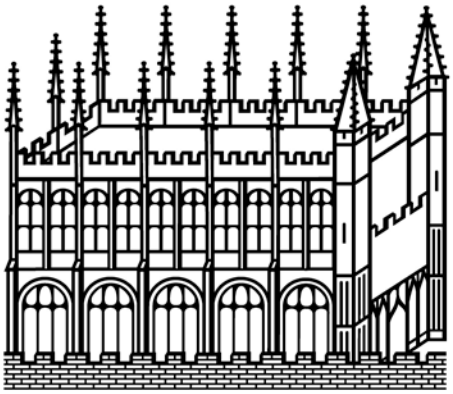


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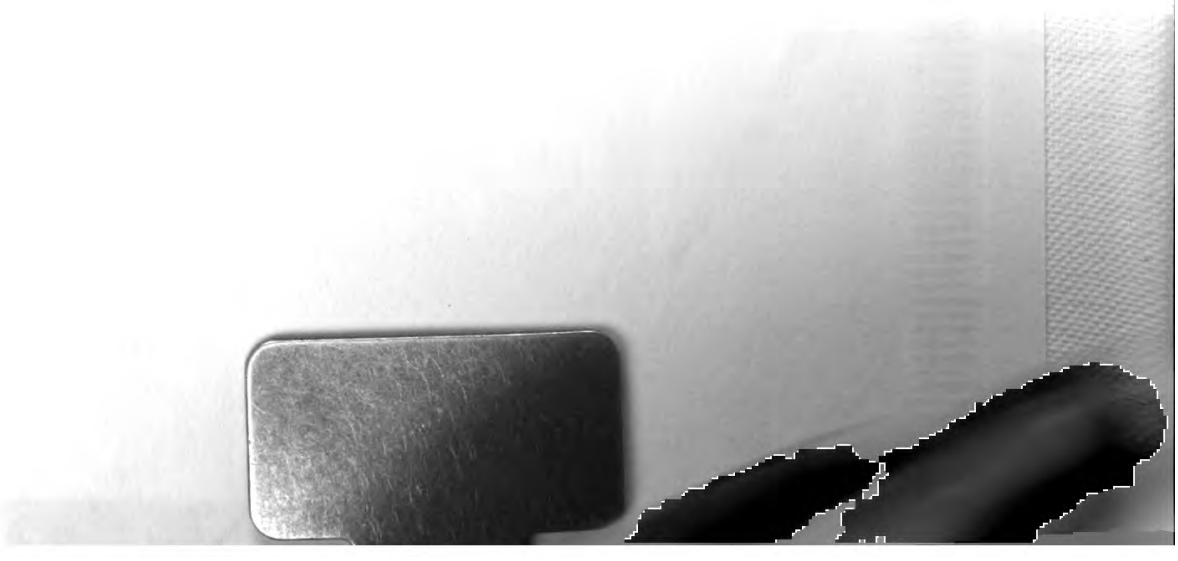
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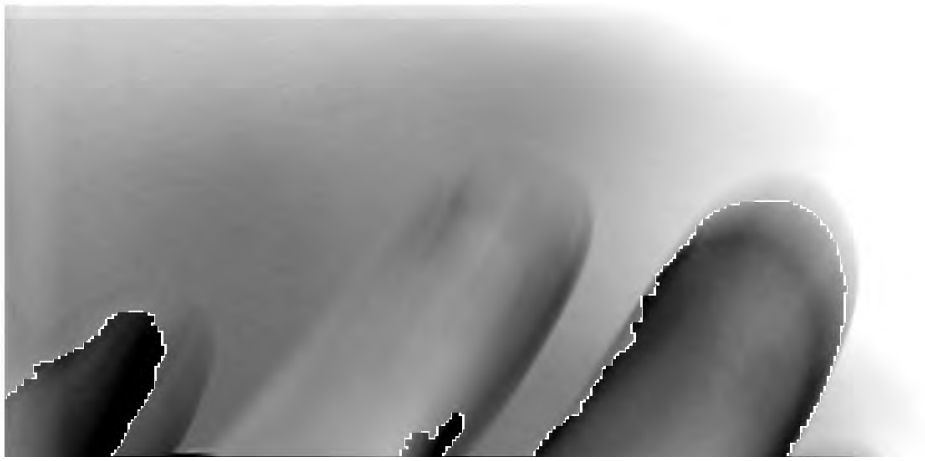


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THE

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REVIEWS.

A Treatise on the Diseases of the Eye. By W. LAWRENCE, F.R.S., Surgeon to St. Bartholomew's Hospital, &c. London, 1833. 8vo. pp. 730.

SEVERAL years have now elapsed since Mr. Lawrence's Lectures on the Diseases of the Eye were published in the Lancet, and we are glad to find that this eminent practitioner has devoted a part of the intervening time to the indispensable task of polishing and correcting.

Mr. Lawrence observes too, "that the opinions and experience of others are quoted and examined;" but it may be fairly objected that he has consulted books too much, and that consequently, in many parts of the treatise, we seem rather to be reading a dictionary of opinions, than the spontaneous effusions of a master of the art. Homogeneousness (the characteristic of genius,) is the great charm of Beer's work. Not that we are to suppose this distinguished teacher to be the inventor of one tenth of the doctrines of the *Lehre von den Augenkrankheiten,* but by long contemplation they had been so thoroughly amalgamated as to form but one harmonious whole, and therefore we are rarely startled by the clash of conflicting theories; but, instead of being informed of what Richter or Schmidt *thought* about a fact, we are generally told simply what the fact *is.* We feel, in short, in every sentence, that we are in the venerable presence of one who has seen 30,000 cases, and not only seen, but understood them, and who consequently more usually quotes his predecessors in order to correct their errors, than to defend himself by their authority. Of course we do not blame Mr. Lawrence for consulting the oracles of ophthalmic science, and looking at nature, as Dryden phrases it, "through the spectacles of books;" but we wish that he had done this only to improve his own art of seeing, and had taken off his glasses sooner. However, the treatise before us, though by no means of so

high an order as Beer's extraordinary work, is compactly put together; and hence, with the exception of sundry addenda, whose unseemly presence at the end of the book might be compared to rough blocks left by a careless architect to deface the exterior of some splendid mansion, the work has a complete and finished air; and in this, as well as other respects, may be favourably contrasted with the crude notes which, under the name of books, are daily thrust upon the medical reader. Mr. Lawrence does not seem to have exactly made up his mind whether the diseases of the eye ought to form a separate branch of the healing art or not; he says,

"Although the importance of the subject must be admitted, it may be doubted whether the ophthalmic branch ought to be separated from the rest of medicine and surgery, as it must be, to a certain extent, by devoting to it separate courses of lectures and treatises, and by instituting ophthalmic hospitals. The diseases of the eye, in general hospitals, are inadequate, from the smallness of their number, to the purposes of practical study, particularly that of exemplifying the various operations. Thus these institutions have been inefficient in reference to this important department. As the general body of surgeons did not understand diseases of the eye, the public naturally resorted to oculists, who, seeing such cases in greater numbers, became better acquainted with the symptoms, diagnosis, and treatment; and especially more skilful in the operative department. At the same time, the subject being imperfectly understood, was neglected in the general surgical courses, in which many important affections were entirely unnoticed, and the whole very inadequately explained. Thus students, who resorted to London for the completion of their professional studies, had really no means of learning this important department of the profession, which was tacitly abandoned, even by the hospital surgeons, and turned over to the oculists. The latter not being conversant with the principles derived from anatomy, physiology, and general pathology, attended merely to the organ, and relied almost exclusively on what is comparatively of little importance,—local treatment. Hence ophthalmic surgery being in a manner dismembered from the general science, was reduced to a very low ebb. Until within a few years, it was in this country, at least, in a state of almost total darkness.

"It thus became desirable to establish an express and distinct school for ophthalmic surgery; not because the principles of treatment differ from those applicable to disease in general, nor because any peculiar mode of study is required, but in order to supply a deficiency in the existing sources of professional instruction; to provide, for the diseases of this important organ, those means of information which the general hospitals neither do, nor could provide, consistently with the requisite attention to their other impor-

tant objects. This proceeding, which at first view seems calculated to complete and perpetuate the separation, was the only rational mode of re-uniting ophthalmic practice to general surgery." (P. 3.)

The oculists, it seems, became better operators than the hospital surgeons, and why? Because, although the latter were continually operating, it was not on the eye; and when they tried their hand on this small organ, it was found that their style was too coarse, too gross,—that they were deficient in minute dexterity. It does not appear, from Mr. Lawrence's statement, why the general hospitals could not provide means of information on ophthalmic subjects, if the principles of treatment do not "differ from those applicable to disease in general," and "no peculiar mode of study is required." The solution of this riddle, however, is not very difficult: surgery, like other arts, is improved by the division of labour; the minuteness of the subdivision increasing with the greatness of the surgeon's field of action, and it certainly is of advantage to the morbid public of London that their cataracts should be extracted or depressed by ten rather than by two hundred operators, especially if the ten are genuine surgeons, not *mere* oculists. Mr. Lawrence too is not quite correct in saying that ophthalmic surgery "*was reduced to a very low ebb.*" It had never been higher; and its state at the period to which Mr. L. refers, though low, was an improvement on its former one. Ophthalmic surgery was then in a state of transition; for the whole domain of medicine and surgery is so vast, that large tracts have always remained in a very uncultivated state, encouraging quacks and mountebanks to adopt the names of aurists, oculists, rupture-doctors, dentists, &c., as a means of preying on the commonwealth. With the progress of civilization and medical knowledge, the charlatan is gradually driven into unwilling decency, and even tries to pass himself off as a man of science, retaining, however, something of that mystery which is at once the essence and the badge of quackery. Ophthalmic surgery was in this state in London about thirty years since, when one of the principal oculists of the day did not blush to give prescriptions to his patients so written that they could be prepared only by one chemist. Such a man might be fairly considered as a *transitional* oculist, between the circumforaneous mountebank and the ophthalmic surgeon.

We next come to the history of the art, of which our author has given a very good account.

"*History.* The separation of the ophthalmic department from

the rest of surgical practice has generally been considered of recent occurrence; it is, on the contrary, very ancient, and perhaps coëval with medicine itself. Among the Egyptians, to whom we trace the origin of arts and sciences, each class of diseases had its physician; and we find from Herodotus, that Cyrus sent to Amasis, the king of Egypt, for an oculist. The Greeks and the Romans had their oculists, as is evident, not only from their writings, but from the inscriptions on ancient marbles and seals. That Augustus and Tiberius were thus provided is apparent from the following inscriptions: *P. Attius Atimetus Augusti medicus ab oculis; Tit. Lyrius Tiberii medicus ocularius.** There is no doubt that oculists were at least as numerous in ancient Rome as in any modern city.

"The Greeks, the Romans, and the Arabians, were ignorant of anatomy, and could not therefore be acquainted with the essential nature of disease, that is, the altered structure of organs; nor connect with those changes, which really constitute disease, their appropriate external signs or symptoms. This disadvantage, however, is not so great in diseases of the eye as in many other affections, because most of them are externally visible, and obvious enough without anatomical knowledge. Hence the Greeks, who were good observers of nature, had noticed most forms of ophthalmic disease, in many instances described them well, and distinguished them accurately. The extent of their knowledge is evidenced by the imperishable records of language; for many of the diseases still bear the names given to them by the Greek writers. Celsus contains a summary of all that was known in his time. Although he was ignorant of the seat of cataract, he has described the operation of couching excellently and concisely, not omitting the important subjects of previous preparation and after treatment, for which his directions are judicious.

"In the fifteenth, sixteenth, seventeenth, and first half of the eighteenth century, the management of the diseases of the eye was left to quacks, to mountebanks, and itinerant practitioners. There were many of them, both in our own country and on the continent. It is not, however, worth while to draw their names and their writings from the oblivion to which they have been quietly consigned. The French writers on this subject, Maître-jan, St. Yves, and Janin, were more respectable than their contemporary brethren in other countries. The anatomy of the organ began to be more carefully cultivated by the Germans about the middle of the 18th century, when Zinn, Professor of Anatomy at Gottingen, published his excellent *Descriptio Anatomica Oculi Humani.* At a more recent period, Soemmerring produced his *Icones Oculi Humani*, a work of unrivalled beauty and accuracy, exhibiting an almost perfect set of engravings.

* These, and other similar inscriptions, are quoted by Haller from Gruter, and other authorities. Walch has collected every thing relating to the subject, in his *Sigillum Medici Ocularii Romani;* Jenæ, 1772. 8vo. Haller, *Bibl. Chir.* v. 1, lib. 1, § 24.

"The pathology of the eye was not much improved until within recent times. Boërhaave made an attempt on the subject, but his work *De Morbis Oculorum*, is very imperfect; indeed, some idea may be formed of the amount of his pathological knowledge, from his assertion, about mercury dissolving cataracts; he says, '*mercurius sæpe perfectas cataractas solvit.*' The Germans have had the greatest share in advancing our knowledge of ophthalmic diseases. Richter, Professor of Surgery at Göttingen, deservedly enjoyed the highest reputation in Germany, both for his general knowledge of the subject, and for his acquaintance with diseases of the eye, to which he paid great attention in his practice and writings. In his *Chirurgische Bibliothek* (*Bibliotheca Chirurgica*), which takes up the subject from the point where Haller's *Bibliotheca Chirurgica* leaves off, and comes dowu to 1797, he has carefully analysed all new publications on ophthalmic disease. The best account of the subject, at the time of its publication, is to be found in his *Anfangsgründe der Wundarzneykunst*, (*Elements of Surgery*,) of which the whole third volume and part of the second are devoted to diseases of the eye.

"But the most important era in the history of ophthalmic surgery, is the establishment of the Vienna school of ophthalmology. The Austrians have not only the honour of having instituted the first public establishment expressly appropriated to the advancement of this hitherto neglected branch of the profession, but of having preceded all the rest of Europe by many years. The views which directed the formation of this institution were so judicious, and the persons successively appointed to preside over it showed themselves so well fitted for the task, by their talents and knowledge, that the ophthalmic department of surgery has probably been more benefited by this school, than by the previous exertions of all other countries. The establishment owes its origin to Joseph Barth, a native of Malta, who repaired to Vienna in order to indulge a strong inclination, which he had felt from his earlier years, for the study of anatomy and surgery. His attention was accidentally directed to diseases of the eye, from seeing many persons in a state of hopeless blindness. His proficiency in this department was soon well known; and hence he was appointed lecturer on ophthalmic surgery in the university of Vienna, in 1773. Soon afterwards, certain wards were assigned for ophthalmic patients, in the general civil hospital, and a regular course of oral and clinical instruction was established. Barth wrote nothing except a short tract on the mode of performing extraction without an assistant; but he is considered to have set the example of those new and more correct views of ophthalmic disease, which are disclosed in the works of various German writers.

"Schmidt, who was educated by Barth, published a work on diseases of the lachrymal organs, and a valuable essay on Iritis. He also edited, in conjunction with Professor Himly, of Göttingen, an interesting periodical, devoted to ophthalmology (*Ophthalmolo-*

gische Bibliothek), of which three volumes appeared, from 1801 to 1807.

"Beer is more generally known than either Barth or Schmidt, as he was professor of ophthalmic medicine in the university of Vienna for many years, at a time when the high reputation of the school attracted students from all parts of Europe, and as he published many works. The last and principal of these, in 2 vols. 8vo., 1812 and 1817, devoted to the history, pathology, treatment, and operative surgery of the eye, was the most comprehensive work on the subject at the time of its publication. It contains accurate descriptions and histories, and consequently sound diagnostic precepts; but I cannot speak so favorably of the pathology and treatment. The compendium of Weller, which was translated by the late Dr. Monteath of Glasgow, is chiefly founded on the work of Beer." (P. 7.)

We are quite surprised that a man of Mr. Lawrence's reading should say that the Greeks, Romans, and Arabians were ignorant of anatomy; it is true that they knew less of it than the moderns: Celsus was not a Soemmering; but who would say that the Romans were ignorant of travelling, because the Iter ad Brundusium was not quite such a rapid affair as a journey to Exeter in the Quicksilver mail? Mr. Lawrence must have forgotten some of Celsus's descriptions; *e. g.* "Inde ima ventriculi pars paulum in dexteriorem partem conversa, in summum intestinum coarctatur. Hanc juncturam πυλωρὸν Græci vocant, quoniam portæ modo in inferiores partes ea, quæ excreturi sumus, emittit. Ab eâ jejunum intestinum incipit, non ita implicitum: cui tale vocabulum est, qui nunquam, quod accipit continet; sed protinus in inferiores partes transmittit. Inde tenuius intestinum est, in sinus vehementer implicitum: orbes vero ejus per membranulas singuli cum interioribus connectuntur, &c. Lib. iv. 1.

Nor is his osteology, in lib. viii. the work of a man ignorant of anatomy; but we will pass over this subject, though it is painful to us to find a man of Mr. Lawrence's reputation giving into the vulgar prejudices on this point.

