed (trying previous to the operation) when the instrument was applied, I found that instead of the lancets cutting, "the box in which they were contained was elevated by them as by leavers," unless very great pressure was used, greater than I myself generally could apply. 2d. Because, if sufficient pressure was used to prevent the box from being elevated, "the lancets were arrested in their progress," and I was obliged to pull them round (through) by means of the trigger, owing to want of strength in the spring; or if this was not done, the lancets did not cut sufficiently, and of course a free discharge of blood was not procured. These then were the accidents which occurred to me, till I began to consider that the spring was only calculated to overcome a certain resistance, and that if I would regulate the depth of the lancets, antecedent to the application of the instrument (considering also the part to which it was to be applied, the hardness or softness of the integuments of the parts, &c.) so as that the spring by its own force would be able to bring them completely round, when it was applied to the part to be scarified, I would then certainly avoid these disagreeable occurrences.

Since that time, before applying the scarificator, I have generally turned the screw, the instrument being half-cocked, until about $\frac{2}{3}$ of the length of the lancets could be exposed; and since attending to this circumstance, my success has been much greater than formerly. No doubt, however, the depth given to the lancets (previous to the operation)

operation) must be regulated by the strength of the spring, and the texture of the parts which are intended to be cut; circumstances which will soon be determined, if the operator is in the frequent habit of using this instrument.

From the manner in which the "Country Practitioner" mentions the case in which he only procured one or two ounces of blood, I have little doubt but inattention to, or want of knowledge of these circumstances, was the cause of his (as well as many others) failure.

So much then for the scarificator, and the manner of using it. We must next speak of the cupping glasses. The Country Practitioner asks, "If the form and size of the glass" is of "any particular importance?" To which I reply, that I cannot conceive there can be any material difference, of whatever form or size the glass be, providing that as complete a vacuum is procured as is in general necessary. I have succeeded as well with a wine glass as with a cupping glass, but am ready to acknowledge, that the latter is by much the most convenient. The wine glass may be used when a cupping glass cannot be procured. The best manner (and which is, I believe, the manner used by particular persons in London, who perform this operation with dexterity) of applying the cupping glasses, as far as I know, is the following. 1st. The cup should be put into warm water while the patient is preparing; having near at hand a lighted candle, a piece of paper rolled into a cylindrical form, and a towel, the scarificator should be applied. The cupping glass should then be quickly dried, and the paper being lighted, should be held horizontally over, and pretty near the scarified part; the cupping glass is then to be so placed as to receive the flame from the paper into its centre, and when the air is thought to be pretty much rarefied, the lighted paper should be withdrawn quickly, and the cupping glass instantaneously placed over the orifices. These are the most essential points then to be observed in scarification; but there are others to be considered, which I think have already been ably pointed out by you (the Editors). By attending then to the circumstances above mentioned, in general, we shall be able to take as much blood as we would wish; but yet there are some instances, in which, notwithstanding every precaution, we shall fail. Whenever I feel the skin, I can generally tell whether I am to expect much blood or not. If the integuments are soft and thin I look forwards for a good discharge; but if indurated or puffy, for the contrary. In some cases, when the skin
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has been thick or puffy, after applying the scarificator, and finding little blood discharged, I have taken a common lancet and made the openings a little deeper, which has been followed by the wished for effect. I hope the Country Practitioner will now be satisfied with this answer, made to his request; but if not, I shall be glad to give him any other information in my power. I trust, at least, he will attend to the subject, and inform us whether he has been more successful.

As you expressed a wish also that this subject should be noticed, I have little doubt but that these observations will meet with that attention which you think them deserving of.

I am, &c.

ROBERT LYALL.

Infirmary, Manchester,
Sept. 6, 1809.

P. S. Another of your Correspondents has made a proposal concerning the fitting of the beak of the gorget into the groove of the staff, its edges being approximated, &c; at the same time he justly conjectures, that the same contrivance may have been before proposed. Without making any remarks on this subject, I have merely to inform him, that the present celebrated Professor Monro, sen. has for many years past, shown in the anatomical theatre an instrument of the same kind, which I had an opportunity of seeing about a year and a half ago.

REMARKS *on the* IDENTITY of SYPHILITIC and GONORR-
HŒAL VIRUS.

THAT controversy, when properly conducted, is the best means of discovering truth, is I believe generally allowed; it is also, I think, frequently found, that when two opposite opinions are violently contested, truth lies between the extremes. This has, in my opinion, never been more fully exemplified than in the subject of these remarks. This midway of truth, so desirable in every thing, but particularly in medical science, was never more happily hit upon, than in the concluding paragraph of the observations on Mr. Edwards's Case in the Medical and Physical Journal for October, which I shall take the liberty of repeating; and shall also endeavour to draw

from it a few axioms, which may *possibly* be nearer the truth, than those of the eminent men who have exercised their pens only on opposite sides of the question. The sentence to which I allude, is the following:

“ That there are gonorrhœas from many causes besides venereal poison, some contagious, others not, but that only the venereal gonorrhœa will induce chancre.”

From this (and every experiment I have heard of corroborates it) I would deduce the following propositions.

1. That the virus of most gonorrhœas cannot produce syphilis, and *cæteris paribus*.

2. That the virus of some claps can produce chancre, and ultimately pox.

3. Many of the gonorrhœas, from other causes, are equally contagious with the true venereal gonorrhœa.

4. That syphilitic matter, when applied to the inside of the urethra, produces gonorrhœa.

If these axioms be found true, as they are yet with me mere theory, they will certainly render ours something less of an “*ars conjecturalis*,” than it otherwise would be, and must conduce to an improved treatment of the disorder. All the treatises I have yet read* upon the subject, have been strenuous in the support of one or other of the two opinions; perhaps the practice of them all may be in a great measure right; as the above propositions, if true, do not in any great degree militate against the present treatment. Should any of your numerous correspondents think these cursory remarks worthy of either support or animadversion, their observations will be gladly seen by

JUVENIS.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

MRS. J. L. ætat. 26, in October 1805, was seized with violent inflammation and obstruction in the bowels, which was removed by the usual means employed in similar cases; she was naturally of a very costive habit, and after this severe

* Had Juvenis favoured us with his name, we could have referred him to a work in which he would find the subject taken up as he wishes.

severe attack, her bowels became still more irregular, being frequently several days without having any evacuation, or voiding only sybala; then generally came on a diarrhœa, which often alternated with the obstipation. She continued several months in this irregular way; sometimes being much troubled with piles, and almost constantly complaining of some uneasiness, with a bearing down about the seat. She now began to void a kind of slimy matter per anum; this discharge continued several months, but at length gradually became more purulent in its appearance; different kinds of aperient medicines were ordered to regulate the bowels, and also occasional anodynes, with bitters and tonics; these afforded temporary relief. In the month of January 1807, she became pregnant; this unfortunately added to her sufferings, as it tended to increase the costiveness, and also deterred her from taking her usual aperients: every attention was paid to her diet, but this had very little effect. As she advanced in pregnancy, her pains kept increasing, and her situation still more distressing, for the obstruction which was suspected to arise from stricture, resisted, in a great measure, all medicines; glysters were daily administered, which afforded some relief, by procuring small evacuations; the glysters had frequently to be repeated, as they often returned without bringing away any fœces. When she was so extremely costive, it became necessary to give repeated doses of aperient medicines, which were taken sometimes two or three days together, and then their operation was often rather violent. It was proposed to try what bougies would do in this case, towards removing, or at least preventing the stricture getting worse: the situation of which, had been previously ascertained to be about the length of the finger from the verge of the anus. Mrs. L——'s pains were so great at this time, that premature labour was daily expected to take place. A situation so precarious, prevented the regular use of bougies. Soft bougies were two or three times introduced, which, having passed above the length of the finger, occasioned some little pain; the stricture at this time appeared not to be very firm, as very little impression was made upon the bougie; at length her situation and aversion to them, obliged us to give them up till after delivery, and for the present to confine ourselves to a palliative mode of treatment.

In the month of August she was delivered, when about seven months advanced in pregnancy; the child died the same evening. The delivery was speedy, and without any extraordinary

extraordinary pain; she appeared to be quite as well as could be expected. Some days after, a violent aphthous fever came on, attended with a severe diarrhœa, and violent pains in the bowels; the aphthous affection of the mouth and throat continued very bad, and seemed to extend to the stomach and bowels, from the heat and pain which were felt in swallowing any thing a little warm, or the least irritating. Demulcents combined with astringents and opiates were given freely, which afforded considerable relief, though the complaint continued very obstinate for a length of time, and brought our patient very low and weak. The bougies, which we intended trying again, she was extremely averse to, and from the bowels continuing so very soluble, at the same time she was suffering so much pain, that their use was not thought absolutely necessary; indeed, some hopes were now entertained, that the stricture was better, as no purulent matter had appeared whilst the bowels remained so very soluble; but all our hopes were entirely delusive, when the diarrhœa was moderated, the purulent matter was again voided, even in greater quantity, which showed there must be some extensive ulceration. There might be some matter voided during the diarrhœa, but being so intimately mixed with the loose fæces, could not readily be perceived. Her sufferings now become great beyond description, and could only be temporarily alleviated by large and repeated doses of opium; her appetite decreased, with a general wasting, and all curative intentions were now given up, as there appeared no hopes whatever of recovery. Her situation became now the most distressing; the ulceration appeared to have extended so far, as to form an opening of communication between the intestine and bladder, or the vagina, through which wind passed, and also feculent matter, which was voided along with the urine; to add still more to her sufferings, a violent inflammation took place in the right groin; this was supposed to arise from some matter burrowing in the cellular membrane; anodyne poultices were applied to mitigate the pain; but happily, in a short time, the most powerful and effectual anodyne was administered, by death putting an end to a most painful and miserable existence.

Leave being obtained to open the body, the diseased parts were attentively examined by Dr. Hull and myself, and the following were the appearances: The right groin, which had become inflamed, was very black, and hastening fast to putrefaction; the labia pudendi were much inflamed, and there

there was some ulceration about the anus externally. On opening the cavity of the abdomen, in cutting through the skin and muscles down to the right ileum, a large quantity of feculent matter was found in the cellular membrane; which, by an ulcerative process, must ere long, have made its escape by an opening in the groin. An adhesion had taken place here, between the cæcum and peritoneum; ulceration afterwards followed, which destroyed the coats of the intestine, and through this opening the feculent matter was making its way externally; considerable adhesions were likewise discovered between the bladder and ileum, where this portion of the intestine terminates in the cæcum, and also between the ileum and sigmoid flexure of the colon. For a more accurate examination, the intestines, uterus, and bladder were taken out; the intestines were so much diseased, that in drawing them out to separate them completely, they were lacerated; a large quantity of fæces was accumulated in the large intestines. When we had removed the whole contents, and cleared away the fæces, an examination was begun from the rectum, which was cut off close to the anus, with as much of the vagina as possible, and also the bladder; in the rectum, exactly the length of the forefinger from the anus, commenced a stricture, which was about four fingers in breadth, and about the middle was the narrowest part; here it would scarcely admit the little finger; just above the stricture, the intestine formed a sort of pouch, where the fæces had lodged, not being able to pass the strictured part till their diameter was lessened. On the back part of this pouch, an opening was formed, which would nearly admit two fingers; this led to a large cavity or sinus behind the rectum, between it and the os sacrum and coccygis, in which was contained a great quantity of feculent matter; and if the patient had lived a little longer, this would have made its way by a fistulous opening near the anus. There was a considerable dilatation of the rectum as far as the sigmoid flexure of the colon, where there was an adhesion of this part of the intestine and the ileum; through the parts where they were adhering, ulceration had taken place, so as to form a communication between the large and small intestines; by which opening, chyme, if it may be so called, at this part of the ileum, had sometimes passed from the ileum into the sigmoid flexure of the colon, and voided in this state per anum; this was partly proved by the circumstance

stance of the patient having voided by stools small lumps of suet, at the time she was taking it mixed with milk. A regurgitation of fæces would likewise frequently take place, from the rectum into the ileum, through the same opening, when there was any quantity accumulated in the pouch above the stricture. Part of the fæces then must often pass the same round through the large intestines, twice, or perhaps oftener, before it could be voided per anum. A little further from this opening were two small apertures leading into the bladder, to which part the termination of the ileum and beginning of the cæcum were adhering at its fundus; through these small apertures must have passed the feculent matter, which had been regurgitated from the large into the small intestines, and from thence into the bladder. It was now easily accounted why the urine was in general intimately tinged with feculent matter when voided, but afterwards separated by standing. Some very small bits of fæces were sometimes seen in the urine. It is wonderful to remark, in this case, the care which Nature took in guarding the internal cavities; for though such extensive ulceration had taken place, no fæces or matter had escaped into the abdominal cavity; had this taken place, violent peritoneal inflammation would have come on, which must in a short time have terminated in the death of the patient; but, instead of this, after the stricture had become permanent, nature was attempting to relieve herself three different ways; and there is every reason to believe, all the apertures would have been external; viz. the small apertures into the bladder, which had already taken place; the next in the groin, which would have been in a few days; and the third, near the anus, which, ere long, would have taken place, had the patient lived.

Yours, &c.

ABRAHAM BELLOT.

Oldham, Lancashire,
Oct. 2, 1802.

CASES OF TETANUS; in Continuation;
by JOHN HOWSHIP, Surgeon.

A rare Case of complete Tetanus, from which the Patient recovered.

THE following case of Tetanus seems to possess an importance upon several accounts. 1st. It was the consequence of a wound, and therefore might be considered to have

have arisen under the most unfavourable circumstances; notwithstanding which, the patient, after very severe sufferings, eventually recovered. 2dly, The progress of the disorder was in this case attended with certain phenomena, varying considerably from the most usual forms of the complaint. 3dly, The bowels were more disturbed, and required more attention, in this case, than happens in most examples of this disease.

In the cases formerly related, no particular remarks upon the state of the bowels were noted, because it happened that little or no disorder, in this respect, was in any of them observed. The tendency was generally to a costive habit of body, which was very readily corrected from time to time, either by the ol. Ricin. or when that was not convenient, by a laxative enema; and this tendency was readily explained, either by the previous establishment of the mercurial diathesis, or by the interruption of the regular supplies to the stomach, incident to this complaint.

J. Milwood, a young man of very robust habit of body, private in the 13th Regiment of Foot, was in garrison with the Regiment at Gibraltar. On the 6th of January, 1805, while working at his trade, which was that of a carpenter, he received a wound from his hand-saw upon the side of the great toe; some portion both of nail and integuments were torn away by the accident, so as almost to expose the bone.

For a few days nothing very material occurred; the toe was simply dressed; a small slough separated, and left a clean granulating surface. For the first week there was an offensive smell about the wound, so remarkable, as to suggest the probability of an exfoliation being thrown off from the bone; nothing of this kind, however, took place then, or at any subsequent period.

Upon the 10th day, he first complained that he felt a stiffness and odd sort of uneasiness about his jaws, with difficulty in opening his mouth. This had increased till he was unable to separate his jaws, even in the least degree. Added to this, he had frequent pains at the pit of the stomach, which he called cramps in his heart. Upon bending his limbs, so as to bring the extremities of the muscles nearer together than ordinary, he found that he was instantly seized with cramps in the parts contracted. At this time, ætherial and opiate draughts were given frequently.

The same treatment, with little variation, was continued to the 14th day after the accident, at which time, as his complaints

complaints were evidently gaining ground, he was visited by Dr. Fellowes, physician to the forces. In addition to his former medicines, it was now directed that the ol. camphorat. c. tinct. opii. should be used as an embrocation, frequently and well rubbed in upon the angles of the jaws, and about the sides of the face and throat. He was also to be immediately got into the warm bath.

The bath was prepared, and the man had been immersed some minutes, when upon an unlucky attempt to turn himself, a very violent spasm came on, seizing upon the muscles of respiration, as well as those about the jaws and throat, attended with a peculiar sound not easily described. In a few minutes he became easier again, and had no returns of the spasm during the fifteen minutes she remained in the bath. When well dried and laid in blankets, the toe was dressed with the mildest applications.

When undressed for the bath, his shirt, and the flannel waistcoat within it, might literally have been wrung out, so violent and profuse was the perspiration in which he then was, and had continually been, for several days and nights past.

The pulse had been small and irregularly intermittent; the intermission sometimes following the third, at others the sixth, the ninth, and even the thirteenth pulsation. After being composed in bed and made warm, he found himself much better, "fresher," and easier than before, while he lay still. The pulse also was much improved, if its being softer and fuller was a favourable change, for the intermission still continued.

Any attempt to open his mouth brought on the spasm. The same effect constantly arose, upon his drawing in his breath suddenly, or with an effort. The camphorated frictions were continued with little interruption during the whole of this afternoon and evening. In the evening he believed, and said he certainly was better, and that when the pains were away, he found his jaws not so closely held together as they had been in the morning.

An enema, containing a proportion of the gum. *foetid.* was thrown up about eight o'clock.

15th day. The injection had procured one motion only. The patient was not in pain in any part of his body while he continued to lay at rest. The jaws as closely fixed as ever. In the forenoon the camphorated frictions were repeated, which he said gave him both ease and comfort. He complained of the nape of his neck being remarkably sore and tender when rubbed, the probable consequence of the
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the violence of the spasmodic action which had more than once taken place in this direction.

He was ordered to take a glass of good Madeira frequently; and this, perhaps, assisted in keeping up the continual and profuse sweating, that still continued to wet through his linen and bedding, notwithstanding they were frequently changed.

A laxative enema was thrown up this evening, and a draught ordered for bed-time, with *mist. camphorat. et tinct. opii*. During several hours of this evening he was certainly much better, and remained completely free from any degree of cramp, or pain.

About eleven in the night he was suddenly seized with a violent and universal spasm throughout his whole frame. Every part whatever became fixed, rigid, and immoveable. This attack was of so decided a nature, that the smallest and the largest of the muscles subservient to volition were equally and absolutely governed by its force.

The body and limbs were stiff and motionless. The eyes fixed and vacant. Fortunately, however, the fit did not continue longer than a minute, during which period the respiration was discovered to be continued, though perceptible only by the condensation of the halities, when received upon the surface of a mirror.

It is of interest to remark, that while in this singular state of restraint, the man was sensible; and said afterwards that he could see and hear perfectly. According to his own expression, he felt as if every part of him was fast screwed up in a vice. That he could not for his life have moved either finger or toe, and believed that he was dying.

Within half an hour after this attack, he was unexpectedly disturbed by a commencing diarrhoea, which occasioned him to use the bed pan no less than fourteen times during the night. The stools were little else than a thin offensive fluid matter.

As to the toe, from which it is reasonable to believe all the mischief arose, it was dressed for some time with lint dipt in the *sp. vin. rect.* Then with *tinct. opii*, and afterward with the fermenting poultice; but no application to it produced either pain in the part itself, nor the least alleviation to the general sufferings of the patient.

On this day, a preference was given to a warm emollient poultice, laid over a slip of lint, spread with the *ung. e sabinæ*. This application was proposed with a view to excite greater activity in the wounded part.

16th day, He was much better, not having been disturbed

turbed by any accession of spasm during the night. About four in the morning, he was seized with a fit, which he described to have been, as if a man had taken him by the nape of his neck, and held him down in bed. The sinews of his neck were gathered up, as if caught in a fist. This lasted about a minute and a half. After his release he soon fell into a refreshing sleep. About five he had a thin but natural stool. In the fore part of the day, he was again well rubbed with the embrocation, and took the camphorated opiate draught. He said he was pretty well, but that he was cramped as soon as he either attempted to move, or to speak. The pulse was at this time 80; intermitting as formerly, at varying numbers of pulsation.

About half past seven, he was attacked again in the same manner as during the earlier part of the morning, complaining that besides the pains in his neck and jaws, his breast was greatly oppressed, as well as the fore part of his belly.

At nine this morning a draught, with forty drops of the tincture of opium were given, and the sore dressed with dry lint, covered by a warm poultice; an enema containing the foetid gum was injected; the embrocation also was continued; thirty drops of the tincture of opium to be given every three hours. The jaws were nearly closed, but not so perfectly at this time, as to prevent the introduction of spoon meat, from which circumstance he was able to take sufficient nourishment to preserve and even improve his strength.

The day passed in tolerable ease; at eleven in the evening, however, he was unexpectedly seized with the spasms, which drew up and doubled all his limbs. The fit was not of longer continuance than half a minute, during which time he moaned, and muttered out repeatedly his desire to Heaven, that he might be taken away, and released from his sufferings. Upon being questioned as to his feelings, he said, that he could open his eyes, but that his limbs and body were fixed, as if held fast by the flesh.

He was again seized about one in the morning with the same description of attack, only in an aggravated degree of severity.

17th day passed without any return of the spasm, or particular pain.

18th day. At half past seven in the morning a fit came on, which kept the poor creature in torments, severe beyond description, for about two minutes. This was attended with moaning and great pain; the limbs being rigid

gid and stiff; the pain was not referred to any particular part; but he said he was all drawn up together, as in a vice.

About ten in the morning he again fell into the same deplorable state, and at this time the pulse was very inconstant, the intermission being sometimes longer than the full time of a pulsation. The sweating, which has been astonishingly great from the first, continues to be as violent and profuse as ever. Forty drops of the tincture of opium, and half a drachm of the *spt. æther, nit. comp.* were with difficulty swallowed.

At eleven in the forenoon *sapon. Castil. 3ß.* in solution with warm water, was injected; this however did not operate. At four in the afternoon he had a fit, which affected the whole of his frame; but it came on so instantaneously, that he was not able to give any notice of his situation to others, though in the latter moments of its duration, he uttered the most piteous moans, and soon after held up his hands. This fit continued upon him longer than any of his former attacks, it lasted nearly a quarter of an hour.

He passed the following night very badly; was very restless; frequently moaning, and said that he found himself very weak, and completely exhausted.

19th day. At two this morning he had another fit, exactly similar to those he had before endured; it lasted for three or four minutes only; at six he was again attacked, and began to moan; he said, as if he was in a press, where all his flesh was squeezed and drawn together. He was able to utter some words during the attack, although for the most part, the acuteness of his sufferings prevented him from making himself understood. This fit gradually subsided, leaving him in about three minutes after its onset.

He said that now the complaint seized him with more particular severity in the inside of the left thigh, and the inner part of the right arm, and that it gathered up in these parts first. He thought that if these parts were well rubbed with the embrocation he might be quite cured. He stated, that although the pain began in these parts, yet, before the fit left him, it was nearly equally severe in every other part of his body.

At nine this morning the pulse was small, beating 100. It was so nearly regular, that as to time the pulsations were perfectly equal, though now and then there was a perceptible faltering, so that perhaps it might be said to be a remitting, but no longer an intermitting pulse.

While the last note was taking, a medical friend called
(No. 129.) F f in

in to see the patient, and upon examining the pulse, found an intermission every fifth stroke; knowing that just before it had been perfectly regular, the wrist was again examined, and it was ascertained, that now, every three pulsations were regular, but the fourth remained unstruck. In five minutes after it was again examined, when the intermission had again shifted, being now felt at every sixth stroke.

It presently changed again to the fifth, and afterwards to the seventh pulsation, at which periods the intermission was alternately found for some time to rest.

The sufferings of this patient were not much relieved by the plan of treatment he was upon, although he seemed, and believed himself to be somewhat better; when, upon the 22d day, it was determined to give a trial to the power of mercury in the removal of his complaints. This system was commenced by rubbing in 3ß. of the unguent. hydrarg. directly upon the spine. This was repeated in the evening; and the frictions were persevered in for several days, during which, the man continued to remain in the state above described.

27th day. The mercurial frictions were continued, and he now certainly suffers less from the violence of the fits; besides which, they are at length less frequent than they were. The most violent fit that he lately had had, was this morning, it lasted four minutes: he had felt several others during the night, but they were short, and productive, comparatively, of little distress.

He had had no stool for three days, in which time four laxative enemas had been injected. This morning about ten o'clock he took a draught, containing the ol. ricin. c. tinct. senna, which operated well. The mouth was by this time becoming moderately affected by the frictions. From this period the patient slowly, but regularly, continued to mend.

Upon the 55th day after the accident, he was very nearly quite recovered; able to get up and walk about. On enquiring of him as to his own opinion of the comparative benefit derived from the remedies employed, it appears that he always experienced great relief from the embrocation; he said, it always gave the parts about the neck and jaws a suppleness they had not before. As to the frictions of mercury upon his back, according to his explanation, they did him good, by bringing away the phlegm from his throat; and he came to this at last, that the moment the spitting commenced, the complaint began

to lessen, and from this time he constantly found that he gathered strength and spirits, till he eventually completely recovered, and was discharged from the hospital.

Hill Street, Hanover Square,

October 14, 1804.

(To be continued.)

PORTFOLIO OF A PHYSICIAN.

DIETETICS. On Bread, Yeast, &c.

Soluble and digestive Quality of Pulp or Meal, of farinaceous Seeds.

ACCORDING to Spallanzani, Goss, Fordyce, and others, we find, among the substances with which the gastric juice becomes soluble, or readily enters into digestion, and which are reducible to a pulp in an hour, or an hour and an half, are of the vegetable tribe, pulp, or the meal of farinaceous seeds; different sorts of wheaten bread without butter, but the crust more than the crumb, and especially the second day after baking. The salted bread of Geneva more so, than that of Paris without salt. Brown bread, in proportion as it contains more bran, is less soluble. But in all cases of digestion, from the nature of the gastric juice, when the stomach is in health, so as to secrete it in a state of purity, the food is very readily digested, unless when in too large a quantity, or of a species which the stomach has not been accustomed to; in this case, the vegetable part will go into a state of acetous fermentation; heart-burn (cardialgia), vomiting, &c. are produced. The writer has known this especially the case with such as have eat heartily of oat cake, (such as is made in the West Riding of Yorkshire, called Hayre-cake) for the first time. It is well known that certain fish will produce the same effect upon particular stomachs; but when animal matter is the cause, it must be noted, that the putrid fermentation is always the consequence.

We know a gentleman who has always these symptoms, if he eat a few raspberries, or if the smallest proportion of this fruit or juice be mixed with others for pastry, though the quantity should be so minute as not to be discernible by the taste. Putridity being after this manner occasion-

ed by animal matter, either by its action on the stomach, or its introduction into the system along with the chyle, has often produced malignant fever. "*Multa huc pertinentia in scriptis medicorum reperiuntur, quæ sub silentio præteribo.*"

The Rev. Mr. James Cooke, so respectably known for his various improvements in husbandry and agricultural implements, recommends yeast to be preserved by coating a board with a whiting brush; allowing the coat to dry; then putting on another, which is in like manner to dry, and so a third, and any number of successive coatings. He assures us, that when perfectly dry, it will keep vigorous for a long time.

"The frugal housewife, says *Edlin*, who would enjoy the luxury of eating good unadulterated bread, "ought to be possessed of such directions, as that, with little labour or trouble, she may soon learn to grind her own wheat, separate the flour from bran, make it up and bake it into bread. To captains of ships, to military men, and to such as travel into unfrequented regions, where if any bread is to be procured, it is in general execrable. The baker, whose habits and education do not lead him to investigate speculative doctrines and opinions, may find several observations that will prove serviceable in the prosecution of his business," by an attention to such facts and hints as have been recorded.

"Impressed with this sanguine hope, we anticipate the period when we shall see the art of bread making, instead of forming a confused and unintelligible article in our Encyclopædias and Dictionaries, attain a proper rank among the liberal sciences. But to these ends, and also a knowledge of the nature and ready procurement as well as best application of yeast is requisite.

Some whisk yeast well until it becomes thin, then lay it upon a dry platter or dish repeatedly, with a soft brush, as hinted by Mr. Cooke; the top is turned downwards to keep out the dust, but not the air, which is to dry it. By this method it may be continued till it be two or three inches thick, when it may be preserved in dry tin cannisters for a long time good. When used for baking, a piece is to be cut off, and laid in warm water to diffuse or dissolve, when it is fit for use.

The principle upon which yeast operates in the panary fermentation, is to be referred in a great measure to the quantity of carbonic acid or fixed air, which it generates and contains. So that in baking very light cakes, which
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are held as very delicate by some, snow water has been used, or rather snow itself; there is no doubt but that the pores or flocculi of snow contain a considerable quantity of fixed air.

Take two ounces of flour, boil it over the fire in a quart of water, till it comes to the consistence of a thin jelly, and pour it into the middle part of Dr. Nooth's machine for impregnating water with fixed air; then put into the lower vessel some coarse powdered marble, and pour on it sulphuric acid diluted with water. The apparatus is now to be adjusted, and the upper vessel put into its place, and nearly stopped. The carbonic acid, now extricated, passes thro' the valve, and ascends into the middle and upper part of the machine, where the gas is absorbed by the flour jelly, in considerable quantity, and in the course of a few hours the matter will be found so strongly impregnated, as to be in a state of fermentation. This artificial yeast may now be removed from the machine, and put into a bottle for use. This may be made in situations where it is impossible to procure yeast from a Brewhouse. Mixed with dough, the ingenious Mr. Henry (of Manchester) asserts, it answers every purpose of brewer's yeast.

Thicken two quarts of water with four ounces of fine flour, boil it for half an hour, then sweeten it with three ounces of brown sugar; when almost cold, pour it, along with four spoonfuls of baker's yeast, into an earthen jug, deep enough for the fermentation to go on without running over; place it for a day near the fire, then pour off the thin liquor from the top, shake the remainder, and close it up for use, first straining it through a sieve. To preserve it sweet, set it in a cool cellar, or hang it some depth in a well. Keep always some of this to make the next quantity that is wanted.

From what has been said in Mr. Henry's process for a substitute for yeast, it must be obvious, that any of the mineral waters impregnated highly with carbonic acid might be a valuable auxiliary. Whether fermented liquors have been ever used with this view, as cyder or bottled small beer, we know not. Mr. Edlin recommends half a pound of fine flour, half a pound of brown sugar, and a quarter of a peck of bruised malt, to be boiled over the fire a quarter of an hour, in half a gallon of water; then strain the liquor through a sieve into an upright jug, and when cooled to 80°, a pint of artificial or fictitious Seltzer water may be added. (Soda water highly impregnated with carbonic acid will answer every purpose.) It

will soon begin to ferment; it should then be set before the fire, and when the ebullition ceases, the yeast will sink to the bottom, and the clear liquor is to be poured off, when it will be fit for use. In this way yeast may be made from water, impregnated with fixed air from the waters of Gafesse, near Paris; from the Pymont, Spa, and Seltzer mineral aerated springs. The waters of Saratoga, in the province of New York, in America, and from various other natural mineral acidulæ or aerated mineral springs.

The honourable Captain Cochrane mentions the following, as the method of making yeast, practiced by the bakers of Edinburgh.

Take two ounces of hops, boil them for an hour in two gallons of water, and while boiling hot, seald 10lbs. of flour, and stir it very well into a paste; do this about eleven o'clock in the forenoon, let it stand till six o'clock in the evening, then add about a quart of yeast to forward the fermentation, and mix them well together. Next morning, add as much more flour and water as will be sufficient to make it into a dough, and in the afternoon it will be fit for setting sponge and baking. Reserve always a piece of old dough to mix with the new batch instead of the yeast, which is necessary only the first time, to hasten the process. The above quantity will suffice for 120 quartern loaves. This process in Scotland requires about thirty hours, but in a warm climate a few hours would suffice, as fermentation there advances with great rapidity; a due attention must be paid to that circumstance, as every thing depends upon it.

In this method of making yeast will be wanted boiler, cooler, vats, and indeed all the apparatus necessary for a brewery. Then take four bushels of the best malt, ground as for beer, mash it in the same manner as the brewers do, with 62 gallons of water, at the temperature of 180°; let it be close covered up for two hours, then draw the liquor clear off, and pour on the same quantity of water upon the grains a second time, at nearly the boiling point; let this stand for an hour; then draw it off, and mix it in your coolers with the first wort, and when it is about blood warm, add four quarts of yeast to produce the fermentation, and after it has began to ferment the first time, (the froth running out into a receiver for the purpose) throw it back again, and when it has fermented again, throw it back a second time, and it will then, after the third fermentation, be fit for use, as will be perceived by its being of the

the thickness that good yeast ought to be. Four bushels of malt made in this way, produce about twenty-four quarts of yeast. It is an expensive and troublesome way of procuring it; but Mr. Gillespie finds that a quart of it will go as far as a gallon of distiller's yeast. He at first, in order to lessen the expense, endeavoured to make the refuse liquor into beer, but found it was so much impoverished as not to answer this purpose; it is not however entirely wasted, as he disposed of it to the vinegar makers, who gave him a trifle for it, which may perhaps pay the expense of fuel and labour,

Boil potatoes of the meally sort until they are thoroughly soft, skin and mash them very smooth, and put as much hot water on them as will make a mash of the consistence of common small beer yeast, but not thicker. Add to every pound of potatoes two ounces of treacle, and when just warm, stir in for every pound of potatoes two large spoonfuls of yeast. Keep it warm till it has done fermenting, and in twenty-four hours it will be fit for use. A pound of potatoes will make near a quart of yeast, and when made it will keep three months. This yeast has been found to answer so well as not to leave it possible for any one to distinguish the bread made with it from that made with brewer's yeast.

It is not known, says Tissot, in his Essay on bread corn and bread, to what country we are originally indebted for wheat; but when we reflect, that it furnishes man in most civilized countries with a very considerable portion of his food, it is a happy circumstance that it can accommodate itself to so great a variety of climates. Hence, it is found in all Europe, in Egypt, and throughout Barbary, that is to say, in all the most populous parts of Africa; in Mexico, in the most flourishing provinces of Peru, and in those of North America. Wheat is also the food of man in many parts of Persia and Hindostan; and even in China, a rice country, wheat is in daily use in most of its provinces.

Historical Account of the Diseases, at different Times, included under the Name of Leprosy. From Dr. ADAMS'S "Inquiry into the Laws of Epidemics."