Our author is well known to be a stanch supporter, or perhaps we should rather say, a violent partisan, of the antiphlogistic system, which is certainly set forth with sufficieut boldness in the following passage:

"A notion has prevailed that persons who live in London, or in other large towns, do not bear depletion well, and consequently that the loss of blood, which would be necessary in those who live in the country, would be improper in the inhabitants of the metropolis or extensive cities. I consider that this opinion is supported neither by experience nor argument. The inhabitants of London,

from the highest to the lowest, with few exceptions, indulge their appetites freely; there are no small towns, nor any parts of the country, in which the consumption of animal food and stimulating liquors is more general. These habits, of which the injurious effects are aggravated in many instances by sedentary occupations or indolence, produce their natural consequences, namely, a plethoric state of the system, and an abundance of inflammatory disease, both of which circumstances will be immediately recognized, on attentive observation, whether among the higher or lower classes. I have not the least doubt that inflammations are as common and as violent among Londoners as among countrymen; and that they require the same treatment in both instances. The dread of depletion has been transmitted from one to another without examination or inquiry, and has led to an inert practice, under which disease has too often been suffered to proceed almost uncontrolled." (P. 107.)

It is hardly necessary to say that we entirely dissent from this theory; for it might be supposed even *à priori* that the inhabitants of the wretched courts and alleys of London, living on coarse food, drinking stimulating liquors, and continually exposed to what Dr. Ayre calls "mitigated famine," would be far below the bleeding point; and experience confirms this rational supposition. Instead of a dread of depletion having been transmitted from one to another without examination or inquiry, we have rather to complain that the passion for bleeding is still raging. Has not every hospital its Sangrado, save that harmless hot water has been replaced by disorganizing calomel? Nay, the strange monomania has infected the poor themselves; and nothing is more common than to hear some faint and flabby creature requesting to be bled or cupped, because he has a pain in his head, when he is suffering from the throbbing of debility, and cinchona, æther, and ammonia, are clearly indicated.

Mr. Lawrence has some judicious observations on the treatment of ophthalmia when the acute stage is passing into the chronic:

"When acute ophthalmia has been arrested by active treatment, it may be well to rest a little, and not to proceed immediately to new measures in order to guard against the imaginary evil of weakness. Allow an opportunity for the restorative powers of the part, and the constitution, to exert themselves. It is not necessary in medicine and surgery to be always doing something; to keep up an incessant fire of medicines and local applications. Nature will not stand still, even if the surgeon allows himself a little leisure; she proceeds, although the treatment be intermitted, in restoring the part to its healthy state.

"If the powers of the system should be really reduced by the

long continuance of disease, and the necessary treatment, it may be expedient to adopt direct measures for invigorating the system. Nutritious diet, the moderate use of fermented liquors, good air and exercise, are the best restoratives: these should be combined with moderate use of the organ, which should be freely exposed to the air, and as much to the light as its irritability will allow. If the debility should seem to require, and more particularly if the patient should think that it calls for, the aid of the materia medica, we must employ the vegetable tonics and mineral acids." (P. 119.)

The method of treating the chronic form of the disease, that is to say, ninety-nine cases out of a hundred, by astringents, is given at some length, and is so important, that though our author is obviously incredulous, we shall make no apology for quoting the whole.

"*Use of stimuli and astringents.* The points which remain to be considered in the treatment of chronic ophthalmia are, the question as to the use of local stimulants and astringents; the time and circumstances under which, if useful, they are to be employed; and the particular remedies of this kind which are preferable. When the eye is preternaturally red, when it is weak and irritable, when exertion of it or exposure to light causes watering and pain, though it may be easy while at rest, stimulants and astringents are resorted to with the view of causing the distended vessels to contract, and thus removing what remains of inflammatory excitement. Of stimulants, the vinum opii, or vinous tincture of opium, has been much employed, both in this country and on the continent, in consequence of the recommendation of it by the late Mr. Ware; I do not know whether it was first introduced into practice by himself, or his partner, Mr. Wathen. The mode of employing it is to introduce half a drop, a drop, or two drops, between the palpebræ, so as to bring it into contact with the inflamed conjunctiva. The fluid may be taken up with a quill or a director, and, while the patient rests his head back, it may be dropped into the internal angle of the eye, so that when the lids are separated it may be diffused over the globe. The first effect is a sharp, smarting sensation, accompanied with a discharge of tears; but when this has gone off the patient generally feels relieved. The stimulus applied to the distended vessels is supposed to promote the contraction of them, and thus facilitate the recovery of their natural dimensions. It is employed once or twice a day. The vinum opii is the tinctura thebaica of the old London pharmacopœia, that is, of 1745, the ingredients of which were, an ounce of opium, half a drachm of cinnamon and of cloves, and half a pint of sherry wine. The opium and aromatics were macerated for eight days in the wine, and the tincture was then strained. In the modern pharmacopœias the tincture thebaica was omitted, and a spirituous tincture, the present tinctura opii, substituted for it. Mr. Ware ascribed a peculiar virtue to the combination of ingre-

dients in the old preparation; he thought the spirituous tincture had not the same effect, and he found that opium alone, or wine alone, would not accomplish the purpose. I believe it was in consequence of Mr. Ware's recommendation, and the general use of the remedy in ophthalmia, that the College of Physicians again introduced vinum opii into their pharmacopœia; but it is singular that, as the efficacy of the remedy was so pointedly ascribed to the precise combination of ingredients in the old formula, it should have seemed fit to that learned body to diminish the quantity of opium one-half. Mr. Ware informs us, in a subsequent edition of his treatise, that this new form is just as efficacious as the old, in which opinion I quite agree with him. According to Mr. Ware's representations, it is a remedy of sovereign virtue. He seems to have used it indiscriminately in all cases of ophthalmia, both acute and chronic; in acute, combined with leeches, blistering, purging, and the treatment ordinarily called antiphlogistic. Without any particular specification of case, he directs the vinum opii to be dropped into the eye two or three times a day, in conjunction with other remedies. For my own part, I should never think of using it in acute ophthalmia; in such cases it would rather increase the inflammatory disturbance, though I must observe, at the same time, that it is not a very active remedy, and that it cannot do much mischief. Its employment should be restricted to cases of chronic inflammation, in which we have only to regret that its efficacy should fall so far short of the virtues ascribed to it. Having seen it often used, I hardly remember any case of a serious or obstinate kind, in which it alone has been decidedly effectual in arresting the disorder. It may afford a temporary relief to the patient, but I believe that if its use should be altogether abandoned, there would be no diminution either in the number of cures or in the time employed in effecting them.

"Weak brandy and water is a popular remedy for bad eyes, and is used without any discrimination of the nature or period of the affection. However, being applied externally, it is only to be considered as a cooling wash.

"The liquid laudanum of Sydenham is frequently mentioned by foreign writers; it is the old tinctura thebaica, with the addition of half an ounce of saffron.

"Various astringent metallic salts are employed in chronic ophthalmia, in the form of solution. Alum, in the proportion of from four to ten grains to an ounce of distilled water; sulphate of zinc or copper, from two to six or eight grains; nitrate of silver, one to six grains: oxymuriate of mercury, from one-eighth of a grain to one or two grains in the ounce of water. These solutions must be introduced between the palpebræ so as to come in contact with the inflamed surface. Their efficacy in common inflammation seems to be about equal to that of the vinum opii. In cases of purulent ophthalmia they have a more decided effect, as I shall have occasion to mention hereafter. The liquor plumbi subacetatis, undi-

luted, is used as an astringent. It might seem at first that it could not be safely applied to the eye in this state; but it is by no means an irritating application, though powerfully astringent. A French oculist, M. St. Ives, has proposed a remedy, which has been much employed on the continent under the name of lapis divinus. It is composed of a singular mixture of ingredients: an ounce of alum, nitre, and sulphate of copper, respectively, are fused together in a crucible: half a drachm of camphor is added towards the end of the process. A solution is made containing ten grains of the mixture in six ounces of water, the strength of which is to be increased according to circumstances. Such a mixture cannot of course have any effect differing from that of simple solutions of the metallic salts. A German writer, Conradi, has recommended a collyrium, which is often mentioned in the writings of his countrymen; it is composed of one grain of oxymuriate of mercury, six ounces of rose-water, one dram of mucilage of quince-seeds, and half a dram or a dram of the liquid laudanum of Sydenham.

"It may be observed generally, with respect to all these proposed remedies, that if active treatment be resorted to in the first instance, and followed up steadily, they are not wanted; and if insufficient means have been employed, so that a state of chronic inflammation is produced, this is a complaint which it is extremely difficult to remove, and which is not likely to yield to the vinum opii, or any remedies of that class.

"The use of strong astringents, more particularly the nitrate of silver, which has been found advantageous in inflammations of the conjunctiva, has been extended by Mr. Guthrie to other forms of ophthalmic inflammation, both acute and chronic. He proceeds on the principle 'of exciting an action greater, and of a different nature, to that already existing in the part.' He prefers the form of ointment to that of solution, on account of its more permanent action: and he has recommended the two following formulæ, viz.

"1. ℞. Argenti nitratis gr. ij. ad x.; liq. plumbi subacet. gtt. xv.: ung. cetacei ʒj.

"2. ℞. Hydrarg. oxymur. gr. iij. ad iv; liq. plumbi subacet. gtt. xv.; ung. cetacei. ʒj.

"The saline substances must be reduced to an impalpable powder, then mixed with the ointment on a slab, and the liquor plumbi added. It may be done in a glass mortar. These ointments are most stimulating when first made; they gradually become less so; but weeks elapse before they are inert.

"The manner of using either ointment is by introducing between the lids a portion, larger or smaller as the case may seem to require it, from the size of a large pin's head to that of a garden pea. The eye-lids being closed, are to be rubbed gently with the finger, so as to diffuse the dissolving ointment over the whole surface of the conjunctiva: a part of it usually, however, works out by the motion of the lids, and should be wiped off (if the nitrate of silver) to prevent its staining the skin. Both ointments cause pain:

in some persons it is considerable, in others less so, lasting from half an hour to an hour and a half; and, when the ointment is newly made, sometimes for four hours, and even until the next day. On the subsidence of the pain caused by the ointment, that which previously existed is found to be relieved, if not entirely removed; and on the subsequent day, the patient usually acknowledges the benefit he has received with regard to all the symptoms. When the application has been severe, and the patient very irritable, a state resembling white chemosis occasionally takes place, and appears formidable to a person unacquainted with the effect of the remedy: it soon, however, subsides. The eye should be fomented with warm anodyne fomentations. I rarely repeat the application until the third day: but the feelings of the patient are the best gnide, the return of some of the old sensations indicating the necessity for its use, which should be, if possible, anticipated. In some cases of acute inflammation, two or three applications will arrest the progress of a serious inflammation, and effect a cure. In chronic cases the ointment must be continued for a considerable time, and occasionally alternated with other remedies. Where it creates a state of regularly increased irritation, as it sometimes will do, cupping, purgatives, &c. are of service, when the remedies may be again resorted to.' Mr. Guthrie has generally used purgatives, but has sometimes found the ointments successful in serious complaints without any internal medicine. Sometimes they have disagreed altogether. In the *London Medical and Physical Journal*, New Series, No. 27, from which the preceding account is derived, as well as in the 31st No. of the same work, numerous cases are recited in illustration of the treatment. They are chiefly instances of chronic inflammation, purulent, common, and strumous, with thickening of the conjunctiva, opacity, vascularity, and ulcers of the cornea. At present, Mr. Guthrie seems to employ almost exclusively the ten-grain nitrate of silver ointment." (P. 120.)

Having ourselves witnessed the great success which attended the use of Mr. Guthrie's *Unguentum magicum* at the Eye Institution, we can strongly recommend this and similar remedies to our readers; for it is always satisfactory to have a stimulant which will render unnecessary the abstraction of blood from the wan and exhausted beings who come to a London dispensary.

The reason why the College of Physicians diminished by one half the quantity of opium in the vinum opii is very obvious. At present the vinum and the tincture differ but little in narcotic power, but had the former been twice the strength of the latter, an accidental substitution might have been dangerous, or even fatal.*

* Every one recollects the cases of the Parisian epileptics, who were poisoned by syrup of Prussic acid; a weak syrup having been intended, but a stronger one of the same name given.

Our author's abstract of the history and statistics of the Egyptian or purulent ophthalmia, is interesting.

"Purulent ophthalmia in subjects beyond the age of infancy is the same affection as that last described, only modified in its course, duration, and effects, by age; and requiring corresponding modifications in treatment. It is originally and essentially an affection of the mucous membrane of the eyelids; that is, inflammation with puriform discharge. It is often confined throughout to its original seat; more generally it extends to the conjunctiva oculi, when, if neglected or improperly treated, and sometimes, in spite of all the means that can be employed, it reaches the globe itself, producing in the cornea and iris injurious and destructive effects, similar to those which take place in newly-born children.

"When we consider its marked character and serious consequences, it seems strange that it should so long have escaped notice. Yet our knowledge of it is subsequent to that more extensive intercourse with Egypt which took place during the contest for its possession between France and this country. I know of no clear description of the complaint previous to this epocha. Scarpa does not mention it in his first edition, bearing date 1801, and has only a single paragraph on it, an additional one, in his last or 5th edition of 1818. Mr. Ware does not allude to it until long after the publications by the English army surgeons, subsequently to the evacuation of Egypt by our troops. Richter, who seems to have observed diseases of the eye with the greatest attention, for a long series of years, and who has described them with great fidelity, has not noticed this affection, which is not mentioned by Beer, nor by others of the Vienna school. Beer has entirely passed it over in his first edition of 1793: in the second edition of 1812-1816, he only alludes to it in a paragraph, in which he mentions that he had been long anxious to procure accurate information on the subject, and that his wishes had at last been gratified by a work of Assalini, which had convinced him that the complaint was merely inflammation of the glands of the eye-lids, (*blephar-ophthalmitis glandulosa*, that is, catarrhal inflammation of the lids,) rendered violent by the peculiar local circumstances, and passing quickly, in consequence of the unsuitable treatment of the natives, and of the French and English army surgeons, into blepharo-blennorrhœa, and ophthalmo-blennorhæa.

"The following circumstances will sufficiently prove the importance of the subject.

"Assalini states that two thirds of the French army were affected with the complaint at one time.

"Dr. Vetch informs us, in his interesting *Account of the Ophthalmia, which has appeared in England since the return of the British army from Egypt*, that 'the total strength of the second battalion of the 52d was somewhat above seven hundred men; six hundred and thirty-six cases of ophthalmia, including relapses, were admitted into the hospital, from August 1805, when the dis-

ease commenced, till the same month in 1806; of these fifty were dismissed with the loss of both eyes, and forty with that of one.'

"The ophthalmia depôt, under the care of this able physician, contained, in the summer of 1808, upwards of nine hundred cases from more than forty different corps.

" Cases of purulent ophthalmia had occurred in the 1st battalion of the 52d, when it went to Sicily, in 1806. It continued to suffer there. A part of the army of Sicily, which had been detached to Egypt, brought back with it fresh infection. From this station more than one hundred and thirty cases were sent home totally blind.

" It appears, from the returns of Chelsea and Kilmainham hospitals, that 2,317 soldiers were, on the 1st of December, 1810, a burthen upon the public from blindness, in consequence of ophthalmia. Those soldiers who have lost the sight of one eye are not included in the number above stated.

" In 1804, within nine months from April to December inclusive, nearly four hundred cases of purulent ophthalmia occurred at the Royal Military Asylum; and from that time to the end of 1810, upwards of nine hundred additional cases had taken place in the same establishment, without including relapses.

" Some years ago this alarming complaint broke out in a large boy's school in Yorkshire. Blindness of one or both eyes, or serious injury to sight, from corneal opacities or other causes, took place in nearly twenty instances. We cannot suppose that the proportion of unfavourable results would have been so considerable, if proper treatment had been adopted; for, in the Military Asylum, where the cases were so numerous, only six lost the sight of both eyes, and twelve the sight of one eye.

" Mueller treated 1,604 cases, including two hundred relapses, in the Prussian garrison of Mentz, in three years and a half; 1,344 were restored to the service perfectly well; fifteen became blind with both eyes, ten by staphyloma, three by entire suppuration of the cornea, one by leucoma, one by dropsy of the globe. Eighteen remained with impaired vision of both eyes; six by leucoma, four by cicatrix of the cornea with synechia anterior; six by suppuration of the cornea and opacities; one by pannus. Twenty-six remained blind of one eye; fifteen by staphyloma; one by cicatrix of the cornea, with synechia anterior; nine by opacities; one by pterygium." (P. 177.)

We shall not give any extracts from the account of gonorrhœal ophthalmia, as most of our readers are probably acquainted with Mr. Lawrence's work on that disease. Some of the patients, we recollect, lost 120 or 140 ounces of blood in a few days. It would be interesting to the medical philosopher to learn what became of their constitutions, and whether they really recovered in the true sense of the word.

In treating iritis, both in its acute and chronic forms, Mr. Lawrence relies on mercury, and has never tried turpentine.

The science of medical statistics is so entirely in its infancy, that it would be in vain to ask whether the cases we are about to quote exhibit an unusual result, and whether, in the treatment of iritis, we should follow Beer or Lawrence?

"CASE. A lady, of twenty-five, tall, with light hair and irides, who had been in the habit of spending much time in needle-work, had experienced, for some months before she consulted me, dimness of sight in the right eye, which had come on gradually, without pain or redness, except that the eye had been a little bloodshot for a day or two in the very beginning, after which the appearance went off. For the previous six weeks she had been judiciously treated by a physician: venesection, leeches to the temple, aperients, and mercury carried to the length of salivation, had been employed. There were three adhesions of the right pupil, scarcely discernible in its natural state, but rendered obvious by the use of belladonna: all useful vision was lost in this eye. Two adhesions existed in the left eye, and vision was dim. No pain or redness had ever been noticed in this eye. The irides, pupils, and all visible parts of both eyes, were perfectly natural in all other respects.

"CASE. A young lady, of delicate frame and constitution, of great information and accomplishments, who habitually devoted a large portion of her time to music, reading, drawing, and fine needle-work, found, on looking at a picture with the left eye shut, that she had lost the sight of the right. She had experienced no uneasiness in it; there had been no redness, nor any other change to attract the notice of her friends. A gentleman since dead, who had great reputation in this department of practice, was consulted. He said that the eye had probably been originally defective; and, in answer to an inquiry on that subject, he observed that there was no necessity for restriction in the use of the other eye. As this opinion, which accorded with the inclination of the patient, was acted upon, the left eye soon became diseased, and the case was placed under my care. I found inflammation of the left iris, with adhesion of the pupil, slight external redness, and some pain. In the right eye, the iris was slightly altered in appearance, and the pupil fringed with slender dark adhesions; the aperture itself was clear, but vision was extinct. A mild antiphlogistic treatment, followed by the use of mercury, restored the sight of the left eye; it was necessary to continue the mercurial course for some weeks, although the patient's friends had in the first instance entertained great apprehensions of the remedy, on account of her delicate constitution and supposed consumptive tendency. A relapse took place at the end of the year, when the employment of mercury was again successful, but not till after it had been used for many weeks. In a third relapse, the patient again used mercury, not so much from the recommendation of her medical advisers, as from her own conviction that it was the only means of restoring her sight. She employed it by friction, and persevered for five months before vision was restored. These unusually long and repeated mercurial

courses produced none of the anticipated injurious effects on health. Disease returned again, and at last destroyed all useful vision.

"Extension of inflammation to the posterior tunics is most to be feared in acute iritis; but that the chronic form of the disease is not exempt from this danger, is rendered evident by the two foregoing histories." (P. 315.)

Again, speaking of syphilitic iritis, our author says,

"It is but rarely seen as a symptom of syphilis in infants: numerous children labouring under this disease have come under my observation, but iritis has occurred in two instances only. In one of them there were excoriations and ulcerations round the anus. The iris had lost its brilliancy, and become dark-coloured; the pupil was slightly contracted, and there was some redness of the sclerotica. On the other case I was consulted by letter from the country. The father had had primary venereal sores before marriage. In a few weeks after birth, the child had an eruption all over the body, wasted, and seemed on the point of dying. It got well under the use of mercury in very small quantities. In a few weeks more, severe inflammation of the eyes came on; mercury was employed in the same manner; the inflammation was arrested, but the child remained blind. I saw it some weeks after. Both pupils were fixed, and moderately contracted. An opaque body, which was not a cataract, was seen behind one; the other was clear. Both eyes were blind." (P. 317.)

In one instance, "syphilitic iritis, or rather syphilitic inflammation of the internal tunics, occurred as a secondary symptom, in conjunction with scaly eruption, after the infection of a chap on the hand by the contact of discharge from a sore in delivery." (P. 317.)

Under the name of retinitis, Mr. Lawrence gives several cases of amaurosis cured or relieved by depletion. Rosas says that the affection does not usually extend over the whole retina, but that it is found, on examination after death, to be confined to the neighbourhood of the yellow spot. Mr. L. observes, on the other hand, that we are not acquainted with the phenomena of retinitis so well as with those of iritis, because the part affected is out of sight, and the disease does not terminate fatally. The diagnosis he gives is not very satisfactory: "Pain and impaired vision are its leading circumstances; the pupil is at first contracted, then enlarged." (P. 323.)

Mr. Lawrence considers the subject of amaurosis under three divisions, according as it depends on affection of the sensorium, the optic nerve, or the retina. The following cases belong to the first division:

"CASE I. *Imperfect amaurosis remaining after violent disorder of the head.* In August, 1826, I saw a lady, forty-two years of age, who was still menstruating. Twelve or fourteen months previously she had been reduced to so dangerous a state by violent disorder of the head, that her medical attendant had discontinued his visits, stating that further efforts were useless, and death inevitable. The gentleman who came with her to my house, and who had been called in on this occasion, found the patient comatous, and discharging her urine and feces unconsciously. By leeches to the head, and other antiphlogistic treatment, her state was improved, and she ultimately recovered, but with loss of sight in both eyes. I found the pupils of middle size, with scarcely any sensible change or variations in the quantity of light. The right was a little altered in figure, and slightly dull in colour. She could make out, one after the other, capital letters of the second size in the title-page of an octavo book. Her health was excellent. Before the illness, she had suffered much for years from headach; since her recovery she had been thrown from a gig, and freely bled and evacuated. This depletion had completely removed the pain in the head.

CASE II. *Complete amaurosis, with perfect motion of the irides occurring with violent pains of the head.* A girl of eight was brought to me by her mother totally blind. The sight had been gradually lost, with violent pains in the head, three years previously, when she had not begun to menstruate. She had been treated at the time by cupping and other corresponding measures. The pupils were rather dilated, but the appearance of the eyes was in other respects perfectly healthy; and the irides acted well. She menstruated regularly, but had still pains in the head. The latter were removed by a course of the hydrargyrus cum creta with aperients; but vision was not improved.

"CASE III. *Complete amaurosis produced suddenly, by sensorial congestion.* A patient in St. Bartholomew's Hospital, about thirty years of age, with enlargement of the testicle, had been directed to rub a little mercurial liniment on the part daily, and had done this four or five times, when salivation occurred. He felt indisposed in the evening of Saturday, but went to bed without making any complaint. He awoke in the middle of the night with great pain in the head, and feeling very ill. He got up, and thought that the candle, usually kept burning during the night, had gone out, for he could not see it; in fact, his sight, which had been perfect when he went to bed, was lost. The house surgeon found him with a full, strong, and frequent pulse, and bled him. He afterwards administered an emetic, which was acting when I saw him at twelve o'clock, Sunday. The pulse was still full and strong, and there was great pain in the head. The pupils were about the middle state, the irides nearly but not quite motionless, and vision so completely extinct, that when a lighted candle was held near the eyes, the patient was not sensible of its presence. I ordered repetition of bleeding, and the application of a large blister

at the nape. These means were again repeated. In a week vision was restored, and in a fortnight the patient left the hospital quite well." (P. 493.)

In the third section our author gives a number of cases to illustrate his principle of treatment. We will content ourselves with quoting the second one. It shows the advantage of the antiphlogistic system of treatment in a plethoric subject, and is also a favourable specimen of our author's pithy manner of narrating a case.

Case II. *Imperfect amaurosis with plethora, before menstruation had begun.* Another young woman came to the infirmary with impaired vision; her countenance was red and flushed, and she complained of considerable pain in the head; there was evident congestion about this part. She was about fifteen years of age; menstruation had not commenced, and the consequence was a plethoric condition of the system. She was bled two or three times, purged actively, and continued this plan of treatment for two or three weeks before the retina was relieved, when the menses appeared, and she completely recovered. (P. 532.)

These copious extracts will be sufficient to show the style of Mr. Lawrence's work, which, in conclusion, we recommend to our readers as a most valuable repertory of ophthalmic practice.

Ueber den Kropf. Ein Beitrag zur Pathologie und Therapie desselben, von Karl Joseph Beck, der Medicin und Chirurgie Doctor, &c. Freiburg, 1833.

A Contribution to the Pathology and Cure of Bronchocele. By Dr. Beck. 8vo. pp. 81.

Dr. Beck commences his essay by expressing his dissent from the opinion of Muihlibach, who has ventured to assert that the surgical knife can rarely afford relief in cases of bronchocele. On the contrary, says our author, cases which do not admit of an operation form but a slender minority: among these exceptions are those bronchoceles which are intimately connected with the subjacent parts, or which consist chiefly of a solid substance, and involve the greatest part of the thyroid gland. The superior thyroid artery has been successfully tied by Walther and others in cases of bronchocele caused by primary enlargement of vessels; Hedenus, Gräfe, and Mandt, have extirpated large bronchoceles; and the successful employment of the seton has been revived by Quadri: all showing that, in the very cases in

which medicines are useless, and the system is in the highest degree disturbed by the disease, surgical treatment can afford the most perfect relief. "I can myself," says our author, "give a voucher from my own experience for the favourable result of tying the superior thyroid artery, which I had an opportunity of witnessing last summer, in my clinical practice. Practical communications concerning this operation," continues Dr. Beck, "are still to be desired, as the number of persons on whom it is known to have been performed is still too small to give a satisfactory result in an empirical manner, by combining the cases.

"CASE. M. W., a woman, aged twenty-two, had suffered several years from a *struma* covering chiefly the right side of the neck. The tumour caused many disagreeable symptoms, which were heightened by its gradual increase. A number of remedies, which are of efficacy against goître, were administered, but without advantage. The swelling, which was warm to the touch, was firm, tense, and somewhat uneven in its lower part. The vascular condition of its superficies could be seen and felt. That the arterial branches entering the tumour were enlarged could be ascertained from the pulsation, which was felt almost throughout it, and from the troublesome throbbing in the tumour of which the patient herself was sensible. She suffered from confusion of the head, dyspnœa, and dysphagia; and, in addition to these local disorders, there was great and general irritability of the vascular system, and inclination to a state of congestion. Yet, with the exception of the enlargement of the superior thyroid artery, and its branches, no disorganization of the vascular system could be perceived. These appearances demonstrated the existence of a *struma aneurysmatica;* nor could we help observing that a change had taken place in the lower cells of the gland, by their being enlarged, and filled with a diseased secretion.

"After the administration of some cooling evacuants, the superior thyroid artery was tied in the clinical ward, on the 2d of July, 1832. An incision was made through the skin and the platysma myoides, at the inner edge of the sternocleido-mastoideus, between the os hyoides and the thyroid cartilage. The artery, which was much enlarged, was then isolated, and tied with a simple loop. I may remark, that I was obliged to enlarge the incision at its upper angle, as a branch took its origin from the artery at the exact spot where I had begun to isolate it. Professor Schwörer had the kindness to assist me in the operation. As soon as the ligature had been fixed, the part of the artery in the direction of the gland sank down, the pulsation at this part ceased, nor could any be felt in the tumour, or in the numerous branches passing over its superficies. The tumour lost its turgescence and was somewhat diminished in circumference, immediately after the operation, as was ascertained by

measuring it. The edges of the wound were brought together, and the tumour was covered with ice. The application of cold was continued, even after the ligature came away, which happened on the ninth day. The treatment was antiphlogistic, and the patient was kept quiet, with her head turned towards the affected side. On the second day an inflammatory fever set in, with a coated tongue and increase of the difficulty of swallowing and breathing; but, although the general circulation was much more tumultuous, the extended pulsation of the bronchocele did not recur. On the sixth day after the operation, the uneasy feelings of the patient began to diminish.

"I have merely to remark, in conclusion, that in the third week after the operation, a considerable diminution of the tumour could be perceived, especially in the upper part. In six weeks the tumour was reduced to a third of its previous size, the chief decrease being in its upper part, and less alteration in proportion having taken place in the more indurated part below; yet even here the circumference of the neck was an inch less. The tumour had entirely lost its tension, and was even flaccid. The unpleasant symptoms, of which the patient had formerly complained, no longer existed; but Æthiops antimonialis and burnt sponge were exhibited on account of the strumous spot at the lower part of the gland."

This was a case, observes Dr. Beck, of a *Struma aneurysmatica.* A diseased enlargement existed of the smallest arterial twigs, as well as of the greater branches. This morbid enlargement was of the primitive kind, was connected with a more violent circulation of the general mass of blood, and was originally caused by the flux of blood towards these parts which takes place at the approach of puberty. It cannot be denied that, in consequence of the increased quantity of blood contained in the thyroid gland, the process of nutrition had become disordered, and therefore a tumour still remained, though of trifling size when compared to the former one. This *Struma aneurysmatica* could not be mistaken for a *Struma vasculosa secundaria,* a state which often exists in old bronchoceles of the lymphatic kind, where the enlargement of the vessels is not the cause, but the effect, of the disease. The manner in which it had arisen, as well as its sensible qualities, made the diagnosis easy and certain.

Still, continues Dr. Beck, if we wish to make a proper estimate of this operation in cases of *Struma aneurysmatica,* we must first consider the dangerous condition of the patient for some time after the operation, and then how far it is capable of effecting a cure. Fatal secondary hemorrhages have been frequent in proportion to the small number of cases in which the operation has been performed, which must proceed from some especial cause. In Langenbeck's case,

indeed, the hemorrhage obviously depended on the unusual origin and course of the artery tied; for there was no external carotid, but the superior thyroid artery (which was curved) gave off the branches which generally arise from the external carotid. The ligature lay between the place where these branches were given off and the gland. The branches which were given off from the artery, close upon the ligature, prevented the cicatrix holding, when the ligature came away. Dr. Beck's colleague, Buchegger, has several times observed a similar irregularity, namely, that the lingual artery is given off by the superior thyroid, near its origin.

After considering the tendency to secondary hemorrhage caused by these and similar circumstances, our author proceeds to estimate the advantage derived from the operation, and is obliged to confess that in some instances the ligature has not diminished the tumour. Hence it would appear that this operation of tying the superior thyroid artery, which can rarely be absolutely necessary, has sometimes destroyed the patient in a few days, and sometimes entirely failed in its object: and these discouraging results have occurred several times in a very small number of cases: we shall therefore pass over the rest of Dr. Beck's observations on the operation for *Struma aneurysmatica*, and proceed to analyse his remarks on another variety of bronchocele.

After observing that the most ordinary species is the *Struma lymphatica*, and quoting Langenbeck and others, who found these tumours filled with fluid, Dr. Beck says that he has paid particular attention to this subject; and, having frequently found tumours of this kind, both in living patients and in post-mortem examinations, he thinks it necessary to make another subdivision, under the name of *Struma cystica.*

Our author describes several anatomical preparations of this morbid structure, which were lying before him. The interior of the cyst was generally smooth, and like a serous membrane, *(Struma cystica membranacea,)* but in two cases it had become bony, *(Struma cystica cum ossificatione cystæ partiali aut universali.)*

In the six following cases Dr. Beck removed the cyst with the knife.

CASE I. R. Z., of Freiburg, a boy twelve years old, of a lymphatic constitution, but without any marks of scrofula, was admitted into the clinical ward of surgery in 1826. In the front part of the neck there was a swelling, which was particularly developed on the right side, pushing the trachea and the thyroid cartilage to the left. The tumour protruded anteriorly and downwards, and pushed the Sternocleido-mastoideus outwards. It was tense and

elastic, and a fluctuation could be perceived on pressure, though obscured by the tenseness of the tumour. Its edges were not sharply defined, but, on the contrary, depressed, and its limits could not be clearly distinguished. The skin was unaltered in colour and quality; the veins of the neck were enlarged, and the pulse of the carotid (but not of the superior thyroid) was stronger than natural. This tumour, which had existed for a year, and had not arisen from any apparent external influence, soon reached a considerable size. Its growth never stopped entirely, but for some months its increase had been inconsiderable. The patient complained of confusion and pain in his head, giddiness, and dyspnœa, which was worse at night. His voice had become somewhat fainter. Several physicians had prescribed the usual remedies employed against goître, but without effect.

The operation was performed on the 23d of November, in the presence of privy-councillor Ecker, and the students visiting the clinical ward. The patient was placed on a low chair, with his head fixed by an assistant, who stood behind him. The skin being drawn up, and held by an assistant, was divided by one stroke of the knife, forming an incision two inches and a half long. By the second incision the cellular substance and the platysma myoides were cut through, and the thyroid gland laid bare. Several laminæ of the gland, and probably also parts of the sternothyroideus were now removed, so that the cyst came nearer the surface, and the fluctuation could be plainly distinguished. The contained fluid was pushed forwards; and the point of the knife was plunged in at the most prominent part, until the opening of the cyst had been placed beyond a doubt by the cessation of all resistance, and by the fluid forcibly making its way out by the side of the blade. The incision was now enlarged to two inches in length, by means of scissors on a hollow sound. The fluid, which was somewhat turbid and glutinous, rushed out with great force, as it does when the incision is completed in the operation for hydrocele. The circumference of the part was considerably lessened immediately after the evacuation of the fluid. A long slip of linen, two inches broad, was inserted into the cavity, so as to fill it up, but with its extremity hanging out; the wound was then covered with adhesive plaster, and cold poultices were placed over the spot. The sac was perfectly smooth in its inner surface.

Soon after the operation (the hemorrhage during which was trifling,) the patient complained of pain, accompanied with a sense of tension: it was felt on the outside of the neck, and made swallowing difficult. Five hours after the operation, vomiting occurred, which was repeated, after which the patient fell into a refreshing sleep. The following day there was slight fever, and the local uneasiness continued. A sanguineo-serous secretion came out from the wound, but the dressings were not renewed. The treatment was antiphlogistic, but without abstraction of blood. On the third day, when suppuration had begun, the dressings were renewed, after

the cavity had been cleaned out with an injection composed of honey and water.

"On the 28th of November, as the suppuration and local reaction seemed to be but slight, pledgets of lint dipped in Ung. de Styrace, were inserted into the cavity. This was the daily dressing, and after the linen had been taken out, infusion of chamomile, with rose honey, was employed as an injection. The treatment was continued in this manner until the 15th of December. In order to effect the destruction of the sac, and cause a more lively reaction in the surrounding parts, it was thought necessary to dip the pledgets into Ung. de Styrace mixed with red oxide of mercury. The sac came away piecemeal, the inner surface of the cavity granulated readily, and the pus was healthy. The cavity continued to diminish.