IT would be a very curious inquiry for any medical man of leisure to trace the great variety of diseases which have

at different times been included under the name of leprosy. Among the Jews it is evident that the term was very general in its application, though at different times it might be appropriated to certain well ascertained appearances. The leprosy described in the Levitical law, was not only a curable disease, but probably curable by the unassisted powers of the constitution. The patient was required to retire from society till he was pronounced by the priest to be clean; after which, and the necessary ablutions, he was re-admitted into the congregation. In another place* I have confirmed the conjectures of an ingenious writer, that this disease was probably the same as the yaws in the West Indies and in Africa. Whether in the present days it ever extends as far North as Egypt, I pretend not to say, but it is highly probable that it can never make any considerable ravages where slavery is unknown; that is, where men are tolerably covered, and their skin not much exposed, or much broken. It rarely appears among the Whites in the West Indies, excepting by accidental inoculation, and it is not with certainty ascertained, whether it is ever conveyed, excepting by actual contact, or the communication by the medium of insects.

There is every reason to believe that the leprosy described in Leviticus, was exterminated from the Israelites before their settlement in Palestine. The only leprosy we hear of in the subsequent parts of Holy Writ was evidently incurable, and considered as such. When King Uzziah was discovered to be a leper, he was confined for the rest of his life in a lone house, and a successor appointed. Naaman, the Assyrian Captain, was recommended by the King his master to the King of Israel, that he might be cured by the miraculous agency of Elisha. The curing of a leper appeared something more than could be expected, even from a prophet so highly favoured; and the King expressed his uneasiness lest the only intention of the Assyrian might be a pretext for war. It is enough to say, that Naaman was cured by miraculous agency, to show that no other means were known.

It is, however, worthy of remark, that the Assyrians were under no apprehension of contagion from the disease; as Naaman constantly attended the King, even in his devotions. But Elisha seemed to entertain a different opinion, and refused the least communication with a leper. He

* " Morbid Poisons,"

He sent his directions without seeing the patient, and when the latter returned cured, but without having undergone the necessary ablutions, he was dismissed with a short reply to his expressions of gratitude, and even to his inquiries concerning a scruple of conscience,—“Go in peace.”

The lepers, in the New Testament, were evidently considered incurable; and it appears that they were not permitted to be seen in the towns, but associated together without the walls. Four of these applied to our Lord afar off, with a loud voice; they were cured by miraculous agency, and ordered to present themselves to the priest.

It appears by these circumstances, that after the extermination of one kind of leprosy, the same customs were preserved in a certain degree with regard to another which still remained. The only difference was, that as the patients were never found to recover from this last, which was probably the true elephantiasis, their seclusion was for life.

Elephantiasis is known in all warm climates, and in many considered as contagious. Yet the lepers, or lazars, as they are in some places called, are often suffered to wander without any restraint. Such is the case in the island of Madeira, where these unhappy sufferers are among the common beggars, and often the most hideous are selected to excite charity from new comers. They have indeed a hospital, and a small allowance from the government.

It has been said, that after the expedition of the Crusaders, lepers were so common throughout Christendom, that no less than 15,000 Lazarettos were erected for their reception. By this great caution it is supposed that the disease was exterminated.

To suppose that elephantiasis ever was general in Europe, would be to suppose a change in the human constitution subversive of all physical laws. We know from Celsus, and also from Galen, that the disease, if not unknown altogether in the latitude of Rome, was at least so rare, that those authors were unwilling to describe it. Aretæus, who is supposed to have flourished in Cappadocia, is the first writer that entered into any detail in describing elephantiasis; he considered it, however, contagious, which probably prevented so close an intercourse as was necessary to render his description accurate.

When the syphilitic poison first appeared, much inquiry was made in the Italian schools to determine whether that disease

disease could be discovered in the writings of the ancients. This produced a more minute examination of all their descriptions of leprosy, and it was now discovered that the leprosy of the Greeks was different from the leprosy of the Arabians. The latter they perceived was the elephantiasis of the Greeks, an incurable disease, and almost, if not entirely, unknown among themselves.

Elephantiasis has never been described by any author as a disease that he had seen in England. Through the politeness of Dr. Baillie, I have been consulted for two cases which he met with in his practice, both from the East Indies. One of these remains at this time in a society to which she is no way injurious, and which contributes to soften the misery of her unhappy fate.

The author of the letter to Mr. Perceval, informs us, that he had been eye witness of the ravages of this disease in Ceylon—yet he remains uninfected. May I add, that in the receptacle for lazars, in the neighbourhood of Funchall, I passed the best part of several days, examining without any injury to myself, the disease in all its stages.

All this, I trust, is enough to show that the disease for which 15,000 Lazarettos are supposed to have been erected in Europe, was not elephantiasis: *Lepra græcorum* would be too trifling to attract general notice.

At one time I conceived these receptacles must have been for small-pox, and that they had gradually fallen into disuse, as it was found that the disease affected the same person only once during life. But as some of the lepers were obliged to enter with all their goods, moveable and immoveable, it seems to follow that they were to remain for life.

In order to comprehend the nature of these establishments, we must be better acquainted with the history of the order of St. Lazarus, from its first erection. There is some dispute among the writers on this subject, whether this order was the same as that of St. John of Jerusalem. I pretend not to form any decision on a question, which nothing would have induced me to examine but the present "Inquiry." It however appears by the author of "*Histoire des ordres religieux*," who maintains a contrary opinion, that the origin of each was similar, that is, a factory of Italian merchants had erected, at a very early period; a chapel, and afterwards a hospital in Jerusalem. The last, principally for the relief of pilgrims and poor sick, who came to visit the holy sepulchre. When the crusading expedition

expedition commenced, this hospital was soon found necessary for the wounded soldiers. By degrees an order of knighthood arose, which was divided into soldiers, ecclesiastics, and sick. The lepers were to be attended by lepers, and, what is very remarkable, the master of the order was to be a leper. This might lead us to suppose, that small-pox was included among the descriptions of leprosy, and that it was found necessary, that those who attended the sick, as well as the master of the order, who was to govern the whole, should not be liable to the disease. These conjectures may appear bold; but let those who think so reflect, that we have no records whatever, to afford us any information concerning the first introduction of small-pox. This reflection, if it does not authorise, at least may be said to invite conjecture.

The Knights rendered great services to the Christian cause, not only in Palestine but in Europe, after their expulsion from the East. In the year 1253 they petitioned the pope to permit them to chuse a sound master, as all the leprous Knights had been destroyed in Syria. The pope not only permitted this, but gave them many other privileges. Clement IV. ordered, under pain of excommunication, that whenever the Knights of St. Lazarus should require it, every prelate should lend his hand to force a leper, with his goods, moveable and immoveable, to be under the care of the order. This may be one way of accounting for their immense riches. Besides this, they received great immunities from the different princes.

In 1490 the pope incorporated this order with the Knights of St. John of Jerusalem: but they remained distinct in France, in which country it appears that the order existed till the revolution, under a vow of taking the charge of wounded and sick soldiers.

What the nature of our establishments in England was it is difficult to say, but almost all the bequests which are preserved in favour of the Burton Lazars, mention *fratribus sanis et leprosis*, and some of them *militibus*. It seems probable, that none were admitted into the community but those who took the vows. Stow has a chapter of *leprose persons and lazar houses*. In this he first refers to the Levitical law, next to a decree in the ecclesiastical court, passed in the year 1200, the second of King John, by which, according to the Lateran council, when so many leprous persons were assembled as might be able to build a church, with a church yard, to themselves, they might erect such a church, provided it should not be injurious to the

the old churches, and also that they should be excused paying tythes of their gardens, or increase of cattle.

"I have moreover heard, continues he, that there is a writte in our law, *de leproso amovendo*; and I have read that King Edward the Third, in the twentieth year of his raigne, (about 1337 or 8) gave commandment to the mayor and sheriffes of London, to make proclamation in every ward of the city and suburbs, that all leprose persons inhabiting there, should avoid within fifteen days next, and that no man suffer any such leprose person to abide within his house, under pain to forfeit his said house, and to incur the king's further displeasure. And that they should cause the said lepers to be removed into some out places of the fields, from the haunt or company of sound people: whereupon certain lazar houses, as may be supposed, were then builded without the city, some good distance; to wit, the Lock without Southwarke, in Kent Street; one other betwixt the Miles-End and Stratforde, Bow; one other at Kingsland, betwixt Shoreditch and Stoke Newington; and another at Knightsbridge, west of Charing-Cross. These four I have noted to be erected for the receipt of leprose people sent out of the city at that time."

The only one of these houses now remaining is the Lock, near Hyde Park. Those of Kent Street, and of Kingsland, have been consolidated into St. Bartholomew's Hospital, which has a ward under the name of Lazarus, for the reception of the same objects as the Lock is confined to. Of the fourth, at Mile End, I can learn no particulars. I have heard Mr. Pott speak of the time, when the worst kind of head-cases, as he said they used to be called, were sent to Kingsland. That building still remains, adjoining the turnpike, and is converted into a manufactory, the chapel only being preserved for its original purposes. By all this it would appear, that leprosy was a term used for any severe cutaneous disease, or foul obstinate ulcers, which the ignorance or indolence of medical practitioners might choose to confound under one common name, and which afterwards, for many years, acquired a different appellation. This is confirmed by a passage in Archibald Pitcairn, who expressly tells us, *Lepra autem ante famam morbi Neapolitani hydrargyro cessit; NOMENQUE NUNC AMISIT.*

But these establishments were quite distinct from those which were under the direction of the religious orders, and accordingly, most of the latter were seized by Henry as church lands, whilst the former exist in some form to this day, as charitable institutions.

I have taken much pains to discover the passage in Matthew Paris, in which he mentions that 18000 establishments for lepers were erected in different parts of Christendom. But all my diligence in research as well as enquiries of others have been insufficient. The only thing I have discovered that bears on the question is, that the Templars had 9000 manors, and the Hospitaliers 19000 in Christendom, besides other emoluments; yet, with all this, in the year 1244, they petitioned for assistance by circular letters among the Christians, to enable them to build a fort for the protection of the Holy Land against the Saracens. The Christians, however, calculated that each manor might at least send a single soldier completely equipped to Palæstine. This and the recollection of the perpetual quarrels between the two orders, and their ill behaviour in other respects, determined the Christians not to pay any regard to their application for assistance.

Whether these *manerii* were any thing more than freehold property, however inconsiderable, I leave to be determined by the lawyers; but by a reference to the various bequests and endowments to be found in Mr. Nichols's "Appendix to the Burton Lazars," it will appear, that many of their possessions in land were inconsiderable.

The nature of the disease which constituted a leper, appears to have varied according to the country in which the term was used; Lorry has some good remarks on this subject. After observing how little was known of the true Elephantiasis or Syrian leprosy, he adds, "Auctores qui in regionibus borealibus scripserunt lepræ nomen multis etiam dederunt morbis cutaneis." The number of lepers he tells us, on the authority of Raimond, was so much increased after the holy war, that 1040 establishments were raised for their reception in France, of which only the names are left, the places being empty. *Imo equestris ordo apud Gallos iis inserviendis natus, ad alios usus postea ob inutilitatem detortus est.*

I leave it to others to unravel all this obscurity. But so much is certain, that elephantiasis never could have been common, if at all known, in England; that in the countries where it is most common, its contagious is much less certain than its hereditary property. That the term leprosy was given to most cutaneous diseases not otherwise designated, and that all nations are more infested with such diseases in proportion as they are poorer, or have less inducements to cleanliness.

The only instance I have met with of any description
of

of the disease, in a legal sense, is in a passage of Rymer's *Fœdera*, referred to by the learned judge. In this it appears, that Joanna Nightengale, of Brentford, was accused by some of her *good-natured* neighbours of being a leper. A writ was issued, by which the king's physicians were to examine her. In this case there was only one mode of proceeding, namely, to search for authorities; and by these they found, that Joanna did not come within the description of such as had been proscribed in other countries. If any authority could be produced of a person coming under the description required by this decision, it must then be allowed that elephantiasis has been known in England. On the whole, it appears evident that the term leprosy has been much too general, and perhaps is so at this time, even among medical writers. This would have been less inconvenient, had it been always used only in a generic sense; but by considering it as a specific disease, many appearances arising from different causes have been confounded, and words which should express distinct complaints, have been used as mere synonyms.

It is hardly credible, how little Lexicographers are aware of the importance of words. It cannot be necessary to observe, that the term *Lazaretto* is Italian. In another place* I have remarked, that the *Della Crusca* Society has set many of the philosophers in Europe at variance, by their arbitrary explanation of the word *pellicello*. A similar inattention seems to have had its effect in the word *Lazaretto*. Antonini, who professes to follow that learned Society, translates the word as it is now used in England and France; that is, a deposit for men or goods suspected of conveying the plague. He gives the Latin word, *Læmocomium*; whether coined at the same mint I pretend not to determine, but in an Italian and English Dictionary, published in London in the year 1611, the word *Lazaretto* is translated an *Hospital for sick folks*. Of this kind, it is most probable, were many of the Lazar houses on the continent, or rather the houses under the religious order of St. Lazarus; and the union of that order with the Hospitaliers, is a further confirmation of the same. If these remarks appear bold, the reader will make some allowance for the trouble it costs to reconcile authorities, by which we expect only to be instructed. In a few years an old dictionary may be worth its weight in gold.

* In a Paper on the *Acarus Scabiei*, read before the Royal Society, and published in "Morbid Poisons."

CRITICAL ANALYSIS
OF THE
RECENT PUBLICATIONS
ON THE
DIFFERENT BRANCHES OF PHYSIC, SURGERY,
AND MEDICAL PHILOSOPHY.

Observations on the Hepatitis of India, and on the prevalent Use of Mercury in Diseases of this Country. By WILLIAM SAUNDERS, M.D. F.R.S. &c. London, 1809.

Examination of the Prejudices commonly entertained against Mercury as beneficially applied to most Hepatic Complaints, and to various other Forms of Disease, as well as to Syphilis. By JAMES CURRY, M.D. F.A.S. &c. one of the Physicians to Guy's Hospital, and Lecturer on the Theory and Practice of Medicine.

It gives us much pleasure to find a subject of so much importance brought before the public, and by characters, who if not *cantare pares*, are at least *respondere parati*. The very general, and as it is by some called the indiscriminate use of mercury, is now a matter of universal notoriety: virgins who formerly would have been alarmed at the least taint in their breath, or the slightest possible injury to their teeth and gums, submit patiently to be salivated, and even sometimes salivate themselves. Let us enquire whether this is founded on so great a success in the remedy as to bear down all opposition, or to be considered among those fashions, which in medicine, as well as in other arts, is equally fluctuating and uncertain.

The writers we have now before us, are neither of them to be considered in the light of mere controversialists. Though it might not be fair to make a comparative view of the two, when we reflect on the lengthened experience of one of them; yet it must be admitted, that if this has already acquired a well earned reputation, the other may be not less solicitous to establish a character which very early attracted public notice. Thus neither can be considered as writing merely to acquire popular fame, nor with any other bias than those prepossessions, of which no author or practitioner can entirely divest himself.

Dr. Saunders's pamphlet is published as an Appendix to his Treatise on the Liver. This latter is so well known, (the present being the fourth edition) that we shall presume our readers well acquainted with it. The Appendix begins with some remarks on the Indian hepatitis, particularly in those points in which it may be more strikingly contrasted with the European diseases of the liver. The former is very properly considered, as arising from some local miasma, and constantly prevailing state of the atmosphere, which

is peculiarly destructive to strangers; and like all other strong marked epidemics, is found not only to influence more or less all other diseases, but not uncommonly to imitate them in its access and progress. Against this formidable disease, by the universal consent of the most able physicians, the immediate use of mercury is not only the best, but the only remedy that can be depended on; insomuch, that the business of the practitioner is almost confined to diligently exhibiting it in such forms as shall be the most likely to influence the functions of the different organs, before suppuration is formed in the liver.

Having admitted all this in favour of the early and vigorous exhibition of mercury in the Indian hepatitis, Dr. Saunders adds,

“It should also be remembered, that the liver diseases of this country are, generally speaking, much slower in their growth than those of India; and numerous instances might be adduced, in which an invalid labouring under the more chronic form of liver disease, who by prudent management and unirritating medicines (such as dilute solutions of saline purgatives, Cheltenham water, and the like,) might have retained for many years a share of health amply sufficient to render life desirable, had by a rash application of so active a remedy as mercury, been hurried to his grave in a few months.”

So serious a remark, from one who having now become a consulting physician, must have large opportunities of seeing the result of others' practice, cannot be read without emotion.

We have been short in our remarks on this part of the Appendix, because the account of the Indian disease is professedly taken from the writings of others. In the “observations on the prevalent use of mercury in the diseases of this country,” we are principally to expect information from a London practitioner. Dr. Saunders stands among the oldest of these, an advantage which, joined to his long habit of lecturing, has given him a more extensive acquaintance among medical men, and a larger means of learning the result of their individual practice, than any other physician can boast.

“My own experience, (says Dr. S.) has furnished me with the means of ascertaining, that even calomel, which is the most manageable preparation of mercury, cannot be employed with safety or success in a great variety of cases in which it has been recommended; it is, however, frequently preferred from having neither taste nor smell, and from its acting in a small bulk; but it ought seldom to be used by itself as an habitual purgative, or laxative, as its operation in that case is extremely uncertain; sometimes it produces mucous and bloody stools, accompanied with tenesmus and prolapsus ani, irritating and exhausting the power of the intestines, and laying the foundation of painful and dangerous strictures of the rectum. It is generally improper in dyspeptic complaints, especially

especially in delicate and irritable habits ; at other times, instead of acting on the bowels, it forcibly determines to the mouth, and produces all the inconvenience of a salivation, when not expected, or wished for. It enters into the composition of most of our worm medicines which are advertised for sale ; and from the free and unskilful use of such in the hands of ignorant people, considerable debility, emaciation, and even convulsions in children, are induced."

The following passage is still more pointed, as it respects diseases, for some of which mercury is principally in use. The remarks seem also to arise from a sight of those subjects which, after the unsuccessful endeavours of others, have been consigned to the author.

" In hepatic diseases, where scrophulous tubercles are formed, and in other affections of the liver, where the structure has been destroyed by interstitial deposit, with adhesive inflammation obliterating organization ; where the absorption of parts has taken place, diminishing the bulk of the organ ; with a structure both spongy and loose ; if the jaundice accompanying these appearances be fixed and unremitting, I have never seen any advantage from the use of mercury. On the contrary, I am persuaded, that life, which under all these unfavourable circumstances, might have been prolonged by other means, and by such as a well-regulated diet, and the moderate use of gentle, mild, opening medicines, has been shortened by mercury.

" And I have known many cases of confirmed dropsy, with diseased viscera, where the believers in the specific power of mercury have promised a cure, and where they have so committed themselves by their confidence in its power, as to have been disgraced by their temerity.

" In the morbid state of the kidney, and urinary passages, the schirrous state of the prostate gland, or similar diseased conditions of the uterus ; in the ulcerated and cancerous state of these parts, the mercurial action shortens human life, notwithstanding ignorant and credulous practitioners are every day resorting to it, as the infallible specific of deeply seated diseases."

Some valuable practical remarks follow on the best mode of treating the common hepatic diseases of more northern climates, which it is shown often arise, if not from mere plethora, at least from partial congestion. The most judicious forms of exhibiting calomel as a purge are next stated, and also the mode in which that remedy produces its good effects. This part abounds in useful reflexions on the circumstances under which, not only calomel, but mercury in any form, will fail to excite its effects on the salivary glands. In many acute visceral diseases, it is proved to have little effect, and that even in the advanced stages of syphilis, its operation will often be tedious.

" Perhaps," continues our Author, " it is only under the most favourable state of fevers that mercury salivates, so that it is
(No. 129.) G g difficul

difficult to determine how far the cure should be attributed to the use of it. We are assured that in India, it will seldom or ever salivate after an abscess is formed in the liver. The doses of calomel which have been giving to persons in the yellow fever is astonishing, without acting on the mouth or bowels :* such is the torpid state of the body in that disease, perhaps from some affection of the brain.

“ It does not appear that, if we except the hepatic diseases of India, the mortality of the endemic fevers of other countries has been diminished by extending the use of mercury, except as uniting mercury with other purgatives.†

Such are the outlines of this Appendix. Some letters are added, of no small moment to the illustration of Dr. S's remarks, and of the operation of this important remedy. The first is from Mr. Paisley, formerly head surgeon at Madras. In this, the usual credit is given to mercury in the East India endemic, and in many other acute diseases, which are shown to be more connected with hepatic disorganization than was formerly suspected. But, it is absolutely necessary to impress our readers with one practical aphorism, strongly insisted on in this and a subsequent letter; namely, that though the constitutions of East Indians bear the free use of mercury so well, and with so much advantage in some acute diseases; though they are so insensible to its influence, as often to require relaxing remedies, and even bleeding to assist its effects and prevent the increase of inflammation; yet, in syphilis and other chronic diseases, “ mercury given without bark will spread every ulcer, induce fibrillæ, and increase every symptom.”

A Letter from Dr. Curry follows: It begins with remarking the danger of the exhibition of mercury in the acute hepatitis of England, in any other form than calomel. This remark is, however, confined to the hepatitis of northern regions, where the disease partakes more of the nature of simple inflammation. It may be thought, perhaps, that simple inflammation, whether seated in the liver or lungs, might be treated in the same way. But Doctor C. remarks, that in the liver it arises often from, or is increased by, the mere congestion of bile in the ducts. This is illustrated by inflammation of the mammæ, in which it is found necessary, not only by evacuant remedies, to lessen the inflammatory

* “ The state and influence of the brain on fevers, is well explained by Dr. Clutterbuck, in his “ Enquiry into the Seat and Nature of Fever; ” a book which conveys much practical and useful observation.

† “ Of twenty-seven recruits for the Royal Artillery, who arrived in Grenada in July, 1793, twenty-six were seized with the fever; and of those, twenty-one died before the middle of August ensuing; that is, in six weeks.”—Dr. Chisholm had satisfied himself of the great virtues of mercury at least four months before, yet this is a mortality never exceeded in any fever.—Vide Dr. Chisholm's Essays, p. 97.

matory diatheses, but also to relieve the tubæ lactiferæ by drawing off the milk. This last process cannot be carried on in the same manner in the liver or its ducts. But for them, Dr. Curry assures us, that "calomel is specifically a cholagogue or evacuant of bile." For this reason, he wishes the calomel by no means to run through the bowels like a common cathartic, but to rest about the duodenum. "For this purpose," says Dr. C. "I have often been obliged to assist its relaxing power on the biliary ducts, by joining it with opium and antimonial powder, especially the former, which I give to the amount of a grain or more every six hours, or as often as the urgency of the pain renders necessary. Under this management, I have repeatedly found the urgent symptoms abate considerably, many hours before any alvine evacuation took place, and of course before the calomel could be said to act as a cathartic: in some cases too, where no evacuation followed, it became necessary to give cathartic medicines afterwards, in order to secure the relief which the calomel had procured, and to prevent the pain and dyspnœa from returning; which they were apt to do, if the liver was not emptied while under the relaxing influence of the calomel and opium. It not unfrequently happens, that the stomach partakes so much of the inflammatory condition of the liver, and becomes in consequence so extremely irritable, as to reject every thing by vomiting almost as soon as swallowed."

In these cases, even calomel united with opium would prove too irritating, and the best remedy was found to be hydrargyrum præcipitatus cinereus, which has answered every purpose. The local effect of calomel is further illustrated by the effect which Mr. Clare produced on the salivary glands, by rubbing two or three grains of it daily on the gums. In these cases salivation was quickly produced, but the constitution was not permanently affected.

As Dr. Curry's pamphlet will presently come before us, we shall be very short in our remarks on this Letter. Respecting the cholagogue virtues of calomel depending on its passing more slowly through the intestines, we confess ourselves unable to determine. But we have frequently witnessed the most common purgative producing, first, the effect of emptying the intestines of fæces, and afterwards of what is usually called bile. From emetics, we have seen similar effects after the contents of the stomach have been discharged. Nor are we perfectly satisfied with the analogy of the salivary glands: we conceive that almost any friction, continued for some time on the gums, might produce an increased secretion of those parts.

Under these circumstances, we are not prepared to admit all that Dr. Curry requires before he draws his inference. "Why a medicine, says he, possessing such a property, [of emulging the liver of its bile] should be especially serviceable in hepatitis, must, I think, be pretty obvious." It certainly might be obvious if we

were convinced that calomel in particular has such a property. But even then we have much to learn in order to ascertain the presence of hepatitis in many cases in which Dr. Curry has discovered it. Cases, having all the symptoms of peripneumonia, with pain in the *left* side of the thorax, and no symptoms present which clearly indicated hepatic affection, were at first considered as peripneumonic or pleuritic, and treated accordingly by local and general blood-letting, purging with infusion of senna, blisters to the part, and antimonial diaphoretics. No permanent advantage was derived, continues Dr. C. till the failure of these remedies led me to suspect that the liver was the primary seat of the complaint, and the remote thoracic pain only symptomatic.

“ Upon this impression, I immediately put in practice the mode which I had before employed with success in obvious cases of hepatic inflammation,—of giving three or four grains of calomel every four or six hours, as the urgency of the symptoms required;—and with the effect of entirely removing the pain and difficulty of breathing in the course of the night.”

We shall not take upon ourselves to determine whether the patient owed his relief to the previous evacuations, or the calomel, or to both. The exhibition of three or four grs. of calomel four or six times a-day, if it does not run off by stool, would be likely to induce some mercurial action, provided the acute disease did not so far occupy the constitution as to prevent irritation from any other cause: and the previous evacuations might have sufficiently reduced the inflammatory action to render the constitution susceptible of a new irritation. Our readers will consider this as mere matter of conjecture on our parts; but we conceive ourselves authorized in making such a conjecture, till Dr. Curry shall give us further information than the conciseness of this epistle will admit.

The third Letter is from Dr. Duncan, and contains many valuable facts. By this, the salutary effects of mercury in hepatitis and many other acute diseases are confirmed, but its deleterious consequences in other complaints are more strongly marked.

“ The event, says Dr. D. however, is far different with respect to the syphilis, or supposed syphilis, and some disorders unconnected with the liver, where the use of mercury is productive of the most serious and irremediable mischief, and this in almost every instance where the patient is exposed to cold or wet, either during the mercurial course, or too soon after it has been laid aside. The number of soldiers who are obliged to be invalided on account of the incurable pains, swellings, and loss of power in their limbs, occasioned by mercury, would appear incredible to you; and it is melancholy to think how many officers lose their lives from the same cause, and under symptoms the most painful and lamentable, where the nose and great part of the face is destroyed, the bones rendered carious, and the surface of the body covered with ulcers. I have seen many fatal cases of this sort, and in none of them had mercury the least effect in removing or even mitigating the symptoms which were thus brought

brought on from exposure to cold during the mercurial course, or after it was laid aside, and the cure supposed to be completed. Indeed I always thought that mercury aggravated the symptoms, and the patients themselves were sometimes sensible of this, and earnestly entreated that the medicine might be discontinued. Mercury was generally tried on the idea that these symptoms arose from some lurking remains of the venereal virus. But I was soon convinced that this was a mistake, and that the above symptoms, however nearly allied to those of the venereal disease, were occasioned by mercury itself."

Two very melancholy cases are related, as illustrations, not of the rare, but common consequences of the injudicious perseverance in mercury. The author is so much impressed with the subject, that he cannot check himself from adding other cases in illustration of all these dreadful maladies. So strongly had experience impressed him with the extreme danger attending mercury, that he became at last comparatively indifferent to venereal symptoms, satisfied that he had always a remedy for them, but none for the fatal effects of mercury. Venereal symptoms that occurred in the field, were therefore left to themselves till a fair opportunity arrived of giving mercury with safety.

"After a lapse of ten months, I could not trace any symptom of it beyond the groin. I did not find that the throat, bones, or skin, were affected; although, in the early stages of the disease, where mercury had been given, and the patient exposed to cold, all the worst symptoms soon made their appearance. Indeed, every case that I saw in India, tended more and more to convince me, that it is only in combination with mercury that syphilis produces all the worst symptoms, and that the progress of the disease when left to itself, is extremely slow. This opinion I adopted with great hesitation, but it was confirmed by facts which appeared otherwise inexplicable."

This is enough to show that mercury, however valuable a remedy, is not unattended with proportionate danger.

Such is Dr. Saunders's Appendix; and if, as we believe, it makes the only difference between this and the former edition, we trust he will so far consider the purchasers of the last, as to direct this addition to be sold separately.

AN ADVERTISEMENT prefixed to Dr. CURRY's Pamphlet informs us, that it was drawn up more than a Year ago, as an Introduction to a Work he has for several Years had on hand.

"On the Nature of the Hepatic Function; the Purposes it serves in the Animal Economy; and the powerful Influence which a disordered State of it exerts, in exciting, aggravating, and modifying various Forms of Disease, both general and local."

IN the mean time it is remarked, that public opinion has received an impulse additionally adverse to the employment of mercury.

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We confess our acquaintance with the town would not have led us to this conclusion. As we before remarked, mercury seems now to have usurped the triumphal car of medicine, insomuch, as in many respects, almost to shake our former incredulity, and lead us to suspect that so general a concurrence must be founded on some experimental basis.—But of this, more hereafter.

The first pages of this “Examination” are taken up in tracing the progress of the human mind, in confirming or detecting error, and of the author in his discovery of the hepatic pathology, and the virtues of calomel. The coincidence of other practitioners is shown without any personal concurrence, and even whilst most of them are still unacquainted with the author’s theory. After this follow many remarks, and not a few authorities, to show that mercury itself, given in quantities however large, and continued for any length of time, is never permanently injurious, excepting by its mismanagement. This is illustrated in a manner somewhat more trite than we should have expected from such an author, viz. That the knife and the caustic are powerful and dangerous remedies, and that the surgeon is not blamed for using a sharp knife or active caustic.

What follows is more to the purpose, namely, that many persons who have been salivated from the mere suspicion of syphilis, have found their health permanently improved by the process. This very just remark is concluded by the introduction of a similar illustration, to which we before objected. Who, says Dr. C. would have conceived, that the amusement children derived from seeing small particles attracted by amber, would afterwards have proved to be derived from the same powers, and governed by the same laws as the destructive thunder storm!

It is again urged, that the doctrine taught by the author is confirmed by facts which have occurred to many others who have been ignorant of the principles on which those facts were to be explained. Dr. C. then admits, that there are certain forms of hepatic disease, which may be remedied by other means, yet, that there are others in which mercury is absolutely necessary.

“I should therefore,” says he, “deeply lament the hasty rejection of this invaluable article; because I believe, that, if impartially estimated, it will be found to be, like small-pox inoculation, though occasionally productive of inconvenience, yet the preventive of infinitely greater mischief from the spontaneous course of the disease which it is intended to mitigate; and that until Providence shall vouchsafe to make some fortunate individual the rival of a JENNER in fame, by discovering to him (if any such exist) a perfectly harmless antidote to syphilis, and an equally efficacious remedy in hepatic complaints, we ought still to employ, with proper caution, the best in either view that we at present possess, viz. MERCURY.”

We should lament as much as Dr. Curry, the hasty rejection of mercury in many chronic, and in some acute diseases; and we perfectly coincide in the quotation from Mr. Pearson, in favour of
of

of that remedy against every form of lues venerea. Nor shall we dispute with Mr. Watt, for we have witnessed the same ourselves, that many patients, after convalescence from severe mercurial courses, were not only uninjured, but improved in their health. Still less shall we dispute the mistaken objections, at one time entertained against the Peruvian bark, or the practice of inoculation and vaccination.

We shall now offer a few remarks on some of the arguments which we stated in their order. And first, as to the negative proposition, that mercury properly administered is rarely injurious. It is obvious, that to answer such a proposition, we must first learn what is meant by the improper administration of the remedy. If the term is confined to the exposure to cold, we would answer, that under every caution of that kind, the repeated exhibition of mercury is often injurious. We have already seen how dangerous the remedy proves in the East Indies, if given when there is no other constitutional influence to oppose the actions it excites. We have seen the facts as stated by Dr. Saunders, whose experience in obstinate chronic diseases must be extensive in proportion to his standing in the profession.

Do not Pinelli and Haslam inform us, how frequently incurable madness is the consequence of repeated mercurial courses? And does not Mr. Hunter, though a warm advocate for the use of mercury, afford us many instances of the calamitous effects of its repeated exhibition. It seems incredible to us, that any practitioner, be his line in the profession what it may, has not met with pains and nodes, the offspring of mercury, and which have been exasperated by every repetition of the remedy.

It is urged, that of the present race of young men, there are few who pass the period of celibacy without the necessity of resorting to mercury, yet that few suffer materially from such a cause. That mercury may be used in such cases without permanent injury to the constitution, is not questioned by any practitioner of these days; but there are few of us, who do not recollect, how much the practice of the town is improved in this respect, and how much more frequently mercury produced permanent injury, when its exhibition was directed in such a manner as to be perpetually repeated: If men suffer less now, it is probably, because calomel is more rarely resorted to in syphilis, the crude mineral more frequently; and, if the effect produced is often considerable, the stomach and constitution are not perpetually harassed by the mercurial salts. Dr. Curry, with his strong disposition to analogy or illustration, desires, that those who are inspired with such terrors respecting mercury, will reflect, that in some constitutions antimony will produce formidable prostration of strength, and opium watchfulness; that for each of these we have substitutes, which may answer our purpose; but that for mercury we have none. What is this but to say, that we have no medicine which excites such an action, and keeps it up so long?

It is urged that the English inhabitants of the intertropical regions are so familiarized to the use of mercury, that they dread it less than the Faculty of England formerly dreaded the Peruvian bark.—In answer to this, we need only turn to those Extracts from the Letters of Drs. Paisley and Duncan, who, though both great advocates for mercury in acute diseases, particularly those connected with the liver, are very pointed in observing the danger which attends its exhibition in many other, particularly chronic complaints.

The case of the much lamented Sir Joshua Reynolds, is instanced as one, in which the enlargement of the liver was overlooked. We confess ourselves better pleased, in this respect, with Mr. Malone's remark than with Dr. Curry's. "This instance," says the former, "may serve to show, that the patient best knows what he suffers, and that few long complain of bodily ailment without an adequate cause." Nothing can be more judiciously impressed on every practitioner, than the danger of undervaluing the complaints of his patient: but if he is always to suspect the liver, we fear the danger of such an error will be increased. Had the disease of Sir Joshua been known earlier, it is possible it might have been remedied, but whether by calomel, is not so easily determined. Many an enlarged liver, as Dr. Saunders observes, has given way to abstinence, such exercise as the patient can bear, and occasional purgatives, which has withstood the frequent use of mercury without those auxiliaries.