On the 15th of January superficial union had taken place, and cicatrization was promoted by touching the spot with lunar caustic. On the 20th cicatrization was completed; so that, by the end of the month of January, the patient was perfectly freed from this burdensome disease. The neck had recovered its due circumference, and the difficulty of respiration no longer existed. I can add, says Dr. Beck, that the consequences of the operation were permanent, as I frequently see the patient. A scar which remains at the anterior and lateral part of the neck, (but by no means a deforming one,) reminds one of the disease which existed, and of the operation by which it was removed.

Having given this case at great length, we must necessarily content ourselves with a brief abstract of the remaining ones narrated by Dr. Beck.

CASE II. Mr. E., of L., a young and active tradesman, applied to Dr. Beck, in the year 1827, for medical advice, on account of a *struma* which covered the right anterior part of the neck. The patient was hoarse, and not only suffered from dyspnœa, but from tinnitus aurium, epistaxis, and vertigo; his eyes too were affected with the appearance of flashing light: all these symptoms clearly showing the congestion of blood in the head. Dr. Beck proposed the operation, but the patient refused to consent to it. Some parts of the tumour were hard and unyielding, and, by striking it, a vibration could be perceived in several points. After trying a variety of treatment under different physicians for more than a year, the patient returned to Dr. Beck, but desired that, before the operation was performed, a consultation should be held on his case. This was accordingly done; and privy-councillor Ecker and professor Schwörer agreed with Dr. Beck in his opinion that this was a *Struma cystica*, combined with ossification, and only to be relieved by the knife. The operation was successfully performed, yet the results were not quite so satisfactory as in the former case; for, though the patient was able to return home in a few months, yet it was necessary, from the continued secretion, to keep the wound open; and two years afterwards it was found re-

quisite to make a counter-opening behind the sternocleido-mastoideus, to give a freer passage to the laminæ of bone.

Dr. Beck then mentions a case of a young lady who was a remarkably fine singer, but, having lost her powers of song by a *Struma cystica,* regained them by the operation.

CASE III. E. K., a young lady of delicate constitution, first perceived, in November 1830, a slight goître on the left side of the neck. In December she suffered from a violent angina (cynanche tonsillaris), and the tumor after this increased so rapidly, that in March it was as big as a hen's egg. She took burnt sponge, and used frictions with iodic and mercurial ointment, but to no purpose. At one time an attempt was made to diminish the tumour by the simultaneous application of friction of pure iodine and the galvanic pile; half a grain of pure iodine, rubbed down with a little fat, being placed on one side of the goître, and the negative pole on the other. The operation was performed February 16th, 1832, and the result was a perfect cure. In this case also fragments of bone came away from the sac.

CASE IV. M. R., a strong and healthy girl, was operated on, October 20, 1831: the cure was perfect.

CASE V. J. S., aged twenty-two, entered the clinical ward of surgery, August 2d, 1831. The disease had existed for several years, and the best remedies had been employed for more than a year without success; further delay was therefore useless. It was thought expedient to operate on the day of his admission. Considerable hemorrhage occurred during the operation, making it necessary to take up an artery; but every thing went on so favourably, that he was discharged cured on the 3d of September.

CASE VI. E. V., aged twenty-four, a girl belonging to the middle ranks, entered the clinical ward on the 12th of June, 1833, suffering from a *Struma cystica*, combined with a *Struma lymphatica.* The operation was performed on the 14th. After opening the cyst, a portion of its parietes was cut off with the scissors; this was followed by considerable hemorrhage, and it was clear that part of the gland had been cut away also.* An artery which ran along the upper part of the wound was immediately tied. The hemorrhage lessened, but did not cease; and, as the cavity of the bronchocele continually filled with arterial blood, though not a single bleeding vessel could be found, it was plugged with balls of lint, sprinkled with Pulv. colophonii and gr. i. mimos; the wound was covered with lint sprinkled with the same powder; ice was applied, &c. The case went on quite favourably, and the patient left the

* The distress which a goître occasions to the patient is often caused only by a small portion of it. If this part is removed by the knife, the inconvenience ceases; and, by the judicious application of a ligature to the portion about to be removed, all danger of hemorrhage is avoided. This is not a mere theory, but has been twice practically verified by a surgeon of our acquaintance.—EDITOR.

hospital on the 30th July. A fortnight after going out, perfect cicatrization had taken place, and the hardness at the lower part of the neck, which remained after the operation, yielded almost entirely to the use of an ointment containing hydriodate of potash, which had been employed without benefit before the operation.

After some observations on the diagnosis of the *Struma cystica* from the *Struma lymphatica*, and other similar affections, Dr. Beck remarks that Meckel mentions the occurrence of fungus hæmatodes of the thyroid gland, and then gives a case in which he believes this disease to have existed, though he had no opportunity of verifying his opinion by a post-mortem examination. The patient, a man of fifty, who had often suffered from pains in his limbs, was cachectic and feverish. The tumour was large, and covered with irregular prominences, one of which had opened two months before, and blood and a blackish brown fluid issued forth. A fungus soon made its appearance through this opening, which was nearly round, and its edges covered with a thin membrane. The patient returned to his place of residence, and Dr. Beck was informed of his death, which took place six weeks afterwards, by the physician to whom he had recommended him.

Dr. Beck disapproves of the seton as a means of curing bronchocele, and gives a case in which he employed it ten years ago, and its use was followed by fatal tetanus.

In the appendix our author gives another interesting case. The patient, a countryman, aged twenty-nine, entered the clinical ward, December 8th, 1832, suffering from a bronchocele of enormous size. The tumour on the left side ascended as high as the ear, and descended under the clavicle into the cavity of the thorax. An operation was quite out of the question, and the unhappy patient died suddenly of suffocation, on the tenth day after his admission.

The post-mortem appearances are given by our author with German fidelity and minuteness, (p. 71—76,) but are far too long to quote here. The chief point in the *struma* was, that great part of it consisted of a substance like brain that is nearly putrid. The principal morbid appearances in other parts of the body were, the scar of an old ulcer in the lungs, and a double pelvis (with a double ureter) in the right kidney.

Had we translated all that is worth reading in this essay, we should have translated the whole. We now take leave of Dr. Beck, with the highest respect for his industry, and admiration of his skill.

A Treatise on those Disorders of the Brain and Nervous System which are usually considered and called Mental. By DAVID UWINS, M.D. London, 1833. 8vo. pp. 235.

DR. UWINS has here presented us with a readable, but by no means profound, treatise on the diagnosis and treatment of Insanity. In the first chapter, which is headed "Preliminary,—Nosology, Phrenology, and Nomenclature," our author is exceedingly vague and unsatisfactory, and rambles on for ever in the following strain:

"As on all hands, and by all theorists, it is admitted that the brain and nerves are in some mode or other the media of perception and consciousness, writers on madness have evinced an anxiety to acquire a knowledge of the laws by which these organs and their functions are regulated, on this ground,—that, could we ascertain the precise circumstances of mental health, we should be better qualified to mark out and map those manifold deviations from it to which all are obnoxious. But philosophers and physiologists, in their researches on this head, have all egregiously failed. The *ποῦ στω* has ever eluded the research of the metaphysician, so much so, that the reader of these pages would be but ill repaid for his trouble, were I to attempt any thing like a detail of successive doctrines: and, if metaphysicians have been bad, medico-metaphysicians have been still worse. '*All* medical doctrines,' says Dr. James Gregory, in his blunt and forcible manner, 'are stark staring nonsense;" and it cannot be denied, that the disputations of the schools afford considerable justification to this sweeping condemnation of pathological theory. Thought, says one writer, is a secretion from the brain, as bile is from the liver. Ideas, says another, are vibrations and vibratiuncles. A third calls them configurations of the organs of sense. These are all modern, very modern conceits, and the individuals who have broached them are men of high intellect, and of moral worth. In what, however, do the conceits themselves differ from, but in their being more vague and unphilosophical than the phantasms of Plato, the Pineal gland of Descartes, and the Archæus of Helmont?

"Whence all this nothingness of abstract speculation? Why it is because the inquiries have been abstract, that they have so lamentably failed. The essential distinction has been lost sight of between final and efficient cause. A point has been assumed, where matter ends, and mind begins; analogies have been eagerly sought for, while it has not been duly considered that the very terms mind and matter are gratuitous, and in nowise expressive of essence. Thus philosophy has been made a species of poetry, to 'airy nothings' have been given 'habitations and names,' and the whole fabric of medico-metaphysical speculation comes out to be merely formed of 'the stuff which dreams are made of.'

"Has the new organology at all assisted our extrication from these

'muddy depths of everlasting nonsense?' Have they sent physiological and pathological researches into the right path of pursuit? Have Gall or Spurzheim thrown out any intimations respecting mind, or rather its media, which may prove at last *ad rem?* or do these psycologists still bind us in those delusive tracks, which lead to that delightfully dread abode, the Castle of Doubt, 'delightfully,' O, yes! I wish, when thinking of it, to be young again, in order to enjoy its picturesque beauty, as magnificently pourtrayed by its great delineator, with the appendages of its grim ruler, Giant Despair, and the restless, uxorious upbraiding of his anti-christian and anti-hopeful wife; but, '*tempora mutantur*, and, alas! *nos mutamur.*'

"In attempting a reply to the above questions, I expect it will be my fate not to satisfy either party. There is still, to my seeming, a great deal of mental circumstance quite inexplicable upon, if not in opposition to, the tenets of the phrenologists; but at the same time I am of opinion, that to the ingenious theorists just named, physiology is much indebted." (P. 13.)

In the second chapter, entitled "Definition, Essentials," Dr. Uwins is still harping on the utter impossibility of defining insanity, and says,

"In respect to the kinds and shapes of it as marked out by authors, the reader will already have perceived that I do not attach much value to them. *Melancholia*, why we are all melancholic at times from misconception. *Mania*, who is there that has not been at one period or another irritated beyond measure by misapprehension? *Monomania*, or misconception on one point. What light do we throw upon this feeling by giving it a hard name! 'Of *Hypochondriasis* we have plenty of instances in the present day, much short of mad-house dreamers, since the stomach has been considered every thing, and every thing the stomach. Even *Idiocy* may be monoidiotism, as seems to have been the case in the Baxter instance; and we are all more or less idiotic, if the term implies congenital want of power. An Oxford professor, and an erudite man too, attempted again and again, but without success, to learn the art and mystery of whist-playing; it was no want of disposition that occasioned the want of capacity, because his earnest desire was to acquire a knowledge and facility in the game. An angel from heaven, says Fuseli, could never give me the comprehension of mathematics; and every one has heard of the philosopher's inquiry, after having read Milton's epic from beginning to end, '*Cui bono*? What does it all mean? What does it *prove*?'

"*Dementia* is the idiocy of old age or of accident, or of overworking, or of letting lie altogether fallow the mental powers, and the same objections may be taken, as in the other cases, to the specification of it as an essence; for I still repeat my conviction, that there is much more propriety in saying a man is so idiotic, or so stupid, or so mindless, or so melancholic, or so mad, as to render

it necessary that he should be deprived of the right of a rational creature; than imputing any specific or essential disorder, as a something coming upon an individual in a wholesale or abstract way:

——ου γὰρ ἀύτος πάντ' ἐπίστασθαι Βροτῶν
Πέφυκεν· ἄλλῳ δ' ἄλλο πρόσκειται γέρας."—

(P. 32.)

The answer to all this is so very obvious, that we are almost ashamed of making it, especially as Dr. Uwins has himself nearly hit upon it in the latter part of the above quotation. Although, in philosophy, *majus et minus non variant speciem*, yet in nosology, as in common life, we are obliged to admit the unphilosophical distinction; and a high fever is as different a thing from a slight one as a tall man is from a short one, though it is allowed on all hands that it is impossible to define how many feet and inches make up a giant, or what intensity of symptoms will just constitute a hopeless case of typhus. Instead therefore of saying, with our author, that a man is so mad, or so stupid, &c. that he ought to be shut up, we prefer saying, with the rest of the world, that he is mad; and content ourselves with applying the terms eccentricity, melancholy, &c. to slighter deviations from ordinary behaviour, or ordinary ways of thinking. We should define madness to be *such a deviation from the usual theories or practice of mankind as does not carry with it the sympathy of any class of human beings.* The most obvious cases of all are those in which the patient has either lost the consciousness of his own personal identity, or of the nature of the common objects by which he is surrounded, like the man mentioned by our author who took a piece of string to be a letter from his wife; and we might proceed gradually through less and less obvious instances, till we came to persons who are adjudged to be insane by those in a different rank of life, or of a different frame of mind, though their habits are perfectly natural in their own sphere. Thus we recollect that Davies, the tea-dealer, was pronounced, by a grave and learned doctor of physic, to have exhibited a certain proof of insanity in withdrawing a few thousand pounds from his trade, in order to buy a small estate in the country.

Dr. Uwins having got over this difficult definition as well as he can, proceeds in the next chapter to give what he calls "Progress of Symptoms; General Characteristics." On the progress of the symptoms he has nothing at all, except a bit quoted from Haslam; but on the other branch of the chapter he is more diffuse, and has some pertinent remarks; as, for example, the following:

"One prominent characteristic of derangement is an offensive breath, by which, it has been remarked, you may distinguish between real and feigned disorder. This symptom, it may be, in the general way, is too loosely taken as a proof of stomach affection, for the confirmed lunatic will eat, and drink, and digest with facility, at the time that the above accompaniment to deranged consciousness is most conspicuous. The passions of the mind will immediately produce these changes in pulmonary exhalations, without disorder going through the course of the first passages.

"The talkative lunatic is remarkable for the repetition of a word that may have been accidentally used by himself, or expressed by another; and such repetition is, for the most part, still more persisted in, despite of endeavours of bystanders to supersede it, should it fall into a sort of rhythm with other parts of a sentence. On the other hand, what has been called by Shakspeare re-wording can seldom be accomplished by an individual whose ideas are jumbled together insanely. This difficulty in distinctly repeating a proposition ought to be recollected by all who are professionally called on to decide mental conditions, as it is extremely significant of derangement. It was alluded to particularly in a paper read before the College of Physicians, some time since, by the president.

"Madmen are usually considered to be insensible to the lapse of time, past and to come being all resolved into present perception; and there is some correctness in the notion. What an affecting illustration of this *eternal now* of the maniac, is that which Mr. Hill presents us with, in his work on Insanity.

"'A gentleman, on the point of marriage, left his intended bride for a short time; he usually travelled in the stage-coach to the place of her abode; the last journey he took from her was the last of his life. Anxiously expecting his return, she went to meet the vehicle. An old friend announced to her the death of her lover. She uttered an involuntary scream, and piteous exclamation "he is dead!" From this fatal moment, *for fifty years*, has this unfortunate female daily, in all seasons, traversed the distance of a few miles, to the spot where she expected her future husband to alight from the coach, uttering in a plaintive tone, "He is not come yet; I will return to-morrow."'

"In this particular, however, as in almost all others, there is much of irregularity and inconsistency. I shall most probably on this day be asked, by many of my Peckham patients, "Pray, sir, when do you intend to let me out of this place? Here I have been confined for—' so many years, and weeks, and days; and, in comparing notes, I find their accounts correct. But some of these very patients, in other things, will show a want of proper perception of the lapse of time; manifesting the same inconsistency with a consumptive girl, who shall at one hour talk of shortly dying, and in the next will be ordering changes of dresses, to meet the changes of fashion that have taken place during her protracted sickness.

"An insensibility to cold, and heat, and disease, in their extremes, has been pronounced peculiar to insanity; but, although

in some cases the intensity of the predominating feeling makes the madman either careless of or insensible to other impressions, you will, for the most part, see lunatics crowd round the fire on winter days, exactly as would the inmates of other establishments. Cholera, too, swept several of our worst cases out of the world; and many were affected with influenza.

"Again, some maniacs will refuse sustenance with obstinacy, while others will take it with avidity. Dr. Reid remarks, that 'hypochondriasis has often to thank calamity for its cure.' Certain it is, that dyspepsia in many cases flies away from mania. I remember the case of an intimate friend and interesting patient, who, for years previous to that extent of disorder which called for interference, was scarcely able to eat or drink anything with impunity, afterwards took his meals, of whatever they might consist, without the smallest hesitation, and without the slightest stomach disturbance. It is probable, I think, in this instance, that, had not madness succeeded dyspepsia, some organic derangement of the digestive organs might have done so instead; and I have often thought that, had Napoleon been suffered to continue his career of ambition, madness might have visited him, rather than cancer of the pylorus.' (P. 42.)

In the fourth chapter, on the "Sources of Insanity," there is little to detain us. Love, methodism, spirit-drinking, opium-eating, and intense study, are all very naturally mentioned as causes of insanity; and so is even tea-drinking; not so much, however, as Dr. Willis thought, physically, but rather morally.

"It is not the mere abstract poison of tea which deteriorates the nervous system, (though there is something even in this;) but it is the accompaniments which tea brings with it that do the greatest part of the mischief. Pianos, parasols, Edinburgh Reviews, and Paris-going desires, are now found among a class of persons who formerly thought these things belonged to a different race: these are the true sources of nervousness and mental ailments, and not merely this or that specific article of food or drink." (P. 51.)

In fact, the general diffusion of tea is the index of the diffusion of refinement, and perhaps it may be true that, when great refinement and small means are found in company, the deepest melancholy, or madness itself, will often be the result. There is another, and a more cheerful side, however, to this picture. The growing taste for tea, as Mr. Rush observes, in his late work on England, must tend to check the passion for spirits, and thus cut off one of the most fertile sources of mental and bodily disease. A truly philanthropic chancellor of the exchequer would make souchong cheap, and gin dear.