It is urged by Dr. C. that we give mercury to cure a venereal ulcer and excite a considerable degree of disease. "Here," says he, "it will not be denied, that the sensible effects of the medicine, independently of its curing the ulcer, are in themselves morbid, and, *in such instances*, the utmost we can say for it is, that while we thus induce one morbid state, which is limited both in its degree and continuance, we eradicate another, the duration and mischief of which, *are known to terminate only with life.*"

We have copied this passage, just to show how extremely illogical this habit of illustration will render the most able writer. Where can be the connection between a morbid state induced in the human body and *eradication*? If a local complaint has *taken root*, it should be *dug out*. If a diseased action has taken place, it may be superseded by a different action; for this purpose, the second action must be powerful enough to supersede the former; and to be thus powerful, it must, probably, induce disease, that is, it must be greater or different from the first disease, and from the common actions of health. That mercury cures the venereal disease in this manner, was first taught by Mr. Hunter, and is now pretty generally admitted.

By parity of reason, we might expect that many long continued chronic complaints should be cured by salivation excited for a venereal ulcer, or on the suspicion that such a poison lurked in the habit. But, is this a sufficient reason for exciting
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a mercurial irritation in a vast variety of complaints, that might be relieved by ordinary means?

It may be very justly remarked, that the venereal irritation, if not thus superseded, "only terminates with life," and that the Indian liver complaint is most urgently dangerous. In both such cases, therefore, it is more than justifiable to "induce a morbid state" of another kind. We would even admit, that slighter complaints may be superseded by an exhibition of the same remedy, the stimulus from which may not only be slight, but sometimes seem to improve, instead of injuring the health. But from experience we find the uncertainty of such an effect, and the danger of its frequent repetition, however slight.

Dr. Curry very truly remarks, that there is no remedy we can substitute for mercury; we may add, there is no other medicine, the ill effects of which, when produced to a certain degree, are so entirely unmanageable through the period of a long protracted miserable existence.

That there is nothing particularly new in this part of Dr. Curry's remarks, or in our own, we shall show by a quotation from a work published about fifteen years past, from which we extract the following passage, contained in the observations on the actions excited by mercury.*

"Hitherto we have considered only the local actions induced by mercury. But its effects on the constitution are not less deserving our attention. The fever it produces may be truly called specific, from its uniformity and total difference from all others. Hence we find it often superseding diseases kept up by habit, having arisen from causes which are no longer present. Dr. Donald Monro mentions a case of intermittent fever, which resisted all remedies, till after a mercurial salivation, it was readily cured by bark. It is not uncommon to find obstinate habitual head-aches give way to a much slighter exhibition of the same remedy: and many weak constitutions, or such as have long laboured under chronic complaints, have found, after a severe mercurial irritation, all those advantages, which often follow the energy excited during convalescence from acute diseases. These remarks are certainly foreign to our present purpose. I have, however, introduced them, because of the error some few practitioners have fallen into, of considering many diseases venereal, merely from their giving way to mercury."

By this quotation, it will appear that mercury was then in very general use on the suspicion that many chronic diseases were venereal. Now bilious diseases seem to have usurped the place, and in both mercury is found a valuable remedy. But are we to call all diseases

* Dr. Curry has a Note, in which he gives himself credit for much candour in not suspecting that Dr. Cheyne borrowed his theory of Hydrocephalus from him. At the same time he urges, that what Dr. Cheyne published in 1808, was taught by himself in 1800, and published in his Syllabus in 1802; he therefore cannot be accused of plagiarism. When we clearly comprehend the Discovery that has been made, we will inquire with whom it originated.

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diseases the effect of the venereal virus, or of disordered bilious secretions, because they yield to mercury? Or are we to resort to it in the first instance, because we so frequently find the good effects of it in cases which withstand other remedies? Is it not a fair presumption, that a remedy so efficacious must also produce injurious effects if given in constitutions very easily affected, and whilst under the impression of irritations which mercury will not supersede?

There are few things in which we should be more cautious than in overvaluing a favourite remedy, and particularly when that remedy is capable of inducing permanent mischief. Let us recollect that most diseases will, happily for the human race, cure themselves, and that when physicians are consulted, it is usually under a somewhat acute paroxysm, which is not uncommonly the natural termination of a tedious chronic complaint. We should recollect too, that those diseases usually termed nervous, are almost always, in a certain degree, relieved for a time at least, by a new remedy; and it unfortunately is not always the lot of the physician to know the future condition of his patient, though he may be in the habit of seeing him without being consulted.

If our favourite remedy is like tar water, or even antimony, one that cannot induce permanent mischief on the constitution, our error, if it is such, may be less injurious. But when we reflect, that according to the concurrent testimony of the most experienced practitioners, mercury is not to be considered in that light, it becomes us in some degree to doubt our own accuracy. None of us is ignorant that ardent spirits are a valuable remedy, that half mankind feel themselves exhilarated by such a stimulus, and that even accidental ebriety has not uncommonly proved a cure for some tedious complaints. But lest we should fall into the error of which we accuse others, in attempting to prove by illustration, we shall conclude these remarks with another quotation from the same writer to whom we last referred.

“Such is the operation of mercury on the constitution as a remedy. The constitutional diseases it produces are not less remarkable. Besides its well-known determination to the salival glands, which is neither constant nor always necessary, we find it producing head-ache, debility, and a total incapacity for application of any kind. For the most part, these gradually subside after the cause is discontinued; but in some constitutions, they end in gutta serena, epilepsy, mania, fatuity, and a train of other nervous symptoms.”

On the whole, we cannot help considering the present extensive use of mercury as too indiscriminate, and by no means justified by the appearance of success it seems to be attended with. The fallacy of the latter we have already remarked, and the inconvenience of the practice we daily witness.

Of the doctrine by which Dr. Curry supports his practice, we have said little, because we can learn but little from a mere introduction. The illustration of emulging the liver by the necessity of that

that practice in the mammæ, must be but a small part of what we have to learn on this subject; and from the other illustrations we have derived no information.

When the work itself appears, we promise to do it impartial justice; and if we have mistaken any thing in our preceding remarks, we shall be thankful in the mean while to be better informed.

EDINBURGH JOURNAL, No. XX.

ARTICLE 1.—*A Case of Death produced by Arsenic.* By JOHN YELLOWLY, M. D. Physician to the London Hospital.

THE most remarkable circumstance attending this case is, that as long as the patient lived, which was twenty-four hours after swallowing the arsenic, he seemed to feel no pain. The other symptoms were such as have been usually described, viz. vomiting, purging, extreme coldness, with loss of motion in the extremities.

The appearances on dissection are worth notice. No putrefaction had taken place in the space of forty-nine hours. On viewing the cavity of the abdomen, the stomach, though very large, shewed no marks of inflammation externally, yet the whole course of the intestines, to within three inches of the *caput coli*, was much inflamed, the *duodenum* and *jejunum* were also much thickened. In some places, the external surface was florid, but mostly with occasional patches of coagulable lymph; all the lower intestines were much contracted.

On cutting into the alimentary canal, it was found, that "the inner membrane of the stomach, particularly at its lesser curvature, and in the neighbourhood of the pylorus, was very much inflamed, and there was in it frequent appearances of extravasated points of blood. In two or three circular spots, of the size of a shilling, the membrane was abraded; and, in one or two places, there was a circular thickening, (as if by an effusion of coagulable lymph), with some extravasated points of blood upon it. The stomach contained a considerable portion of a yellowish white fluid, with some castor-oil floating upon it, which had been given in the course of the day of his death. In this fluid were found a grain of shot, a few small bits of carbonaceous matter, and a very small portion of a heavy, white, coarse powder, resembling the white oxide of arsenic.

"The inflammation did not extend to the *œsophagus*. Portions of the small intestines were examined at several places, through their extent. The mucous membrane was every where found in a high state of inflammation, and with occasional appearances of extravasation in it. In the mucous membrane of the large intestines, the inflammation was much less, but it extended, in some degree, to the extremity of the rectum. There was no portion of arsenic or *fæces* found in any part of the alimentary canal."

Is this description of the inflammation extending all along the canal,

canal, to be considered as the effect of arsenic having passed along it with feculent matter? or of the *continuous sympathy* of Mr. Hunter, where the adhesive inflammation cannot take place? Dr. Yellowly's remark appears very judicious, that in all such cases we should attend, not only to expelling the poisonous substance, but also to subduing the inflammation occasioned during its presence.

ARTICLE 2.—*Account of the Mortality which took place in 1807 among the Troops at Wallajahad.* By a Surgeon on the Madras Establishment.

THIS disease was principally dysentery, which the Author attributes, besides change of climate, to the following causes. The age of the soldiers being such as to dispose them, by high health, to inflammatory diseases; exposure to the sun; transitions from heat to cold; irregularity in, or change of diet; and frequent intoxication. Yet the women and children, who could not be all exposed to these causes, were, we are told, equally victims to the disease. In some of the children, the author adds, that the influence of the sun was alone sufficient to induce it,—he does not believe the disease was, in any instance, contagious.

For the most part, the disease commenced with diarrhœa, and was seldom noticed by the patient, till he was alarmed by the appearance of blood and mucus; but sometimes the attack was more sudden, a large discharge of blood taking place whilst the soldier was on duty, or in the barracks, or even in bed. The subsequent symptoms are such as are usually met with in the worst stages of this formidable complaint.

The first intention being directed to prevention, the soldiers were confined, during the heat of the sun, to their barracks. When the disease was formed, the most successful remedies were, large doses of opium with ipecacuanha, so as to determine to the skin, which was often assisted by the warm bath. Bleeding was rarely found useful, and, what seems more remarkable, purgatives were not considered of that importance, which for some time past has been attached to them in this complaint; and mercurial frictions with calomel were only serviceable when the disease became chronic.

ARTICLE 2.—*Account of the Diseases of the Sick landed at Plymouth from Corunna.* By RICHARD HOOPER, Member of the Royal College of Surgeons, London, late Assistant Surgeon at Old Cumberland and Mill Bay Hospital, and of his Majesty's Ship Mercury, &c.

THE most important, though not the most prevailing complaint, on the return of this army, was dysentery. "This distressing disease," says our author, had, in most cases that came under my care, assumed the chronic form; the stools were very thin, frequent, and of a light yellow colour in some; whilst in others, who had laboured under this complaint for six weeks or two months previous to their arrival in this country, they were equally frequent,

frequent, of a thin consistence, of a blackish dirty appearance, tinged with bloody mucous, and accompanied with a most painful tenesmus: the countenances much emaciated and dejected; their bodies and clothes dirty in the extreme, and abounding with vermin; much enfeebled, and complaining of severe pains across the loins, and in the calves of the legs; considerable thirst; little or no appetite; pulse rather frequent and small; very few had any fever, and those that had, very mild, and undeserving notice; tongue generally clean; skin rather cold, with a degree of moisture; made little or no water, some going five days successively without voiding any: these complained of a desire to make water, but, on pressing above the pubes, far from there being any tension, there was a slight depression, which evinced that the desire complained of did not proceed from a retention, but a suppression, of urine.

“ The early treatment of some was five grains of calomel at night, and a smart purgative, either of natron vitriol. or pulv. jalap. the following morning; which in others was preceded by an emetic; after the operation of the purgative and emetic, small doses of the pulv. ipecac. compos. were given every four hours with a little wine; a pill, composed of calomel gr. iij. opii purificati gr. i. was also given at night. This plan of treatment, the emetics and purgatives being occasionally repeated, succeeded with those who had been slightly and recently attacked, and at first relieved the more violent cases; but after a few days these medicines produced no effect, and the disease continued with all its violence. I now changed my purgative for twenty grains of the rheum palmatum, and substituted for the pulv. ipecac. compos. a mixture, composed of pulv. aromat. gr. xij. confect. opiata gr. vj. spir. vini Gallici ʒiiss. mistur camphoræ ʒx. for a dose, to be repeated every four hours, the calomel and opium pill being still continued at night. The relief which this afforded exceeded my most sanguine expectations, and, on visiting my patients the next morning, all were eager in asking for a repetition of the medicine, telling me, at the same time, they had not been to stool more than six or seven times in the night; the time they were most troubled by this distressing calamity. I was induced to try the use of aromatics, from a knowledge that their powers are not entirely destroyed in the stomach, but continue through the intestinal canal, from their good effects in fistula and hæmorrhoids, hoping, by their use, to diminish the great sensibility of the intestines, and by that relieve, if not remove, the urgent tenesmus. With these views, and with the same immediate relief, I gave, to those who complained of a suppression of urine, thirty drops of the balsamum copaibæ, on lump sugar, every six hours, without the anodyne aromatic mixture. However different these medicines may be in their general nature and properties, both afforded almost instant relief, and a small quantity of urine was evacuated soon after the administration of the second dose of the balsamum copaibæ.

“ Flattering

“ Flattering as were the effects of these medicines, I soon found that no hopes of curing the complaint could be reasonably entertained from the use of these alone: the stools again became nearly as frequent as before, nor was their appearance changed. To the mixture I added five drops of the tinct. opii, and at each taking gave two grains of calomel, which I continued sufficiently long to produce a complete salivation in men under different circumstances, without any effect. Hitherto baffled in my attempts to relieve these miserable beings, I determined to see what a more general use of evacuants would do, and accordingly gave emetics and purgatives in alternation, continuing the use of the aromatic mixture in the intermediate time, to each dose of which was added pulv. aromatic. gr. v. tinct. opii, gtt. xv. Although this was continued for some time, it was far from encouraging, the patients being much debilitated, and the stools as before. The starch injection was next tried, to which was added forty drops of the tinct. opii; this certainly increased the frequency of the fæcal evacuations, and the patients complained bitterly of the pain the injections caused them, referring the pain to the situation of the sigmoid flexure of the colon. Being at this time informed of the benefit the sick under the care of Mr. Hewlett had derived from the use of the acetite of lead, I added 10 grains of that medicine to each injection, gradually increasing the quantity to thirty grains. This caused no more pain than the simple starch injection, nor were its operations different. Conversing with Mr. Tucker, the senior medical officer of the hospital I was attached to, on the obstinacy of this disease, he wished me to give the acetite of lead by the mouth instead of per anum, which he proposed on the principle of the action of lead in producing the opposite complaint to dysentery, the colica pictonum. I began by giving cerussæ acetatæ gr. v. confect. aromatic. q. s. ft. pilula, which was repeated every five hours: it appeared to have no effect on the constitution. My late friend and coadjutor, Mr. Williams, at the same time began by giving cerussæ acetatæ, gr. iij. opii purific. gr. iss. confect. aromatic. q. s. ft. bolus, every four hours. The frequency of the alvine discharge was much lessened on the third and fourth days from the commencement of its use, but on the fifth and subsequent days the evacuations were as before, and it was then discontinued. Having tried emetics, purgatives, the pulv. ipecac. comp. aromatics, calomel, the starch injection, acetite of lead, and opium to a certain extent, without deriving any benefit from their use, once more I thought of evacuating the alimentary canal previous to the use of opium alone. An emetic was accordingly given, which was soon followed by a purgative; after the operation of which, I began by giving two grains of opium every four hours, increasing the quantity until each dose contained six grains of the purified opium. This quantity, however enormous it may appear, was repeated every four hours for three successive days and nights, without producing the

the slightest change, every thing being evacuated nearly in the same state in which it was eaten."

The author now returned again to calomel and opium every night. Under this process, several were discharged cured, others had relapses, and others exchanged the complaint for hospital fever, which relieved them of all human miseries.

Typhus fever, though the most prevailing disease on the arrival of the troops, appeared at first under no very formidable shape. It is remarkable, that, contrary to general observation, the author found the disease exasperated as the weather became milder. Perhaps, however, this might have happened from the hospital being more crowded. The most alarming symptoms were confined to the head. The fourth morning generally produced a remission of the symptoms; they returned, however, by noon in full force, and continued in many till the thirteenth day, which often proved fatal. To the few who recovered, the twelfth seemed critical. Singultus, early in the disease, proved a more favourable symptom than in a more advanced period.

On the first access of the fever, vomiting and purging were directed: on the following day, antimonials with aqua ammoniac acetata. On the 3d, this medicine was continued with the addition of four grs. of calomel at night. On the two following, antimonial powder with calomel gr. ij. every four hours. On the sixth, the calomel was to some increased to five gr.; and, on the following day, the colocynth was added, if necessary.

The eighth day usually commenced with symptoms of greater debility and more alarm. The remedy was changed to camphor julep with wine; the antimonial continued without calomel. On the following day the same remedies with the addition of six gr. of calomel and one of opium at night; on the following days, bark, wine, opium, and at last brandy, were given with camphor julep.

It would be injustice to the author, were we to lead the reader to suppose that these were the only remedies used. His diligence was equal to his arduous undertaking, and we wish his success had been equal to either. Cold affusions were repeatedly tried, but for the most part without any effect. Calomel given in the beginning, and in very large doses, with colocynth on the following morning, seemed to be more successful; after this, calomel was given with antimony, as before described. If salivation was produced, the patient recovered. In some, mercurial frictions were used with calomel, and these recovered; but the surgeon, who treated them thus, died, in spite of very large doses of calomel, and frequent cold affusions. It does not appear that he used the mercurial frictions.

The appearances on dissection are too various to form any decided conclusion, as to the general cause of fatality. The appearances about the head were so natural, that instances even of congestion in the vessels of the brain were few. In many the spleen appeared an uniform mass of bloody mucus, breaking on the slightest

slightest pressure, and presenting no fibrous appearance; the pancreas particularly hard, white, and much thickened. In those who died under dysentery, or typhus fever succeeding dysentery, the intestines appeared ulcerated, and sometimes gangrenous. In many, the kidneys appeared smaller and whiter than natural. These appearances are so uncertain in this viscus, that we might possibly have passed them unnoticed, had they not been coupled in the account of the inguinal glands, much enlarged and hardened.

Among all the remedies used, the author seems to think that none produced any effect excepting calomel; perhaps he is right. It is however certain that this was the only evacuant remedy tried, excepting in those cases in which it did not prove purgative. He observed also, that whenever salivation was produced, the disease seemed subdued. But does this prove any thing more than that the state of these patients was such as not to render them altogether insensible to other stimuli. That is, that the influence of the disease was not sufficient to resist the effect which would be produced by mercury on a person in health. But there is one short sentence which, whilst we admit the author's candour in introducing it, appears to us of more importance than he seems to attach to it.

"Before I conclude," says Mr. Hooper, "I think I ought to mention, that Mr. Stevenson, surgeon of the third Lancashire militia, in addition to the practice generally adopted, used large and repeated bleedings, which a reference to the proportion of deaths that occurred at the hospital under his care appears to justify."

ARTICLE 4.—*An Account of the Pseudo Syphilitic cutaneous Disease Radesyge, prevalent in some Parts of Sweden and Norway.*

By H. BÖCKER, M. D. Upsal.

WHENCE this affectation of language in a science, one of the *opprobria*, of which has so often been *hard names*? Does pseudo-syphilis mean any thing? or is it only to be the title for any disease that the vulgar would call the pox, and the indolent important sagacious-looking practitioner would think he must give a name to, in order to cover his ignorance and maintain his air of superiority?

If we attend to the paper itself, we shall find no character by which we can ascertain a single disease, nor any remedy by which we can be directed in the laws it maintains from its manner of cure. At one time we find a disease like the sivvens of Scotland, spreading through a poor family by the promiscuous use, probably, of the same spoons and other utensils. Whether it is common for the poor in this country to smook with the same pipe we are not informed. This form of the disease in the mouth and throat, we are told, is easily removed by mercury, in which it exactly agrees with the accounts of sivvens.

Many other symptoms are mentioned, as various as might be expected, when the cutaneous diseases of the poor inhabitants of a cold country are described. Some of these yield to mercury, others are exasperated by it; others relapse after being relieved by it,

it, and then become incurable. Some heal of themselves in one part, whilst they break out in others; some are contagious, and others not; in short, had the author called his paper, "An imperfect Account of several cutaneous Diseases among the Poor in Sweden and Norway," he might have done some service, by inciting rational enquiry; and we might have advanced a few steps towards discriminating such as yield to mercury, from those which are likely to be exasperated, or rendered incurable by it. But the term *pseudo syphilis* serves to cover all; and the only practical inference from the paper is, to try mercury; perhaps, you will cure your patient. But suppose he should relapse? Then, try it again. But suppose he continues worse? Then try something else, or leave him to his fate.

We mean not by this to speak disrespectfully of Dr. Böeker, but to induce our readers to avoid this slovenly mode of using a general name for so many diseases, without accurately distinguishing any; and most of all, from prescribing at random, without even ascertaining by experience, the appearances which authorize us to give, or to avoid, the most important remedy with which we are acquainted. Dr. Böeker has probably not derived those advantages which Mr. Hunter's labours have afforded the British schools. Besides which, he is either ignorant of our language, or his paper has been very badly translated. We have no such English word as *humecting*, nor any such expression as *ulcers broken up*; the word *cancer* too, when connected with gonorrhœa and bubo, must mean *chancre*, which in English has its appropriate signification; *complicated*, is probably an error of the press, and is indeed of little consequence, as not likely to mislead the reader.

We shall conclude our remarks, with expressing our hopes that the author, or some other practitioner in the North of Europe, will favour us with some further and more correct information on these diseases of poverty and wretchedness.

(To be concluded in our next.)

Report of the Diseases of Edinburgh for September, 1809.
By JOHN ROBERTON, M. D.

ALTHOUGH, during the present month, the weather has not been so wet as during the last, yet its general tendency has been soft. On some occasions there were even very heavy falls of rain, sometimes accompanied by severe gales of wind, especially towards the end of the month, and the mornings and evenings were frequently cold and disagreeable.

The barometer, although it rose high about the begin
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ning of the month, fell again considerably soon after, and continued very variable during the remainder.

The thermometer also varied considerably. During some of the pleasant days, it rose much higher than even at any time during last month; but, at other times, it fell very low, especially in the cold mornings and evenings.

The complaints mentioned last month still continue to prevail, with the addition of other diseases of a chronic nature, such as asthma and chronic catarrh. Some of the complaints of last month too, have, in many instances, assumed a greater degree of violence, and have occurred in practice, blended with each other. This has been particularly remarkable in the bowel complaints appearing blended with typhus fever. The fevers, even uncombined, are of a very bad kind. In various parts of the city, where the houses are closely pent up together, preventing that degree of circulation of air which is absolutely necessary to the preservation of health, these fevers are highly malignant and contagious. Many families, situate as described, have suffered severely from that disease.

The bowel complaints, which now indiscriminately affect old and young persons, continue with unabated severity, and, in many instances, they are accompanied by excruciating pain, and considerable discharges of blood, producing great debility in a very short period.

These two diseases, fever and bowel complaints, have frequently occurred in combination, and have in that form often terminated fatally.

These bowel complaints are but indifferently attended to. They are, as is the case with many other diseases, not immediately destructive in their consequences, which is one strong reason that they are often shamefully neglected.

I saw a case, some time ago, of an old lady, who had by an accident broken the tibia and fibula of her right leg. She then resided a few miles in the country. After replacing the bones, her surgeon, by way of saving the leg as much as possible from injury, seemed to think it improper to put her to trouble in evacuating her bowels, as he paid no attention to them for nearly seven weeks; during that period no evacuation of them took place oftener than twice. She was then seized with a violent bowel complaint, and her friends brought her to Edinburgh, and put her under my care. The bowel complaint, at this time, had ceased for two days, but there was great tension
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and considerable inequality felt on applying the hand to the abdomen. I next day desired that Dr. Gregory should be called; and she being very stout, we endeavoured to evacuate her bowels by brisk cathartics and injections. We in part effected our purpose, but not to the extent we could have wished, or that even seemed necessary. Dr. Gregory then suggested the propriety of administering a warm water injection; and after friction had been applied to the abdomen, there was thrown up by the rectum about four pounds of warm water, but this occasioned no evacuation; in a few hours after the same quantity was repeated; still, however, no evacuation followed. Strong decoctions of senna and tamarinds were at the same time taken, but soon after our patient fell into a state of stupor and expired. The relations would not suffer the body to be opened; but there is no doubt that she died of mortification of the bowels, and this in consequence of the neglect of a man, who practices extensively, and is deemed a good surgeon in the country.

To those men who practice their profession, and who, for the first time, have been informed by Dr. Hamilton of this place, in his book on bowel complaints, that diarrhoea, for instance, may be caused by an accumulation of *fæces* in the intestinal canal, have been shamefully negligent; and those who, at this late period, require to be informed, that in such complaints, instead of the immense variety of astringent mixtures, &c. which they had been in the habit of using for the removal of such complaints, more permanent effects may be produced by a dose or two of calomel and jalap, ought to be ashamed at the necessity of such a publication.

The indiscriminate use of any medicine must be wrong, and the injury sustained from it must be in proportion to the extent of opportunity which the physician has of unnecessarily employing it.

The propriety of employing purgative medicines is not to be doubted, and their efficacy in the removal of disease is certainly very great; yet they may, unquestionably, have been, and are daily, used in this part of the world particularly of late, with rather too liberal a hand.

Among the first lessons I recollect to have received in physic, to regulate the natural evacuations, and to relieve, if possible, morbid discharges of every description, was one; I therefore did not understand that the useful observations of Dr. Hamilton, on that subject, could at all be classed among our modern discoveries. The enthusiasm, therefore

therefore, which many felt on such a principle being announced by Dr. Hamilton, can only be explained in one way. That is, that such gentlemen as now use nothing else for the removal of almost *every* disease, had, previous to Dr. Hamilton's publication, paid no attention to the state of the bowels, and since that time no other consideration has been capable of attracting their attention. Whatever, therefore, the state or nature of the disease may be, they are determined to purge it off. Thus, by indiscriminately administering a useful medicine, while they show their own want of discrimination, they fail in effecting any useful purpose; and thus only bring on themselves disgrace, while they furnish a handle to those, who are anxious to find fault with every thing, to ascribe the failings of the physician solely to the general inutility of medicine.

It is indeed very plain, that Dr. Hamilton's book inculcates no more than what must have been known to every person who has studied enough of his profession to know, that when the bowels are overloaded with fæces, they must in the first instance be emptied with all imaginable speed.

Had the Doctor demonstrated to us, that purgatives possessed the power of curing complaints by certain specific qualities which could be attributed to them, independently of the action of the bowels being rendered regular, previous to their exhibition, he would certainly have been entitled to the praise of originality; but he neither can, nor I suppose, intends to claim it in the present instance. The same may be said of Mr. Abernethy of London, who, after Dr. Hamilton, cures an infinite number of diseases by purgation.

But to return: I may observe, that, on the present occasion, purgative medicines seem entitled to a preference in the bowel complaints, which are so common among us. Under certain circumstances, however, drastic purgatives create most excruciating pain; and I have, for the most part, found that a compound of equal parts of extracts of hyocianus and aloes, is preferable to any other purgative. While it is effectual in its operation, it produces no pain or even uneasiness. I have, in various instances, found it necessary to administer acid in a diluted state, in order to put a stop to the discharge of blood, which in some cases accompanied these bowel complaints. By these medicines I have experienced greater benefit than with any other.

Asthma

Asthma and chronic catarrh seem to have spread considerably since the commencement of the month. These complaints seem rather to admit only of temporary palliation than of complete removal.

From the long continuance of wet weather, we meet with many other complaints, but they are in general of a less decisive and less formidable nature than those I have already mentioned.

Princes Street.

*An Account of Diseases in an Eastern District of London
from September 20, to October 20, 1809.*

ACUTE DISEASES.			
Febris Intermittens - - -	1	Prolapsus Ani - - -	1
Catarrhus - - - - -	7	Dysuria - - - - -	5
Cynanche Tonsillaris -	4	Fluor Albus - - - -	7
Cholera - - - - -	5	Menorrhagia - - - -	3
Pneumonia - - - - -	2	Dysmenorrhœa - - -	2
Rheumatismus Acutus	3	Hysteria - - - - -	2
		Rheumatismus Chronicus	7
CHRONIC DISEASES.		PUERPERAL DISEASES.	
Tussis - - - - -	15	Menorrhagia Lochialis -	5
Dyspnœa - - - - -	7	Abcessus Mammæ - - -	2
Tussis cum Dyspnœa -	20	Rhagas Papillæ - - -	4
Hydrothorax - - - -	4	Dolores Post Partum -	7
Hæmoptysis - - - - -	3	INFANTILE DISEASES.	
Diarrhœa - - - - -	14	Febris Mesenterica - -	2
Enterodynia - - - - -	7	Convulsio - - - - -	2
Anasarca - - - - -	5	Dentitio - - - - -	1
Ascites - - - - -	2	Tussis - - - - -	4
Hæmorrhoids - - - - -	3	Aphthæ - - - - -	3
Prolapsus Vaginæ - -	1		

The different species of intestinal disease have lately prevailed to a considerable extent. Diarrhœas of the milder kind have been very frequent; but indeed so mild were the symptoms that they could hardly be said to constitute a disease. The pain was in general comparatively trifling, and the evacuations so gentle, that they might be considered as a salutary effort of the constitution, to relieve itself of something burdensome and offensive.

In some cases, the use of a gentle eccoprotic, and in others, the administration of a brisk cathartic, were found to be the most effectual mode of treatment.

Cholera

Cholera has been very frequent. In some instances, the disease appeared in its mildest form, and the evacuations by vomiting and purging, though sufficient to distinguish the disease, were no more than might, at any time, be occasioned by a slight accumulation of bile in the stomach and bowels. In other instances, however, the disease assumed a more unpleasant appearance.

Violent vomitings, and a considerable discharge from the bowels occurred, and these were attended with sharp pains in the course of the intestinal canal, with spasms in the lower extremities. In one instance, cold sweats and syncope occurred, as the precursors of a fatal termination, which took place in spite of every assistance that could be afforded.

The severity of cold, which was felt for a few days, has produced a premature introduction of some of those diseases which are peculiar to the winter. Cough and Catarrh, Dyspnoea and Peripneumonia, have been frequent at this early period. We may hope, however, that the return of a milder temperature, which has occurred within these few days, may at least suspend the aggravation of symptoms alarmingly dangerous.

INTELLIGENCE.

On Wednesday, the 18th ult. being the Festival of St. Luke, the College of Physicians held their Anniversary Meeting for the Harveyan Oration. Great expectations were entertained from the well-known acquirements of the Orator, (Dr. Heberden) who claims a sort of hereditary character as a scholar, a member of St. John's, Cambridge, and a Fellow of the London College. These expectations were not disappointed.

The Oration was throughout classical and perspicuous, delivered in a deliberate manner, and in a deep tone of voice, easily heard throughout the theatre, which was well attended. After mentioning most of the more celebrated characters who have adorned the College, the name of the late Dr. Heberden, the Orator's father, occurred in its order, and produced a pleasing melancholy effect on the whole audience. The preceding year furnished but too much scope for eulogy, by the death of three distinguished members, Sir George Baker, Dr. John Hunter, and Dr. Pitcairn. The two former having been authors, it was easy to commemorate by their writings as well as their characters. Dr. Pitcairn having left nothing but an exalted character, by which he could have been marked, furnished

furnished fewer materials for panegyric. But the general feelings required none to produce a general sympathy, which was most delicately improved by the apostrophe with which his name was introduced. The figure was truly classical, the address being to the second person.

On the whole, we never witnessed an oration that was heard with more attention, or that gave more universal satisfaction. We trust it will be printed.

As it is not the courtesy to introduce the names of recently defunct licentiates, no mention was of course made of Sir J. Macnamara Hayes. This was the only one of that body who died last year. Among the licentiates in Midwifery, we have to lament Dr. Poignand; and among the extras, Dr. Manning.

The new names added to the list of candidates for Fellowships are,

Dr. JAMES CHOLMELEY.

Dr. T. C. MORGAN.

Dr. RICHARD SIMMONS.

To the list of Licentiates, no less than 14.

Dr. A. HENDERSON.

Dr. H. EDGWORTH.

Dr. C. WHITTELL.

Dr. E. G. JONES.

Dr. J. DE C. LAFFAN.

Dr. MARK ROGET.

Dr. EDMOND LOCKYER.

Dr. R. B. TOMKINS.

Dr. JOSEPH ADAMS.

Dr. ALEXANDER LAWLER.

Dr. J. MACLEOD.

Dr. THOMAS HANCOCK.

Dr. J. PENDERLEATH.

Dr. JOHN BOOTH.

Extra Licentiates.

Dr. J. GASKING

Dr. R. ANDERSON.

Dr. J. F. BERGER.

The President continues in his office; and the Censors for the succeeding year are, Drs. HERVEY, MORRIS, WILLIS, and NEVINSON.

M. ALEXANDRE, of Bourdeaux, employs a simple method of filtering water, without either sand, sponge, or pounded charcoal. It consists in merely causing the liquid to pass through the capillary tubes of a piece of half-worn out cotton. It is well known that a skein of thread, or a ribbon, one end of which is put into a vessel, while the other hangs over the side, will very soon become a conductor of the liquid, which filters and runs off, till the vessel is nearly empty. This experiment, M. ALEXANDRE has applied on a large scale, to the purification of the water of the Garonne.

The acid, denominated pyrolignite of iron, obtained by the distillation of wood, is employed with great success in the arts. It has already been extracted from vinegar, without any empyreumatic smell, also from oil; and with it may be formed the base of a great number of solvents. M. VITALIS has applied it to the dy-
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ing of thread and cotton, and this practice is now followed in the manufactories of Rouen, where black cottons for mourning, which used formerly to be procured from Holland, are dyed in a solid and cheap manner, by means of the pyrolignite of iron. This colour lasts very long, and is not liable to turn rusty like common blacks.