Dr. Uwins, who appears, by-the-bye, to have a slight

penchant for paradoxes, proceeds to declare, in the following passage, that the books on disorders have multiplied the ailments which they profess to cure, so that young ladies fall into hysterics, and old ones set on foot a carcinoma uteri, because every street has its ladies' doctor ready to relieve them.

"It is a curious fact, and it being mentioned here may serve to strengthen my assumption, that the multiplication of rules about diet and regimen brings with it an increase of the very evil that is so anxiously sought to be avoided. When did dyspepsia prevail so hugely as it does at this moment, when we have treatise upon treatise, and precept upon precept, on stomach complaints. Who ever heard of such a numerous host of heart affections as now exist, now that the very vulgar talk largely and learnedly about valves and ventricles, and functions and organs? Do not teeth disorders increase in number with the multiplication of dentists, even of science and principle? and are not female complaints manifestly more numerous and complicated, now that there is an obstetrician in every street?" (P. 51.)

In the next chapter, which treats of the "Pathological Conditions, or Proximate Causes," Dr. Uwins very justly observes, that it is by no means certain that inflammation is the essence of mania; and he concurs with Willis, he says, in endeavouring to check that *mania* for lowering which many of our pathologists are addicted to. In this, as well as in other divisions of our author's work, we recognize the presence of misplaced passages, giving the book rather the appearance of notes for a treatise, than of an actual and digested treatise. The following fragment, on the return of memory, though in itself well put together, seems to us to have no connexion whatever with the proximate causes of insanity.

"Who shall explain, upon principles at all recognizable as legitimate, the circumstance of latent and unconscious knowledge lying in the brain, as it were, and only called out by accidental or adventitious circumstance? I remember, when a student at St. Thomas's Hospital, the case of a man who came from Gibraltar, supposed to be deaf, either from inattention or ignorance on the part of the surgeons who examined him. This man, it was ascertained, was labouring under compressed brain, in consequence, it is supposed, of a fall. Mr. Cline performed the operation of lifting up the part of bone which was thus by its pressure interfering with brain function, or with its manifestation rather, and the moment the pressure was removed, the poor man began talking Welsh, a language which he knew when a boy, but which he had forgotten in after-years: and we occasionally hear of cases very similar. The much talked of phenomenon of 'light before death' is derided by some, but the

derision is misplaced; and when, I have elsewhere said, it is exultingly asked by the sceptic respecting a paralysed individual, where is the immortal mind which was wont to animate the features and guide the conduct of this man, now reduced to a state of mere animal vitality? we might appeal to instances, and they are not few, in which, just prior to the period of a total extinction of the living principle, the soul seems to come out from its hiding-place, and to cast a parting glance at the surrounding scene, as the sun often sinks bright and glorious below the horizon after having been the whole of the day obscured by clouds. Who has not dwelt with agonizing delight on the transcendently beautiful representation of Mrs. Opie, in her inimitable work entitled 'Father and Daughter,' where she makes the return of reason in the distracted parent the signal that all is about to close with him, so far as this world is concerned? and the delineation is no less true to nature than it is impressive and affecting. Something of the same kind happened in the case of my own father, who had been unconscious for years; and my respected friend and late colleague, Dr. Hancock, related once to me the account of a most respectable individual, belonging to the Society of Friends, who had been for a very long time deprived of his faculties by a stroke of palsy; nay, to use Dr. H.'s own words, who had been for this lengthened period in a state of drivelling idiocy, but who, for some time previous to his death, was restored to the full possession of his rational powers; he summoned his astonished family around him, delivered to each of them his parting advice and benediction, and then calmly resigned himself to a peaceful death!" (P. 78.)

The sixth chapter, on the "Prospects of Recovery, or Threats of Permanence," begins with the following curious defence of its own title:

"Medical terms are for the most part barbarous; and, so far as it is at all consistent with the nature and design of the present traetise, I am disposed to avoid them. It is, however, much easier to find fault than to find remedies; and it is of course requisite to devise some leading words, in order to embody, as much as may be, a general principle, or a series of circumstances. I could not, however, persuade myself to write prognosis at the top of the present page; and I take occasion here to intimate, that, were medical authors to supersede, as much as possible, a harsh terminology, and 'exhibit medicine in the simplicity of nature, and the nakedness of truth,' they would be likely to command more unreserved respect, and be listened to with greater attention." (P. 88.)

Now, if some kind friend had suggested that "a *sine quà non* medicinal" (p. 223,) was a barbarism for "an indispensable medicine," or if some critic, less lenient than ourselves, had insinuated that "the matter of an abscess" (p. 86, *note*,)

was an awkward periphrasis for *pus*, we should not have been surprised; but we confess we are astonished at finding *prognosis* called barbarous, though it has been in constant use from the days of the Father of Physic to the publication of this book, a period of two thousand and some odd hundred years. We would bet a Princeps Hippocrates against a copy of Dr. Uwins's Treatise, that the synonyme devised by him, namely, *prospects of recovery, or threats of permanence*, will not supplant PROGNOSIS.

But to return from words to things. The prognosis is unfavourable when the disease is hereditary, when the unhappy patient obstinately clings to some one false notion, or when he is epileptic. Indeed, the last fact is so well established, "that our two great institutions, Bethlem and St. Luke's, in a spirit of cruel policy, close their doors against epileptics." (P. 89.) To this dreadful catalogue of irremediable ills other additions have been made.

"Dr. Darwin well remarks, that when an individual becomes insane, who has a small family of children to solicit his attention, the hope of recovery is but small, as it shows the maniacal hallucination to be stronger than those ideas which usually interest us most. And Haslam further states, that in those instances where insanity has been produced by a train of unavoidable misfortunes, as when a father of a large family, with the most laborious exertions, ineffectually struggles to maintain it, the number who recover is very small.

"We are told by Pinel, that religious insanity is for the most part fatal. Haslam also gives the same opinion, as do Cox, Hallaran, and others; I must confess, however, so far as my own observation goes, this is not precisely the case." (P. 90.)

On the other hand, puerperal insanity is commonly cured, and the prognosis is more favourable than the records of hospitals would seem to warrant us in asserting; for, as Gooch observes, the cases of short duration, lasting only a few days or weeks, do not enter the hospital at all. Gooch indeed says, "Of the many patients about whom I have been consulted, I know only two who are still, after many years, disordered in mind; and of these, one had already been so before her marriage." [*On the Disorders of the Mind in Lying-in Women.*]

The seventh chapter, on the "Preventives of Insanity," has some sensible remarks on the gloomy religious theories inculcated into so many children from the very cradle; and there is a letter by a young enthusiast, written during a lucid interval, and giving an account of her feelings, which would make the fortune of a work of fiction. But there is no one

who could invent such a letter; it bears the stamp of genuineness. It is taken from Dr. Burrows.

In the eighth chapter, on "Confinement, Classification, Control, and Coercion," we find another discussion on the old point—how much madness makes a madman. Dr. Uwins inclines, and we incline with him, to a favourable view of all doubtful cases; but the doctor's lenity is of a very confined and confining character. "What I have hitherto advanced principally refers to the suing for lunatic commissions;" and by no means militates against sending the half and quarter madmen to Peckham: nay, he cites two cases where the patients asked to be allowed the privilege of being confined. "Here then are two instances; and they are merely selected out of a large number of others, which, but for madhouse guidance and control, would, in all probability, have been cases of confirmed and irremediable insanity; and yet the *madhouse-phobia* continues in a degree to prevail, and will, I again assert, continue to prevail, till madness itself be viewed as a mere disorder, and treated of in the same manner as other incidental deviations from physical integrity." (P. 126.) This *madhouse-phobia* is really a very whimsical disorder: it probably proceeds from an abnormal development of the organ of caution, and can only be cured, we think, by the sufferer's being subjected to what Dr. Uwins calls "the phrenological training of depressing this portion, and pushing out that, of the cerebral mass." (P. 120.) Till this system is adopted, we fear it will "continue to prevail," in spite of the men of Peckham, like so many Circes, spreading out all their allurements to catch us; their novels, newspapers, pianos, steady nurses, and Mr. Norris, who promises, says our author, to be everything that is desirable. Madmen, it seems, are a good deal like schoolboys; and a nervous patient is as much tamed at the sight of a Peckham nurse, as a truant is at the entrance of his master bearing a rod of the most awful dimensions.

"Cruelty is supposed to be exercised within the walls of a lunatic asylum. Than myself I hope there is not a human being who would be more speedy and loud in his condemnation of cruelty; but that such is the case it is more easy to aver than to prove, and I verily believe that, for the most part, tales of injustice and of harsh treatment, deserve much the same kind of credit as that which is to be given to the representations of schoolboys, when they are desirous to rid themselves of the thraldom implied in school discipline. Indeed, dealing with the mad has many points of similarity with that of dealing with the school inmate; and I would state this to be one of the advantages connected with lunatic asylums, or profes-

sional management of the insane, that there is less severity needed than when their management is in the hands of relations or common nurses; it is indeed astonishing to find how soon the invalids are made sensible that the custody under which they now are has an authority attached to it, against which it is useless to rebel; but, like the schoolboy, they are much happier in that restraint, provided the power of the keeper be exercised mercifully and with discretion; just as the boy, spoiled during the holidays, feeling, the moment he enters the school-room, the necessity of putting aside all his domestic waywardness and wantonness, finds himself really much more comfortable than when he was the pet and the pest of the drawing-room at home.

"I have just now in recollection the case of an amiable young lady, who was, during a very long period, under my care, and whose parents were desirous of putting off, as long as might be, the application for a nurse from an establishment. One whole night, from mere nervousness, she sat on the floor, moving and waving her hands and body in a strange unmeaning manner, and at the same time making as unmeaning a noise. I now thought it was high time almost peremptorily to urge new kind of management, and from the moment a Peckham nurse entered the room, (who, by-the-way, was a most gentle, kind-hearted, and excellent woman,) all this sort of thing was given up; and, although my patient continued for a very long time highly nervous, we had no repetition of these insane ebullitions." (P. 127.)

We do not think that Dr. Uwins has hit upon a simile very favourable to his own argument: even if we were to reject (which would be very absurd,) all the evidence of schoolboys as to their treatment at school, what should we do with all the evidence that adults ever and anon furnish as to the mishaps of their younger days? Dr. Uwins must surely know that, in vulgar schools, the masters are frequently tyrannical, the provisions coarse, scanty, and unwholesome, and the whole system mean and harassing; while, in our great public schools, the older boys usurp a power which they are totally unqualified to wield, and drive the iron deep into the soul of many an unfortunate victim. Now, unless all evidence save that of keepers and mad-doctors is to be rejected, something resembling these two species of scholastic misrule has been occasionally recognized in lunatic asylums. In those of the humbler class, the proprietor, like a Yorkshire pedagogue, is anxious to squeeze a little profit out of very low terms, and complaints of dirty sheets, or tainted meat, would be called the ravings of insanity. In opulent establishments, on the contrary, the proprietor seldom resides in the house, and the keepers, like the big boys of a great school, taking advantage of his absence, have sometimes been known to gratify

both their gayer and their more malignant passions at the expense of the patients; unless indeed all this be a pure fiction of the parliamentary folios.

Dr. Uwins recollects

"an artist, who is as firmly convinced as he exists that spirits are hovering about him with the intention of constantly annoying him; and he sometimes becomes angry with those who are in his company, because they do not, like him, hear the noise of these visitors, which, as he imagines, conceal themselves in the wall. Now who is there hardy enough to say, or wrong-headed enough to think, that this poor man should be sent to engrave in a madhouse, torn from his family and friends, merely because such an alteration had taken place in some part of the brain as to create these visionary conceits, while other parts of the brain retain their wonted power, and his faculties are not interfered with to the extent of doing mischief to himself or others." (P. 128.)

Our author thinks that this man ought not to be torn from his family and friends, and sent to engrave in a madhouse; and he is right: yet he keeps another person at Peckham, who has no symptom of madness, because, if he were let out, "he would be immediately running to taverns, and running up bills, which he would leave to be settled by his poor mother and brother, who are already half ruined by his half-mad and half-criminal conduct. I tell this man, in reply to his petitions for release, that he has only to choose between a madhouse and a jail, in the event of his liberation; but there might be some question as to the propriety of not giving him that choice, had he not been sent to us unequivocally insane, and had he not forfeited his promises of steadiness by his conduct during a probationary release." (P. 133.)

It is very hard if Dr. Uwins cannot fill the Peckham establishment, or Peckham itself, if he allows himself to incarcerate a man whose sole symptom of insanity consists in not paying his bills. But we differ so much from our author as to the propriety and legality of shutting up this unfortunate hotel-haunter, that we would seriously recommend his case to the notice of the parliamentary commissioners.

Dr. Uwins does not like patients to be visited by their friends, more especially when they are convalescent; but he has the candour to quote at full length the well-known case in which Dr. Gooch cured his patient by a single interview, to the unspeakable surprise of Dr. ——, "who came down, saying 'it looks like magic.'" The commissioners, however, absolutely allow visits:

"I say it, then, with respect, but I am bound to say it with boldness, that both as it regards the classification of patients, and

the visits of friends, the commissioners under the Act of Insanity, with the most equivocally benevolent designs, have sometimes imposed tasks on the proprietors of lunatic establishments, vexatious to them, and injurious to those who are under their care.

"In thus asserting what I consider important fact, I have no interest, I have had no prompter. 'My withers are unwrung.' I have never asked, never received favours from any man, or any set of men, and I have nothing to expect in life but the fair reward of integrity and industry." (P. 138.)

We are informed by the erratum, that for "equivocally" we are to read "unequivocally; but, as we trust that the commissioners are not only benevolent, (which the emendated reading allows them to be,) but also sensible, we should have been glad to learn what the modicum of visits is which vexes the proprietors, injures the patients, and makes Dr. Uwins talk without a prompter.

As to physical coercion, they do not flog at Peckham; but they use strait-waistcoats, handcuffs, footlocks, and Peckham chairs, which confine both arms and legs, and keep the patient in an upright posture. Some people have imagined that these things might be dispensed with.

"There are some enthusiasts among us, who imagine that improvements in regard to scholastic discipline may be carried so far as to supersede altogether even the mildest plans of punishment; so I verily believe did the more sanguine among those statesmen, who but a few years back were so laudably engaged in the investigation of insanity, and in schemes for the better regulation of insane establishments, conceive that an appeal to the maniac's feeling would prevent altogether the necessity of harsher treatment. Then again, some of our medical reformists lent themselves to the fostering of this false notion; and one of them, I believe, was considerably influenced in his condemnation of madhouses, by the opportunity it afforded him of antithetical and pointed alliteration. 'Stripes and strait-waistcoats'—'Mausolea of mind'—and such like prettinesses figured in his pages, with effective impression, upon those who, like himself, were benevolent theorists, but knew no more of the practical requirements of mental derangement, than a lad who may have been half a year behind the counter of a dispensing shop; and who, of course, in his own estimation, is as fully competent to judge of medical agents as the best of us." (P. 146.)

It is strange that this medical reformist should have affected to be seized with a *madhouse-phobia,* when his real infirmity was rather an *alliteration-philia:* surely, a man of any genius must have seen that alliteration may be adopted on any side of any question. Is not the title of this chapter "Confinement, Classification, Control, and Coercion?"

In chapter ninth, on "Suicide," our author recommends

"contriving some sort of posthumous punishment—not burying in crossroads, certainly—as a warning to others." (P. 152.) There is an old classical story of a general who put a stop to suicides among women, by exposing the bodies of the dead; and Dr. Uwins has a similar anecdote.

"We have, indeed, examples which speak forcibly and unequivocally to the point of prevention. Dr. Burrows speaks of a particular district, I think on the Continent, where, in the army, suicide actually became an epidemic disease; the commander, finding that he lost some of his best soldiers by this unprofitable warfare, ordered the next half dozen who should commit the act to be hung on some neighbouring trees, and exposed to the gaze of their former compeers. The remedy completely succeeded, and the soldiers immediately ceased to play the game of killing themselves. I say the soldiers, but I believe, upon recollection, that the epidemic, although among the military, was not confined to them." (P. 153.)

But why does Dr. Uwins believe it upon recollection? why not consult Dr. B.'s work again? These hesitations and half-recollections are among the graces of an extemporaneous lecture, but destroy the finish of a book. So again, Dr. U. says, (p. 152,) "I am about being led away from the main intention of my present paper;" and, at p. 128, "I am however, in some degree, wandering from my intention of stating, &c.;" and, at p. 55, he actually says, "If I find I have space, I shall take up the subject again, under another division of my treatise." *If I find I have space!*—so that the author, when transcribing cap. iv. for the press, is ignorant of the space occupied by the remaining ones! We know the defence that a modern writer would make: he would allege that the MS. is never rewritten at all; so that the author, when composing p. 55, is bonâ fide ignorant of what is to come at p. 205; and, when he has been "wandering from his intention," cannot spare time to erase his wanderings, and substitute something akin to the point in question. The proof-sheets are then revised in a hurry, continues the defendant, and the work is sent forth into an inhospitable world. What is the consequence? we ask. In six months, nice uncut copies are to be bought for eighteen-pence on the stalls, while others are lining trunks, or sold at miscellaneous auctions under the uninviting title of "sundries."

Chapter the tenth, on the "Moral Management of Nervous Disorders," contains some amusing and instructive narratives of the method in which hypochondriac patients may sometimes be aroused from their melancholy reveries. We will select a couple of these cases.