The following method of preserving grapes is given in a French Journal. Take a cask or barrel inaccessible to the external air, and put it into a layer of bran dried in an oven, or of ashes well dried and sifted. Upon this, place a layer of bunches of grapes well cleaned, and gathered in the afternoon of a dry day, before they are perfectly ripe. Proceed thus with alternate layers of bran and grapes, till the barrel is full, taking care that the grapes do not touch each other, and to let the last layer be of bran; then close the barrel, so that the air may not be able to penetrate, which is an essential point. Grapes thus packed will keep nine or even twelve months. To restore them to their freshness, cut the end of the stalk of each bunch of grapes, and put that of white grapes into white wine, and that of the black grapes into red wine, as you would put flowers into water, to revive or to keep them fresh.

Early in next month, Dr. Buxton will publish an Essay on the Use of a regulated Temperature in Winter Cough and Consumption; including Observations on the different methods of producing such a temperature in the chambers of invalids.

CORRESPONDENCE.

We are very sensible of the severity of Dr. R's pen, as we have had occasion to remark: but we cannot insert anonymous observations on a gentleman who honours us with his name.

Observer's paper has not passed unnoticed. We hope however he will recollect how frequently the subject of chemist-apothecaries has been before the public. With him we sincerely regret that a well-educated and meritorious branch of the profession should be so ill rewarded. It is our intention to take up the subject hereafter more at large, when we shall avail ourselves of Observer's remarks in addition to our own.

We are obliged to Dr. Walker for his remarks; but the disease of brenning has been so often referred to, that we fear our Correspondents will be little interested in it.

We are much obliged to Verax for his communication, nor should the want of a real signature have prevented its insertion; but we wish him to remark, that in our present Number he will find it admitted that the remedy is not always successful, and also that the objections he makes to former trials are obviated in these last.—We are, however, thankful for his favour, and if he will shorten it, or permit us to do so, it shall be inserted in a future Number.

Since writing the first paragraph in this "Correspondence," we have received a letter from a Gentleman, who signs himself an Old Correspondent. We can only offer the same answer as the above to a communication in many respects similar.

ERRATUM.

Page 238, line 11, place the period after,—if the bougie be too large.

THE
Medical and Physical Journal.

VOL. XXII.] DECEMBER, 1809. [NO. 130.

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REMARKS ON REVIEWING.

THE most painful part of all our labours is the Critique we conceive it our duty to offer on the medical productions of the day. Though this part of our Journal is always anonymous, yet we are not so disingenuous as to wish to protect ourselves by such an evasion. On many occasions, if we are obliged to differ, and more particularly if circumstances oblige us to mark that difference with any severity, we have expressed a readiness to receive any explanation from the author or his friends.

The object of our Journal is the improvement of medical knowledge. This cannot be attained without the most scrupulous impartiality; and we conceive may be further aided by a mode of expression, which may not entirely discourage a young author, even if we find it necessary to reprove him. Towards veterans, less delicacy may be required. After having frequently appeared before the public, an author must be considered incorrigible if he sins from carelessness or ignorance; and it becomes necessary to mark his errors so strongly, that if he cannot feel reproof, the reader may not be misled.

Impressed with these sentiments, we very early communicated our wish that the critiques of a rival Journal should savour less of that severity with which a periodical publication from the same metropolis was at that time too justly accused. Whether in consequence of our hint, we know not, but are glad to perceive some amendment in that quarter. We should have left unnoticed another publication, the whole object of which is critical, had we not received the following paper from a gentleman, who has favoured us with his name. For some time, however, we had determined to avoid interfering in a contest with which, as Editors of the Journal, we were no way connected. If we have altered our intention, we must beg our readers to recollect: First, the great importance of the

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disease to which the controversy relates. Next, the general admission of surgeons, that the topical application of *iron* to sores deemed cancerous, as suggested by Mr. Carmichael, has been found highly serviceable; and, lastly, may we be permitted to add, that the ground-work of the practice being derived from the opinions of one of our Editors, many difficulties occurred to us in every attempt at reviewing Mr. Carmichael's "*Essay on the Effect of Iron on Cancers*;" we thought the present, therefore, a good opportunity of bringing it before our readers, from a name which, though not concealed from, is entirely new to us.

The reader will perceive, on perusing the communication which follows our remarks, that it bears a reference to other critiques in the same number in which Mr. Carmichael is reviewed. This induced us to read the whole number, that we might not commit ourselves, and be under the necessity of making an excuse on the plea of ignorance. On the perusal, however, we thought we could not better serve the writers of that work, than by exhibiting our *Hibernian* correspondent in his true form. We leave to our readers to determine what apology may be made for the warmth of friendship, for the national failing of a love of humour, and for the crudities of one apparently not much accustomed to write.

We wish we could say the same for those men who profess to avoid "offending Dr. Lamb's feelings by irony or ridicule," yet at the close of their remarks, gently consign him to a mad-house, the government of which is to be committed to these merciful managers. Their sympathy for Dr. Reeve is of the same kind, "who, as they are informed, is a young man of much industry and some talents."—A critique, comprising exactly half a sheet, concludes (besides other expressions of condolence which we shall not transcribe) with remarking that all the information contained in his book, is collected from "modern works which are generally read."—Why then this wanton cruelty of eight pages of teasing? Would it not have been kind in these compassionate writers, to remind their readers of the best account of Cretinism ever yet published, and deemed worthy a place in the *Philosophical Transactions*? If it were thought necessary to mark in general terms their disappointment at the "*Essay on the Torpidity of Animals*," from the same ingenious writer, might they not have satisfied themselves with a few hints, by which the author might have conducted some future experiments with credit to himself, and advantage to the world?

The other authors referred to by our Correspondent, as
harshly

harshly treated in the same Number, are, Dr. Arnold and M. Richerand. Of the first of these, we find it difficult to say any thing, because we may perhaps be included in one part of the accusation. It is however remarkable, if the Critic's opinion be just, that our Reviewer should not have received an order to prepare a puff for Dr. Arnold's publication; yet on inquiry, he assures us, that he never heard of the pamphlet till he was referred to the review of it. Without therefore noticing even the *manners* with which Dr. Arnold is treated, we shall select one other passage from the review of Dr. Reeve. The *knowing part* of our Readers will see more in it than we shall take the trouble of pointing out; our principal motive in transcribing it is, in order that it may prove introductory to our apology for Mr. Carmichael.

"We are not willing (say these gentlemen) to admit the plea of haste to comply with a supposed impatience, which the public has never felt; and of interruption by professional employment, the assertion of which is impertinent, however true. We formerly stepped out of our way, to remonstrate with a distinguished writer on syphilis, for the coyness with which he withheld important information, because, as he thought, much yet remained to be learned; and we may now express our approbation of the candour and boldness with which another eminent writer * has repeatedly submitted to the public, ideas confessedly immature. These remarks, however, relate to subjects of practical importance, on which an early decision was required, and on which a just one could be formed by multiplied experience alone. In such cases, individual reputation might suffer by a full exposure of conjectures requiring to be verified, and an open avowal of imperfect information; but the interests of the profession must necessarily be advanced by the extension of curiosity and consequent research."

Thus one distinguished writer has done right in withholding part of his knowledge, and another in telling more than he knew; and this too on a disease for which we have a standard work, "founded on multiplied experience." And from whom? Let us answer in the words of these same gentlemen. In their remarks on M. Richerand, the only remaining piece alluded to by our Correspondent, is the following passage.—"Mr. Hunter's experiments have proved, beyond the possibility of doubt, that the matter of secondary venereal sores is not contagious, and

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* Mr. Abernethy.

the most respectable modern writers on this disease admit the fact." If then, after such an author had told us all *he* knew of this disease, it is still admissable for one "distinguished writer on syphilis" to hint that he knows more than he chooses to tell; and for another, "repeatedly to submit to the public, ideas confessedly immature;" Is one, who informs us of all he knows, and of a remedy, since generally approved, against the most deplorable of human miseries, to be held up as an object of public ridicule?

Before we take our leave of this subject, we think it proper to caution the reader against suspecting that the foot note in the quotation concerning a "distinguished" and an "eminent writer" is our addition. Who is meant by the first, we are still ignorant; nor should "we go out of our way" a second time, to cast so foul a reproach on any writer, whether distinguished or eminent, as to accuse him of intimating that he knew something more of the venereal disease than he chose to communicate to the world. We should even think it sufficient *once* to have hinted, that an "eminent writer" had repeatedly submitted to the public his confessedly "immature ideas."

In these remarks, we have endeavoured as much as possible to avoid the error of which we are accusing others. If we have failed, our intentions are at least honest; and without further apology, we shall offer the communication from which our suggestions originated.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

REVIEWS are become a necessary evil. It is very useful to resort to these literary jackalls for a faithful report of the prey they hunt down, and judge at our leisure of the flavour of the food we would be inclined to select, without the risk of appropriating to ourselves such rank and good-for-nothing game, as would be little accommodated to a delicate palate.

But if we cannot confide in the nose of our jackalls, or if they set up a yell out of time or tune to mislead us, it would be much better to discard them in toto, and trust to our own guidance, though at the expence of a little more labour, money, and time.

To come nearer the point, I have no quarrel with the
Medical

Medical Review of another learned metropolis; nor indeed with your own ingenious critiques, candid and gentle Editors of the London Medical Journal, as I more forcibly evince by my selecting you as my organ on this occasion, than I could by the most overpowering effulgence of compliment. But there is one of the trade that has been quarterly leading me astray, and perhaps, many other ignoramuses like myself, for the last twenty months; but I have detected the gentleman's unfitness for the office he administers, and I think it but honest to make known my discovery, in hopes of keeping out of ditches, other honest simple folks, who might be inclined to trust themselves to such guides.

His last number convinces me, that he entertains an utter aversion to every improvement that could shorten or better his road, or turn out of advantage to his fellow travellers in this sublunary pilgrimage. In a word, as some people shrink from a cat, or perspire at cheese, this impartial Reviewer shudders at talent and genius, and this well founded antipathy is the standard by which he measures the length, breadth, and depth of every delinquency or perfection that comes under his inspection.

The first ebullition of this aversion effervesces in his eulogium of Mr. Pearson's "*Principles of Surgery*," from which he quotes a passage, "possessing more than common strength and brilliancy, and speaking *the critic's* sentiments far more forcibly than he could speak them for himself." The passage which he esteems so congenial with his own sentiments, is a judicious remark, that, "Inattention to the scientific part of surgery, not uncommonly arises from the *conceit* of superior talents; and that nothing is more flattering to youthful vanity, nor inimical to his progress in knowledge, than for a young man to *fancy* himself to be a genius." Little, however, did this writer perceive that Mr. Pearson was not possessed, like himself, of a raging mania against talent, and that the name of John Hunter, and some others, did not throw him into convulsions, but that his only objection lay against the *conceit* and *fancy* of superior genius, and not against genius itself.

In other matters, there is not the slightest difference of opinion between the Critic and Mr. Pearson. Every thing and every word is "masterly," and "eloquent," and "modest," and "wise," and "judicious;" and in the desiderata of "Observation," "Philosophy," "Investigation and Induction," he *shrewdly* questions whether Mr. Pearson has

a rival in the profession at large. Lastly, a chapter in which "some *objections* are made to the old divisions of cancer," and in which cancers of different parts are *described* with an accuracy that denotes much and minute observation, and in which, "the desiderata in the *treatment* naturally suggest themselves to every benevolent mind," is dignified by the title of *a valuable chapter*.

Mr. Pearson is a man of high eminence in his profession, and of great and long established character, otherwise all this sickening panegyrick which his good sense must despise, would never have been lavished on him.

For the same reason, Mr. Davy also comes in for his share of applause.—It is now too late to be inimical to his talents, and it may induce a character of candour to appear to do them justice. But this writer, not contented with bestowing on his elegant and invaluable discoveries, their appropriate praises, confuses himself and his reader in a huddle of fine words, about "a competition with Sir Isaac Newton's philosophic greatness," and "a dazzling and elevated position which admits of *one advancement only in the ascent of honour*," the meaning of which I should have great satisfaction in discovering if I could.

Poor Dr. Lambe may be ripe, for aught I know, for a "mad house," and Dr. Arnold for a "conventicle."—Dr. Reeve may be very properly condoled with on "his discreditable publication," and Monsieur Richerand abused for his silly opinion, that French surgeons are as good as British; yet if those gentry had been rich, substantial, elderly, and even stupid well-established *English* practitioners, they would probably have been sucking, at this moment, the sweet honey-comb of applauses, profusely crammed down their throats by the compilation of the work alluded to.

I have strong reason to believe, that there is not one of the group, of whom I would not form a different opinion from that recommended to my adoption by these critical guides, if I could have had an opportunity of canvassing their works; but as they have not yet fallen into my hands, you will, good Sirs, excuse me, if I forbear to enter the lists on subjects with which I am little acquainted; for the truth is, the only author smarting under the lash, of whom I can pretend to the slightest knowledge, is my countryman, Mr. Carmichael; and on a comparison of the critique with the work, I have detected so much of mistake, misapprehension, mis-statement, and mis-reasoning, that I have formed a much more favourable opinion than I otherwise

wise

wise should of Messrs, Lambe, Arnold, and Reeve, and every other victim of their discipline and abuse.

Had I perused their works, I should probably have selected one of them for my present investigation.--As I have not, I have only to content myself with my countryman's.

Every body knows that Mr. Carmichael has discovered a remedy for cancer, whose efficacy has been evinced by a great variety of instances, in every part of the Empire. The cases published by himself are many in number, and are amply sufficient to satisfy any unprejudiced mind of the powers of the medicine he recommends, so that I can give the Critic but little credit for the affected candour with which he acknowledges, "that Mr. Carmichael's work contains cases of cancer in various parts of the body, cured *apparently!* by the use of iron. These cases are not all very clearly cancerous, but a sufficient number appear to us *incontestibly such*, and in these the *beneficial effects* are *so striking*, as to make us entertain very sanguine hopes that we may be indebted to Mr. C. if not for a specific, at least for the *most powerful remedy* against cancer, hitherto proposed." While, in a note, he attempts to rob him of one half of his merit, because Mr. Justamond, *by chance*, prescribed iron, in a remedy for this disease, along with other drugs, to which he attributed its beneficial effects, without dreaming that he owed its success to the iron; a circumstance with which the candid Critic could not be unacquainted, if it be true, as he insinuates, that he read not only the works of Mr. Justamond, but of Mr. Carmichael, whose unassuming account of the mode of making the discovery, and the progress of his mind in afterwards carrying it on, affords at least, presumptive proofs of his exclusive right to the entire and undivided merit.

But because the evidence of cases arrayed by Mr. C. was irresistible, the gentleman fairly slips them by, and directs his whole artillery against the theory which he finds it easy to represent in a ridiculous light, as indeed it is any theory how well-soever founded.

In my *humble* opinion, (for I am *merely* an Irishman) his attack has ended in utter discomfiture.

Mr. Carmichael does not seem to be "the man of youthful vanity, that fancies himself a genius," according to the brilliant passage already noticed of Mr. Pearson, and quoted by the Reviewer with such fervour of approbation. He appears far from claiming "emancipation from the laws of patient observation and careful induction, which

are imposed upon common-sized understandings, nor with a fastidious impetuosity *does he* attempt to rend the veil from nature, by the *mere* powers of his own intellect." He seems to consider, like Mr. Pearson, "that the science of healing, like every other branch of natural knowledge, is not the production of a vigorous imagination, nor a lively invention, but the offspring of long and diligent experience." And he appears to have learned it in the very way prescribed by Mr. Pearson. "In going from his study to the bedside of his patient, and returning from thence to his study again; and if he has penetrated the subtilty of nature, it was by submitting to become her patient and vigilant servant."

Let me however confess, I was at first a little startled at his ideas of "animal fungus," and "independent vitality," but I found the conjecture so strongly supported by a multitude of distinct circumstances, all tending to one point, and corroborating each other, that their connexion was too powerful to be overcome; and in spite of my reluctance, I was convinced of the value of a theory which Mr. Carmichael seems to set very little value upon, satisfied with the more substantial atchievement of establishing the efficacy of his remedy.

Instead of considering each of these insulated facts, and the reasoning founded upon them, our Censor seizes upon one, and that very far from being of the first magnitude, viz. That iron in the blood is, in a certain degree, capable of preventing the production of parasites, and triumphantly asks, "Is it true, that there is in red blood a peculiar salt of iron, which while circulating in the blood, is capable of destroying the life of the simple animals possessing colourless blood? Till this fact is proved, the *whole theory* has not a claim to probability." On looking to the author's disquisition on this subject, I find that he had *previously* given strong facts and reasons for supposing the independent vitality of cancer, as its gelatinous texture resembling zoophytes; its want of connection by blood-vessels with the neighbouring flesh; its insensibility; its appearance in parts endued with little life, or whose organization is injured; its commencement in a point like the incipency of all animals; its similarity in a variety of respects to hydatids; its increase by roots, and propagation by pea-like substances; and the strange and peculiar pain it occasions. *Afterwards*, when entering on the treatment, he maintains that the remedy itself affords a further presumption of its independent life, and from two simple circum-

circumstances, viz. 1st. That oxy-phosphate of iron, exists in the blood, as ascertained by Badia, Menghini, Vauquelin, and Fourcroy; and, 2dly. That oxy-phosphate of iron out of the blood, destroys colourless blooded animals, he infers that there is in red blood, a peculiar salt of iron, capable of destroying the lives of such animals.

Mr. C. having himself ascertained the deleterious effects of iron on worms, &c. by experiments which he calls *coarse*, and which from their nature must have necessarily been so, even in the hands of the most refined and exquisite experimentalist, receives the unqualified approbation of the Critic for dignifying them with that epithet, because in his opinion, as well as Mr. C's, they well deserved it.* But he asks, "Would he not have produced the same effect by corrosive sublimate, tobacco, and various other substances, incapable of curing Cancer?" Certainly he would. And in like manner he could not be ignorant that hemlock is a poison to man, though it will not kill a goat; and that arsenick is destructive both of one and the other; and therefore evinces that there is something in common between men and goats, which hemlock fails to indicate.

"At all events (he proceeds) Mr. C. has proved, that in an undiluted state, a condition in which iron is not found in red blooded animals, that substance is capable of destroying slugs and snails; and having conjectured that cancer is an animal of the nature of earth-worms, &c. he of course infers, that iron will likewise destroy cancer." But this is totally mistaking the drift of the argument, for Mr. C. first proves that iron will destroy worms, &c.; and next, that it has the same effect upon cancer.

* Another cavil on the subject of experiments is, that Mr. C. did not ascertain that giving iron internally increased the quantity in the blood; and, above all, did not shew, by chemical analysis, that the blood of cancerous patients contains less iron than that of other persons. No doubt these would be desirable experiments, and since Mr. C. has called the attention of chymists to the subject, we may hope that it will not be long before these facts are ascertained; but they require more time, attention, and precision, than could be well bestowed on them by a person who does not devote his life to chymistry. The Reviewer may suppose that the example of the illustrious Kirwan has made this a fashionable science in the city where he resides; but this is so far from the truth, that it appears from many passages of Mr. C's work, that it is at so low an ebb, that he is indebted to the London chymists for his medicines; and so far from being able to derive any assistance from the few who profess the science in Dublin, that he failed in procuring an account of the analysis of a chalybeate spa, even from the Chymical Professor of the Dublin Society.

cancer. Hence he infers that there is something similar in the nature of cancer and worms; an argument of no great strength, but not altogether to be omitted, as it lends some little weight to the conclusion, but totally different however from the deduction that originated only with the Critic.

It is acknowledged, "that Mr. C. has brought in proof of the independent life of cancer, one argument which, if well supported, would indeed have great weight, viz. that the cancerous mass has no connection by communicating vessels with the parts in which it is imbedded. If he is satisfied that the argument is of great weight, I think I shall satisfy him that he has failed in proving that it is not well supported.

Adverting to the dissections by which Mr. C. demonstrates his position, he exclaims, "It is truly wonderful, that in consequence of decomposition, the particles, for example, of a breast or a testicle should so combine as to produce the parasitic animal cancer, and that it should extend in every direction, *sparing only the trunks of arteries*, which were allowed to pass unhurt through the cancerous mass, with the exception of the arterial ramifications blocked up or destroyed. Incredible as this account may seem, such appears the result of Mr. C's dissections. But we strongly suspect that his dissections partook of the coarseness of his other experiments."

The candour that breathes through Mr. C's work, and which seems on one occasion to have touched the Critic very sensibly, is a sufficient assurance that if these were coarse experiments, he would not have concealed the fact; but the Reviewer probably imagines, that our Surgeons of Dublin are dolts and botches, and have neither dexterity, nor information, nor observation, nor intellect; and if such is his belief, he may well imagine the result of Mr. C's experiments incredible, particularly if my critical friend has discovered, as his words seem to indicate, that a breast or a testicle may, by the magic of decomposition, be suddenly transformed into a full-grown cancer, extending in every direction. Such a metamorphose, he might reasonably presume, would *spare* neither trunk nor branch of the blood vessels. But if he coolly considers an incipient cancer, scarcely more than a point, and gradually enlarging in size, he will have no great difficulty to conceive the minute "arterial ramifications blocked up or destroyed" by its progress, while the more powerful "trunks are allowed to pass unhurt through the cancerous mass," progressively growing round them.

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He next expresses some doubts, whether the subjects of the foregoing dissections were cancers; but if these doubts are not affected, they will soon be at rest, if he carefully peruses the cases referred to, in which he may satisfy himself (from the history and appearances of the disease before death, and the *carcinomatous substance*, as described by Bailie and Abernethy, found on dissection) that they were genuine cancers. And if he still pretends to doubt, from a dislike to the *scite* of the disease, let him read Mr. C's Disquisition on Lupus and *Noli me tangere*, at the end of the first series of cases, which he probably passed over with them, in his hurry to grapple with the Author's theory. And if he "will continue to question the truth of the main argument, till it is explained in what manner the independent vitality of Cancer is to be reconciled with the *avowed fact*, that cancer is propagated along the course of the lymphatics," he will perhaps not long continue to question it, if he reads the 4th chapter a little more diligently, in which he will find (p. 300) the *avowed fact* he alludes to, at least greatly shaken if not most satisfactorily disproved and refuted.*

His next objection to Mr. C. arises from his averring, that the breast, uterus, ovaria, and testicles are most subject to cancer at that period of life when their vitality is diminished, and that they are become useless appendages of the system; for though he allows the fact, he somewhat smartly replies, "that the lips, tongue, and stomach are subject to the disease, though they never become useless appendages to the system."

But his short sightedness prevented him from seeing, in his very next quotation, a reason why they should also be subject to cancer, viz. "that glandular parts have a tendency to decomposition, as is evinced by their so soon undergoing the putrefactive fermentation after death," a remark, which gives the Critic an opportunity of observing, with great composure, triteness, and gravity, "that the truth is, it is vain to look for analogies between the decomposition of a lifeless mass, and the changes of structure in the parts of a living body. As if no occasion could occur, in which, any elucidation might arise from a comparison of the living body with the dead, or
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* A strong proof of the Reviewer's mistake is, that if an animal receives a bruise before it is killed, the part affected is the first to run into the putrefactive fermentation afterwards. We have no instance of cancer observed in cattle, but in human beings a bruise is the most common cause of the disease.

as if the different degrees of vitality were to be allowed no zero in the standard that measures them.

But garbled and divellicated from their meaning and mutual support, as Mr. Carmichael's arguments appear in the critique, the objections brought against them make but little impression on a person, who carries in his mind the connected series in which he has unfolded them. I cannot well quote one observation, without others relating to the subject in question, and shall barely refer the reader to the passages contained between pages 262 and 273; and from the information I have there obtained, shall proceed, without any quotation, to disentangle the skein of difficulties by which a very plain story may be rendered obscure.

The Reviewer asks, if the rapidity of decomposition be the cause why cancer does not take place when mortification occurs, how are we to account for the absence of cancer in that *slow* dissolution or gangrene of the extremities occasioned by the ossification of the arteries? I answer, such a gangrene is a real mortification; and the dissolution is not slow, but quick. It may be slow, with respect to the entire limb, but it is instantaneous with regard to that portion which the blood ceases to visit.

And again, "If a diminution of life be the cause of that tendency to dissolution and actual decomposition, which gives rise to cancer in the breasts of old maids, and in the testicles of old men, is there not still less activity and life in paralytic limbs, and therefore a still more powerful cause of cancer?" I reply, there is less *activity* in such limbs from the affection of the nerves, but not less *life*; because the circulation, though more languid than in health, is more powerful than in the testes or mamma alluded to, and therefore paralytic limbs are less liable to cancer.

"If it be true, that the cause of cancer is a diminution of life connected with a languid circulation, the indication of cure should be to excite the drooping powers of life by stimuli, so as to accelerate the arterial action and prevent decomposition; a practice contradicted by the most eminent writers and by Mr. C. himself." This query strongly corroborates Mr. C's theory, for if the natural indication of cure is more injurious than serviceable, it follows, that the disease is radically and essentially different from every other--and why does not accelerating the arterial action cure the disease? Because it is an animal fungus unconnected with the arterial system, and
though

though it might, perhaps, have been *prevented* by such acceleration, it can never, by that means, be cured.

The same fact accounts for the beneficial effects of lessening the force of the circulation after the disease is formed, for "heat and moisture are produced by the increased force of the blood and action of the vessels, than which nothing can more conduce to the growth of parasites. Pain and irritation must at all events be the consequence around the extraneous body, whether living or dead; and it is natural for the patient to think, that whatever produces pain must be injurious. Yet, even this admits of a doubt, as the very irritation he complains of, may be the fore-runner of ulceration, an event that checks the progress of the disease, and is an effort of Nature to throw it off."—p. 392 of Essay.

But *before* the formation of the disease, the lowering system would evidently be no trivial auxiliary to its production; and it is a well known fact, that women who suffer most from menorrhagia, are most subject to carcinoma.

The Reviewer objects against the observation, that supuration only takes place when a portion of the cancer loses its vitality, as in the Guinea-worm; that it might as well be said, that the suppuration of a scrophulous gland depends upon the same cause. This I acknowledge, if the position stood *singly*; but if it has been previously proved, that cancer is an animal fungus, this argument corroborates the opinion, though it could not have verified it.

With respect to the fact, that cancer sometimes assumes the hydatid structure, the Reviewer makes some merry observations, and entertains an ardent, and indeed a very witty hope, that it may continue to improve, till it exerts its locomotive powers in walking out of its human habitation. But the world is pestered enough already with walking *parasites*; and I am sure, Messrs. Davy and Pearson will join me in the wish, that there was rather a truce to the compliments of those already *in esse*, than that there should be an increase to the brood.

The passage contains no objection to be answered; and I have only to remark, that he is under a mistake with respect to Dr. Adams's opinion; for that Gentleman does not suppose the cavities usual in cancer to be hydatids, but the cells containing fat, which are formed by the roots of the cancerous mass.

From this part of his critique, as well as from the *incomprehensible*

comprehensible train of fancied reasoning with which it begins, the writer appears hostile to every attempt, tracing any laws concerning the production and powers of those beings which form the lowest links of life, and almost to insinuate, that it would be sinful to advance a conjecture as to the means by which they entered into existence; as if the equivocal birth of a parasitic mushroom or intestinal maggot, could affect our long established opinions of the creation of man and other animals, whose mode of generation is obvious. But with respect to his sneer at the Reviewers of Darwin and Hunter, let me ask him, if a new-laid egg does not possess the living principle?—if not, why should it bring forth a chick under the warmth of a hen, when a stale one, in which that principle is incontestibly extinct, will never be hatched? And if he acknowledges the fact, is not a fresh egg an instance “that life may exist without matter being in a state of action, and only evinced by the property of self-preservation preventing decomposition.” Let him next account for the production of the green vegetable matter noticed by Priestley; for that of hydatids in the livers and brains of sheep*; of worms, whose genera nowhere exist but in the intestines; and particularly, let him explain how a worm could have found a way into the intestines of an infant in the womb. If he can do all this, without departing from his enmity to spontaneous and equivocal generation, I shall willingly admit my own ignorance, and that of Messrs. Hunter and Darwin, and my friend Carmichael.

In the only observation remaining to be considered, our Critic, arguing on the benefit arising from the internal use of iron, exclaims, “We cannot see how, according to the theory, an increased quantity of iron in the blood can have any effect in destroying cancer, since a vascular connexion between the diseased mass and the parts around, is denied by the author.” But if carcinoma, in drawing its nourishment, by its own intrinsic powers, from the surrounding parts, and with it imbibes a quantity of the iron, may it not thus be destroyed, although there should be “no vascular connexion between the diseased mass and the parts around?”

The.

* The latter fact may evince the tendency of the living brain to run into decomposition, and accords with the Reviewers remark, that after death it undergoes the most rapid putrefaction.

The Critic must have had some ingenuity to pass over his author's remarks on the office which iron performs in the circulation. He exhibits no less contrivance in shutting his eyes to the more useful observations of Mr. Carmichael, in which he discriminates the two species of consumption, which require such opposite modes of treatment, that what may cure in one will kill in the other. This momentous discrimination is not even hinted at, except in an observation on Mr. C's description of tubercles, as bearing "a resemblance to cancer of the face, in their size, appearance, and structure, and the mode in which they produce ulceration and suppuration of the surrounding parts,"* *which does appear* to the Critic "so preposterous, and so far from the truth, that he must deny the allegations altogether."

After this acute reasoning, and perspicuous criticism, follows the sentence from which alone we can learn any thing of Mr. C's discrimination of two species of consumption, "The plan of treatment grounded on such a theory, is obviously to be the opposite of that recommended in the florid consumption."

Other diseases demonstrated by the author to arise from too much, or too little, iron in the system, were also unworthy of a remark. But why should he bestow a thought upon trifles when to have brought to light an alleviation, and, in some cases, a remedy, for the most gloomy and stubborn of all diseases. When, to have promulgated it to the world the instant its value was ascertained. When, to have detailed its virtues and defects, and the various modes of promoting the one, and guarding against the other, with a minuteness and precision that puts every *willing* practitioner on a level with the inventor, in prescribing and administering every preparation he employs. When, to have done all this, of which not a particle is denied, obtained no better treatment than that which I have just investigated. But when we compare it with the praises lavished on a chapter, however valuable, on the same subject, containing only an imperfect attempt at the discrimination of diseases, and an honest lamentation that the author can afford them no cure or palliation, we shall leave our readers to make the inference.

Few men who consider the matter in the light I have done, will not be disgusted with the strong features of
grimace

* Perhaps Mr. C. alludes to the description of cancer of the face, p. 108.

grimace displayed on all occasions by this Reviewer. If he has any regard to the improvement of a science, the most important in this life, let me seriously recommend him to peruse the subjects of his criticism a little more at large, and with a little more industry, if he wishes to comprehend them; and a little more candour and fair dealing, if he expects any deference to his decisions. He will find in the end, if he has not already found, that it is not possible to write down a work of merit, or impede the progress of improvements founded in reason.

T. R.

The perusal of the above will suggest to our Readers, the illiberality of attempting to crush, as it were, every improvement in the bud. Who will venture to offer a remedy, however valuable, to the public, if the consequence is to be a fastidious and unfeeling attack on every vulnerable part of his publication? And what so easy as to make a thing ridiculous? The great object of good breeding and a liberal education is to correct that propensity to satire, always met with in vulgar minds. This is so well known that men are ashamed to commit their names to such publications. But does not this argue something worse than we have expressed?

It is true, that works of diligence, accuracy, and information have found their way, in spite of the most artful attempts to arrest them. But these are not the only considerations; when the work of a physician, who, the Reviewers are informed is a young man of much industry and some talent, is thus exhibited to a neighbourhood, in which he expects his future advancement, it is impossible to say what advantage may be made of it by an unprincipled opposition. The critique is exposed to the view of those who cannot understand the subject, and the force of ridicule is often irresistible.

These suggestions have been strengthened in our minds by a correspondence which the recommendation of cob-web has produced. Can we expect to receive useful practical information, if we expose those who favour us with it to all the severity of ridicule? We have unquestionable authority, that an ague in Walcheren, which resisted bark and arsenick, was cured by cob-web, even in the pestilential air from whence it arose. Can we then admit the wit, however classical or refined, if directed against those who would direct our attention to such a remedy?

On

On the Medicinal Use of Cobweb. By W. SIMMONS,
Surgeon, at Manchester.

THE use of Cobweb, in the treatment of ague, has lately engaged the attention of several of your correspondents. Very early in my professional life, I had extensive opportunities of seeing it employed in that disease, and with success. In the year 1778, intermittent fever was very prevalent, and did not yield, as formerly, to the Peruvian bark. The 'Tasteless Ague Drop' then came into vogue, as an empirical remedy, which, on analysis, proved to be a preparation of white arsenic. Before the constituent ingredients of this compound were known, it was employed chiefly by the patients themselves, and medical assistance was seldom sought, except to relieve from the effects of an over-dose. At this period, the gentleman with whom I then resided, among other circumstances, gave trial to cobweb. His method was to make ten grains of the cobweb into a bolus with conserve of roses, and to exhibit this quantity three times a day. This practice was attended with success, even in cases where the bark had previously failed. Writing from memory, at such a distance of time, I can only relate the fact; the recollection of which has been kept fresh in my mind, by occasionally mentioning it in conversation. Here the ague is rarely met with, and is generally an imported disease.

From one case that occurred, the body of the spider would seem to be possessed of the property of preventing the return of an intermittent, as well as the web:—A miller, of the name of Clowes, of his own accord, swallowed a large spider in half a pint of warm ale; the second paroxysm was weakened by it, and by taking a second dose, during the next interval, the disease was cured.

Origin of Ophthalmia.

Among the causes of Ophthalmia, assigned by practical writers, I do not recollect that they have enumerated the bare inspection of the eye, when in an inflamed state. Yet I have met with something like it, and what, to one less cautious in inducting, might be assumed as equivalent to proof. A gentleman, who is but recently recovered from an attack, informed me, that, without any previous indisposition of these organs, when looking into the eyes

of a friend, then afflicted with ophthalmia, he was himself suddenly seized with this disease. He described the sensation to be 'like a stream of something subtle issuing from the infected eyes into his own;' and which caused him present uneasiness. Whether so produced, or not, the inflammation in his case was certainly violent, and to subdue it required powerful means of depletion.