"I remember a patient of mine, in Buckinghamshire, who having fallen into a nervous or hypochondriac state, yielded to the wishes of an intimate friend, that he would take a journey with him into a distant part of the country, and expose himself to scenes and circumstances of former enjoyment. He complied, as I have stated, with the desire of his companion and other friends; but still, wherever he went, or whatever he saw, was alike indifferent to him. An extinguisher was on his perceptions; he saw, but he did not feel. The individual who travelled with him was about to return to Aylesbury with his melancholy companion, when, on entering a town in the west of England, a sudden shower of rain unexpectedly overtook them. A man on horseback, who was riding in the same direction, had so grotesquely accoutred himself, in the hurry of guarding against a thorough wetting, that the melancholic of whom we are speaking burst into a violent and loud laugh; from that moment he was a well man, and returned to his friends with a countenance cheerful and a mind unburthened." (P. 173.)

"'I had a friend,' says this lively writer, [Mr. Townsend,] 'who was a hard student, buried among his books, in a room of small dimensions, for fourteen hours in the day: he became dyspeptic to a degree that I never witnessed before; his flatulence was so great for three hours every day after he had eaten his dinner, that by this circumstance, independently of natural inclination, he was obliged to live alone. It happened at the same time that this gentleman had a favourite spaniel, who was always at his side. The faithful animal, who should have been ranging in the woods, being thus confined, was afflicted with a deplorable disease, being troubled exceedingly with flatulency, and *borborigmi*, from wind always in motion, and grumbling through the colon.

"'With these symptoms of dyspepsia, poor Rover, for that was his name, from being sprightly, became remarkable for languor, want of energy, and depression of spirits. He was evidently jealous and suspicious; insomuch that, if any called him by his name and spoke kindly to him, he lifted up his eyelids, and slunk away to hide himself: (poor Rover had become of '*unsound mind.*')

"'Happily, at this period, some friends decoyed our student from his books, prevailed on him to get on horseback, to accept of greyhounds, and to go early to the field.

"'Rover followed with reluctance, but, by degrees, they both contracted a fondness for the sport: a long separation took place between our student and his books; and, escaping thus from the occasional causes of debility, whilst he enjoyed the diversions of the field, with fresh air and exercise, on horseback, he lost every symptom of disease; and his faithful Rover, participating in the same diversions, without the assistance of other tonics or astringents, regained his wonted energy: no longer depressed by flatulence and depression of spirits,' (his mind became '*sound*' again.)" (P. 185.)

The eleventh chapter, on the "Medical Treatment of the

Insane," and the last one, which is recapitulatory, do not offer anything particularly worthy of our notice, except perhaps one case of an obstinately silent patient, who was frightened into talking by the galvanic battery.

On the whole, this is an entertaining, and in some measure even an instructive book; though we should conjecture, from the paucity of original cases, that it is founded on a very short practice among the insane.

In spite of numerous barbarisms, such as "the practical requirements of mental derangement" proceeding partly from affectation, and partly from not having had time to revise the sheets, Dr. Uwins' style is fluent, and shows the hand of a practised writer.

Observations on the Illusions of the Insane, and on the Medico-Legal Question of their Confinement. Translated from the French of M. Esquirol, Mèdecin en Chef de la Maison Royale de Charenton, &c., by William Liddell. London, 1833. 8vo. pp. 89.

We confess that these two pamphlets have rather disappointed us. From a physician of Esquirol's great and deserved reputation, we certainly should have expected something more philosophical than this little essay on the Illusions of the Insane. We hoped to find some attempt at elucidating the manner in which these hallucinations gradually arise, at first but slightly clouding reason, but ultimately overwhelming it entirely; and we also looked for instructions as to the method of scaring away these visionary horrors, by educating the senses of the patient, and teaching him to correct the mistaken conclusions of one by the evidence of the others. But of this there is little or nothing. Still, cases selected by a great physician from his actual experience must always have some practical value; and we shall therefore quote a few from the twenty-seven with which M. Esquirol has favoured us. He divides them into two sections; the first consisting of those cases in which the illusions arose from internal, and the second of those in which the illusions depended on external, sensations. The following are in the first section.

"Internal sensations, produced by disturbance of the organic sensibility, often excite the illusions of the insane. The skin of some insane persons is dry, parched, rough, and burning, and badly performs its functions. These patients are indifferent to extremes of temperature. M. Pinel speaks of a maniac who filled his hands with snow, and rubbed his chest with it in ecstacy.

"1*st Observation.* The famous Térouane de Méricourt lived ten years at the Salpétrière, in a state of madness. She used to throw two pails of water on her bed every morning and evening, and lie down immediately afterwards. I have seen her break up the ice to procure water from the fountains. Other insane persons feel such an irritation of the skin, that they fancy they are struck, and almost killed, by the slightest contact; and that poisons and burning substances are thrown upon them, &c. We have, at Charenton, a mad woman, who calls out, whenever she is touched, even with the point of the finger, 'You hurt me; do not strike me, do not strike me.'

"2*d Obs.* An artillery officer, twenty-seven years of age, of a sanguineous temperament, and of a strong and athletic form, was seized with an intermittent fever, during the Prussian campaign. They made him swallow a large glass of brandy, into which they had mixed the gunpowder of two cartridges. He became mad immediately, and tore up every thing that fell in his way, linen, wearing apparel, and bedclothes; they were obliged to let him sleep upon straw. Feeling himself pricked he placed the straw in a ring, leaving in the centre an empty space, which he occupied: he now moved his head in every direction, blowing incessantly upon the straw which surrounded him, and screaming from time to time, as if to drive away menacing objects. This symptom continued night and day for more than three weeks. It was then discovered that he mistook the straws for the beaks of birds of prey that had wounded him. He blew upon the straw, and screamed, in order to frighten away those annoying animals. Subsequently the same patient had new illusions. Soon after he retired to bed he tore it in pieces, and threw the straw of his paillasse, by handfuls, out of the chamber window, which was closed by blinds; and spoke from time to time as if he had been addressing horses. The noise of the persons whom he heard walking was taken by him for the footsteps of horses coming to the window as if to a rack. As the straw was stolen as fast as it was thrown out, it continued to keep up the illusion.

"The pains which insane persons feel in the different regions of the body are so many causes of illusion to them.

"3*d Obs.* Mlle. **** at eighteen years of age, enjoyed good health, although still irregular. Soon after the events of 1815, she experienced a fixed pain on the top of her head, and very soon persuaded herself that she had a worm in her cranium, which was devouring her brain. The sight of copper almost made her faint, and her friends were obliged to remove from her apartments every thing that was covered with gilding. She consented to walk with the greatest reluctance, because the dust raised by the pedestrians appeared to her filled with oxide of copper. Nothing could persuade her to touch a gilt candlestick, nor the cock of a fountain. After many months of unsuccessful treatment I was called to her. She was thin, her skin was discoloured, and she was very irritable. She

sometimes refused to eat, slept badly, and had constipation of the bowels; she spoke at one time of her repugnances with liveliness, and at another time in tears. I endeavoured to gain her confidence by flattering her fancies, and by assuring her that I would destroy the worm which was the cause of all her complaints, if she had the courage to let me perform an operation, which would not be very painful to her. I so well succeeded in persuading her, that after one of my visits she made an incision herself with a penknife on her head. As soon as she saw the blood run she fainted. I was sent for immediately, and on my arrival I found the patient, who had recovered her recollection, very desirous that I should perform the operation of which I had so long spoken. The young lady's courage kept up that of her friends, who consented to the employment of the means which I had proposed. M. Bigot, the medical attendant of the family, made a crucial incision of more than two inches in length over the part affected, and allowed the blood to flow. We shewed the patient a small piece of fibrin, which we assured her was the insect that had been the cause of her suffering so long. An issue was made in the middle of the incision, and kept there for three months, when the fixed pain, illusions, and fears of verdigris, all disappeared together." (P. 5.)

We have not the original before us, but we would venture to conjecture that there is a mistranslation in the third case; for the words "enjoyed good health, though still irregular," have no very precise meaning. Esquirol probably says "quoiqu'elle n'était pas encore reglée;" *i. e.* although the catamenia had not yet appeared.

These fancied evils have been sometimes removed by humouring the patient, and giving a local habitation to the airy nothings of his imagination; as in the first of the following instances:

"*7th Obs.* Ambrose Paré relates that he cured an hypochondriacal patient, who fancied that he had frogs in his stomach, by giving him a purgative, and introducing by stealth little frogs into the pan which was to receive the alvine evacuations.

"I opened the body of an insane woman at the Salpétrière, who said she had an animal in her stomach. She had a cancer of that viscus." (P. 10.)

The illusions depend on external sensations in those cases in which the lunatic takes pebbles for diamonds, or clouds for armies, &c. The following are some of our author's examples:

"*14th Obs.* A general officer, forty-six years old, of a nervous temperament, marrying, passed from a life of great activity to a state of uninterrupted tranquillity. About a year afterwards he became jealous: the jealousy increased, and the persons whom he received at his house, even his best friends, he accused of being the seducers of his wife. On several occasions he wished to fight

with them, and followed them into his house sword in hand. After several months he was brought to Paris, where his uneasiness increased; for he mistook the cries in the streets for abuses addressed to him. He ran into some of the apartments of the hotel where he lived, to demand satisfaction of his imaginary rivals. At length, being unable to contain himself any longer, he wished to terminate his existence, and, asking one of his companions to give him some poison, he put his affairs in order: having made his will, he swallowed with transport a harmless draught which his friend presented to him. After some hours, not feeling the effects of the poison, he became enraged against his friend, who had deceived, betrayed, and ridiculed him. The general was confided to my care. A few days afterwards we walked together to St. Cloud. During our promenade he interrupted me several times in the midst of a very connected conversation, saying, 'Do you hear how they repeat the words *coward, jealous,* &c.' This illusion was produced by the noise of the leaves, and the whistling of the wind among the branches of the trees, which appeared to him well-articulated sounds; and although, I believed, I had each time combated it with success, the illusion returned whenever the wind agitated the trees anew.

"15*th Obs.* I had under my care a young lady, whom the most trifling noise terrified, especially during the night. The footsteps of a person walking, however lightly, made her shudder; the wind caused her to tremble; and the noise that even she herself made by moving in bed frightened her, and obliged her to get up, and utter cries of distress. I procured rest for this panophobist by keeping a light in her bedroom, and obliging a person to sit up with her all night.

"The sense of sight is more productive of illusions, in a state of health, than the other senses, because it is in more frequent communication with external objects. Illusions of sight are also very common amongst the insane, and give rise to resemblances which provoke raving, and almost always augment the disease. So that a relation or friend is mistaken for a stranger, or an enemy, of whom they have had reason to complain.

"16*th Obs.* A young married man was in a state of fury whenever he saw a woman leaning on a man's arm, being convinced that it was his own wife. I took him to the theatre, at the commencement of his convalescence; but, as soon as a lady entered the saloon, accompanied by a gentleman, he became agitated, and called out eagerly several times, 'That is she! that is she!' I could hardly help laughing, and we were obliged to retire.

"17*th Obs.* A lady, twenty-three years of age, afflicted with hysterical madness, used to remain constantly at the windows of her apartments during the summer. When she saw a beautiful cloud in the sky, she screamed out 'Garnerin, Garnerin, come and take me!' and repeated the same invitation until the cloud disappeared. She mistook the clouds for balloons sent up by Garnerin.

"A cavalry officer imagined the clouds which he saw to be an army, led by Bonaparte, to make a descent upon England.

"Insane persons often collect pebbles and fragments of glass, which they fancy precious stones, diamonds, or objects of natural history, and which they preserve with the greatest care." (P. 16.)

Panophobist *(panophobe)*, and Lypemania *(lypemanie)*, are words with which M. Esquirol has enriched the lingua medico-barbara: the former signifies one who is afraid of everything; the latter is synonymous with melancholia.

It is not uncommon to see patients who are afraid that their adviser is making them the subjects of some critical experiment; but, in the following case, a lady was afraid of actually becoming an experimental instrument.

"27*th Obs.* A lady, much reduced by a confinement, and by being bled to overcome an attack of madness, experienced obstinate constipation, for which I prescribed injections. Notwithstanding her illness, she wished to administer them herself; but she had scarcely taken the syringe in her hands when she threw it down with horror. The same circumstance occurred several times; and she has assured me since, that the syringe appeared so heavy that she thought it was filled with mercury, and that they wished to make a barometer of her body." (P. 26.)

M. Esquirol draws the following conclusions from the whole body of cases:

"1st. That illusions are caused by internal and external sensations.

"2d. That they are the result of the sentient extremities, and of the reaction of the nervous centre.

"3d. That they are as often caused by the excitement of the internal as by that of the external senses.

"4th. That they cannot be confounded with hallucinations (visions), since, in the latter cases, the brain only is excited.

"5th. That illusions lead the judgment astray respecting the nature and cause of the impressions actually received, and urge the insane to acts dangerous to themselves and to others.

"6th. That sex, education, profession, and habits, by modifying the reaction of the brain, modify also the character of the illusions.

"7th. That illusions assume the character of the passions, and of the ideas which govern the insane.

"8th. That reason dissipates the illusions of the man of sound mind, whilst it is not powerful enough to destroy those of the insane.

"If by observation I have been able to elucidate a psycological phenomenon but little appreciated, although common in delirium; if the facts which I have related throw some light upon the still obscure history of the aberrations of the understanding; or if they furnish therapeutic views applicable to the treatment of mental

diseases, these observations will not be entirely without interest." (P. 26.)

In the first section of the remaining essay, our author enters at considerable length into the reasons which make it necessary to confine the insane; but we shall pass over these, as we do not think it worth while to give the proof of a proposition which nobody denies. Esquirol himself says, "All English, French, and German physicians, who have devoted themselves to the study of mental diseases, recommend the confinement of the insane, and are unanimous as to the utility of this means of cure." (P. 33.) The cases, however, brought forward to illustrate this self-evident proposition are well told and instructive in other points of view; we shall therefore quote a few of them.

"1*st Obs.* A merchant, fifty-five years of age, of a strong constitution, although of a lymphatic temperament, mild and gentle in his disposition, father of a numerous family, and who had acquired a considerable fortune in business, experienced some domestic troubles, not sufficiently serious, however, to affect any one of a resolute character.

"About a year ago he formed a large establishment for one of his sons, and shortly afterwards became very active, and expressed (contrary to his usual habits) the delight which he felt at his increasing prosperity. He was also more frequently absent from his warehouse on business than usual; but, notwithstanding these trifling changes, neither his family, nor any of his friends or neighbours, suspected any disorder in his reason. One day, whilst he was from home, a travelling merchant brought to his house two pictures, and asked fifty louis for them, which he said was the price agreed upon by a very respectable gentleman, who had given his name and address. His sons sent away both the pictures and the seller. On his return, the father did not mention his purchase; but the children began the conversation, alluding to the roguery of the merchant, and their refusal to pay him. The father became very angry, asserting that the pictures were very beautiful, that they were not dear, and that he was determined to purchase them. In the evening the dispute became warmer; the patient flew into a passion, uttered threats, and at last became delirious. On the next day he was confided to my care. His children, frightened at their father's illness, and alarmed at the purchase which he had made, looked through their accounts; and great was their astonishment at seeing the bad state of their books, the numerous blanks which they presented, and the immense deficiency of cash! This irregularity had existed more than six months. Had this discussion not taken place, one of the most honourable mercantile houses would have been compromised in a few days; for a bill of exchange, of a considerable amount, had now become due, and no means had been taken to provide for it." (P. 33.)

"3*d Obs.* M ****, twenty-seven years of age, of a sanguineous temperament, subject to headach, was attacked with a fit of madness, whilst riding on horseback when the weather was very hot. He was picked up on the road by some friends of his family, who confined him to his room until the arrival of his relations. He fancied he had fallen into the hands of thieves, because, when he entered his friend's house, they put his horse into the stable, and took charge of his portmanteau. After using all sorts of efforts and violence to recover his liberty, he set fire to the house, in order by that means to escape from those whom he mistook for thieves.

"I once had under my care a madman, who, to escape from an asylum in which he was confined, set fire to his bed, hoping to burn the house, and to effect his escape during the confusion occasioned by the fire." (P. 43.)

"7*th Obs.* A young man, twenty-one years of age, being melancholy for some days, was taken into the country by his companions, to divert his thoughts. During dinner an explosion of furious madness took place, without any apparent cause; he loaded his friends with abuse, called them scoundrels, and endeavoured to strike them. He was confined, and intrusted to my care. After three months' illness he recovered. On the decline of his disorder the sight of one of his friends sometimes produced agitation and even frenzy. When the cure was complete, he declared, that whilst at dinner with his companions the wine appeared to him of a horrible taste, and he fancied they had poisoned him.

"8*th Obs.* An emigrant, forty-six years old, of a sanguineous temperament, and of a peremptory character, after a long train of misfortunes, was arrested, but soon afterwards restored to his family. This circumstance threw him into despair, followed by an attack of madness, which continued for two months. During his delirium he saw and spoke of nothing but gendarmes, prisons, chains, &c. After this attack he remained melancholy and hypochondriacal. During the following year, without any fresh provocation, he became suddenly mad, and on the day afterwards was confided to my care. Although the delirium was general, with agitation, he spoke frequently, as during his first attack, of prisons, soldiers, &c. This delirium was evidently influenced by the remembrance of the arrest which had brought on the first attack. Whenever I went near the patient I addressed him in a friendly manner, familiarly offered him my hand, and reverted to the attentions I had paid him the year before. Dissipate your uneasiness, I often said to him, for you may depend upon my care; you are not obliged to remain, as there is nothing to prevent your going out whenever you please. On the fourth day I finished my usual exhortations with these words, hastily spoken, 'Let us take a walk!' The patient wished to follow me without his clothes; but I begged him to dress himself, and we went out. We had scarcely walked a dozen steps when he was able to exchange some coherent phrases with me; and before we returned to the house he had recovered the entire use of his faculties." (P. 53.)

"Having proved the necessity of confinement," says M. Esquirol, "it remains for me to shew its utility." It seems strange that this should remain, as we should have thought that whatever is necessary must be useful: it would appear however that, by "necessary," our author means necessary for the well-being of society; and, by "utility," the patient's own advantage. The following cases are intended to show the good effects produced by confinement.

"14*th Obs.* Mademoiselle de B***, twenty-seven years of age, tall, of a neuro-sanguineous temperament, and of a lively but sweet disposition, was tenderly attached to her mother, whom she had never left. After a somewhat violent disagreement she became sad; her menses became irregular, and at the expiration of two months she was seized with a fit of madness. During her delirium she conceived a great aversion towards her mother, and loaded her with reproaches and abuse. At times she tore her clothes, broke the furniture, uttered violent screams, and wished to leave her home. With this general delirium hysterical symptoms manifested themselves. A month afterwards she was confided to my care. Delirium was now general, with libidinous language; she became desirous of the company of men, and spoke against her mother. Many times in the course of the day her face became animated, her eyes sparkled, her speech was quick, and her loquacity continual. Convulsions came on, with constrictions about the throat; she screamed, flew into a passion, rolled upon the ground, &c. After seven months she experienced so violent an attack of hysteria, that her life appeared to me in danger for many hours. With the calm which followed this attack the delirium seemed to have diminished, and appeared only occasionally on the following days. After the expiration of a fortnight, mild small-pox made its appearance. As soon as the desquamation had ceased, the young lady returned to the bosom of her family, as reasonable and as amiable as before her illness. She continued quite well until the same period of the following year, when she experienced loss of sleep, reproached her mother, spoke much, became agitated, and left her bed in order to be better heard by her mother, who tried in vain to calm her, and to persuade her to lie down. Frightened at these fresh occurrences, her mother took post horses, four hours after the fresh attack, came to Paris, and confided her to my care. She spoke much, especially against her mother; ate little, and appeared tormented with thirst. In the evening she perceived the absence of her mother, and asked me where she was. 'Your mother has left,' I said to her, 'and you will remain with us until your health be re-established.' The countenance of the young lady immediately changed; instead of being animated she became sorrowful, her loquacity ceased, and she passed a tranquil night, although without sleep. On the following morning she appeared ashamed, shed tears, regretted the absence of her mother, and expressed a desire to return to her fa-

mily. It is easy to perceive that the attack was cut short; for on the third day after her admission she received a visit from her mother, and obtained a promise that she should be allowed to return with her the next time she came. After the expiration of twelve days she returned to her family.

"15*th Obs.* M. N*****, at fifty-six years of age, of a very nervous temperament, and of a spare habit, having experienced great reverses in his political situation, gave himself up to study, and enervated his mind by too earnest application. At the beginning of winter he was attacked with monomania, and was intrusted to my care. His loquacity was interminable: he wrote incessantly, and was full of the desire to purchase into the funds, although he had great landed property, and had never entered into any such speculation before. After six months' attention at home, he was recommended to travel; which, in three months, confirmed the happy termination of this first attack. Four years afterwards, at the same time of the year, the beginning of winter, he came home, and told his wife, in a very satisfied manner, that he had just bought public stock to a very considerable amount. His wife, who had perceived for some days before that her husband was agitated, and had had less sleep than usual, persuaded him to travel. On the very next morning they set out on their journey, the purchase of stock was forgotten, and in a few days he recovered his health." (P. 56.)

Now it appears to us, that if Mademoiselle de B*** had been married, and that ill-used gentleman, M. N****. had been allowed to employ his own money as he liked, M. Esquirol would have lost two good patients, and this essay two brilliant examples. "From what precedes," says our author, after narrating a number of other cases, "I am led to the following conclusions:

"The insane ought to be confined:

"1. For their own security, for that of their families, and for the maintenance of public order.

"2. To remove them from the influence of the external causes which have produced their disorder, and may be likely to protract it.

"3. To overcome their resistance to curative means.

"4. To submit them to a regimen appropriate to their situation; and,

"5. To make them resume their moral and intellectual habits." (P. 71.)

But, after all this plainsailing, now comes the storm. We have to settle the knotty point of who shall be the judge of insanity: interested relations, or money-making keepers of madhouses? "Confinement having for its first object the privation of liberty, ought not the authorities to interfere in

an act of so much importance? Yes, without doubt; but to conclude from this that all the insane should be subject to interdiction, would be erroneous." (P. 79.) That is to say, shall no man be confined in a lunatic asylum till a court of justice has publicly declared his insanity? Our author is perhaps right in answering this question in the negative; but he allows, as we have seen, that the public authorities ought to interfere. The practice on these points varies very much in different parts of France.

"In several departments it is only necessary to apply to the superintendants, in order to obtain admission for an insane person into the hospital, house, or asylum, especially set apart for these patients. In some places the authority of the mayor is necessary, because the establishment belongs to the corporation; in others the signature of the prefect is indispensable, because the establishment belongs to the department; whilst in a few departments the patient must be interdicted before his admission." (P. 84.)

M. Esquirol wishes the present system to be altered, but does not exactly state what he would recommend to be substituted. Not so the translator; he is for sweeping every one into the net: we shall catch the insane, and, as for the sane, let them get out again as well as they can. But he expresses himself upon this subject with such laudable frankness, that we must really disentangle his sentiments from the modest obscurity of a foot-note, and set them forth in the full glare of typographic emphasis.

"*It is very desirable that all obstacles to the admission of the insane into public and private asylums should be removed.* IT IS TRUE THIS CANNOT BE DONE WITHOUT RUNNING SOME RISK OF INCARCERATING PERSONS WHO ARE NOT FIT OBJECTS FOR CONFINEMENT; *but, when it is considered how many cases of suicide are continually coming before the public, which by confinement might have been prevented, and how many cases of insanity are rendered incurable by injudicious treatment at home, it can hardly be doubted but that great advantage would result from removing all unnecessary impediments to the confinement of the insane.*"

When you peruse this note, gentle reader, you will say "this was written by the keeper of a madhouse;" and so it was: you have guessed aright. But perhaps some of our youngest readers may inquire why the law has interposed what Mr. Liddell calls "numerous and vexatious obstacles to the admission of insane persons into houses licensed for their reception?" We will endeavour to answer this question. It sometimes happens that, in one family, a brother will run up enormous tavern-bills; in another, a retired merchant buys daubs at the price of Titians; in a third, a countess in her

own right will drink spirits like a washerwoman; in a fourth, a young lady shows a decided partiality for the footman; and in a fifth, a maiden aunt, with 20,000*l.* in the three per cents. obstinately perseveres in living to an antediluvian age. In these, and a thousand similar instances, madness is the ever-ready cry of unscrupulous pride or avarice; and, unless the law looks with a stern jealousy on all accusations of insanity, we may see a man dragged to perpetual imprisonment whose sole crime consists in being rich, and wearing a straw hat in winter; or we might find the unworldly passions of the young and amorous characterized as insanity by their prudent parents, and the English madhouse playing the part of the continental convent. It is for these reasons that we think the present act defective, not because it interposes too many obstacles, but too few: its cobweb securities can be instantly annihilated by the conjoined signatures of two lads just fresh from their examination at the hall; and a man may find himself imprisoned by the fiat of practitioners to whose care no humane householder would commit a sick cat. The appointment of medical coroners, among other advantages, would bring with it that of having a competent authority to whose decision the public might appeal with confidence, in cases of doubtful insanity.

The Homœopathic Medical Doctrine; or, "Organon of the Healing Art:" a new System of Physic. Translated from the German of S. HAHNEMANN, by CHARLES H. DEVRIENT, Esq.; with Notes, by SAMUEL STRATTEN, M.D. Dublin, 1833. 8vo pp. 332.

THE homœopathic system is founded upon two axioms. The first is, that all diseases are to be cured by the remedies which would produce those diseases in healthy persons; the second is, that these medicines are to be given in infinitesimal doses. Dr. Hahnemann, the inventor of this theory, or, as he would say, the discoverer of these facts, has propagated his system in Germany with unwearied zeal for nearly forty years; but we do not recollect that it was mentioned in England before the appearance of an able article on the subject, in the Edinburgh Review, in 1827. Since that time occasional remarks on Homœopathy have appeared in the medical journals; and now, at last, we have a translation of the "Novum Organon," from the pen of Mr. Devrient. The German copy of this book, which is now lying before us, is dated 1824, and, by comparing it with Mr. Devrient's translation, we find that Dr. Hahnemann has made consider-

able additions to his work since that period; yet, whenever we found anything incomprehensible in Mr. D.'s book, we referred to our Hahnemann, and we found that either Hahnemann must have wilfully changed sense into nonsense since 1824, or that Mr. Devrient must have committed a blunder: we incline to the latter theory. Thus the translator, at p. 92, makes his author say, "If we except all these cases, we shall find that those which they have cured promptly and permanently, by the bounty of Providence alone, are, to the mass of their other irrational cures, in the proportion of one to a thousand." But, in our German copy, (p. 45,) Hahnemann talks of "mehren hunderten solcher elenden Curen;" *i. e.* of hundreds of such wretched methods of treatment, not cures. We shall have occasion to mention some other mistranslations in the course of our analysis.

Dr. Hahnemann commences his introduction with what he calls "an examination into the allopathic doctrines that have existed till the present time." These doctrines do not meet with any mercy at his hands; they are called "vague dreams, gratuitous suppositions, hypotheses destitute of foundation, skilfully invented for the convenience of therapeutic medicine," &c.; and, after a thousand censures of the practice of the old school, he proceeds to say,

"The old school practise yet another method of cure, which they call 'exciting and strengthening' (by *excitantia*, *nervina*, *tonica*, *confortantia*, *roborantia*.) It is surprising that they should boast of this mode of treatment.

"Has it ever succeeded in removing the weakness which a chronic disease so often engenders, augments, and keeps up, by prescribing (as it has so frequently done) light Rhine wine, or Tokay? As this treatment was not able to cure the chronic disease, (the source of the debility,) the strength of the patient decreased in proportion as they made him take more wine, because the vital powers, in their re-action, oppose relaxation to artificial excitements.

"Did cinchona, or any of the substances which collectively bear the name of *Amara*, ever restore strength in these cases which are of such frequent occurrence? These vegetable products, which they pretended were tonic and strengthening in all circumstances, together with the preparations of iron, did they not add fresh sufferings to the old ones, by reason of their peculiar morbific action, without being able to remove the debility which depended on an unknown malady of long standing?" (P. 40.)

We rather think that the allopathists will venture to answer "yes" to both these sturdy questions. He also ventures to assert that "the causes of disease cannot possibly be material, since the least foreign substance introduced into

the blood-vessels, however mild it may appear to us, is suddenly repulsed by the vital power, as a poison; or, where this does not take place, death itself ensues;" and adds, that a little pure water injected into the veins destroys life. But it is needless to contradict these phantasies; and we therefore pass on with pleasure to the next section, in which Dr. Hahnemann is much stronger: it is entitled "Examples of Homœopathic Cures, performed unintentionally by physicians of the old school of medicine." The old school made use of "counteroperating remedies and palliatives, according to the method *contraria contrariis.*" But this is just the reverse of what they ought to have done.

"Observation, reflection, and experience, have unfolded to me that the best and true method of cure is founded on the principle *similia similibus curentur.* To cure in a mild, safe, and durable manner, it is necessary to choose in each case a medicine that will excite an affection similar (ὁμοιον πάθος) to that against which it is employed.

"Until the present time no person has ever inculcated this homœopathic mode of treatment, and, yet more, no one has ever put it into practice. But, if this is the only true method, (of which every one may be convinced with myself,) we ought to discover sensible traces of it in every epoch of the art, although its true character may have been unknown during thousands of years; and such has in reality been the case." (P. 48.)

The following are among the instances of homœopathic cures given by our author; and it must be confessed that they form a body of evidence which is rather staggering. We regret that we cannot extract them all.

"The author of the treatise on epidemic diseases (attributed to Hippocrates,) mentions a case of cholera morbus that resisted every remedy, and which he cured by means of white hellebore alone, which, however, excites cholera of itself, as witnessed by Forestus, Ledelius, Reimann, and many others.

"The English sweating sickness which first exhibited itself in the year 1485, and which, more murderous than the plague itself, carried off in the commencement, (as testified by Willis,) ninety-nine patients out of a hundred, could not be subdued until such time as they had learned to administer sudorifics to patients. Since that time, as Sennertus observes, few persons died of it.

"A case of dysentery which lasted several years, threatening the patient with inevitable death, and against which every other medicine had been tried without success, was, to the great surprise of Fischer, (but not to mine,) cured in a speedy and permanent manner by a purgative administered by an empiric.

"Murray, (whom I selected from numerous other authorities,) together with daily experience, inform us, that among the symptoms

produced by the use of tobacco, those of vertigo, nausea, and anxiety are the principal. Whereas Diemerbroeck, when attacked with those very symptoms of vertigo, nausea, and anxiety, in the course of his close attendance on the victims of epidemic diseases in Holland, removed them by the use of the pipe.

"The hurtful effects which some writers (among others, Georgi) ascribe to the use of the *agaricus muscarius*, by the inhabitants of Kamtschatka, and which consist of tremors, convulsions, and epilepsy, became a salutary remedy in the hands of C. G. Whistling, who used this mushroom with success in cases of convulsions accompanied with tremor; likewise in those of J. C. Bernhardt, who used it with success in a species of epilepsy.

"The remark made by Murray, that oil of aniseed allays pains of the stomach and windy colic caused by purgatives, ought not to surprise us, knowing that J. P. Albrecht has observed pains in the stomach produced by this liquid, and P. Forestus violent colic likewise caused by its administration.

"If F. Hoffman praises the efficacy of Millefoil in various cases of hemorrhage; if G. E. Stahl, Buchwald and Löseke, have found this plant useful in excessive hemorrhoïdal flux; if Quarin and the editors of the *Breslauer Sammlungen* speak of the cure it has effected of hemoptysis; and finally, if Thomasius (according to Haller) has used it successfully in uterine hemorrhage; these cures are evidently owing to the power possessed by the plant, of exciting of itself intestinal hemorrhage and hematuria, as observed by G. Hoffman, and more especially of producing epistaxis, as confirmed by Boecler." (P. 51.)

"Stoerck, who had so intimate a knowledge of medicines, was on the point of discovering that the bad effects of the dictamnus, which sometimes provokes a mucous discharge from the vagina, arose from the very same properties in this root by virtue of which he cured a leucorrhea of long standing.

"Stoerk might in like manner have been struck with the idea of curing a general chronic eruption, humid, phagedenic, and psoric, with the clematitis, having himself ascertained that this plant has the power of producing a psoric eruption over the whole body.

"If, according to Murray, the euphrasia cures a certain form of ophthalmy, how could it otherwise have produced this effect, but by the faculty it possesses of exciting a kind of inflammation in the eyes, as has been remarked by Lobel?

"According to J. H. Lange, the nutmeg has been found efficacious in hysterical fainting fits. The sole natural cause of this phenomenon is homœopathic, and can be attributed to no other circumstance but that the nutmeg, when given in strong doses to a man in health, produces, according to J. Schmid and Cullen, mental excitement and general insensibility.

"The old practice of applying rose-water externally in ophthalmic diseases, looks like a tacit avowal that there exists in the leaves of the rose some curative power for diseases of the eye.

This is founded upon the homœopathic virtue which the rose possesses, of exciting by itself a species of ophthalmia in persons who are in health, an effect which Echtius Ledel and Rau actually saw it produce.

"If, according to De Rossi, Van Mons, J. Monti, Sybel, and others, the poison sumac has the faculty of producing pimples which gradually cover the entire body, it may be easily imagined that this plant is capable of effecting an homœopathic cure of various kinds of eruptive diseases, which it really has done, according to information furnished by Dufresnoy and Van Mons. What could have bestowed upon the poison sumac (as in a case cited by Alderson,) the power of curing a paralysis of the lower extremities, attended with weakness of the intellectual organs, if it did not, of itself, evidently possess the faculty of depressing the muscular powers by acting on the imagination of the patient to such a degree, as to make him believe that he is at the point of death, as in a case witnessed by Zadig." (P. 56.)

Our German copy has it: "Eben so wenig durfte es Stoerck auffallen, wenn er mit Brenn-Waldrebe eine Art langwierigen, feuchten, fressendeu, allgemeinen, krätzartigen Ausschlags heilte," &c. *i. e.* "As little ought Stoerck to have been surprised at curing a kind of chronic, moist, phagedenic, general, itch-like eruption with the clematis, &c.; and not "Stoerck might in like manner have been struck," &c.