In turning over Montaigne's Essays, a few months ago, I met with a passage, which may be thought applicable to the subject. It is taken from the English edition by Cotton, printed in 1685, and with it I shall conclude :

' Dum spectant oculi læsos læduntur et ipsi.'

Ovid. Amor. c. 2.

' Viewing some eyes, eyes to be sore are brought.'

Nov. 8, 1809.

DR. ALDER'S *Proofs of the proximate Causes of Diseases from the Practice of Physic.*

(In Continuation.)

IT will be easy for Gentlemen to raise a formidable opposition against me here, for three reasons, even supposing my theory is right: for, in the first place, I can scarcely prefer any practice whatever, (however right it may be) without having somebody against it; and in truth I fear it must be owned, that if I adopt the most efficacious and perfect practice possible to be used for all cases, and for every case, I shall do infinitely more than anybody else has done; while at the same time this (as I said before) is that part of my work for which I feel myself adequate. In the second place, supposing (which is supposing a great deal,) that I select the proper practice in every instance, I may yet err *in connecting this practice with my theory*. But, in the third place, I apprehend it is very possible for me to select wrong practices, and yet connect my theory with them; just in the same way as most who have gone before me have acted, when they have hung many right practices upon a wrong theory. And I the rather make these observations, because my opponents, who have hitherto generally confined themselves to secret murmuring and *insidious practices*, are most likely now to come forth with the old trite but true maxim of "judge of a tree by its fruits," and, by *misapplying it*, bring reproach upon a theory, when error, if any, *lies only in its application*.

plication. It is clear that my theory, if good, will not lead to bad practices; but, at the same time, it is equally obvious, that a person by blundering *may attach bad practices to a good theory.*

After these observations, I shall beg to proceed; and shall use all the caution and diligence I can.

Bleeding.—People seldom think of bleeding in fever in this country, except to check mere arterial action, *i. e.* increased action of the arteries without any inflammatory tension, or apoplectic state; and this is a purpose for which it is least wanted; and its employment here must, of course, appear somewhat of a doubtful nature. But as in other countries, (and these warm ones too as well as cold ones,) and occasionally in this, there often is great occasion to use it for other purposes, so in them it often appears more successful. Dr. Chisholme, for instance, says, that (from many trials) he found it the only efficacious remedy to remove a dangerous congestion in the lungs, *though he used it in the cold stage when the pulse was very feeble, and the arterial action very languid.* And I think it fortunate, that, for further information respecting this unusual and apparently critical use of it, I have it in my power to refer to a living and British author; but, at the same time, I cannot but think that this author has here, by his practice as well as theory, done much to destroy what he said in other places against bleeding; for, if Dr. Chisholme has often safely and efficaciously used it in the cold stage, (and from his own account I have no doubt he has,) I should, in *many* cases of yellow fever, as well as others, think it equal to *mercury*, and should regard only as a *memento* what he says of its ultimate bad effect where the blood drawn was red, and threw up an inflammatory crust.

Cleghorn used bleeding in remitting and intermitting fevers in a warm climate, very generally and successfully; but he had but little hope from it, *except on the first attack*, and he employed it in the beginning of the hot fit. Dr. Hillary and Dr. McLean, respectively, from their practice in remitting fever in the West Indies, speak of bleeding in the same way; and Dr. Rush, and many others in America, bear the same testimony. Sydenham speaks in the same way of it in England, Sir John Pringle in the Netherlands, and Prosper Alpinus in Egypt. Most of these are explicit in their declarations, that it must be used before the *third* day, and often sooner, just as is the case in pneumonia. They most of them used it to abate and pre-

vent high and real inflammatory symptoms and congestions. But Sydenham once used it with instant success, when all the powers of vitality were oppressed, and nearly extinct, (evidently, in my judgment, from a congestion in the lungs,) the skin being cool. And Dr. Rush used it with success, whenever the pulse was *tense*, whether it was preternaturally slow or strong, and whether it was in the exacerbation or remission; though he most usually bled in the exacerbation. Dr. Rush seemed to consider *tension* of the arteries as the principal circumstance indicative of the propriety of bleeding. Dr. Rush often drew more than one hundred ounces of blood in seven days.

The greater part of those who practised in France too, in that dreadful plague which scourged Marseilles, found bleeding very efficacious.

Yet, after all these examples of the efficacy of bleeding in the remitting fever, whether called contagious or not, we find an author, (Dr. Thomas,) in treating of it, say, "*In every instance almost in which bleeding has been adopted, it has proved highly pernicious, by inducing a state of extreme debility, under which the powers of life soon became extinct.*"

It is true, Dr. Lind, Dr. Clarke, and Dr. Chisholme, several practitioners in the West Indies, and in the United States of America, and some of those who practised at Marseilles, have been against bleeding in remitting fevers; but when other gentlemen have found bleeding very useful in the very same fevers, we must conclude that it is useful, and seek some reasons to account for their saying it is not so.

1st. It might not appear of much, or any efficacy, upon the whole, in the cases in which they tried it. But people who were afraid of a remedy would not like to try it, except in desperate cases, and often when others had failed, or it was too late for it to be beneficial.

2dly. Almost all these people had a prejudice against bleeding; they thought it *must* increase debility. And some of them, at the same time, had favourite remedies to recommend.

But the instances in which bleeding has *appeared* to do harm really are very few; and indeed they could scarcely be otherwise than so; for when a man *thought* bleeding had done harm, he would seldom venture to try it again. And if we subtract from these, those in which it was only *thought* to do harm; and again from these, those in which it was employed *contrary to the rules laid down for its exhibition*,

hibition, we shall most probably have but a very small remainder.

It must be acknowledged, that *venasection* is a practice which, at first glance, palpably seems to result from my theory, (though the limitations of it, according to the same theory, are more numerous than one might imagine.) And I think it must at the same time be admitted, by those who are extensively conversant with these, that both *dissections* and *practice* amply confirm its general utility, while the symptoms *accurately considered* do not in reality afford any thing against it. It is a difficult point, however, to specify all the limitations of it.

The Tourniquet.—Mr. Kellie says he has found the application of the tourniquet prevent or put a stop to the cold fit of an intermittent in many instances. And a gentleman, in Dr. Coxe's Philadelphia Register, informs us, he has found it serviceable in typhus. But Mr. Kellie used it to compress the artery, and the other gentleman to check the blood in the vein. It appeared to me (before I saw what this gentleman had said) that Mr. Kellie's success was owing, in a great measure, to his compressing *the vein*; and I find my sentiments are strengthened by those of one of our best anatomists: for I asked him, "Do you think it possible to compress the femoral artery without, in some degree, compressing the vein?" And his answer was, "In some degree?—No, certainly not." I then said, "As the tourniquet is commonly used, do you think the blood is stopped in the vein as much as in the artery, the vein being more compressible?" and to this he replied, "When the tourniquet is used, I think blood usually must be more checked in the vein than in the artery, the vein being more compressible; but there sometimes is a *lusus nature* in the veins."

But the tourniquet thus used, must remedy, in the vital parts, both arterial depletion and venous plethora, as well as pulmonic congestion; (that is, all the causes of the bad symptoms.)

Several unpleasant effects, however, have followed the use of the tourniquet in some cases. But it is more difficult to account for the bad effects of this agent than the good ones. If the vein be not sufficiently compressed, or if the artery be compressed too much, or too long, or the artery be diseased, &c. &c. bad effects must arise in a very evident way.

Mercury.—Mercury seems almost a universal remedy; and it has been found useful in most of the diseases which

I attribute to impeded pulmonary transmission, as well as particularly in fevers. Nay, it seems most efficacious to prevent them: its powers in preventing fevers have been established some years; and Mons. Portal it seems has found it very successful in preventing most of the other diseases spoken of. And it is worthy of notice, that Mons. Portal has proved there is as strict an affinity in the *predisposition to those diseases which arise principally from an impeded pulmonary transmission*, as we know there is between these diseases themselves. He exhibited mercury, however, under the idea that some syphilitic taint was the ground of them; which idea I think, in very many instances, is not correct.

Mercury seems to relieve internal congestions, (in several stages, and from some different causes,) and to prevent them. It relieves many congestions in the liver, spleen, and mesentery, and also in the head. It is evident too from the change in symptoms which has often followed its use, that it relieves *some* congestions in the lungs. The question is, *how it does all this?* It evidently drives the fluids from the internal to the external parts, and opens all the excretories, and lets them off, *keeping the stomach and bowels in good order*. For this purpose, different articles are required according to circumstances. They cannot be got in good order by tonics, without they are cleared of all foul contents. Agreeably to that aphorism of Hippocrates, "the more you nourish a foul body the more you injure it." And they cannot be kept in good order without the body is so managed as not to load them with foul contents. Dr. Hamilton, and several others, have shewn the great importance of attending to the state of the intestinal canal in the diseases in question.—I shall first inquire how a disordered state of the intestinal canal can do harm; and then point out the remedies calculated to obviate or prevent it. When the intestinal canal is disordered, much gas will usually be generated, which will partly distend it, and partly be obtruded into the lacteals, (from the peristaltic contractions of the intestines,) and thus conveyed into the sanguiferous system, increasing congestions, first in the lungs, and afterwards in the whole body. In this I am supported, both by dissections and symptoms. An apoplectic state may arise from it very suddenly. But when air only distends the intestines, it must push up the diaphragm, and greatly impede respiration. From the great quantity of nervous matter, however, distributed upon the intestinal canal, a disordered state of it (I am willing to add) must depress the

the nervous system, and by that means act essentially upon the body: but, upon the whole, I do not think that this action of it is so dangerous as the two preceding.

To remove this disordered state of the intestinal canal, *emetics, purgatives, tonics, wine and bark, pure air, pleasing the mind, the cold bath, and astringents, &c.* have been used according to circumstances. But many of them are often used for another purpose, and well demand a *particular* consideration. And emetics do not seem well adapted to bad fevers in a hot climate, as they render the stomach so irritable.

Emetics.—Emetics seem very serviceable in some febrile diseases, in cold and temperate climates. They have done much good, given some hours previous to the cold fit of intermittents; and in nauseating doses they are very efficacious, when there is a phlegmonic inflammation, or a strong tendency to it, in the system, with fever, as often happens to lying-in women, and as exists after catching cold, &c. But for an action purely febrile, other remedies are much better; and they often hurt the stomach, even in this country. Dr. Cullen, (it seems, following his theory,) made them by far too fashionable. When they do good, (independently of clearing the stomach,) it is by driving the fluids from the internal to the external parts, and relaxing the skin so as to let them off. Also in inflammatory cases (*not purely febrile*) they do good by relaxing the inflammatory contraction of the arteries.

Pleasing the mind.—The utility of this is well known, and its prodigious power will be appreciated by reading Falconer's and Tissot's Dissertations before spoken of. The first mentions that sailors, who had been confined for months with the scurvy, recovered most rapidly when they expected an engagement; and, when the battle came on, they were all up and at their fighting quarters; and that at the siege of Breda, the garrison all became as bad almost as they could be with this disease, but that, on receiving assurance of speedy relief, and some coloured water, or some such thing, alleged to be a sovereign remedy, they all recovered cheerfulness and health most perfectly, tho' but a little before *their muscles were hardened and contracted*, and they were not able to move. And the scurvy is a disease of all others the most adapted to prove the great effect cheerfulness has upon the *sanguiferous* system, because almost the whole of the disease lies in this system, and comparatively but very little of it in the nervous. The almost rotten state of the body too, and the rigidity and

Dr. Alder, on the proximate Causes of Diseases.

contraction of the muscles which constitute it, cannot be removed so soon and perfectly as they were here, but by remedies which have *a prodigious effect upon the sanguiferous system*; and if these remedies act in the first place *upon the nervous*, we can in these cases (as well as several others) only infer, that the nerves are *the media* through which they operate.

The question then is, how does a pleasant state of mind act upon the blood-vessels? It no doubt instantly affects almost every part on which there is distributed nervous matter, and in this way produces much effect. But still it acts greatly through the medium of respiration. For, as far as my observation goes, the respiration becomes free and perfect as the mind becomes cheerful, and impeded as it becomes depressed.

As, however, to the mind, in fevers, (from the converse of this holding good, that is, from the mind being distressed and oppressed, as respiration is so) it often is not easy to please the mind without previously making the respiration good; which is saying, that mere mental remedies often will not act. In some cases too we have no cheering prospects to offer sufficient to make much impression. In both these cases, however, we may often induce a grateful state of the mind by operating on the body; in the former, by remedies particularly calculated to remove the disease from the respiratory as well as other organs; and, in the latter, sometimes by WINE, OPIUM, &c. And Dr. Falconer, in the same books, judges as I do, that a great part of the beneficial effects of these remedies, in certain cases, is owing to their inducing a grateful state of mind. It is almost useless now, perhaps, to add, that through the mind they affect respiration. But it certainly is not in all cases, that either opium or wine will please the mind; I believe they very seldom will, where, from some particularly disordered state of the body, they do harm to it. But, I think, where they do no harm to the body, they always will—where they do good, they must. This part of the disquisition may, perhaps, appear to some but little better than a string of truisms; but we shall hereafter make, I trust, many important inferences from it.

I am, &c.

THOMAS ALDER.

Nov. 1, 1809.

(To be continued.)

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

"Unde sit, ut ex quibusdam academiis redeant doctores parum docti, nihil minus quam apti ad medicinam, aut docendam, aut faciendam.

"Sicut igitur istas academiarum constitutiones non improbo, sed veneror; abusus tamen tam multos probare nemo potest."

BY the Circular Letter from Dr. Harrison, upon the subject of Medical Reform, which, together with the resolutions passed by the Medical Society at Horncastle, have been published in your Journal of this month, it appears that the measures projected by that gentleman have not, as was by many supposed, been entirely abandoned. As the question when it was first agitated was not very generally understood, and soon became confused and involved in the discussion of the rights and privileges of the several corporate bodies already in existence, I am sorry that the zealous promoters of it have not published a detail of the principal heads of the bill to be laid before parliament, and of the leading features of the plan, before they called upon their medical brethren for pecuniary aid. In the propriety of the object, I believe no man will differ from them—the exclusion of quacks and pretenders from the exercise of the profession, and the improvement of the regular race. But I apprehend that many will differ about the means of effecting so difficult a point, and all agree that a power so extensive in its operations should not be wantonly bestowed, or loosely defined.

By the way, I may observe, that it seems to be the fate of Dr. Harrison, like many other modern reformers, to be almost singular and unassisted in his exertions; and one would suppose that it did not argue well for the necessity or expediency of a measure which affects so large a body as the whole medical profession, regular and irregular, that it has been left to the entire guidance of a society little known beyond their own country. Indeed, it appears to us country practitioners, who are accustomed to look up to the "enlightened metropolis" for the origin of most of the improvements by which we are benefited, that we have some reason to doubt the efficacy of measures, in which they not only have no part, but about which they do not seem at all to interest themselves. This observation would fail of having any weight, if it were, as Dr. H. seems to infer,

fer, that in the country only, irregularities occur; whereas it is a most notorious fact, that it is in London almost exclusively, that "the vilest empiric is as much at liberty to exercise the curative art, as the most skilful and regular practitioner;"* and when they do infest the country, it is well known that, excepting a few solitary and obsolete "water-doctors" and "leg-doctors," they emanate entirely from the metropolis. I cannot suppose that a man of liberal sentiment would include under that honourable appellation the present numerous, respectable, and well-informed and useful class of practitioners, the country surgeons, as Dr. H. seems to do, when he says, "quacks, aware of their ignorance and misdeeds, artfully conceal them, by compounding and dispensing their own drugs;" for it is certain that all country practitioners do mix and dispense their own medicines. If surgeon-apothecaries are not to be allowed to act as physicians in ordinary, the obvious consequence must be that the number of physicians must be multiplied, and a corresponding depreciation in the recompense of their labours must take place; and instead of a guinea or two as a common fee, the Doctor must content himself with receiving a dollar, or a half-crown, as they do upon most parts of the continent. This will ultimately be the case, granting that, according to the original plan, the present race of practitioners are not made amenable to an *ex post facto* law.

There is another, I think, obvious fault in the plan proposed, which is, to oblige apothecaries to submit to a five years apprenticeship, when it is well known that all the art and perfect dexterity in compounding medicines may be learnt by a young man of ordinary capacity in one, two, or at most three years, if he is intended for a mere apothecary; after which period, if bound for five years, he is losing his time, and the just reward of his services, or is exposed to all the temptations which belong to an idle life, I believe, by the bye, that most people will allow, that it would be beneficial to oblige regular physicians to serve for a certain time in the apothecary's shop.

There are many other points in Dr. H's letter, which require comment, but which I pass over for the present; (together with his hint of the murderous propensities of army and navy practitioners, from whose misdemeanours it would seem we have more to fear than from the power
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* See Circular Letter.

of the French, "when the prosperity of the empire can only be affected by want of numbers,") to make a short observation or two upon the utility of general restrictions and coercive measures.

In the first place, one is naturally led to consider whether the faults of which the reformers complain be real, or formidable, or whether they be growing evils. I think so far from the latter being the case, that we have fewer incompetent practitioners, and infinitely fewer quacks and empirics than formerly, and, in short, that the practice of medicine has kept pace with, and, in a great measure, gone beyond, the age in improvement. There is scarcely a village of a respectable size but can boast of a medical man who has spent one, two, or more seasons in the London schools, where, not more than half a century ago, the lives and limbs of the inhabitants, except of some of the most opulent, were trusted to village quacks, and empirics and old women, who although they had not the means of puffing themselves off, were quite as dangerous, and a thousand fold more numerous than the advertising quacks of the present day. The poorest individual will not now trust himself with any but the regular practitioner; and such is the general diffusion of knowledge, that it is become almost impossible for the ignorant man to escape detection. The numbers which flock to the best medical schools, and the increasing respectability of their external appearance, are convincing proofs of the improving state of the profession. It must be allowed that men of merit and real information are frequently superseded by men comparatively ignorant, who succeed in practice by dint of activity, and by vain assumption; but it is to be remembered, that these are not always the grossly ignorant, and that the same objection would occur in any state of the profession.

I believe, that the art is no where left to work its own way so much as in Great Britain, and no where is it exercised more extensively, more ably, and more to the emolument of its professors. Here it has escaped the shackles of universities and corporations, and has gained, I may say, a monopoly of talent unequalled in any part of the world. I attribute no sinister motives to Dr. Harrison and his coadjutors, but I fear that they will be instrumental in raising an aristocracy, which will be prejudicial to the general interests of the republic; and in putting the manacles of authority upon a liberal art, which disdains to be ranked as a trade amongst men.

There must of course be an exception with regard to the
army

army and navy; here the case is very different. To men in the military professions, there is no choice of medical attendance, and there are not time and opportunity for discrimination; the strictest attention therefore ought to be paid to the abilities and acquirements of those who are admitted to practice in these branches of the state. The case here, I say, is wholly different; and as to the profession in general, I would advise Dr. H. and his friends in the words of the French politician, upon a somewhat similar occasion, *laisser le faire*. I have visited the schools of London and of Edinburgh, and from what I have seen in them, and of the profession in general, I am convinced that competition is the best assurance to the progress of medical knowledge; and I should be sorry to see the art shackled by laws which cannot fail to produce confusion and dissension amongst its professors, and which the prejudices and attachments of men will, in a little time, render nugatory to all but those to whom they cannot but be hurtful.

The present indifference of medical men to the plan proposed, seems to argue against it; and I trust that a ready access to the ear of the Minister will not influence Dr. H. or any body of reformers, in bringing forward a measure of such importance prematurely, and without due consideration.

There seems to be a great rage for ruling every thing by the iron hand of the law.

I am, &c.

A LOVER OF THE PROFESSION, BUT AN ENEMY
TO THE QUACKERY OF CORPORATE BODIES.

Oct. 28, 1809.

[We profess ourselves not sufficiently masters of the subject contained in the following paper. It was, however, thought right to extract it from the French Journal, that our countrymen may favour us with their animadversions; and, if the subject is generally new, that they may direct their attention to ascertaining the reality of the fact.]

*On the Vibration of the Iris, the spontaneous Passage of the crystalline Humour into the anterior Chamber of the Eye, and its Restoration, by the Application of Extract of Bella-dona; by M. BECQUET.**

IT is not at present my intention to describe diseases of a new character: it is merely my wish to detail facts, which

* Journal de Medicine.

which are met with but rarely in practice, and with which it is important to be acquainted. Although those I am about to record are not precisely identical, they have nevertheless sufficient analogy to entitle them to a place in the same memoir.

The vibration of the iris is the state in which it is agitated by more or less rapid undulations backward and forward. These motions are merely passive, since they are only perceptible when the eyes are moved by their muscles.

Although this phenomenon is not of frequent occurrence, I have met with it in several cases. It generally appears without being preceded by any peculiar affection; it is unattended with pain, and usually ends with loss of sight before the age of 35. So far at least as my experience goes, this affection has never been preceded by any peculiar sensation, nor accompanied by pain. It commences in infancy, and continues during life: the sight is very weak, and so short, that those affected in this way cannot read, except with concave glasses, of a focus from two and a half to three inches. All the adults affected with this malady bear testimony, that in their infancy their sight was very weak, and excessively short; some inform us that they have experienced a kind of dimness, or sudden and momentary loss of sight.

The vibration may exist with or without opacity of the crystalline humour, and in one or both eyes. During the infancy of those who are affected in this way, the pupil is large and regular; the iris is susceptible of constriction or dilatation, even in a considerable degree, according to the modification of the light. In adults and old persons the pupil is contracted, frequently deformed, and sometimes accompanied with opacity in the crystalline humour; the latter always seemed to me to be diminished in volume, and of a glary colour, as well when it retained its orbit, as when it had deviated from it, either to one side or downwards.

CASE I. Upwards of thirty years ago I saw a person, of the age of 60, affected with this disease; the vibration of the iris existed in one eye, which, although there was an almost total obscurity of vision, was in appearance perfectly sound: the patient ascribed his loss of sight in this eye to a *coup de sabre* received in battle, on the superciliary ridge,

* I have scarcely ever observed it before the age of seven.

ridge, which exhibited a long cicatrix. The other eye was recently affected with cataract, which had come on gradually. The operation for the cataract was performed in my presence, by the late Grand-Jean; but restoration of sight was not effected, for the pupil became much contracted, and was obscured by some remains of an opaque substance. The patient continued, however, to distinguish night from day with as much accuracy as before the operation.

This case proves, that notwithstanding the vicious state of one eye, a state resulting from the vibration of the iris, the operation for the cataract may be performed on the other eye with success. In fact, if the cataract had been of an older date, and had acquired more solidity, neither the humour of Morgagni, nor the membranous part which became opaque, would have remained after the operation.

CASE II. I saw an American of about 11 years of age, one of whose eyes was affected with a vibration of the iris, and with cataract at the same time. According to the account of the parents, the child had lost the sight of that eye three years ago: the other eye was perfectly sound.

CASES III. IV. and V. I am acquainted with three other persons, two brothers and one sister, who have been affected for about twelve years with the vibration of the iris, attended with peculiar circumstances.

These cases have supplied me with the chief materials for the present memoir; and the history of their disease is so curious and interesting, that I think it merits attention:—

In 1795, I was requested to visit the eldest of these three children, then about 12 years of age. I was informed that, two months before, this young man having been accidentally in the prisons of Arras, and being desirous of sawing a piece of timber, placed his foot on one of the shoulders of the saw, and bent his head violently forward: he instantly experienced a dimness in the right eye, accompanied by a decreased sensibility. The physicians and surgeons of Arras were consulted, and being totally unacquainted with the disease, advised the parents to take the child to Paris. All the oculists of the capital were successively consulted, and all of them ascertained, that the crystalline humour had passed into the anterior cavity, where it appeared behind the cornea like a round spot, four lines in diameter.

All the medical attendants, taking into consideration
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the age, indocility, and untowardness of the patient, the repugnance of the parents to an operation of doubtful issue, and finally, the absence of pain from the diseased eye, concurred in recommending, that it should be left to nature, with the exception of merely watching the future progress of the disease. M. Winsel alone dissented from this advice, and suggested, that an operation should be instantly performed. His opinion, however, did not prevail; but the event proved that he was right.

The young man returned to Arras, and the eye continued in the same state during four months. About this period he experienced a most serious and obstinate attack of ophthalmia, which at last terminated by the spontaneous opening of the cornea, and by the issue of the crystalline humour throughout the aperture.

Although I had recommended the eye to be kept always completely closed by a bandage after the crystalline humour had come away, this precaution was neglected; and the cornea increased so much in size, that the eyelids could scarcely cover it.

In the month of May, in the year following, the young man came to Paris, when I found him in the state described; the eye, however, was a little red and sensible. I recommended that it should be kept shut, but not with a hard compress, as hitherto used. My intention was to moderate the inflammation, to support the cornea in order to diminish its projection, and to allay the pain, which were effected in the space of six weeks.

It was on this occasion that I first saw the sister of this young man. She had in both eyes a very apparent vibration of the iris; her eyes were large, and she was very short-sighted. I made her read with concave glasses, as well as her two brothers, in whom I observed no vibration of the iris, either from its being weak and not frequent, or from its not yet existing. I gave some directions which were but imperfectly attended to, and the children returned to Arras.

The year following I was informed that the young lady had entirely lost the sight in one eye: she was brought to Paris, and I attended her without success. Eighteen months afterwards she gradually lost the use of the other eye in a similar manner.

I shall now resume the history of her brother's case. In 1803, he was brought to Paris; his eye was by no means painful, although the cornea was very much dilated, and he

he found it answered very well to cover it with a black ribbon.

In 1804, in the month of May, the whole family returned to Paris. I examined the eyes of the youngest of the two brothers, in whom I perceived a very apparent vibration of the iris in both eyes; I prescribed an appropriate regimen, and applied a seton, which the patient kept up. The elder brother, being anxious to get rid of his bandage, and yet being unable to bear the impression of the air and light, requested me to amputate the superabundant part of the cornea. I yielded to his entreaties, persuaded as I was that the superabundance produced irritation.

The amputation was performed in an instant, and a hæmorrhage came on, but it was of short continuance. The patient was seized with a vomiting, which lasted ten or twelve hours. The consequent discharge from the eye diminished so rapidly, that, on the second day after the operation, the young man was able to wear a glass eye; this was laid aside, however, for three or four months, when he had occasion to take a journey.

Some time afterwards, on examining if the glass eye was a good resemblance of the eye which I thought sound, I was very much astonished to perceive in the latter a feeble vibration of the iris; my astonishment arose from having so frequently seen this young man, without having remarked this circumstance. It is, however, possible that this vibration may have previously existed, only in a very feeble manner; likewise, when I examined the protuberant eye, performing the operation, I conducted the patient into a dark corner, for he had always the precaution to conceal the other eye with a handkerchief; so that it was extremely difficult to remark this vibration, if it existed. It is even possible that the affection did not manifest itself until the period of the operation on the other eye, or some time afterwards.

I confess I began to regret that I had amputated the cornea in order to substitute a glass eye, and I was fearful that the presence of this foreign body would be injurious to the other eye. I was even inclined to make a seton in the neck; but hesitated, from the reflection that the glass eye would serve as a seton; in fact, we may almost compare a glass eye to a large issue-pea; like the latter, it may occasion a daily and abundant exudation.

This young man came to see me in the month of May, 1806; he told me, that for a long time he had experienced
a kind

a kind of dimness, of which he had always forgotten to inform me; that his younger brother had also been subject to the same sensation; that he had regarded it as a thing which was natural; that it took place involuntarily several times a day, and that it occurred whenever the head was bent towards the ground in order to lift up any thing, on which occasion they could discern nothing. He then proceeded to give me a proof of it; and having gone to an obscure corner of the room in which we were, he bent his head downward, and informed me that the dimness had taken place; on his approaching the window I observed, to my great astonishment, the same phenomena which took place in the other eye in the prisons at Arras. The crystalline lens placed in the anterior chamber was completely transparent, and resembled a large drop of very fine oil. The young man, according to the habit he had acquired, immediately put the crystalline back into its place, by covering the eye with his hands, and throwing his head back. I warned him against exposing himself in future to similar experiments, lest he should one day fail in reducing the lens.

This experiment took place in presence of several persons who were in the apartment.

The two brothers having visited me in May, 1807, the eldest informed me, that since he had followed my advice, he had experienced scarcely any dislodgment of the crystalline, whereas his younger brother, who did not follow the same precautions, was affected in this manner three or four times a week.

I repeated the recommendations I had already given, to avoid bending his head downwards, particularly in a dark place; because their pupils being susceptible of great dilatation, it might happen, that the crystalline lens could not return, and it might be necessary to extract it, experience having shewn that its continuance behind the cornea was dangerous in the extreme. I also informed them, that if this circumstance took place, the reduction of the humour could not be effected in less than two or three hours; and that it became requisite to facilitate the dilatation of the pupil, and consequently, the reduction of the crystalline humour, by the application of the extract of bella-donna. I described the method of using it at the same time.

CASE VI. On the 16th of May, 1807, a tailor, aged 60 came to consult me on behalf of a sick friend. When conversing with him, I perceived that he was affected with

a vibration of the iris in the left eye. To the questions which I put to him, he answered that he was always short sighted, that his sight had gradually failed, and that at the age of 27, he had suddenly lost the use of the left eye when drinking his share of a bottle of wine.

On a closer examination, I discovered that this vibration of the iris was rapid, and perfectly in unison with the smaller motions of the eye. The pupil was a little contracted, transversely deformed, elliptic, sunk, and without any motion of dilatation and contraction in different shades of light. Beyond the pupil I perceived a small white spot, which I thought was the crystalline lens naturally depressed. In order to assure myself of this, I placed the patient on his knees, stooping towards the ground, and in this state shook his head violently. When he rose, I saw the crystalline lens almost entire, a little smaller than in the natural state, of a glary colour, and exceeding two-thirds of the pupil.

After this examination, it occurred to me, to place a little extract of bella-donna on the cornea, to ascertain if under these circumstances, the extract acted in the iris; but as I was fearful of doing an injury, I did not make the attempt.

I could mention a variety of analogous cases, which have occurred during a practice of thirty years, particularly when I have been applied to by short sighted persons; but as my memory does not supply all the particulars, I have confined myself to the foregoing.

Reflections.—I conceive myself to be the first, who in cases of vibrations of the iris, has remarked the spontaneous and reiterated passage of the crystalline lens into the anterior cavity. The vibration of the iris itself is very little known; and authors mention it in a vague manner only. It is, however, perceptible to an observer, and frequently serious enough to produce loss of sight.

What is the cause of the vibration of the iris, of the detachment of the crystalline from the coat of the vitreous humour, and of the loss of sight which generally ensues with it, without opacity of the crystalline humour? I confess, that on this head I can only found some conjectures on mere probabilities. If we refer to books, very few authors have mentioned the subject, and those who have done so, are Maitre Jean, Messrs Winsel and Scarpa. It would seem that Maitre Jean saw the vibration of the iris in conjunction with the fluctuating cataract; he ascribes the cause of it to the solution and diminution of the vitreous

ous humour: in his chapter on the fluctuating cataract, p. 219, he says: "The following are the symptoms of this disease: When the solution is effected by a deposition of humour, the patients at first complain that they see very little, or not at all, although no change is remarked in the eye, with the exception of the pupil being a little more dilated than ordinary, and this loss or diminution of sight is sometimes preceded by violent pains in the head and at the bottom of the eye, while, at other times, the patients are free from pain: a short time afterwards, the crystalline is seen very turbid, and latterly becomes white, then yellow, and on the least motion of the eye it is seen vibrating like a vane in a light wind; the iris losing its natural colour, becoming shrivelled, and moving sometimes backward and forward, according as it is agitated by this floating crystalline."

It should seem from the above quotation, that Maitre Jean only saw the vibration of the iris in the case of the fluctuating cataract, or never saw it until it had been of several years standing.

I have seen few vibrating cataracts for a long time past, and in such cases as I have seen, I do not recollect to have remarked any particular motion in the iris. Glaise seems to have observed such cataracts, which he ascribes to blows or falls, and does not appear to have observed any motion of the iris; at least, he has not mentioned any. In his chapter on the external causes of cataracts, p. 12, he says. "It is proper to remark, that when the fall or blow has been very violent, the crystalline lens is partly displaced from its capsule, begins to vacillate, and at length produces a cataract called *branlante*. This cataract is incurable, and is always accompanied with gutta serena."

M. Winsel adds, by way of note to his 28th case, p. 139, edition of 1786. "The phenomenon of the oscillating motion of the iris, to which oculists do not seem to have paid much attention, happens frequently after the operation for the cataract; it is very difficult to describe, although it is easy to perceive it; it is a kind of undulation, which seems to be produced by the aqueous humour, although this humour does not undergo a real displacement. The cause of this singular motion, (and it is independent of the contraction and dilatation of this membrane) seems to be owing, in a great measure, to the absence of the crystalline humour, and the iris being consequently less supported.

Such was the opinion of M. Winsel twenty-one years

ago : I am persuaded that he is now of a different opinion. No oscillatory motion of the eye exists in those who have undergone an operation for cataract, and there is reason to believe, that this motion depends on another cause.

Scarpa has remarked the tremulous motion of the iris, and ascribes it to dropsy in the eye : he says, p. 217, Vol. II. 1st edition, speaking of falls or blows. "At other times, this disease is not the effect of any of these or other manifest causes, particularly if it occurs in children of a very tender age, from whom we can learn nothing. The eye has no sooner assumed the oval figure, and the anterior cavity has no sooner assumed an extraordinary capacity, than the iris seems to be placed more forward than usual, and is singularly tremulous on the smallest motion of the globe of the eye; the pupil continues dilated in every shade of light, and the crystalline humour is brown from the beginning of the disease, or it is not obscured until the affection has attained a greater height. The disease then becomes stationary; the crystalline lens is not very opaque: the patient distinguishes light from darkness, can see a little of the outline of a body, and can distinguish the most striking colours. But does the eye become enlarged? Is the whole crystalline lens bedimmed? At length the retina becomes palsied, by the excess of distension, and consequently, is not sensible to the few luminous rays which reach the bottom of the eye, after passing the edges of the crystalline humour."

In several cases of oscillation of the iris, I have observed, that the eyes were bulky; in others, they were smaller than usual; while in other cases, they were of the common size. What conclusion can be drawn from these different states? The cause must be sought for elsewhere.—When we consider that this disease does not occur in infancy, there are grounds for ascribing it to a vicious organization; this chiefly exists in the vitreous humour, which is dissolved, or at least has not its ordinary consistency, is less in quantity, and no longer adheres to the crystalline lens, or its capsule, if there are not some vessels forming a kind of peduncle, and serving to carry nutrition to it. Hence it follows, that there is no collet or boazel to the vitreous humour: that this humour is almost spherical, and that the crystalline touches the iris. Hence it follows also, that the vitreous humour, and the crystalline lens, being agitated during the motions of the eye, impress on the iris the tremulous motion observed.

It is to be remarked, that in the early stages of this disease,

ease, no separation takes place between the ciliary ligament and the cemented passage. Until this separation is established, the sight, however bad, never entirely fails. At length, however, the crystalline lens presses continually on this union, and insensibly detaches the ciliary ligament; the crystalline then quits the vitreous humour, is precipitated either vertically or sideways, between the retina and the vitreous humour. The retina is injured; the sight is lost; the crystalline lens becomes opaque, and is diminished in volume.

All this is founded on probabilities only; for in order to be certain that these things happen, the operations of nature must be traced by dissections, which can only be practised in Hospitals, where a greater number of diseased cases are to be found.

It is perhaps, easy to explain why those who are afflicted with this disease are extremely short sighted. Admitting, as I have alleged, that the vitreous humour is totally spherical, that the setting of the crystalline lens does not exist any longer, and also, that the crystalline humour is far behind the pupil, the crossing of the rays is already diminished to such a degree, that extremely concave glasses are requisite for lengthening the crossing or focus: if in this state, the crystalline quits the visual axis, it produces dimness, and if the pupil be susceptible of great dilatation, the crystalline humour passes into the anterior chamber, the dimness is then carried to such a pitch that the patient can no longer distinguish objects.

We may now ask, why does the oscillation of the iris manifest itself only on infants and young people, and continue during life? What is the cause of the supposed solution of the vitreous humour, and what are the means of remedying it? How does it happen, that in some persons the opacity of the crystalline humour is early declared, in others later, and in others not at all? or at least, wherefore is it not apparent? Why do some persons lose their sight at an early age, and others preserve it until the age of thirty and upwards? How is the crystalline humour enabled to pass into the anterior chamber, and be replaced several times a day? Why, in short, does it not lose its transparency?

Some of these difficulties seem to have been resolved, but there are others which I am under the necessity of leaving to the examination of other observers.

The following practical hints may be gathered from the foregoing pages. 1st. That in the case of the displace-

ment, or spontaneous passage of the crystalline into the anterior chamber, from the head being bent downward in a dark place, we may, by a contrary situation, in the dark, or by keeping the eyes quite close, and by some motion of the head, replace the crystalline humour in the posterior chamber, and thus restore the sight, if it had not been lost before the accident.

2d. That the crystalline humour, when passed into the anterior chamber, cannot remain there several months without occasioning inflammations, and a suppuration from the eye, and consequently, the necessity of a glass eye, if the crystalline humour be not speedily replaced in the posterior chamber.

3d. That the dimness which characterizes the passage of the crystalline humour into the anterior chamber, and which is always followed by the loss of sight, is dissipated by its reduction.

4th. That all delays in attempting this reduction are dangerous.

5th. That if the reduction of the crystalline humour in the posterior chamber, could not be produced by the means pointed out, we must facilitate it by producing a dilatation of the pupil with extract of bella-donna.

I shall conclude by pointing out the method of applying this remedy.

A small camel's hair pencil dipped into the bottle, which contains extract of bella-donna, a little diluted in water, in order to touch the surface of the cornea, seems to me to be best adapted for this purpose, and it is proper to repeat the operation twice or thrice in the space of twenty minutes. For as the dilatation of the pupil does not take place all at once, I do not think that a single application would suffice. When this dilatation is obtained, the patient throwing up his head with his eyelids shut, in a dark place, a few shakes of his head will be sufficient to reduce the crystalline lens.

It is essential to observe, that as the pupil requires eight days to resume its natural state, it is necessary that the patient should avoid darkness, and never throw down his head during this period. On the contrary, he ought to lie on his back, exposed to a strong light.

*Cases of Tetanus, with Observations upon the Disease ;
in Continuation ; by JOHN HOWSHIP, Surgeon.*

A Case of LOCK-JAW, from the Irritation of an extensive Wound, in which Opium certainly checked the Progress of the Disease, and probably saved the Life of the Patient.

THOMAS PLATT, forty-six years of age, seaman on board of his Majesty's ship *Bellerophon*, was knocked down in the great naval engagement that took place upon the 21st of October, 1805. He was struck by a grape-shot of about one pound weight, which produced a compound fracture of the thigh. This man was laid in the cockpit, together with many, till his turn came for being dressed, when the proper applications were made to the wounded parts, consisting of very light dressings, supported by a linen roller.

For the first day or two, this, like the majority of gunshot wounds, was productive of but little pain. The wound however, being complicated by shattered fragments of a broken bone, a high degree of inflammatory irritation soon commenced, which in all probability would not have occurred, had the accident been produced by a ball of sufficient magnitude to have struck off the limb at once.

Upon the third day he was brought on shore, and placed upon the very comfortable establishment that had been prepared for the accommodation of the wounded sailors, in the naval hospital at Gibraltar. At this time there was considerable heat, pain, and tension about the wound ; and this for some days afterwards continued to increase, notwithstanding the diligent use of fomentation and poultice. His general health however was good, and as his appetite remained unimpaired, his strength was very sufficiently supported by a sound nourishing diet.

At the close of the second week he was doing well in most respects, but the pain and inflammation in the wounded limb were very considerable, the discharge of matter also was now very great ; and this latter source of exhaustion, during the progress of the third week, became every day of more importance ; but towards the latter end of the third week the inflammatory symptoms became more moderate ; still, however, he was deprived of his rest at night ; for although the excessive heat and throbbing in the wound had subsided very much, still the sharp stitches

and shooting pain, to which he had more or less been subject from the first, continued to harass him.

Upon the 22d day the irritated condition of the limb was becoming more and more severe; the twitches of sharp pain were now so frequent, that the thigh was in a state of constant and distressing pain, subjected to occasional aggravation, as often as the wounded and lacerated muscles were thrown into contraction upon the sharp and splintered portions of the fractured bone.

During the forenoon of this day, he first expressed his surprise, at finding that something ailed his mouth and jaws. This affection he described as perfectly painless; and the only observation he made upon it was, that it prevented him from opening his mouth so freely as usual, and that together with this, he found that he could not swallow "cleverly."

The discharge from the wounds was at this time manifestly less profuse than it had been for some time before. The pain and spasmodic action of the muscles of the thigh were the same to which he had all along been subject; these always commenced among the wounded parts, and passed upwards towards the body; never however extending their effects beyond the limb, or producing any painful spasms in the muscles of the trunk.

From eight in the morning he took two grains of calomel and the same quantity of opium in a pill, repeated every hour till noon, when he was ordered four grains of calomel and three of opium, every hour; which plan of treatment was continued through the following night, and upon the 23d day he found himself much better. He said he could open his mouth more freely, besides which, he was able to swallow with less difficulty than before. He observed that he rarely now felt the starts in his thigh, and it was evident that he was materially, and indeed very generally, relieved by the opium. During this day and night the treatment of the day before was continued. On the 24th day, at eight in the morning, this man's symptoms being greatly relieved, four grains of calomel with three of opium, were ordered to be taken every second hour. He passed the day and the night following very comfortably. From the time of his having commenced with the opium, there had been no action in the bowels; two laxative injections, therefore, were this day thrown up, and succeeded in clearing the rectum of its contents. The appetite still remained as keen as ever.

Twenty-fifth day, much better, and but very rarely disturbed

turbed by the shooting pains darting through the thigh; besides which, he found very little remaining stiffness about the jaws. The calomel and opium, of each two grains, were ordered to be given every second hour.

Upon the 26th day, the quantity that he took of opium was still farther diminished, by his pill being ordered every third, instead of every second hour.

In this way he continued to take opium in diminishing quantity for some days: and before the remedy was laid aside altogether, he was most completely relieved from the inconvenience he had experienced in swallowing, and from the stiffness that had prevented him from opening his mouth; added to which, the uneasiness felt in the limb itself, was much less than at any time since the wound had been received.

It was in the above case interesting to observe, that notwithstanding the large proportion of opium taken, the patient was, during the period of its exhibition, on the average, more watchful than a person in health usually is, although by his answers, and the account which, from time to time, he gave of himself, it was evident enough that he was not kept awake, indeed scarcely disturbed, by the recurrence of the spasms in the wounded limb.

The remedy, in this instance, seemed to have exerted its powers in the most happy and satisfactory manner. It succeeded most decidedly in allaying effectually the morbid irritation that had been proved to exist in the nervous system; while at the same time it did not produce the least apparent effect upon the brain. His conversation in the day and in the night, was always calm and clear, but never influenced by the least perceptible degree of the dull and lethargic state which usually is produced by the use of opium. His pulse never was altered from its natural state by the treatment adopted, the only trifling inconvenience sustained was the disposition it gave to a costive state of the bowels.

The consideration of the case last described, in its relation to those other examples of tetanus that have been detailed, seems to suggest that there certainly must be a great variety in the intensity of predisposition to these complaints. This is not in itself a new fact, although the accurate history of individual cases must still greatly tend to illustrate the very extensive application of which it is capable.

In the case of Platt, even the recurrence of the spasms, and the severe pain in the wounded limb, did not ever induce

induce the same description of painful spasm in the muscles of the jaws, &c. which in the progress of most of the other cases took place towards the establishment of the disease. Neither did the act of deglutition even produce to him any sort of pain, much less did it prove to be the commencement of extended and severe torment, such as very generally arises in tetanus; the dread of which torments has determined many an unhappy sufferer in this disease, never to make a second attempt to swallow either food or medicine.

There may be many shades of strength in the constitutional predisposition to these complaints; and in all probability it may depend very much, or perhaps entirely, upon the peculiar state of this predisposition, and not at all upon the mere strength, or degree of tone in the contractile fibre, whether an irritation from a wound shall, in exerting its full effect upon the brain and nerves, produce an aggravated and rapidly advancing state of tetanus, eventually fatal; or only spasms in the limb or part wounded; the convulsive action extending itself upwards towards the brain, with consequent stiffening of the parts about the jaws; or, as is infinitely more often the case, startings and catchings of a spasmodic nature, being altogether confined to the situation of the original injury.

Upon the same principle it may be explained, why a remote irritation being removed, shall in one individual be obviously the means of saving life; the existing morbid state of the nerves not being sufficiently great to keep up the effect, after the removal of the exciting cause: while in another case, perhaps one of equal at the commencement, the removal of the primary irritation shall do no more than produce a manifest change in the ground, as it were, upon which the continuing disease rests; the operation for the removal of the exciting cause shall in this way be attended with material relief, considering the case in one point of view; while seen in another, it affords little or no foundation for any hope of recovery.

The peculiar and unknown condition of the nervous matter may in this disease be such, that the comparatively small proportion of nervous energy required for the continuing of the involuntary and vital actions of the system, may become altogether vitiated; or the influence of the whole nervous system may finally sink from its mutual and necessary relationship to the voluntary and involuntary contractile strictures in the body; and the harmonious unison of action prevailing amid the several systems that exist

exist together in the animal machine, be thus lost for ever.

In all the various gradations of tetanus, the disease has still the same distinguishing characters, rendering it perfectly unlike to any other complaint whatever. In epilepsy the voluntary muscular parts of the body are thrown into a state of contraction, but the impressions producing action are not permanent; they are excessive in point of force, as is proved by the undue degree of intensity of action in the contractile fibre; the impressions however are to a certain degree transitory; they may succeed each other rapidly, but during the space of time or interval, that occurs between every preceding and the next following state of excitement, the muscular parts may certainly be considered to be left in a state of relaxation.

If that very peculiar and highly mysterious condition of the nervous system, in which catalepsy takes place, be duly considered, it will appear that there is evidently a state of action in the voluntary muscles of the body; yet although action in voluntary parts, still the action at that particular time is independent of volition. This, however, is by no means to be considered as an action resulting from any nervous impression of too great an intensity, for experiment has repeatedly evinced, that during the influence of this curious affection upon the body, the position of the limbs may, by a very moderate power, be altered at pleasure; although, while the body is allowed to remain undisturbed, the posture of every part remains unchanged for whatever length of time the disease may remain.

In this case there cannot be supposed to be a succession of strong and violent impressions conveyed from the sensorium through the nerves to the muscular parts of the system. It is a permanent but mild and gentle influence, an impression, that like a gentle current pervades and passes onward into all the muscular structure, through the nervous matter of the system. The affection principally rests upon all the moving parts of the body subject to volition; and from the moderate force of the impression conveyed, it bears some analogy to the limited nature of every voluntary effort. A clear line of distinction, however, is the following, that the most persevering effort of volition, has not the power of continuing any voluntary muscle in a state of permanent contraction for any length of time; the muscular parts are found to fail in their obedience,

dience, the fibres soon tremble, and finally relax themselves altogether.

It is in Tetanus alone that a state of permanent, and at the same time, intensely violent contraction takes place in the voluntary system of muscles. This permanency of contraction, however, does not even in this complaint ever exist for any great length of time, when the severity of action is exquisitely formed. It would seem that the contractile power resident in every muscular part, is in its nature incapable of sustaining a continued state of the most violent contraction, beyond a very short space of time. In tetanus, it is true, that while the more severe attacks of spasm, pervading equally every part of the trunk and extremities, are observed to continue in full force for a few minutes only, afterward relaxing, the muscles of the jaws are still so affected, as to keep the teeth in perfect, perpetual, and obstinate contact; yet even here it may be observed, that there is by no means, at all times, the same degree of intensity in the contraction of the muscular parts. It will always be found, that in the moments of the more aggravated sufferings, the teeth are clenched more closely and firmly together than they were before; and during the intervals of time that elapse between the attacks of universal spasm, the jaws may in some instances, be in some degree separated by the dexterous and careful introduction of a lever well adapted to the purpose.

The manner in which the intellect is either altogether abolished, held in partial restraint, or left in a state of perfect freedom, is subject to great variety, in the various disorders to which muscular action is exposed.

In Epilepsy the consciousness is lost altogether, and this is a provision dispensed in mercy, by the agency of which the unhappy sufferer is rescued from that sense of pain, which, from the convulsed state of the voluntary muscles of the system must otherwise have proved a burthen almost too heavy for humanity to support. After the fit of epilepsy is over, the senses gradually return, and the person awakes as from a dream; and it is remarkable, that although the memory may have retained a clear apprehension of the succession of past incidents up to the moment when the fit commenced, yet the time spent in the convulsion, when regarded by the mind's eye, is considered as a void, a space that cannot be rendered an object of perception.

In catalepsy again, the condition in which the intellect is involved is widely different.

In epilepsy the action of every faculty and sense is completely suspended, superceded, and, for the time, perfectly terminated; but in catalepsy the fancy has been generally described as upon the wing, and sometimes it has been engaged in scenes, the descriptions of which are greatly calculated to excite the highest admiration and astonishment in a reflecting mind, while they certainly evince that we have not a more limited acquaintance with any of the works of creation than we have with ourselves.

There are some well authenticated histories of catalepsy in which the mind, or fancy, has been described to have been busily occupied as in a reverie, but incapable of receiving any impression whatever from without; while, on the other hand, cases have occurred, in which, notwithstanding all power of action has been withheld, the consciousness of existence and life, together with the sense of hearing, have been certainly retained; in this unfortunate situation the person has been a silent witness to the whole of the preparations for the funeral, without the power of urging a single muscle into action, until, at last, the strong conviction of impending horror pressed most heavily, and, in the moment when the top of the coffin was to have been screwed down, the supposed corpse has, by a desperate effort of volition, succeeded in making a visible token of animation, and has afterwards perfectly recovered.

In tetanus the sense of sight remains while the eye is fixed and staring, perfectly beyond the controul of voluntary motion. The limbs are held fast in spasm, while the mind is feelingly alive to all the aggravated sufferings of the body. In the most intolerable fits of pain and spasm, the senses of hearing, seeing, and smelling, remain perfect and clear, and the patient perceives and apprehends readily the meaning of every word that passes at the bedside.

Although for the moment he is actually deprived of all power of expression, he will, after the attack has passed over, express correctly enough any opinion that might have been during the fit suggested upon his situation, on the probability of his recovery.

In Epilepsy, the state of the brain may be said to be tolerably well ascertained. There is every symptom indicating preternatural fulness of vessels within the head, There is a state of total oblivion in all that relates to mind during

during the fit; and the first expression upon the return of sense is very generally a complaint of severe pain in the head, precisely the same feeling of general uneasiness in the brain, which results from the application of any other cause of temporary pressure to the sensorium.

In Catalepsy there is every reason to consider that the energies of the brain are not incommoded by the least approach to a state of pressure. There are, in this case, many objections to any supposition of local fulness of the vessels within the head, particularly the following, that in catalepsy the circulating system acts with so strong a degree of languor, that the pulse can no longer be perceived, either at the wrist, or in any other part of the body. The fancy, in this complaint, is in general very particularly active, and the system is in a state of obvious repose, subsisting in perfect tranquillity, undisturbed by any tendency to spasm, general or particular.

In Tetanus, also, there is not the least evidence of pressure upon the brain, nor is there any proof, nor any reason to suspect a suspension of its energies during the attacks of the most violent spasm. In this disease the variations that are daily arising in the features of the complaint may, by attention, be readily ascertained as they occur at the bedside; but it will be seen that throughout, the mind still continues to stand perfectly uninfluenced by the most aggravated severity of the disorder. Never is there complaint of pain, weight, or lightness of the head, nor indeed of any affection whatever of the brain, even for a moment, notwithstanding that the senses are sometimes, as it were, absolutely transfixed within their very porches.

(To be continued.)

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

HAVING read in your Journal, the request of the "Country Practitioner," and the answers of "Galen" and "Mr. Lyall," there is but little room left for my observations on the art of Cupping; I shall, therefore, merely hint at such remarks of your Correspondents as practice induces me to think less necessary, and add others unnoticed by them, but which I have found useful.

In

In all operations it is allowed by every one to be of the utmost importance to contract the period of the operation as much as possible, both on account of the patient and of the operator. 1st. The wiping of the glasses dry, as recommended by the Answerers, I shall show, will cause a lengthening in two ways; first, the act of wiping the glasses will take up some time; and secondly, during the time they are being wiped, a great portion of caloric will escape, and consequently cause the rarification of the air to be less perfect, and require a longer application of heat from the lamp to expel the air which has entered.

In order to render the process more expeditious, the water should be as hot as can conveniently be borne by the operator; and it will always be found sufficient to give the glass a shake, merely to throw out the larger drops; for, if the glass be filled with aqueous vapour, that will be rarified more quickly, *i. e.* with much less heat than the same bulk of colder air, and produce a vacuum equally perfect.

The next grand point in the operation is the obtaining the wished for quantity of blood. I allow the glasses to be applied to the parts before the scarificator is applied, in order to invite the blood to the parts; but the most effectual method is not suffering the blood to coagulate at all in the glasses, and removing them as soon as it begins to thicken; by this it is prevented from plugging up the orifices, and consequently the blood, on the application of other glasses, flows freely, the wounds being as it were fresh.

The rarification of the air is better performed by the spirit lamp, than by small pieces of bibulous paper dipped in spirit, or small filaments of tow; for two reasons, 1st. They will cause a *delay* in the process, as they require some preparation; and, 2dly, it makes the operation more clumsy, or not so neat, the pieces which are not burnt mixing with the blood. But the best method of rarifying the air with the greatest equality is by means of a small Argand's lamp. If the lower edge of the cupping glass be put about one-fourth or one-eighth of an inch below the top of the chimney, a greater heat may be applied, and the edges will still be sufficiently cool to be applied to the parts without pain.

I am, &c.

G. —,

A fa-

A favourable and singular Termination of the Hæmorrhoids,
by GEORGE COPE, Surgeon, Leek, Staffordshire.

Hæmorrhoids, a Genus in the class Pyrexia, and order Hæ-
morrhagia,—Berkenhout.

I Was desired to visit a young man of a strong, robust, athletic habit, much addicted to drinking, and other irregularities, severely afflicted with the hæmorrhoids, internally and externally. He had taken before I saw him Sal. Glauber ʒij; had no sleep for two nights and two days, was thirsty, hot, restless, and full of pain; he took an anodyne draught at bed time, and passed a tolerable night; next day leeches were applied, but without any apparent relief; the draught repeated at bed-time, with the following emollient anodyne fomentation.

R. Capit. papav. incis. No. vi. Folior malvæ. Flor. Sambucin a Mij. coq. in. Aq. font. ℔iv. ad. ℔ij. cola et liquori colato, adde Extr. Saturn. (Goulard) ʒiss. M. ft. fottus sæpissime in die applic.

The next day was much easier, though no sensible diminution in the volume of the protrusion; the draught was repeated at bed time, and his bowels kept moderately open with Ol. Ricin. interposing occasionally a grain or two of calomel; and in order to supply the place of the fomentation, which could not be so conveniently applied during the night, the annexed ointment was directed.

R. Ung. Saturn flav. Ung. ex Althæâ. Ung. Sambucin a ʒj. Camphor. Pulv. opii a ʒss. M. ft. Ung. quocum pars affecta omni nocte h. s. bene inung. The draught repeated, and the fottus continued during the day. In the dead of the night, he was awoke with an insupportable pain in the left groin; and on examination, the inguinal glands were found tense, hard, much enlarged, and covered with a considerable efflorescence; the hæmorrhoids at the same time exhibiting a livid gangrenous aspect. An adhesive plaster was immediately applied to the left groin, in order to forward maturation, and hasten suppuration, which was accomplished in 36 hours from the attack, the tumour bursting spontaneously with a profuse discharge. In addition to the extraordinary novelty of the case, we found the hæmorrhoids decrease, in proportion as the inguinal tumour increased, till not a vestige could be traced. This may be considered a critical abscess which nature (per Metastasin) employed to unload the morbid hæmorrhoidal congestion,

congestion, or it may be said to be a conversion of one disease into another.

Humani natura corporis custos fidelis est. It appears from the writings of Hippocrates, Galen, Celsus, Hildanus, &c. that the hæmorrhoids are conducive to health when kept within proper bounds; but a suppression, diminution, or excess may produce Apoplexy, Epilepsy, Vertigo, Inflammation of the Eyes, Aphony, Phthisis Pulmonalis, Dropsy,* Tabes, Fistulous Ulcers, Cancers, and innumerable other diseases intimately connected with the seat, use, and structure of the different viscera. As Hippocrates has wisely observed,

Ὅλος ἄνθρωπος ἐκ γενετῆς νόσος ἐστίν.

It is with pleasure I add, that the patient's health is completely re-established, having no return of the complaint, now seven months since) to which he is subject on the commission of any irregularity in living.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE subject of Medical Reform has lately occupied a considerable share of the public attention, and we learn from Dr. Harrison's Circular Letter, that it will probably become more public in consequence of a bill, which it is intended to bring forward during the ensuing Session of Parliament.

The necessities of this case are so evident, that it would be wasting the time of yourselves and readers, to insist any farther upon them; and the general principles, according to which such a reform should be conducted, have been too extensively discussed, and are too well understood, to require any additional commentary in this place. It seems to be fully established, no less as a medical than as an axiom of political œconomy, that the division of labour tends to the perfection of art; and it is admitted as an incontrovertible truth, that the science of medicine requires no less than its sister sciences, such a cultivation of the intellectual and moral powers, as can result only from an

* Si ora venarum sanguinem solita fundere, subito, suppressa sunt, aut aqua inter cutem, aut tabes sequitur.—CELSUS Lib. 2, Cap. vij.

enlightened and liberal education. These principles have, moreover, been considered in their several relations with moderation and temper, which the circumstances of the case demanded, and which should ever characterize the proceedings of gentlemen and philosophers.

While, however, the necessity for these distinctions, and for these qualifications, has been particularly vindicated by the College, to what shall we attribute it, that in practice, these very gentlemen are daily contravening their own positions, and depreciating the valuable privileges which they have been so anxious to obtrude upon public notice, and which they are so justly desirous of maintaining? The inconsistency to which I allude, is the very frequent custom of recommending the untitled, and therefore irregular practitioners of medicine, in preference even to *the members of their own body*, who reside at the different watering places of this kingdom. As this fact can need no confirmation to those who have ever visited these resorts of the sick and the gay, it will be sufficient simply to state it in this place: neither will it be necessary to enlarge upon the injurious effects of this inconsistency, both to the general cause of reform, and to the particular question, which involves the legal and assumed rights of the College. We may, however, assert without fear of contradiction, that while the privileged advocates for reform thus undervalue the dignities of the profession, and the members of their own corporation, we can expect no radical change in the system of medical abuse; and must despair of seeing that respectability, which can only arise from a sense of mental superiority, and more extensive intellectual endowments, attached to a profession, which is now, by the courtesy of our country, placed at the very bottom of the lists of rank and fame.*

I am, &c.

VIATOR.

* See the table of precedence, published by the Herald's Office, in the Gentleman's Magazine for February or January last. It appears that a lieutenant in the navy takes precedence of a physician. At what period was this barbarous law enacted? And, upon what authority is it here asserted?

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

HAVING read in your Journal, for October last, a circular Letter from Dr. Harrison on the subject of Medical Reform, which appears to me, in some respects, to convey erroneous notions, and likely, if the proposed regulation in regard to physicians should be carried into effect, to render the qualification for practising in that department *looser*; instead of their being more strict, than before, I think it my duty to endeavour to obviate the impressions which the Doctor's letter is calculated to produce, and which his own well known candour would, I have no doubt, prompt him to counteract, if he were aware of his error.

With respect to the opinion of Mr. Serjeant Williams, on which the declaration concerning the Royal College of Physicians is said by Dr. Harrison (page 330 of your Journal) to be chiefly founded, it would be sufficient perhaps, in order to demonstrate its incorrectness, to oppose that of the present Lord Chief Justice of the Court of Common Pleas, Sir James Mansfield; which, being delivered from the bench, must (independently of the exalted character of that venerable person, as a lawyer) carry much higher authority than the learned Serjeant's. But I beg leave to go a step further, and to quote the very words of a clause of an existing act of parliament, which are too precise to need legal interpretation. The clause to which I allude is in an act of the 14th—15th of Henry the 8th, c. 5, and runs thus:

“ And where [whereas] that in dioceses of England out of London, it is not light to fynde alway men hable to sufficiantly examyne after the statute such as shall be admitted to exerceyse Physyke in them, that it may be enacted in this present Parliament, That noo person from hensforth be suffered to exerceyse or practyse in Physyke through England, untill such time that he bee examined at London by the said President and three of the said Electys: And to have from the said President or Electys, Letters Testimonials of their approveing and examination, Except he be a Graduat of Oxford or Cantabrygge, which hath accomplished all thing for his fourme without any grace.”

Now, Gentlemen, though I am no lawyer, I think it is

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pretty

pretty clear, that any person practising as a physician in any part of England out of London, and the distance of seven miles therefrom, (over which district there is the jurisdiction of the *Censors* of the College of Physicians, constituted by an earlier act of parliament) without being able to produce the testimonial letters of the *President* or *Elects* of the College, unless he be a graduate of Oxford or Cambridge, is guilty of a misdemeanour, and liable to be punished, in due course of law, by fine, imprisonment, or otherwise. It may be very true, that (to use the words of Mr. Serjeant Williams, as quoted by Doctor Harrison) "he is not under the controul, or supervision, or correction of the College of Physicians;" that is, the College cannot proceed against him, or exercise authority over him, in the same manner as they are empowered by law to do with respect to what may be called the *home* practitioners; but I am informed from as high a legal quarter as that which is referred to by Dr. Harrison, that the power of bringing such a person to justice is much more generally diffused, and that he is as much at the mercy of the meanest of the King's subjects, as a man who offends against any other statute, being equally liable to information or indictment. But, before I proceed any further, I will lay before you the opinion of Sir James Mansfield, to which I adverted above, and which I have extracted from an account of an Action in the Court of Common Pleas, taken in short hand by T. Jenkins, and published at Stafford.

"Sittings before Chief Justice Sir James Mansfield, and a Special Jury of Merchants, in Guildhall, London, on Tuesday the 22d of December, 1806.

"MIDDLETON v. HUGHES.

"*Chief Justice.* There was a great question, some time ago, agitated in the Court of Common Pleas about producing a diploma. You will find it said by the Judges in the Report of that Case, that a diploma confers no sort of authority whatever on the person holding it to act as a physician. It is one of the strangest things in the world, that questions should be raised upon a subject which has been so fully agitated already, and on which the decision is clear. This diploma, supposing the plaintiff to have one, gives no authority whatever to him to practise as a physician. The law of Henry the 8th is as clear as law can be, which is, that no man can practice as a physician, unless he has undergone the examination,
and

and met the approbation expressed by certificate, of certain members of the College of Physicians; and that if he does practice without it, he is liable to prosecution by indictment for certain penalties which he is thereby declared to have incurred, unless he be a graduate of Oxford or the other University. Now, the modern practice has been, to get a diploma from a Scotch University, and which is obtained in a very easy way, without the performance of any exercise, or the undergoing of any examination at all; a mere grant of favour, without any proof of fitness in the object of it: and it is a favour which the English Universities have no power to grant, if they were to attempt it. But it has been supposed that there is some virtue in these Diplomas from the Scotch Universities, because the Articles of Union have given them power to confer such a privilege, according to their discretion. But there is no such thing; a Diploma is an instrument which confers no authority whatever on the person possessing it."

If this clear and gravely delivered opinion have that weight with Dr. Harrison, which I think it *must* have, as soon as he is acquainted with it, through the medium of your Journal, (for I conceive that it has not hitherto come to his knowledge) I beg leave to submit to him, and to the profession at large, whether by the proposal, "that no unadmitted practitioner shall be suffered to act as physician, unless he be a graduate of some University" being carried into effect, a very salutary existing law would not be virtually abolished, and the public left at the mercy of any possessor of a purchased piece of parchment called a diploma, without the possibility of redress. I take the liberty also of submitting to Dr. Harrison's consideration another question, viz. Whether, by attempting to reduce the graduates of all the Universities of the United Kingdom to the same level in the eye of the law, and to take away a tribunal for examination of *out*-practitioners, which at present exists in the President and Elects of the London College, (and which I conceive to be a very wholesome one) he and the other advocates for the intended bill be not likely to call forth a very formidable opposition to that bill from certain powerful public bodies, who may, probably, feel themselves bound to endeavour to *maintain* and *retain* all their ancient privileges, and very strenuously too, such as they can demonstrate to be of public utility?

There is still one other question, which I hope it will

not appear impertinent to offer, namely, whether the Lincolnshire Society would not be thought to confer a signal service on the community, by preferring indictments against such persons, as they can discover to be practising a most dignified and important branch of the medical profession, without having submitted themselves to the inquisition of fitness ordained by law?

I am, &c.

A LICENSED PHYSICIAN.

Nov. 20, 1809.

Observations on the bad Effects produced by the Use of Mercury in several Scrofulous Cases; by MONSIEUR FAUBERGE, Doctor-Surgeon, Member of the Legion of Honour, &c.

Observation I. **A** Captain of Infantry of the line, had in his infancy some scrofulous suppurating tumours about his neck and on the sternum, which were not cured till the age of puberty.

At the beginning of the revolution he took up arms; I have known him in this situation for these eight years, enjoying the most perfect health. In the sixth year of the republic, he applied to me on account of a chancre which he had been trying to cure by various caustic applications, during the use of which the disease only grew worse.—Van Swieten's solution, fomentations, and mercurial frictions were administered alternately. At the expiration of twenty days of this treatment, the chancre was perfectly cured; but the patient complained soon after of swellings in the neck and in the axilla, which, though not painful, were troublesome. I found these parts full of small fluctuating tumours, but insensible; on touching one with the lancet, a white milky pus issued out. Some days after, others were formed in the hollow of the clavicles, and in the parotids. The breast soon became the seat of a considerable number of these deposits, which were formed slowly, and without the slightest pain: whether they opened spontaneously, or were opened by the lancet, they formed so many suppurating wounds which could not be cicatrised.—I called a consultation of the most respectable medical men of Toulon; M. Crepin, physician; Giraut-Saint Rome, surgeon to the Military Hospital School of that city, were of the number.—On the presumption that this

this state might arise from the complication of the venereal virus with the first disease, in the same manner as it might depend on the effect of the mercury on the latter, it was determined to put the patient on a course of the rob d'affecteur. He took six bottles of it, and was no better; we then directed our attention to the scrofula, and were equally unsuccessful. This worthy officer, dragged on a miserable existence for three years, having a great part of his body covered with plasters: he died in a marasmus, at the age of 33.

Observation II.—Being at Malta, in the seventh year of the republic, I was consulted by a Captain, who, for a gonorrhœa, accompanied by a slight swelling in the inguinal glands, had been put under a course of mercurial frictions of a drachm each. At the fifth friction, the swelling in the groins was much increased, and the parotids became considerably larger. It was at this period I first saw the patient; he informed me he had been subject to similar swellings in his infancy; but with age and the exercise of hunting, had completely got the better of them; that he believed his constitution had the complaint from his parents. Presuming, from this account, the existence of scrofula, I treated my patient accordingly; the success confirmed my opinion.

Observation III.—A quarter-master of the sixth brigade of Infantry, entered the Venereal Hospital, at Malta, in the winter of the eighth year of the republic, to be treated for a chancre and bubo. At the eighth friction, twenty days after his admission into the hospital, he was in a most pitiable state; the parotids and the whole neck were covered with scrofulous tumours; the old cicatrices which had been formed in his infancy in those parts opened, and a considerable tumour was formed in the joint of the right foot. In this situation he was brought into the hall of the great hospital, of which I was physician-general; by degrees the tumours were brought to a point. That on the foot discovered a deep and considerable caries in the joint, which no applications could check.

The emaciated state of the patient, and the absolute want of good provisions, which we then experienced, on account of the blockade by the English, prevented my attempting the amputation; in other respects, I had little hopes of success from this operation.—But the severe pains constantly suffered, the œdema which reached the upper part of the leg, and the entreaties of the patient to relieve

him of so painful a limb, as well as a constant watchfulness, at last prevailed. After the amputation, I made a large issue in the arm; the patient soon regained his rest and appetite. The very interesting situation in which I found this person, induced me to provide him with little comforts from my own table; at the end of two months he was completely cured. I met him four years since at Nogent Sur-Seine, full of health and gratitude.

Observation IV.—An officer, 36 years of age, who had been subject in his infancy to scrofulous tumours in his neck and knees, and which he had not felt for twenty years, had, during a campaign in Prussia, contracted a venereal affection. Honour, and a love of his duty, retained him with his company, notwithstanding the inconvenience he experienced from forced marches in a country without resources; but the fatigue he endured at Pultuks, obliged him to repair to Varsovia for relief. The mercurial treatment he at first underwent, removed the venereal symptoms; but the parotids increased; some old cicatrices opened a-fresh, and produced callous and foul ulcers. Not being able to continue the campaign, he returned to France, where I cured him by the sole use of chalybeates and one drachm of the muriate of soda, night and morning, dissolved in three ounces of pure water.

Case of Intermittent Fever, accompanied with a Sympathy of Organs which have no sensible Connection with each other. By M. CAZALS, Physician at Agde.

(From the Journal de Medecine.)

PERNICIOUS intermittent fevers, descriptions of which have been faithfully recorded by medical practitioners of the first eminence, assume the characters of every disease, are concealed under different forms, and would end in carrying off the patient, if their anomalies were not conquered by the treatment dictated by the nature of the fever to be combated.

Diseases of this kind form an order by themselves, and which Mercatus, Heredia, Morton, Werlhoff, Medicus, Lancisi, Porti, Senac, Lauther, Cleghorn, Barthez, Dumas, Baumes, Alibert, Double, &c. have enriched with various important facts, besides pointing out some varieties not hitherto observed.

It occurs to me, that there is still a desideratum to this order;

order; and I hope I shall be forgiven in endeavouring to supply it by the following case, which occurred under my own observation.

M. Francois Valat, a farmer at Agde, aged 76, below the middle stature, habitually subject to ring-worms, (but which did not give him much inconvenience) of a delicate constitution, but not sickly, was seized in 1806 with an intermittent fever of the *pediculosus* kind, accompanied by sympathetic pains, and pruritus round the neck. Shame prevented him from mentioning his disease for some time; but worn out at last by the pain he endured, I was sent for. Six hours elapsed before I could see him; he was then in a violent agitation, complaining of burning heat, and exhibited a pruriginous eruption on the neck and shoulders. The itching was so intense that he could not refrain from scratching a single moment.

Every pimple that he raised, produced a swarm of vermin, which were multiplied with astonishing rapidity. The number of lice to which the body of this unfortunate person gave birth was incredible; the hollows around his eyes swarmed with them.

My appearance excited so lively an emotion in the patient, that when I approached the bed he trembled and shivered with as much violence as on the first appearance of the fever; his speech was broken, and it was some time before he could articulate sufficiently to tell me his case. I examined his body, and saw such a quantity of vermin on his neck and shoulders, that I was petrified with horror. Thousands of them came from under the skin, in proportion as he scratched himself; they were large and white, and seemed to be a distinct species from those found in the head.

But the most singular circumstance of all was, that the patient never scratched himself, without causing an acute pain in the great toe of the right foot, which ascended upwards by the right side of the pelvis, and affected the stomach to such a degree, that he could not swallow the smallest quantity of liquid without danger of suffocation. The instant that a drop of moisture touched the cardiac orifice, he exclaimed that the attendants were squeezing his great toe, where he felt the most acute pain; and when it was actually squeezed with some force, he swallowed with more ease.*

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* The stomach, of all the viscera, is that in which we see most frequently certain sympathetic communications with organs that have no sensible connection with it. Barthez, *Nouveaux Elémens de la Science de l'Homme*.

498 *M. Casal's extraordinary Case of Intermitting Fever.*

We may refer this part, which has certainly some analogies in various collections of cases, to the correspondence of the different affections of two organs not sympathetic, which habit establishes as an effect of repeated successions of these affections, and to the idiosyncrasy or individual constitution of those in whom it is observed.

The following day there was an entire cessation of fever and of pain; no increase of pustules nor of lice.

Next day all the former symptoms returned; he evinced the same restlessness, and every thing fretted him; intense heat with high fever; acute pain in the great toe of the foot; pimply eruption, and vermin. All these concomitants attended and ceased with the fever. Symptoms so varied, and so dissimilar, did not keep me long in uncertainty as to the diagnosis and treatment. In any other case I could not have known whether to regard the pain in the great toe as rheumatism, and to treat it as such, or as a mere sympathetic affection. In the present case I adopted the latter opinion; it was necessary, therefore, to avail myself of the apyrexia, which was marked by a great feebleness in the lower extremities, by slight shiverings, and by transient heats in the palm of the hands and soles of the feet.

There came on, from time to time, nausea, with a discharge of mucous matter. I prescribed the methods pointed out in similar circumstances; ipecacuanha, joined to antimonial tartrate of potash.

The patient having great aversion to vomiting, could not be prevailed on to take this medicine. I did not hesitate to point out to him his danger; I beseeched him to give up an opinion which could not but prove fatal to him. All was in vain, as he persisted in his resolution.

Quinquina was suggested, but with no avail; at last, however, I succeeded in overcoming his repugnance.

In the apyrexia, the quinquina was administered under every form; in decoction externally, to kill the vermin; and internally in substance. Under this form, the febrifuge was raised to the dose of ten drachms in twenty-four hours. The fever, the lice, and the pains were removed. In order to avoid a relapse, I advised my patient to use the specific on certain days; for once he adhered to my prescriptions. From this moment he regained his former lusty appearance.

From this case, may we not give to the fever the name of *phthiriasis*, and use quinquina against the morbus pediculosis, which perhaps would act better against this affection than the remedies hitherto employed?

Lice

Lice are multiplied in the manner of ovipari: they lay their eggs on the hair or the skin, in the matter of perspiration, or on the clothes. The heat of the body hatches them, and every egg produces a fresh animal. Want of cleanliness favours their propagation; habit of the body may also contribute to it, a habit, the precise nature of which cannot be determined, but which observation puts beyond a doubt. This disease attacks irritable temperaments, rarely old men; and among the latter, only those who have something cachectic in their constitution. This was not the case with my present patient; the only thing that could be imputed to him were ring-worms. Was this cause sufficient? Several practitioners of eminence assert, that those who are affected in this manner, more easily contract the morbus pediculosus; it remains for observation and experience to give us further information.

I shall not detain my readers with other examples of sympathies between various and remote organs; these cases are rare and singular; I shall call their attention, however, to the case of a man mentioned by Hales, who felt an acute pain at the top of the left shoulder when he scratched a pimple which was a little below the exterior side of the right knee, and to the fact stated by Cullen, namely, that if a dog licked his hand gently, he felt a tickling in the sole of his feet.

A great number of singular diseases make us acquainted, by means of symptoms, independent of the generic forms essentially characteristic of these diseases, with true sympathies between organs, which in other respects have no sensible relation.

Abscesses, succeeding to wounds of the head, are symptoms of this nature. It is impossible to explain, or rather to refer this phenomenon to any known genera of sympathies of organs. Nothing here advanced, can give us any assistance in ascertaining the reason why wounds of the head should affect the liver in preference to other viscera.

Are there not some facts above detailed, which invite medical practitioners to new researches?

"Among the facts, which daily meet our eyes," Barthez says, "those ought be regarded as peculiarly useful, which are rare and singular, provided their *credibility* is sufficiently supported by facts which agree with those already known."

A little farther on, the same author adds: "If we succeed

ceeded in methodically uniting a great number of facts, we shall attain what Fontenelle suggested, that is to say, facts which existed separate and distinct from each other, will naturally return and unite again to form one body."

Cases of Plica Polonica, in Men and Animals.

By M. ROUSSILLE CHAMSERU.*

(From the Journal de Medecine.)

CASE I. A dog, 5 years old, of the middle size and fat, of a mixed breed, with long straight hair, had his left thigh broken by a club when 6 months old.

This animal was clumsy in his gait, dragging his hinder parts, and could not run fast; he seldom ventured to leave the premises which he watched, and lay almost constantly immersed in filth. Three years ago, during the autumnal months, he contracted on the buttocks a plica, with flat clots, two inches broad, and five or six in length, from which an unctuous matter issued. It was most conspicuous on the side of the thigh, and there were but few traces of it towards the tail, which was cut when a few days old. There is no plica on his back, shoulders, or head, although his hair is long, and his eyes are hid by it. It is the only dog in the town of Posen, in Poland, known to have the plica, and every person accounts for it in his own way. The most enlightened of the community, only regard it as the effects of the nastiness and lameness of the animal.

The mass of mankind, and the faculty, are of a contrary opinion; they concur in asserting, that there is a peculiar virus in the plica of men and animals. This idea has been long propagated, accompanied with superstitious prejudices, giving the character of an endemical disease to the plica of Poland. In my opinion, however, the disease is merely accidental.

CASE II. — The master of this dog, a mechanic, 31 years old, of a robust, a nervous, but not muscular frame, and having a large family, has been ill for above
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* This paper is only the first of a controversy on plica; and, happily, the disease is not suspected of being indigenous in this country; we shall therefore only offer the leading points to our readers. EDIT.

two years; he has been long bed-ridden; immersed in feather beds, and thus much exposed to violent perspiration. His hair of a dark brown, naturally thick, and which he was in the habit of combing over his shoulders, is clotted and matted with dirt, sweat, and vermin. This was the prelude to the plica, and it was easy to persuade him, that this *crisis* (for so it is called) of his malady, should be carefully watched. He has therefore suffered his hair, without either combing or cutting, to become matted and twisted into large clots, greasy and lousy, which spread in scales over each other, and present varieties of the plica. I cut off some as a specimen, as also some flocks from the right thigh of the above mentioned dog.

Popular opinion put great stress upon these two instances of plica, which came under my observation just as I was quitting Posen. The malady, they said, had passed from the dog to his master; which erroneous idea had given rise to a multitude of imaginary consequences, serving to propagate the old notion of the infectious and hereditary nature of the plica. It is however ascertained, that the animal did not infect any other, and that he had been the father of pups with long hair, some of which were alive, and quite healthy. The tradesman, who from prejudice was subjected to the plica, lodged with a numerous family on the ground floor of a small, healthy dwelling-house, situated in a well-aired street. Neither his wife, children, nor the other lodgers, felt at all this fictitious ailment.

Nothing is more common than to see the plica attack the masters of families, whilst the women, who attend somewhat to cleanliness, and the children, as long as they are properly combed, and their hair kept short, are not affected.

In general, it is very rare amongst men, but is much more intense when it gets hold of the fine head of hair of a female, who, under the predominant prejudice, allows her plica to increase for several years.

It is generally the plica of females, some yards in length, which is preserved in the museums of the curious, and I have endeavoured to trace the real mechanism of these immense superfoetations of hair.

The plica of the horse is likewise the result of the grease and filth of his hair. If these animals are never dressed, but left with all their grease and vermin, whilst the skin excoriates in places where the hair is cut away, with dirtiness, these brutes will infallibly catch the pretended

pretended virus of the plica. The polish peasants do not venture to clean, dress, and rub down their horses, for fear of disturbing the plica, and irritating that malignant spirit, whose power and influence they imagine to rival that of providence.

If however, a young *konia*, (the Polish word for a horse) is already subject to the plica, presents a fine front, and other signs of comeliness, as soon as he is taken from the hut of the slave into the stable of the nobleman, he is forthwith dressed and kept clean. The plica then begins to yield, and the veterinary art serves here as a lesson to men when attacked with this disease, which the military police also every year enforces on the Polish militia and recruits.

If any of them happen to have the plica, their locks are cut off and shaved without scruple or danger.

These observations on the plica, said to be endemical in Poland, have convinced me of a very strange mistake, spread over a whole country, and supported in their schools. I called to mind the famous story of the *golden tooth*. The *plica* cannot, in my opinion, be classed amongst internal maladies.

It is a local disorder of the hair from its length, neglect of combing, the wearing of warm furred bonnets, and the effects produced by dirtiness, sweat, and vermin. The hair, when kept short, never contracts the plica, which never degenerates into eruptive sores; the skin or scalp is always sound, and covered with free hair, if cut an inch or two from the root. It is not even practicable to cause the plica to assume an external or chirurgical disease; it is a mechanical consequence of filth, and belongs to the province of the toilette, or of the hair-dresser to cure.

On my way through Capel, a few months ago, I visited the museum founded by the Landgrave of Hesse, Frederick II. On looking at the stuffed lion and lioness, I perceived that the former had a great number of tufts of the *plica*, at the root of his mane and along the belly, in the kind of fringe of long hair which proceeds from each side, and loses itself under the thighs. I remarked this singularity to the keeper of the museum, who had never before observed it. He was well acquainted, however, with the appearances of the *plica*, and he immediately recognized them with great astonishment. The lion had lived thirteen years in the menagerie of Capel, and died 4 years ago. His cage was twelve feet square. The menagerie still contained another lion with his female, which was big with

with young. The flooring of their cage being frequently cleaned, was constantly moist. The old lion, when alive, (*without having been in Poland*) had easily caught the *plica*, while the almost shorn hairs of the female scarcely gave a lodgement to it. The parts which had been most exposed to filth and moisture, were most clotted with the *plica*. This is the true mechanical and local cause of this *plica*. A similar cause may have similar effects on long haired animals, placed in similar situations of slavery and filth.

I was anxious to visit the living lions in the menagerie, but want of time prevented me.

Effects resulting from the Domestic Use of Champignons in France.

IN the communes of Portels, an old woman, in the habit of gathering champignons for sale, proceeded to the fir woods in that neighbourhood on the 11th of October last, with a view to collect her winter's store. She gathered a kind with which she was quite familiar, and ate of them all three successive meals, namely, supper, breakfast, and dinner. On this last occasion, a young woman, her neighbour, who visited her by accident, requested and obtained a few of the champignons, in order to regale her husband and family.

The husband, wife, and a daughter ate of these champignons at dinner, and continued their usual occupations without feeling any pain: at midnight, however, nausea, pains in the bowels, debility, and other symptoms of poison were manifested in all three individuals. But having no suspicion that the champignons produced these disagreeable effects, they did not call in a surgeon until forty-eight hours afterwards, that is to say, when the poison had effected its purpose, and the inflammation of the *primæ viæ* rendered all attempt at relief fruitless; in short, these three persons died within a few hours of each other.—The following is the most extraordinary part of the case.

The old woman, who had first eaten so heartily of the champignons, refused to take a vomit, or any of the antidotes prescribed by the surgeon who was called in; and yet she completely resisted every poisonous effect, with the exception of some acute pains in the kidneys and intestines,
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and a great debility. This patient was 73 years of age; had been long infirm, and her stomach was entirely worn out and tattered, (*usé et délabré*) while the three individuals who died, were healthy, vigorous, and in the flower of their age.

The following solution of this singular phænomenon, has been offered by the surgeon who attended all the cases.

The old woman, whom the poison seemed to have respected, was addicted to drinking: she was in a state of intoxication on the three occasions when she swallowed the champignons, and this state of drunkenness saved her life. The wine which she drank was sour, and this remarkable circumstance leaves no uncertainty as to the efficacy of acids against similar poisons.

The champignons which caused the death of the three persons above-mentioned, were of two kinds: the first, known by the name of *Pinadossa*, grow at the roots of fir trees; they are fungous, similar to what are produced on the old roots of the alder and poplar trees; the second, known in that part of France by the name of *Catalans*, is of a deep red colour; it is membranous below; the stalk is short and hollow, (*cannelé*.) Those who died in consequence of eating them, as well as every person who saw and examined them, stated that they had eaten them repeatedly in former years, without the least bad consequences.

It would seem to follow, that champignons benign in their nature, may become poisonous in seasons like the present, when the genial influence of the sun has been interrupted by continual fogs, rains, or damps.

Moniteur, Nov. 9 1809.

CRITICAL ANALYSIS
OF THE
RECENT PUBLICATIONS
ON THE

**DIFFERENT BRANCHES OF PHYSIC, SURGERY,
AND MEDICAL PHILOSOPHY.**

Observations on some of the most frequent and important Diseases of the Heart; on Aneurism of the Thoracic Aorta; on preternatural Pulsation in the Epigastric Region; and on the unusual Origin and Distribution of some of the large Arteries of the Human Body. Illustrated by Cases. By ALLAN BURNS, Member of the Royal College of Surgeons, London; and Lecturer on Anatomy and Surgery, Glasgow.

THIS work appears to have made part of the author's lectures, when engaged in demonstrating the important organ to which it refers. As part of such a series, it may be said to contain much information where originality is not expected. We shall, however, avail ourselves of this opportunity of bringing before our readers a subject, which several late communications in this and other Journals have rendered particularly interesting.

The first section is a kind of introduction to the subject, in which the diseases of the heart are divided into three classes.

"The first class, containing the sympathetic affections of the heart, or those diseases which are dependent on the consent which this organ has with other parts of the body;

"The second, those affections which are brought on by such malconformations of the heart, as give rise to a mixture of the venous with the arterial blood; and,

"The third, those diseases induced by some organic affection of the heart which mechanically impairs the circulation, but does not necessarily alter the composition or properties of the blood.

"It is not my intention to lay before you any remarks at this time on the first of these classes; and in treating of the other two, I shall endeavour to select only the most frequent and important diseases for particular discussion, and chiefly such as I have myself had an opportunity of seeing.

"The symptoms characterizing the second class of diseases of the heart, may be produced not only by malconformation of this order, but also to a certain degree, by whatever offers a mechanical obstruction to the performance of the respiratory function. Thus, extensive and close adhesion of the pleura pulmonalis to the pleura costalis, will, as we learn from an interesting case by Dr. Marcet, induce symptoms which mark a deficiency of the arterial principle in the blood. Whatever, also, has a tendency to encroach on the bronchial cells, will, according to the extent of the

compression, produce symptoms which indicate, if I may be permitted to use the uncouth term, imperfect arterialization of the blood. Hence the bloated livid countenance in pulmonic anasarca, and the inflated purple face so universally attendant on pneumonia or inflammation of the lungs. In these diseases, obscure symptoms are produced of an affection of the heart, without any real disease of this organ. The same takes place when the lungs are compressed by effusion of water or secretion of pus into the chest, by solid tumors formed in the thorax, by enlargement of the abdominal viscera, or by accumulation of water in the belly. These are only temporary, and indirect causes, producing a morbid state of the circulating fluids; but the same diseased condition of the blood, is permanently kept up by several malconformations of the heart.

“ From the enumeration of the causes producing a deficiency of the arterial principle in the blood, it will, at first sight, appear to you, that they are divisible into two classes. In the first class, this state of the blood is occasioned by the existence of some mechanical obstacle to the action of the lungs, by which the due arterialization of the blood is prevented. But, in the second, which more immediately interests us, the same state of the circulating fluids is induced by a direct mixture of the venous with the arterial blood. You will therefore readily understand, that in the one case, the blood is duly sent into the lungs, to be rendered arterial, but owing to the deficiency of oxygen, this process is imperfectly performed; in the other, owing to some malconformation of the heart, or large vessels, a part of the blood passes directly from the venous into the arterial circulation. Although, therefore, the proper quantity of air may in the latter case enter the bronchiæ, still its presence in them is rendered of no avail by the peculiar formation of the vascular system.

“ The symptoms denoting a mixture of the venous with the arterial blood, do not, except where the preponderance of the former is very great, make their appearance for some weeks, or often months, after birth; but, as soon as they occur, they indicate clearly the nature of the affection. The breathing is performed with difficulty, the parts covered by the delicate epidermis lose their natural colour, and assume a livid tint, while the limbs and trunk become of a leaden hue. The child at the same time is averse to motion, which aggravates the symptoms, is affected with a short suffocating or stifling cough, like that in *peripneumony* or *hooping cough*. The expectoration is but slight, although occasionally blood is brought up by the violence of the exertion. The animal functions are all of them languid, the bowels are torpid, the nervous system is depressed, and the heat of the body is reduced below what it naturally is; such are the permanent effects produced by imperfectly arterialized blood. The symptoms do not however remain constantly in this state, but are subject, after irregular intervals, to exacerbations, during which the heart palpitates,

tates, the chest feels constricted, the breathing is oppressed, the head is pained, the eyes are prominent, the lips, ears, nose, tongue, and the parts beneath the nails, become very dark in their colour; nay, in cases of extreme urgency, they acquire a purplish black hue. The anxiety is insufferable, the urine and fæces come away involuntarily, the body feels cold to a by-stander, and appears as if it were on the eve of parting with life. The arterial system acts feebly, the jugular veins are turgid, the countenance is inflated, and resembles that of a person suffering strangulation; the convulsive motions of the limbs indicate the greatest agitation, both of body and mind. This state cannot long remain in full force; therefore, after a shorter or longer continuance, the system falls into a state of quiescence, from which it gradually emerges, continues languid and torpid, and the surface is permanently of a darker colour than it ought to be. On the application of any trivial, and frequently without any obvious cause, the train of symptoms already mentioned recur. In proportion as the child advances in years, the paroxysms become more frequent, more violent, and the remissions less perfect, till at last, upon the supervention of dropsical symptoms, the constitution is completely worn out."

We are obliged to stop here, in order to caution our readers against the danger that attends this mode of compiling, in which the author thinks it enough to transcribe what others have transcribed before him, and what his successors think it sufficient to transcribe again. Where can be the similitude between a *short* stifling cough and the hooping cough? Or in what, except the shortness of the first, do either of them resemble the cough in peripneumonia?

The occasional paroxysm of distressing dyspnoea is extremely well described; but there is a most important omission in the account of the sequel. After each one of these periods of apparent strangulation, it should have been remarked, that for a time the patient loses his purple colour, and becomes of a more bright vermillion than is consistent with sound health; very much resembling the delicate blush which attends a paroxysm of hectic fever. This change might be expected, from the well-marked actions which are taking place throughout the whole fit: it is not, however, from such a surmise, but from actual observation, that we mention it. The description of the progress, and even of the cessation, of the paroxysm, is in all other respects unexceptionable.

"It is worthy of observation, that in the diseases belonging to this class, when the patient is apparently just expiring, he is in reality bettering his condition. Mr. John Bell explains with accuracy and spirit, the changes which take place during the paroxysm. The common respiration, as he observes, will not suffice; the venous blood is gaining on the arterial system; therefore, the lungs must be as completely emptied as possible; the air is accordingly forcibly expelled, the child sinks exhausted, soon he breathes again, but expires with equal exertion as formerly. This struggle

continues for a length of time; at last, respiration seems suspended; during this suspension, the surface gradually loses its livid colour, and becomes more of the pale leaden hue. Then the patient fetches a deep sigh, recovery begins, and goes on apace, till at length he is as well as circumstances will permit. While these phenomena are going on, we learn from Mr. Bell, that the child is expelling portion after portion of the contaminated air from the lungs, till finally he succeeds in introducing such a quantity of pure air, as will in some measure restore the balance of arterial and venous blood. Nor is it only by calling into forcible action the natural auxiliary muscles of expiration, that the patient endeavours to make way for the introduction of an extra quantity of atmospheric air into the lungs; he also lessens the capacity of the chest, if he be very young, by turning on his belly, or if he be older, he presses his breast firmly against a table, or any solid object. By these means, which an ignorant spectator considers as of no value, the contaminated air is driven out, new air admitted, relief obtained, and on every occurrence of the paroxysm, the patient has recourse to similar means."

In further considering the effect of such malformations of the heart, as tend to admit venous blood into the circulation without first passing the lungs, the following division is made:

"Species first.—Where the aorta originates equally from the right and left ventricle.

"Species second.—Where the foramen ovale and ductus arteriosus remain open.

"Species third.—Where the ductus arteriosus is obliterated, but the foramen ovale remains pervious; or a preternatural opening leads from the one ventricle to the other.

"Species fourth.—Where the pulmonary artery is impervious at its origin, but still receives a small portion of blood by a retrograde action of the ductus arteriosus.

"Species fifth.—Where the heart merely consists of two cavities, an auricle and ventricle, and where from the latter, a vessel originates which afterwards divides into two branches, one to the lungs, the other to the body.

"Species sixth.—Where the mitral valve is malformed, leaving merely a small opening, leading from the left auricle into the ventricle."

Each of these is illustrated by cases from different writers, and by such as have occurred to the author.

In the section, "on the uniform enlargement and dilatation of the heart," the author begins, as if he intended to mark all the various shades which distinguish the enlarged from the merely dilated heart. We meet only with a few general remarks, in which the attempt is made of ascertaining the disease by the symptoms during life; by the pulse, breathing, and general state of the health. For our own parts, we confess we have not yet been fortunate enough to ascertain these distinctions; yet we have neither

to accuse ourselves of want of industry or opportunity. The enormous increase of the muscular part of the heart, without any previous difficulty in the passage of the blood through the arteries, is, we believe, a rare case. In some cases of ossification of the valves, we have seen the heart, both in its cavities and muscular fibres, considerably enlarged; in others, the whole organ has been much diminished, and apparently enfeebled. Were we inclined to theorize with boldness, we should easily explain both these appearances. In the first, we should suppose that the increased difficulty in the first branches of circulation, imposing a greater exertion on the heart, its fibres had increased, as the muscular fibres of the bladder are increased under difficulties of passing the urine. In the second case we may believe, and with some well-founded histories to support us, that the great pain attending every the slightest exertion, had induced the patient, perhaps, for a succession of years, to avoid every means by which the circulation would be increased; and, consequently, that the heart having been kept as quiescent as possible, its fibres had become thinner and weaker, like other muscles when less used. We mention these only as general remarks; but in a work professedly written on diseases of the heart, we expected to have seen something concerning that connection between acute rheumatism and the dilated heart, of which so many instances have lately been recorded.

Some observations follow, on the partial dilatation of the heart; that is, a dilatation affecting one side, or a single cavity. This is illustrated by a case from Morgagni; and this part of the subject concludes with some practical remarks. These are very few. The principal caution proposed is, lest the "disease should terminate in chronic inflammation, which rarely fails to carry off the patient in a few days." If so, we should be disposed to call such an inflammation acute. We have, however, no objection to make to the proposed practice; which does not differ materially from what is usually attempted under such symptoms.

A chapter follows, on the chronic inflammation of the heart; in which we are informed, that it often resembles carditis, though essentially different from it. For our parts, who are not equal to all these subtleties, we should be disposed to consider the diseases as only differing in degree; and when one of them is running through its stages in a few days, we should be unwilling to tell our patient that he had a chronic disease, or to treat it as such. Adhesion to the pericardium, if firm, we should consider as the effect of strong action or high inflammation. If after this, or any other such effect, the actions of the heart should become irregular, the disease might be truly called chronic; but this would be the effect of the original acute disease. Such a disease shows a constitutional disposition to inflammation, and perhaps to inflammation in that organ. Nothing, therefore, can be more probable, than that acute inflammation, suddenly supervening on such an imperfect state of parts, should, in a short time, prove fatal.

The succeeding section, on the effects produced by the diminution of the heart, is extremely imperfect, from the want of distinguishing, with any accuracy, the probability of original formation and the effect of disease. Under any difficulty of action to a muscle, the consequence must be, either an increase of muscular fibres and strength, or a decrease and weakness. If the organ permanently attempts to overcome the difficulty, the consequence will be an increase of its muscular fibres and powers, as we observed before of the bladder, in obstructions to the passage of the urine. But if the difficulty is attended with pain, especially at every over exertion, as is most remarkably the case in diseases of the heart, the attempt will then be, to avoid such over exertion as much as possible; and the patient will shun all violent exercise or passions, which would increase the action of the heart. Hence the volume and force of its muscular fibres are diminished. Such appears to have been the case with Mr. Hunter. "On the under surfaces of the left auricle and ventricle, says Mr. Home, were two spaces of an opaque white appearance, covered with coagulating lymph, the result of former inflammation."—"The heart itself was small, appearing as if it had shrunk. The muscular structure was paler and looser than the other muscles of the body."—The pains taken by that philosopher to prevent the too great action of the heart, are well known; and to this we may fairly impute its diminished size and power.

The chapter on the consequences resulting from change of structure of the substance of the heart, contains some interesting remarks, which serve to confirm what Mr. Hunter justly observes, that a heart cannot be essentially necessary for circulating the blood.

The observations on disease of the coronary arteries, and on syncope anginosa, follow. By the title of this chapter, the reader will perceive that the author imputes syncope anginosa, or angina pectoris, to diseases of the coronary arteries. By their ossification, he conceives that the heart, deprived of its due portion of blood on any occasion for increased action, not only is unequal to that increase, but, in the attempt, ceases to act altogether. To this want of nutriment also, is imputed the diminished size of the heart.

Having, in justice to the author, explained this theory, we shall leave the decision to the reader. The practical remarks that follow, seem, in many respects, judicious; but we cannot help wondering that Dr. Perry's admitting the occasional use of stimuli, should be considered as a concession to the doctrines of others. In some cases of angina pectoris, it is well known that immediate application to brandy has always restored the patient; and that some have been supposed to die under the syncope, from having failed to provide themselves with that necessary recruit. But these paroxysms are not to be confounded with those more acute and
painful

painful ones, which are probably true inflammation, and lay the foundation of the chronic misery.

A chapter follows on polypi, well worth perusing, as it marks the difference pretty accurately between those which are formed after death, or in articulo mortis; and those which, arising from high inflammation, become organized. But still we are at a loss to conceive how our author can explain many of the symptoms, and of the appearances, without admitting high inflammation as the cause; and, consequently, why under any such circumstances, he should object to venesection. Without entering into this controversy, we shall transcribe the following case, as a fair illustration of the organization of these polypi.

"To these proofs of the vitality of some polypi, I may add another, deduced from the diseased state in which we found the polypus itself, in a person who had evidently died from angina pectoris. In this subject, the nutrient arteries of the heart were extensively ossified; the aortic valves had fungi attached to their floating margins, and one of the chordæ tendineæ was implanted in such a way into one of the semi-lunar valves, as to destroy in a great measure its valvular action. In the left ventricle, a polypus concretion which measured more than one inch in length, was found attached to the septum of the heart. That side of the polypus next to the septum adhered so firmly to it, that the membrane lining the ventricle tore, before the polypus could be separated from the heart. Where the two were in contact, the septum was painted with small red vessels, and was besides rough. This fact of the firm union of the polypus with the heart, is a sufficient proof of the vitality of the latter; but this is established beyond a doubt, by an abscess being found in the centre of the polypus itself. This abscess, when opened, discharged above a tea-spoonful of perfectly formed purulent matter.

"In this dissection, I would particularly call your attention to the existence of the polypus, and the diseased nutrient arteries. Can we have a more unexceptionable proof than this dissection affords, of the causes which predispose to the formation of polypi; and is it possible to procure a more satisfactory argument in favour of the vitality of some polypi, than the one furnished by this subject? The ossification of the coronary arteries, and their otherwise diseased state, clearly shew, that the action of this heart must have been languid; and the presence of a fully organized polypus, corroborates a position formerly laid down: it tends to establish the point, that impaired action of the heart predisposes to the formation of polypi. The existence of the abscess in the centre of the polypus, surely shews that the concretion had been endowed with vitality; it also, I think, proves that the polypus must have existed a considerable time before death.

"The polypi we have been just describing, are, without doubt, merely formed from the blood changed by the action of the vessels of the heart, and supported by twigs from the coronary vessels;

but there is another species of concretion occasionally met with in the heart, where the cavity in which it is contained, is much more extensively affected. In this disease, the parietes of the heart are generally thickened, in spots ossified, and the inner surface of the cavity is rugged, and lined with the same kind of substance which invests the inside of aneurismal tumors. This species of concretion has very much the look of being a fungus from the heart itself, and is altogether unlike the other polypi, which seem productions in the first instance from the blood contained in the cavities of the heart. We have in our possession a heart, where the concretions is as large as a pullet's egg, and where it is attached by a broad base to the side of the left auricle, which, over its whole extent, is thickened and diseased; and in this instance, by forcing air into the coronary vein, we could inflate some few vessels in the new formed substance, in which there were likewise some specks of bone. In this person, the mitral valve was so malformed, that the presence of the polypus in the auricle, was a matter of complete indifference. Indeed, as has already been noticed, we have great reason to doubt, whether a case of idiopathic polypus of the heart has ever occurred. If blended with other diseases, its presence can rarely before death be ascertained; and if discovered, it would not alter the plan of treatment."

On the effects resulting from ossification of the valves, we meet but little novelty; nor, indeed, is it reasonable to expect it.

The chapter on aneurism is principally a compilation, and chiefly from the ingenious and indefatigable Scarpa. We should remark, that in this and some other chapters, our author has much credit in marking the anomalous or sympathetic symptoms.

The remarks on preternatural pulsation in the epigastrium form a good compilation, but might have been extended further. Whytt, in his account of nervous diseases, has some observations which are well worth notice; particularly as they were written before several pathological facts were known, which are now well ascertained.

After all that is said, this subject is not yet cleared of obscurity; in other words, there are cases in which a collection of feculent matter, to a very great quantity, has been attended with no pulsation; and others, in which this pulsation seems, if not to arise from a subsultus of the muscles, to be at least ascribable to no ascertained cause.

The last chapter contains, "remarks on the unusual origin and course of some of the large and important arteries of the human body." Where the aorta deviates so far from its natural course as to receive venous blood, the consequences are too well known. In other instances, where changes in the disposition of the arteries take place at parts within the sphere of surgical operations, every caution is absolutely necessary; and the surgeon should always be aware of the possibility of such an event. But we cannot help doubting how far dysphagia should follow from any irregularity

gularity in the ramifications of the aorta, how great so ever they may be.

Such is the nature of this work, which, though far from being as complete as we expected from an anatomical teacher, is certainly not without its merit. In a few years we suspect the author will alter his opinions on some subjects, and become more decided in others. In the meanwhile, we are pleased that the work has appeared; and hope it will lead to a more minute examination of every malformation, or change of structure, which may occur in these important organs.

EDINBURGH JOURNAL, No. XX.

(Concluded from our last, pp. 427—433.)

ARTICLE 5.—Case of preternatural Enlargement of the Heart, with diseased Pericardium. By CHARLES ALDIS, Surgeon.

THIS case was attended with ossified valves, and a beginning ossification of the aorta. The pericardium was every where adherent, and a portion of it is said to have been in a highly morbid state, but its disease is not described.

ARTICLE 6.—Observations on Contagion. Communicated to Dr. Chisholm, from Dr. David Hossack.

As far as we can understand Dr. Hossack, he wishes to show that the distinction between infection and contagion may be better reconciled to the mind, by dividing contagions into different classes. The first are those which are communicable by contact only, viz. The Itch; Syphilis; the Sibbens of Scotland; the Laanda of Africa; Frambæsia or Yaws; Elephantiasis or Leprosy; Hydrophobia, and the vaccine virus." The second are communicable by contact and by the atmosphere, as Small-pox; Measles; Chicken-pox; Influenza; Hooping-Cough; Scarlet Fever, and Cynanche Maligna." The third by the atmosphere only, as "Plague; Yellow Fever; Typhus, Jail, Ship, Hospital or Lake Fever, and Dysentery."

We would first remark, that we have never heard of influenza being communicated by contact. If contagious at all, it seems to us reducible to the same class as yellow fever and plague, that is, spreading only under a certain constitution of the atmosphere. All three attack suddenly a great number of subjects, after which, they as suddenly disappear, not like the small pox, because there are no more subjects to be attacked by them, but because of the change in the atmosphere. This is remarkable in influenza, which rarely continues more than a month or six weeks in any one place. The yellow fever usually subsides suddenly on the access of heavy rains; the plague in Egypt always ceases with the summer solstice, and in Europe with the winter frost.

Contagion, which is derived from *contingere*, implies contact, whether

ther of the person himself, or of the air which has touched him, is of little consequence, as to the general term, though highly proper to be marked in distinguishing the different laws of each. Infection, on the contrary, from *inficere*, is of a more general import, implying only that certain properties are imparted, by which the air or any other substance is altered. If this alteration is such as to enable the *infected* air to produce disease, it may then very properly be called *infectious*. But under infection the air does not necessarily convey the same disease as the patient suffers, and contact of the person where the air is not infected is no way injurious. A number of persons confined with any disease will so far injure or infect the air, that it shall prove infectious or induce fever in those who breathe it, but persons thus infected will not prove injurious to others.

Hence, both the etymology and analogy fails, because the air that touches a man under this disease, and is breathed by another, does not induce the disease in the latter. The magistrates who have been infected by gaol fevers from the infectious air of a prison, never prove injurious to others. But the subject under scarlet fever or small-pox, however well ventilated the place may be, proves contagious to all who are susceptible of the disease. In the yellow fever, it is found, that those who remove from infectious towns are not injurious to others.

We would not, however, quarrel about terms, for if the classes of diseases are accurately distinguished, it is of little consequence by what name. But the practical inference, which is the most important, seems too little attended to by our author.

"This doctrine, too, I believe, says he, will better account for the apparently contradictory facts, which have been urged by the advocates of the two opposing opinions, than any system that has been adopted.

"It will also lead to a system of police regulations, which will best insure us against the ravages of yellow fever when introduced; at the same time, that it will teach us carefully to guard against the introduction of it from abroad."

Now this last paragraph seems to us likely to perpetuate all the errors which have so long proved the bane of North America. If, as is universally admitted, the yellow fever can only exist at certain seasons, so that quarantines are only enacted at those seasons, and if no quarantines have been sufficient to protect the ports from the disease at certain times; if at these seasons, refugees from the towns have never conveyed the disease into the country, it seems doubtful whether quarantines are of any use: in either case, the first object should be to ascertain whether the disease is imported at all; and if not, to make such provision for draining their towns, as may preserve them from this calamity.

ARTICLE 7.—*Cases of Enlargement of the Knee Joint, cured by the Application of Corrosive Sublimate.*—By WILLIAM ROBERTSON, one of the Surgeons of the Kelso Dispensary.

THIS paper contains some good practical remarks, which convince us, that the author will not be offended if we attempt to correct some erroneous opinions, the impressions excited by which, may have an improper influence on the reader. In the exordium to the cases, we have the following among other remarks on the disease.

“The ligaments, cartilages, and bones, being of an irritable nature, are susceptible of inflammation; and if this be not subdued by the means employed for resolution, it passes into the suppurative state, which destroys the connecting medium of the bones, and renders the waste of the parts occasioned by suppuration irreparable. Under such circumstances, if the ends of the bones do not unite by a process of nature which has got the name of *anchylosis*, which however seldom if ever happens unless to young people, the patient becomes hectic, in consequence of the absorption of matter from the joint, and, if he does not submit to the amputation of the limb, he lingers out a life of misery, till death puts an end to his sufferings.”

We had conceived that this opinion concerning the cause of hectic fever in incurable diseases, had been so long banished from the London school, as by this time to become obsolete in most parts of the Empire. We only wish to remind the author, that when suppuration has taken place in such a cavity, the most desirable event is, that the *whole of the matter* should be absorbed without any breach of the external skin, and that when such an event takes place, we have no hectic fever. In more unhappy cases, the hectic rarely takes place till the skin is broken, consequently till the absorption is probably less; but repeated suppurations over a large surface, in order to heal by the common process, produces a perpetual recurrence of symptomatic fever, till it becomes a true hectic. If this were not the case, it would be inexcusable in surgeons ever to permit matter to remain without free openings, and the application of absorbent substances all over the surface. But the danger of opening extensive and deep seated abscesses was so long known, that surgeons were taught by the consequences to avoid it as much as possible. In the psoas abscess the patient's case was considered as almost hopeless, when the matter proceeded to the surface, and an external opening was made by ulceration or art. The danger in these cases was in proportion to the surface of the abscess, which till opened, would gradually increase. Mr. Abernethy, therefore, made an important practical improvement in this part of surgery, by opening such abscesses at an early period, and suffering the orifice to heal. In these cases it sometimes happens that the stimulus given to the surface of the abscess is sufficient to induce a healing process; that is, a fresh suppuration takes place over the whole;

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the matter secreted is absorbed; the sides of the abscess unite by granulation, and the patient is cured. During this whole process, nothing is so little apprehended as the absorption of matter.

The next error which we would point out to our author, is his manner of confounding highly irritating substances with *caustics*. This is particularly important, because a part of his success seems to have arisen from the very high inflammation he excited externally, where it was manageable, and which probably relieved the parts within. A caustic is literally a substance which burns the part, and by that means produces its destruction. We are, however, in the habit of using the term for such substances, as by entering chemically into combination with the animal matter to which it is applied, produces such a change as to render it unfit for its former purposes; in consequence of which, it is separated by a future process of suppuration. As these substances act alike on all the soft parts of animals, whether dead or living, they may be applied over the sound cuticle. Corrosive sublimate and arsenic have none of these properties: when applied to parts having sensibility, they excite so high an inflammation as the parts cannot support, and death is the consequence; that is, mortification follows, and the part must afterwards be separated in the same manner as after the application of chemical caustics. This last circumstance may seem to render the distinction of less importance, but this is far from the case.

The chemical caustics, we remarked, may be applied efficaciously to the sound cuticle, because their action does not depend on the sensibility of the part. But the mineral poisons, if we may so call them, will produce no caustic effect, excepting the skin is broken or previously scarified, so that they may come into contact with parts endued with sensibility. The consequence is very obvious. If we wish merely to make an opening into an abscess, or any other cavity, and that our opening shall be such as to prevent an immediate re-union, the chemical caustic is the most convenient. To this we must impute the whole success of Mr. Else's method of curing hydrocele. If the mineral caustic had been used, and the skin divided previous to that operation, the inflammation excited would have been so great, that extended over such a surface as the enlarged and highly sensitive tunica vaginalis, would probably have proved fatal.

In the cases related by Mr. Robertson, the inflammation excited by the chemical caustics might have been unequal to the purpose, whilst the high inflammation which was excited by corrosive sublimate was attended with so many advantages.

We shall conclude these remarks by adding, that we think the faculty obliged to the author of this paper for the introduction of this substance as a topical application, and we are particularly pleased with his candour and habits of observation, which are so conspicuous, in his acknowledging the sources from which he derived so useful a piece of information.

ARTICLE

ARTICLE 8.—*Observations on Mr. BARLOW's Theory on the Origin of Urinary Calculi.* By WILLIAM GOODLAD, Member of the Royal College of Surgeons, London.

THEORIES, and observations on them, appear to us, rather as lessons for themes than really useful for practical knowledge. We do not, however, entirely condemn them. Reasoning cannot be long supported without producing some facts; the authenticity and accuracy of which, will be established by the keenness of the opponents.

The Inquirer, No. XII.

Are the remote Causes of Stone and Gravel yet discovered? THIS is a judicious and well written Essay. The difficulty the author finds in drawing any conclusions, may serve as a further apology for the little notice we took of the preceding paper, and as a lesson to the antagonists.

Practical Observations on Strictures of the Urethra, with Cases illustrative of the comparative merit of the caustic and common bougie, also Remarks on Fistula in Ano, and an improved method of treating Tinea Capitis, with annexed Cases; by THOMAS LUXMOORE, Surgeon Extraordinary to the Prince of Wales; Surgeon to the Eastern Dispensary, &c. &c. 8vo, pp. 215, London 1809.

IN an introductory chapter, Mr. Luxmoore, after remarking the imperfect knowledge in stricture before Mr. Hunter's time, observes, that "Mr. Home has written well on this subject," but seems to apprehend, that "his better judgment may have been warped by his attachment to Mr. Hunter, in favour of a practice, on which he has made great improvement, though it ought not to be adopted without much discrimination." We confess ourselves somewhat at a loss to comprehend clearly the meaning of this passage. If Mr. Home has improved Mr. Hunter's practice, it must be by a much more free and general use of the caustic than Mr. Hunter proposed, which is very different in our opinion from any bias in favour of his master. In saying this, we pretend not to determine the propriety of either practice, whilst we may truly say, *adhuc sub judice lis est.*

"Although, continues Mr. Luxmoore, it be universally admitted, that bougies are indispensable for the cure of strictures, still, the application of these instruments does not seem to have been clearly pointed out, nor their principles of action sufficiently understood. The following observations are therefore offered to the public, as the result of much experience.

"The advantages afforded to the author, in the public institution committed to his charge, have furnished ample opportunities of treating the complaint which is the subject of the present publication, in every form and variety, and according to the various modes recommended; nor have his opportunities of observation in private practice been confined: the chief object of these remarks is to limit the use of caustic bougies.

"Mr.

"Mr. Home has, it is true, in his judicious publication, pointed out the cases to which caustic chiefly applies; but in doing so, it was evidently not his intention to recommend its application so indiscriminately as it is commonly employed; for every surgeon of experience knows, that not one case in ten requires its application; and that the generality of practitioners, not perhaps reflecting sufficiently on the rules which Mr. Home has laid down, are apt to employ a remedy which, in unskilful hands, is attended with the most dangerous consequences."

That the principles of action of bougies was not sufficiently understood, we are ready to admit; but after Mr. Hunter's explanation, and Mr. Home's further improvement, it did not increase our expectations of the merit of the work before us, to find the author announcing the advantages his establishment afforded him.

The first chapter on the stricture of the urethra cannot be expected to contain much novelty.

The second chapter is on the origin and formation of stricture. Among the first of these, inflammation, and the consequent deposition of coagulable lymph which becomes organized, is mentioned. This we should suspect would occasion caruncles, which it is now admitted are very rare. The author indeed informs us, that the deposition is in the cellular membrane, and that circular bands are the consequence. This may be the case, but it is difficult to conceive how so regular a process should follow common inflammation, and the effusion of coagulable lymph. An opinion is expressed, too, that Mr. Hunter must be mistaken, in doubting whether stimulating injections ever produce the stricture. The next cause remarked by our author is that mode of protracting the venereal act, mentioned by Mr. Home. After this follow some remarks on the spasmodic stricture, and its connection with the permanent.

The third chapter, on the symptoms of stricture, cannot be expected to contain much novelty.

A chapter follows on diseases resembling stricture. These are the diseased prostate gland, and the irritable bladder, the various forms of which are related with attention, and some good practical inferences follow.

The consequences of stricture form the fifth chapter; those mentioned by the author are, the thickening of the bladder; the gleet; and fistulæ in perinæo.

Mr. Luxmoore next enters into a short history of the caustic bougie, tracing it from Ambrose Paré, to Mr. Hunter, Messrs. Home, Whately, and Andrews, and shewing very briefly the inconveniences which sometimes occur in its use, and also, that it cannot be considered as a permanent cure, with any greater certainty than the common bougie. Some remarks on the common bougie follow, their various improvements, and the best mode of applying them.

The author prefers the plaister bougie. After a few other remarks on some diseases of the prostate gland, he proceeds to illustrate the preceding observations by his own practice, producing

ing cases of most of the diseases above enumerated. We extract the following passage, as containing two remarks we think it right to produce to our readers, but shall offer no commentary of our own.

"The above case is chiefly to be remarked, inasmuch as the cause of stricture was evidently the use of astringent injections. It has been strongly asserted, by Mr. Hunter, that this could never occasion the disease; but so many proofs of this kind come before the surgeon, that I believe his opinion is more ingenious than well founded. In this case, I first followed the common mode of using a small bougie, but experienced no success from this effort; on the contrary, I found the application of a middle sized one, to be the only means of gaining any ground. In my attempts here, I deviated a little from my usual plan, and employed more force in pressing against the stricture, than I have recommended. The consequence of this was, that I gained ground, and passed the bougie suddenly for an inch through the stricture, but at the same time it produced such a degree of irritation, that the patient became faint. Soreness prevented my proceeding; and, on making an attempt the following day, I could not pass the stricture. These trials were repeated on the subsequent days, and it was only by regular perseverance, in pressing upon the stricture for a certain period, that I at length succeeded in procuring a passage into the bladder. This clearly shews, that the mild method of procedure is both the safest and most successful; and that a gradual and continued pressure will overcome difficulties apparently insurmountable; for in this case it required eight weeks to procure a free passage."

If we have had occasion to remark, that little novelty or information can be gained by the perusal of this part of the work, it is but justice to add, that the succeeding chapters on *Tinea Capitis* have considerable merit. If we have to complain of Mr. Luxmoore, as of most other authors, that the disease of which he treats is ill defined, it must be admitted, that he has made those divisions of complaints in the scalp, which will very much assist the reader, in discriminating the various symptoms, and applying remedies respectively to each.

"I consider," says he, "the disease divisible into two species, viz. the dry and the moist. The dry is the more obstinate, and is vulgarly called *ring worm*, in which the hair drops off in patches. It generally resists every means employed for its cure, but in some cases a temporary relief seems to be obtained. Three cases lately occurred, sent me by Mr. Astley Cooper, which yielded to the treatment employed, and were ultimately completely cured."

"The moist form occurs more frequently, and generally engages most attention. In this species, the *Cutis Vera* is the seat of the disease; it seems to have its origin in the bulbs of the hairs, and from these, extends to the circumjacent cutis. Some cases which
occurred

occurred in negro children, gave me an opportunity of remarking that the rete mucosum was not reproduced when the sores healed.

"The existence of animalculæ, as supposed by professor Redi and others, has not yet been proved, and I am inclined to consider it an erroneous idea. The causes of this disease may be considered of two kinds; those which act generally, and seem to predispose to the disease, and those which act topically, and excite the complaint.

"Of the first kind, seem to be scrophulous diathesis, poorness of living, and want of cleanliness.

"Of the latter kind, filth, and the matter itself which is produced from cases of Tinea. There is no doubt but the matter is capable of exciting the disease in others, and I believe that the complaint is most commonly occasioned by contagion. Whether it ever originates merely from neglect and want, I have not been able to determine; since, if the subject be of the higher classes of society, it may generally be traced to a source of contagion, and if of the lower orders, both causes seem to operate. There can, however, be no doubt but that negligence, and inattention to the means of cleanliness, certainly aggravate the complaint. Such being the case, it is absolutely necessary in the treatment to attend to cleanliness; but I do not conceive that it should form the chief indication in the plan of cure, as has been often maintained.

"The idea of this disease, which I wish to enforce, is, that it consists of a chronic inflammation, productive of a secretion of matter peculiar in its nature, and capable of propagating the complaint if applied to the scalp of a healthy subject, as much so as that of syphilis and other specific diseases. If applied to other parts of the body, it will also produce a similar disease, allowing for the difference in the structure of the skin of those parts, and which is generally known under the name of ring-worm. The lymphatic glands, in the vicinity of the affected part of the scalp, become swollen and painful, probably from the absorption of this matter."

The author then proceeds to mark the constitutional symptoms which attend this local disease, and also the remedies by which they are to be relieved; several striking cases are annexed, and, on the whole, we cannot but express our satisfaction at this part of the work.

In his remarks on Fistula in Ano, we confess ourselves unable to follow the author through every part. It may, perhaps, be judicious to remind practitioners of the necessity of attending to the constitution under all local diseases; but where the general health is good, we find it difficult to trace a local disease to the imperfect action of any distant organ.

"The first and most frequent cause of this complaint, says our author, is a scrophulous habit, and is often accompanied with a diseased

diseased state of the lungs. In such a constitution, any slight injury in the vicinity of the rectum, occasioning inflammation, will produce this affection, and whatever local means may be employed, will be totally ineffectual, unless the primary fault of the constitution be repaired. The determination to the skin in such persons is less than natural; the consequence of which must be, that the vessels of the intestines, whether arteries or veins, will become more loaded with blood. The blood-vessels themselves are also of a more relaxed structure; hence they dilate considerably, and thus the circulation is rendered extremely languid, particularly in veins, where the blood acts against its own gravity. The consequence of this is, that the blood from the rectum, and its neighbourhood, is impeded in its return to the heart. The congestion thus produced, will occasion the surrounding cellular membrane to become laden with fluid, produced from the exhalent terminations of the arteries; while the veins, from their increased size, occasioning a mechanical pressure and irritation, will, as they enlarge, break down the cells of this membrane, and excite in it an erisypelatous inflammation; the matter then frequently points externally in the form of a tumour, or it is discharged with the stools. On introducing a probe, the rectum is found denuded, or the sinus penetrates either into the nates or perinæum.

“Another cause of this malady may be traced to an imperfect cure of syphilis, nor does it unfrequently proceed from the injudicious use of mercury in a scrophulous constitution. It is therefore of much importance to ascertain which has given rise to the disease; and to determine this, recourse must be had to the history of the case. When the cause is venereal, mercury must necessarily be employed, or the operation, conducted in the most skilful manner, will certainly disappoint the wishes of the surgeon. If, on the contrary, too much mercury has been given, the constitution will be so debilitated, as to render it necessary that tonic remedies, nutritious diet, and good air, should be recommended, previous to the performance of the operation.”

The third cause mentioned by Mr. Luxmoore, appears to be most general, viz. erisypelatous inflammation. When this disease attacks the parts in the neighbourhood of the rectum, the consequence must be those sinusses which form the true character of the disease. Venereal sores never assume that form. If mercury has exasperated them, they have usually been fistulous before that remedy was used. That the constitution should be attended to under all local diseases, cannot be questioned; but, when that has appeared sound, we have never found reason to repent directing our whole attention to the local disease.

We here take our leave of Mr. Luxmoore, not without recommending some parts of his book to the attention of our readers; may we add, if that which relates to strictures had been omitted, we do not think the reputation of the author, or the value of the book, would have suffered.

Report of the Diseases of Edinburgh for October, 1809.
By JOHN ROBERTON, M. D.

THE weather, during the whole of this month, as is indeed not unusual after the proper period has gone by, has been delightful. Thus our February and March are often more agreeable than the two months following; and October, as in the present season, is not uncommonly more pleasant than two months previous to it. This irregularity of seasons is often productive of serious consequences, especially to the infirm. Indeed, to all ranks it is prejudicial, owing, in a great measure, to the prevalent custom of dressing, particularly among ladies, rather according to the appearance of the day than to the advancement of the season. I am convinced, that in a climate such as this, where at best the summer is so short, and even then so often interrupted by unfavourable circumstances, there can be but few apologies adduced in favour of too thin dress, and many diseases of the most fatal kind may easily have their origin traced to no other cause. This practice, I have no hesitation in deprecating, even during that time of the year when we are most likely to have good weather; but at such an advanced state of the season as this, when, whatever the days (now much shortened) may be, the nights must be cold and disagreeable, such habits cannot be too much condemned. The mornings and evenings during the whole month were frosty.

The barometer, soon after the commencement of the month, rose considerably, and continued high throughout the whole of it.

The thermometer also stood rather high considering the advanced period of the year. It, however, uniformly fell considerably every night after sun-set, and continued low till the forenoon of the following day.

The most prevalent diseases of last month still continue. The most common and most severe, however, are diarrhœa and catarrh. Small-pox and ophthalmia have been added to the list.

It is a pity that small-pox should still be allowed to prevail in the list of our diseases, when its antidote the cow-pox is so conspicuously serviceable.

Ophthalmia has appeared in various parts of the city; in some instances very severely; so much so, indeed, as almost completely to deprive the patient of sight. In general, however, it has not been very severe. As I formerly had occasion to mention, in a general way, (and it cannot

not be too often stated) the treatment of this disease is almost always conducted, in every variety of constitution, nearly on similar principles; as by the application of cold in various ways to the affected eyes; a wash for them composed of Goulard's extract of lead, or some one or other of the vitriolic preparations; the division of the blood vessels running over the ball of the eye, and the administration of brisk purgatives. Instead of this, I scarcely recollect of any disease in which the discriminating powers of the medical attendant are more necessary than in this; as, owing to the particular habit of body in which it appears, the means by which it may be best removed are very opposite to each other. In scrofulous patients, for instance, scarcely any one of the above enumerated applications will do any good; but, on the contrary, often occasion much pain and unnecessary distress. I may, indeed, except from this, the occasional administration of purgative medicines when the bowels are constipated, and the division of the blood vessels running over the affected eye, especially when they are greatly enlarged, and not likely to be destroyed by milder means; but, as stated, in such patients, all the other applications of a cooling kind are decidedly bad. Indeed, I have no hesitation in asserting, that the same reasoning may be applied to habits much debilitated by age, disease, or improper living. On the contrary, the applications of most general use for the removal of ophthalmia in scrofulous patients, are of a stimulating nature, and immediately applied to the affected eye. Such are strong ardent spirits, or laudanum, blown twice a day through a goose quill into the eye, while the eye-lids are held open by another person, or a liniment composed of the red oxyd of mercury and simple ointment, introduced within the eye-lids once or twice a day.

When we have ascertained the peculiarity of the patient's constitution, whether of a scrofulous habit, or whether no such disease can be traced in his system, these states will at once point out the treatment most likely to be successful in the removal of the affection.

Princes Street.

*An Account of Diseases in an Eastern District of London
from October 20, to November 20, 1809.*

ACUTE DISEASES.		Hypochondriasis - - - 5	
Febris Intermittens - -	2	Leucorrhœa - - - -	3
Variola - - - - -	4	Menorrhagia - - - -	2
Pneumonia - - - - -	3	Enterodynia - - - -	5
Pleuritis - - - - -	2	Diarrhœa - - - - -	7
Scarlatina - - - - -	3	Rheumatismus Chronicus	10
Rheumatismus Acutus -	2	PUERPERAL DISEASES.	
CHRONIC DISEASES.		Dysuria - - - - -	3
Tussis - - - - -	25	Menorrhagia Lochialis -	4
Dyspnœa - - - - -	17	Dolores Post Partum -	5
Tussis cum Dyspnœa -	27	Mastrodynia - - - - -	4
Pleurodyne - - - - -	6	INFANTILE DISEASES.	
Hydrothorax - - - - -	5	Convulsio - - - - -	3
Anasarca - - - - -	7	Diarrhœa - - - - -	5
Ascites - - - - -	3	Vermes - - - - -	2
Syncope - - - - -	2	Tabes Mesenterica - -	2

The winter season having now commenced, those diseases which usually make their appearance at this time of the year, begin to engage our attention, and solicit medical aid. Indeed, so little appearance has there been of spring or of summer, and so rapid has been the succession from the close of one winter to the opening of another, that it wears more the appearance of a continuation of one, than the succession of several seasons. In consequence of this, during the whole year, we have had a more than common number of those complaints, which occupy our attention chiefly in the winter quarter. Coughs and catarrhs, peripneumonias and plurisies, however, now begin rapidly to increase, and, owing to the severity of cold, and the prevalence of northerly winds during the last few days, their symptoms have appeared in a more aggravated form.

Numerous instances of the small-pox have lately occurred. For some time past a hope has been entertained, that this disease, formerly so grievous and severe, would, by the substitution of another, have ceased to make its appearance on our list, and indeed would have suffered a total extermination. Our sanguine hopes, however, have received a check.

In a few cases, it has happened that the small-pox has appeared in subjects that have regularly gone through the process of vaccination, and who were supposed hereby to be

be secured from the influence of variolous contagion. These facts, which have been but very few, and which when put in the balance against that immense number produced as proofs of the efficacy of the newly discovered means of prevention, are almost light as air, have nevertheless so far increased the prejudices of some, and produced such doubt and hesitation in the minds of others, as to lessen the inclination for using the salutary means of prevention; and the small-pox, either from inoculation, or casual occurrence, is likely to resume its place in the list of diseases.

INTELLIGENCE.

We wished very much to procure an accurate detail of all the symptoms in the man who was bitten by the rattle snake. All we have hitherto learned is, that mortification took place in several phalanges of the fingers, and that separation had begun before death. Another, and still more important event, of which we have received many particulars, and to the dissections of some of which we were present, is the death of three horses under symptoms of hydrophobia. It is ascertained that two of them were bitten by the same dog, and there is reason to believe the same of the third. The great importance of every part of the question, makes us anxious to be not less minute than accurate in our whole information, which we trust will prove our excuse for delaying the account of this as well as the other event till our next Number.

We have frequently had occasion to notice the progress made on the Continent, in extracting sugar from the beet-root; and it now appears, that the yellow beet, when sliced and kiln-dried, furnishes an excellent substitute for coffee, particularly if ground with a small quantity of Turkey or West India coffee. It requires much less sugar than the foreign coffee, and is said to be much stronger. M. Vennen, of Coblenz, claims the merit of having discovered this new application of beet-root. He cautions those, by whom it is cultivated, against stripping the plant of its leaves for feeding cattle, as is generally practised, as it not only injures the growth of the plant, but materially alters the qualities of the juice.

Great exertions are making in every department of France to produce substitutes for sugar, and prizes are daily offered by the various economical societies of the continent, for the discovery of the most proper material for that purpose. The saccharine matter of grape has been the chief subject of the recent experiments of the French chemists.

M. PERON

M. PERON, during his voyage to the South Seas, collected a great number of that remarkable genus of animals, to which Linnaeus gave the name of *Medusa*, and has increased that family to more than 150 species. In an account lately presented by him to the National Institute, their singularities are well expressed in the following terms:—"Their substance seems to be merely a coagulated water, yet the most important functions of life are exercised in it. Their multiplication is prodigious, yet we know nothing of the peculiar mode in which it is effected. They are capable of attaining several feet in diameter, and the weight of fifty or sixty pounds, yet their nutritive system escapes our eyes. They execute the most rapid and long continued movements, yet the details of their muscular system are imperceptible. They have a very active species of respiration, the true seat of which is a mystery. They appear extremely feeble, yet fish of considerable size form their daily prey, and dissolve in a few moments in their stomach. Many species of them shine in the night like balls of fire, and some sting or benumb the hand that touches them; yet the principles and agents of both these properties remain to be discovered. All the medusas have a gelatinous body, nearly resembling the cap of a mushroom, and hence denominated *umbrella*; but they differ in wanting, or having a mouth; in the mouth being simple, or multiplicitous; in the presence or absence of a production, resembling a pedicle; and in the edges of this pedicle, or of the mouth itself, being furnished with *tentacula*, or filaments, more or less numerous. From these characters M. Peron forms divisions and subdivisions, under which every possible kind of medusa may be arranged. Some of these animals exhibit beautiful colours.

In the evening of the 26th of June, a terrestrial water-spout appeared, about a league south-east of Carmagnole, in the department of the Po. The weather was stormy. The cloud, which gave rise to this meteor, was greyish, and not very large; but it began to lengthen on one side, forming as it were a very sharp tail, which approached the earth in a serpentine line. The cloud had then the shape of a reversed cone, part of which emitted a very perceptible yellowish light; this cone, about half way between the summit and base, might be eight or nine yards in circumference. As it approached the earth, a kind of cloud that looked like smoke, having also the appearance of a kind of cone, was formed, and its summit advanced towards the water-spout. The duration of this meteor was twenty minutes, during which it traversed a space of more than eight hundred yards, and then descended in a deluge of water. In its way, it overthrew a young oak, and stripped the bark from a mulberry tree, the roots of which were almost entirely laid bare, by the removal of the earth which covered them. The bark was reduced to a dry, whitish, and almost friable substance. The lower cone also exerted its fury upon the dust, which it raised, and the corn which was then cut in the fields, and which it carried away and dispersed. A man who

who was in the line traversed by this phenomenon, feeling himself beginning to rise, held by a bush that he might not be carried away. A quarter of an hour after the disappearance of the water-spout, there was a thunder storm with hail. The thermometer was at 18° , and the mercury in the barometer, which at first stood at twenty-seven inches six lines, rapidly fell $2\frac{1}{2}$ lines.

Another phenomenon, attended however with still more mischievous effects, occurred on the 8th of July, near Aix, in the department of Mont Blanc. The wind was south, and the thermometer at 22° ; the cloud in which it originated, appeared in the form of a water-spout, about six miles from Aix, at a considerable elevation. It proceeded along the chain of the Lesser Alps, situated north-west of Chambery; it was slightly charged with electric matter, and carried along with it a prodigious mass of flakes of ice, with a tremendous noise. Having traversed the distance of about eighteen miles, along the summit of the mountains, a contrary current of wind meeting it above lake Bourget, about six miles from Aix, detached a portion which was carried toward the north-north-east; while the other continued its course westward, towards the Lyonnais. In both directions, the storm spread devastation through the vallies. The town of Annecy has not a single pane of glass or tile left whole. The lumps of ice were as large as a man's fist, some weighing three, three and a half, and even four pounds. Numbers of the country people are wounded; several shepherds are killed, and great numbers of cattle killed and wounded. The desolation is general throughout a tract of forty-two miles. The progress of the column of ice along the mountain, opposite to Aix, exhibited the most terrific and at the same time imposing spectacle that can possibly be conceived.

After the extraordinary tide observed on the 4th of July last, in the whole gulf of Spezzia, and which is called by the Italians, *terremoto di mare*, (sea earthquake) the whole course of the tides there was totally deranged for the seven or eight succeeding days. The ebb and flood were sensibly perceived at intervals of a quarter of an hour, half an hour, and an hour, during that whole space of time. A sloop within sight of Leghorn, was overtaken the same day by this tide, which in a moment rendered the sea, before quite calm, extremely rough. The cause of this phenomenon is supposed to have some connection with the earthquakes, which the western part of Italy has so frequently experienced for some years, fresh shocks of which were felt by the towns and vallies of Suze and Pignerol on the 2d and 3d of July last. It cannot be doubted that earthquakes and volcanic eruptions frequently convulse the bottom of the sea, without occasioning the mischief which they produce on land, and without its being possible for them to be observed, even by navigators. The Italian expression for this phenomenon would therefore be perfectly correct, and founded upon the laws and effects of Nature.

Dr. RAMS-

Dr. RAMSBOTHAM will commence his Lectures on the Science and Practice of Midwifery, on Wednesday January the 3d, 1810, at his House, No. 9, Old Jewry.

Dr. CLOUGH, Physician, Manmidwife to the St. Mary-le-bone General Dispensary, &c. will, on Monday, the 10th of January, at Ten in the Morning, commence his Spring Course of Lectures on Midwifery, including the Diseases of Women and Children, at his House, 68, Berners Street; and for the convenience of Students, attending other Classes and Hospitals) his Evening Course on Tuesday the 9th, at Seven o'Clock.—For a Syllabus and Prospectus of the Course, apply to Dr. Clough as above.

Dr. ADAMS's edition of Mr. Hunter will be published by the middle of the current month.

In the course of this month will be published Dr. EDWARD GOODMAN CLARKE's new work, entitled, *Pharmacopœiarum Collegiorum Regalium Medicorum, Londini, Edinburgi, nec non Eblanæ Conspectus Medicus, Virtutes, Doses et Morbos quibus adhibentur Medicamenta, exhibens.*

Dr. STANCLIFFE, well known as a popular lecturer, is about to publish a volume of Chemical Experiments, for the use of Students, consisting of nearly one thousand, in the various branches of the science.

Dr. STOKES has in considerable forwardness, a Botanical *Materia Medica*, consisting of the generic and specific characters of the plants used in medicine and diet, with symptoms and references to medical authors.

CORRESPONDENCE.

We should not have required Juvenis's real signature had it not been from a delicacy in being obliged to quote the writings of one of the Editors.

Mr. J. M. C. will find the enquiry to which he alludes. The last edition of Dr. Adams's "Observations on Morbid Poisons," contains the following paragraph: "It has been said that the experiment made by Mr. Hunter has been since repeated with a different result. Can we wonder at this, when we consider from how many causes gonorrhœa may arise, and how impossible it is to distinguish the venereal from any other?"

We have, in another part of this Number, offered our apology for not inserting the Communications of VERAX, and our learned Nottinghamshire Correspondent. We regret the necessity of refusing two pieces of real merit; but we conceive every practical information of too much importance to be discouraged, unless it is proved that we have been deceived. It is no disparagement to cobweb that it is an old remedy; and that there are instances in which it has failed of success. It has probably been at one time overvalued, like many other remedies; and, like them, been too suddenly consigned to oblivion. Like them, it must find its proper level; but it cannot be fair to admit all wit on one side, when nothing but matter of fact is offered on the other.

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