The following are the natural and homœopathic effects of belladonna and hyoscyamus:

"Among the effects which belladonna excites when administered to a person in sound health, are symptoms, which, taken collectively, present an image greatly resembling that species of hydrophobia caused by the bite of a mad dog, a disease which Mayerne, Münch, Buchholz, and Neimike, cured in a perfect manner with this plant. The patient in vain endeavours to sleep, the respiration is embarrassed, he is consumed by a burning thirst attended with anxiety; the moment any liquids are presented to him, he rejects them with violence; his countenance becomes red, his eyes fixed and sparkling, (as observed by F. C. Grimm;) he experiences a feeling of suffocation while drinking (according to E. Camerarius and Sauter); for the most part he is incapable of swallowing any thing (as affirmed by May, Lottinger, Sicelius, Buchave, D'Hermont, Manetti, Vicat, and Cullen;) he is alternately actuated by terror and a desire to bite the persons who are near him (as seen by Sauter, Dumoulin, Buchave and Mardorf;) he spits everywhere around him (according to Sauter;) he endeavours to make his escape (as we are informed by Dumoulin, E. Gmelin, and Buch'oz;) finally, convulsion of the entire frame ensues (as witnessed by Boucher, E. Gmelin, and Sauter.) Belladonna has also effected the cure of

different kinds of madness and melancholy, as in the cases reported by Evers, Schmucker, Schmalz, the two Münch's, and many others, because it possesses the faculty of producing different kinds of insanity, like those noted by Rau, Grimm, Hasenest, Mardorf, Hoyer, Dillenius, and others. Henning, after vainly endeavouring, during three months, to cure a case of amaurosis with coloured spots before the eyes, by a variety of medicines, was at length struck with the idea that this malady might perhaps be occasioned by gout, although the patient had never experienced the slightest attack; and upon this supposition he was by chance induced to prescribe belladonna, which effected a speedy cure free from any inconvenience. He would undoubtedly have made choice of this remedy at the commencement, had he known that it was not possible to perform a cure but by the aid of a remedy which produces symptoms similar to those of the disease itself; and that, according to the infallible law of nature, belladonna could not fail to cure this case homœopathically, since, by the testimony of Sauter and Buchholz, it excites, of itself, a species of amaurosis with coloured spots before the eyes.

"The hyosciamus has cured spasms which strongly resembled epilepsy, as witnessed by Mayerne, Stoerck, Collin, and others. It produces this effect by the very same power that it excites convulsions similar to those of epilepsy, as observed in the writings of E. Camerarius, C. Seliger, Hünerwolf, A. Hamilton, Planchon, Acosta, and others.

"Fothergill, Stoerck, Hellwick, and Ofterdinger, have used hyosciamus with success in certain kinds of mental derangement. But the use of it would have been attended with equal success in the hands of many other physicians, had they confined it to the cure of that species of mental alienation which resembles a kind of stupefaction, that Van Helmont, Wedel, T. G. Gmelin, Laserre, Hünerwolf, A. Hamilton, Kiernander, J. Stedmann, Torzetti, J. Faber, and Wendt, saw produced by the action of this plant.

"By taking the effects of hyosciamus collectively, which the latter observers have seen it produce, they present a picture of hysteria arrived at a tolerable height. We also find in J. A. P. Gessner, Stoerck, and in the *Act. Nat. Cur.*, that a case of hysteria, which bore great resemblance to the above mentioned, was cured by the use of this plant.

"Schenkbecher would never have succeeded in curing a vertigo of twenty years' standing, if this plant did not possess in a very high degree the power of creating generally an analogous state, as attested by Hünerwolf, Blom, Navier, Planchon, Sloane, Stedmann, Greding, Wepfer, Vicat, and Bernigau.

"A man, who had become deranged through jealousy, was for a long time tormented by Mayer Abramson with remedies that produced no effect on him, when, under the name of a soporific, he one day administered hyosciamus, which cured him speedily. Had he known that this plant excites jealousy and madness in persons who

are in health, and had he been acquainted with the homœopathic law, (the sole natural basis of therapeutics,) he would have been able to administer hyosciamus from the very commencement with perfect confidence, and thus have avoided fatiguing the patient with remedies which, not being homœopathic, could be of no manner of service to him.

"The mixed prescriptions which were employed for a long time with the greatest success by Hecker, in a case of spasmodic constriction of the eyelids, would have proved ineffectual, if some happy chance had not included hyosciamus, which, according to Wepfer, excites a similar affection in persons who are in sound health.

"Neither did Withering succeed in curing a spasmodic constriction of the pharynx, with inability to swallow, until he administered hyosciamus, whose special action consists in causing a spasmodic constriction of the throat, with the impossibility of swallowing; an effect which Torzetti, Hamilton, Bernigau, Sauvages, and Hünerwolf, have seen it produce in a very high degree." (P. 65.)

In like manner Hufeland cured a case of lethargy, and Tralles an obstinate constipation, with opium; and Rave and Wedekind suppressed uterine hemorrhage with savine; and the reason that the cow-pock prevents variola, is the similarity of the two diseases. So again, the imbecility and mental alienation which mercury is capable of producing, together with its salivating power, explain how G. Perfect was enabled by mercury to cure a case of melancholy, alternating with increased secretion of saliva. After a hundred similar instances, our author observes, that even in the practice of domestic medicine, the same great truth has sometimes been discovered by persons of sound judgment; as, for instance,

"Frozen sourcrout is frequently applied to a limb that is recently frozen, or sometimes it is rubbed with snow.

"A cook who has scalded his hand exposes it to the fire at a certain distance, without heeding the increase of pain which it at first occasions, because experience has taught him that, by acting thus, he can in a very short time perfectly cure the burn, and remove every feeling of pain.

"Other intelligent individuals, equally strangers to medical science, (such, for example, as the lacker-workers,) apply a substance to burns which excites of itself a similar feeling of heat,—that is to say, hot alcohol, or the oil of turpentine; and by these means cure themselves in a few hours, well knowing that the so-called cooling ointments would not produce the same result in an equal number of months, and that cold water would only make the evil worse." (P. 95.)

The physicians who have been quoted in the above ex-

tracts cured "unintentionally," to use Hahnemann's word; but occasionally some one arose who had a glimpse of the true theory of healing.

"Thus the author of the book *περὶ τόπων τῶν κὰτ' ἄνθρωπον*, which forms a part of the books attributed to Hippocrates, expresses himself in the following remarkable words: *διὰ τὰ ὅμοια νοῦσος γίνεται, καὶ διὰ τὰ ὅμοια προσφερόμενα ἐκ νοσεύντων ὑγιαίνονται,—διὰ τὸ ἐμέειν ἔπετος παύεται.*

"Physicians of a later period have likewise known and proclaimed the truths of homœopathy. Thus, Boulduc, for example, discovered that the purgative properties of rhubarb were the faculty by which this plant cured diarrhœa.

"Detharding guessed that the infusion of senna would cure the colic in adults, by virtue of the faculty which it possesses of exciting that malady in healthy persons.

"Bertholon informs us that, in diseases, electricity diminishes, and finally removes, a pain which is very similar to one which it also produces.

"Thoury affirms that positive electricity accelerates arterial pulsation; also that it renders the same slower, where it is already quickened by disease.

"Stoerck was struck with the idea that if stramonium disturbs the senses and produces mental derangement in persons who are healthy, it might very easily be administered to maniacs, for the purpose of restoring the senses, by effecting a change of ideas.

"The Danish physician Stahl has, above all other writers, expressed his conviction on this head most unequivocally: he speaks in the following terms. 'The received method in medicine, of treating diseases by opposite remedies,—that is to say, by medicines which are opposed to the effects they produce (*contraria contrariis*),—is completely false and absurd. I am persuaded, on the contrary, that diseases are subdued by agents which produce a similar affection (*similia similibus:*) burns by the heat of a fire to which the parts are exposed; the frostbite by snow or icy cold water; and inflammations and contusions by spirituous applications. It is by these means I have succeeded in curing a disposition to rigors, by using very small doses of sulphuric acid, in cases where a multitude of absorbing powders had been administered to no purpose.'

"Thus far the great truth has more than once been approached by physicians. But a transitory idea was all that presented itself to them: consequently, the indispensable reform which ought to have taken place in the old school of therapeutics, to make room for the true curative method, and a system of medicine at once simple and certain, has, till the present day, not been effected." (P. 99.)

It is curious that the two errors in the above quotation from Hippocrates, of *κὰτ'* for *κατ'*, and of *ἔπετος* for *ἔμετος*, exist

also in the German edition of 1824. On looking into the same book, we find that it was not rigors, but acidity of the stomach (*Magensäure*), which Stahl cured with sulphuric acid: rigors would be nothing to the purpose.

Having passed through the porch, we now enter the temple itself, and are immediately saluted with the following laconic aphorism: § 1. "The first and sole duty of the physician is to restore health to the sick: this is the true art of healing." (P. 103.) To which our author has appended a quaint note, informing us what we ought not to do.

"His mission is not (as many physicians (who wasting their time and powers in the pursuit of fame,) have imagined it to be, that of inventing systems by stringing together empty ideas and hypotheses upon the immediate essence of life, and the origin of disease, in the interior of the human economy; nor is it that of continually endeavouring to account for the morbid phenomena with their nearest cause, (which must for ever remain concealed,) and confounding the whole in unintelligible words and pompous observations, which make a deep impression on the minds of the ignorant, while the patients are left to sigh in vain for relief. We have already too many of these learned reveries which bear the name of medical theories, and for the inculcation of which even special professorships have been established. It is high time that all those who call themselves physicians should cease to deceive suffering humanity with words that have no meaning, and begin to act,—that is to say, to afford relief, and cure the sick in reality."

We are to endeavour to ascertain the cause of the disease, and the *ensemble* of the symptoms, and farther than this we cannot go; for, though every malady presupposes some change in the interior of the human frame, our understandings only permit us to form a vague and dark conception of this change from a view of the morbid symptoms, which are the sole guide we have to rely upon, except in cases that are purely surgical." He who can succeed in removing the whole group of symptoms has cured the disease; whereas, some people try to knock them on the head, one by one; a method which "has very justly excited universal contempt." Now plain experience shows that "the particular medicine whose action upon persons in health produces the greatest number of symptoms resembling those of the disease which it is intended to cure, possesses also in reality (when administered in convenient doses) the power of suppressing, in a radical, prompt, and permanent manner, the morbid symptoms; that is to say, (§ 8, 10,) the whole of the existing disease." (P. 116.) This therapeutic law of nature being an established fact, our author attaches no value to any theoretic

explanation that may be given of it; yet he thinks it probable that the medicinal disease being analogous, but rather more intense, usurps the place of the original malady, and being of such a nature as to be easily subdued by the vital powers, is likewise extinguished in its turn. It is not in the power even of nature herself to cure an existing disease by one that is dissimilar; but, when she cures, she cures homœopathically. If the diseases are dissimilar, we may suppose three possible cases:

"If the two dissimilar diseases which meet together in the human body have an unequal power, or if the oldest of them is stronger than the other, the new disease will be repulsed from the body by that which existed before it, and will not be able to establish itself there. Thus a person already afflicted with a severe chronic disease, will never be subject to an attack of autumnal dysentery or any other slight epidemic. According to Larry, the plague peculiar to the Levant never breaks out in places where scurvy prevails, nor does it ever infect those who labour under dartrous diseases. According to Jenner, the rickets prevent vaccination from taking effect, and Hildebrand informs us that persons suffering under phthisis are never attacked with epidemic fevers, except when the latter are extremely violent." (P. 122.)

Instead of "unequal," it should be "equal:" this is a mistake of the translator's. Or, secondly, the new and dissimilar disease may be more powerful than the old one.

"If the new disease, which is dissimilar to the old, be more powerful than the latter, it will then cause its suspension until the new disease has either performed its own course or is cured; but then the old disease reappears. We are informed by Tulpius that two children having contracted tenia, ceased to experience any further attacks of epilepsy to which they had till then been subject; but as soon as the eruption of the head was removed they were again attacked as before. Schœpf saw the itch disappear when scurvy manifested itself, and return again after the cure of the latter disease. A violent typhus has suspended the progress of phthisis with pulmonary abscess, which resumed its march immediately after the cessation of the typhoid disease. When madness manifests itself during a pulmonary disease, it effaces the phthisis with all its symptoms; but when the mental alienation ceases, the pulmonary disease again rears its head and kills the patient. Where the measles and the small-pox exist together, and have both attacked the same infant, it is usual for the measles which have already declared themselves, to be arrested by the small-pox which bursts forth, and not to resume their course until after the cure of the latter; on the other hand, Manget has also seen the small-pox, which had fully developed itself after inoculation, suspended during four days by the measles which intervened, and after the desquamation of which,

it revived again to run its course. The eruption of measles on the sixth day after inoculation has been known to arrest the inflammatory operation of the latter, and the small-pox did not break out until the other exanthema had accomplished its seven days' course. In an epidemic, the measles broke out among several patients four or five days after inoculation, and retarded, until their entire disappearance, the eruption of the small-pox which subsequently proceeded in a regular manner. The true scarlet fever of Sydenham, with angina, was arrested on the fourth day by the manifestation of cow-pock, which went through its natural course; and not before its termination did the scarlet fever manifest itself again. But as these two diseases appear to be of equal force, the cow-pock has likewise been seen to suspend itself on the eighth day by the eruption of genuine scarlatina, and the red areola was effaced until the scarlatina had terminated its career; at which moment the cow-pock resumed its course and terminated regularly. The cow-pock was on the point of attaining to its state of perfection on the eighth day when measles broke out, which immediately rendered it stationary, and not before the desquamation of which, did it resume and finish its course; so that, according to the report of Kortum, it presented on the sixteenth day the aspect which it usually wears on the tenth. The vaccine virus has been known to infect the system even where the measles had already made their appearance, but it did not pursue its course until the measles had passed away; for this we have also the authority of Kortum.

"I have myself had an opportunity of seeing a parotid angina disappear immediately after the development of the cow-pock. It was not till after the cow-pock had terminated, and the disappearance of the red areola of the vesicles, that a great swelling attended with fever, manifested itself in the parotid and sub-maxillary glands which ran its ordinary course of seven days.

"It is the same in all diseases that are dissimilar; the stronger one suspends the weaker, except in cases where they blend together, which rarely occurs in acute diseases; but they never cure each other reciprocally." (P. 123.)

Or, thirdly, the two may form a kind of alliance.

"Or it sometimes occurs that the new disease, after having acted for a considerable period upon the system, joins itself finally to the old one, presenting together a complicated form of disease, but in such a manner that each of them notwithstanding occupies a particular region of the economy, installing itself in those organs with which it sympathises, and abandoning the others to the diseases that are dissimilar. Thus a venereal affection may turn to one that is psoric, and *vice versa*. These two diseases being dissimilar, they are incapable of annihilating or curing each other. Venereal symptoms are effaced and suspended, in the first instance, as soon as a psoric eruption commences; but, in the progress of time, the venereal affection being at least quite as powerful as the psoric, the two

unite together, that is to say, each seizes merely upon those parts of the organism that are appropriate to it individually, by which the patient is rendered worse, and the cure more difficult than before. In a case where two contagious acute diseases meet together, bearing no analogy to each other (such as, for example, the small-pox and the measles) one of them ordinarily suspends the other as before stated. However, there have been some extraordinary instances in violent epidemic diseases, where two dissimilar acute maladies have simultaneously attacked the body of the same individual, and became, so to express it, complicated for a short time. In an epidemic where the small-pox and the measles reigned together, there were about three hundred cases in which one of these maladies suspended the other and in which the measles did not break forth until twenty days after the eruption of the small-pox, and the latter till from seventeen to eighteen days after that of the measles, that is to say, until after the first disease had ran its entire course; but there was a single instance in which P. Russell met with these two dissimilar maladies simultaneously in the same patient. Rainey saw the small-pox and the measles together in two little girls; and J. Maurice remarks that he never met with more than two instances of this kind in the whole course of his practice. Similar examples may be found in Ettmüller and a few other writers. Zencker saw the cow-pock pursue its course in a regular manner conjointly with measles and purpura, and Jenner likewise observed it pursue its course tranquilly in the midst of a mercurial treatment directed against the venereal disease." (P. 129.)

This result, however, more frequently occurs from a prolonged use of violent non-homœopathic remedies.

Nature has a few, but only a few, diseases, which she uses as homœopathic remedies: thus the small-pox, so famous for the violence and number of its symptoms, has cured a multitude of diseases that were characterized by symptoms like its own; and even vaccination has done the same.

" Violent ophthalmia, extending even to the loss of sight, is one of the most ordinary occurrences in the small-pox; whereas Dezoteux and Leroy have each reported cases of chronic ophthalmia which were cured in a perfect and permanent manner by inoculation.

" A case of blindness of two years standing brought on by the metastasis of tenia, was, according to Klein, perfectly cured by the small-pox. How often has the small-pox cured deafness and oppressed respiration? J. F. Closs has seen it cure both these affections when it had reached its highest state of intensity.

" Considerable enlargement of the testicle is a frequent symptom in small-pox, and according to Klein it has been known to cure homœopathically a large hard swelling of the left testicle, the consequence of a contusion. Another observer has seen it cure a similar swelling of the testicle.

" Dysentery is one of the bad symptoms which occur in small-

pox, for this reason it cures the former disease homœopathically as in a case reported by F. Wendt.

"The small-pox which comes on after vaccination destroys the latter immediately, and does not permit it to arrive at perfection, both because it is more powerful than the cow-pock and bears a close resemblance to it. By the same reason, when the cow-pock approaches to its term of maturity, it diminishes and softens in a very great degree the small-pox which has just broken out, and causes it to assume a milder form, as witnessed by Mühry and many others.

"The cow-pock, in addition to the vesicles which protect from small-pox, excites also a general cutaneous eruption of another kind. This exanthema consists of sharp-pointed pimples, usually small, seldom large and suppurating, dry, resting upon a small red areola, frequently interspersed with small round spots of a red colour, and sometimes attended with severe itching. In many children it precedes by several days the appearance of the red areola of the cow-pock. But most often it manifests itself afterwards, and disappears in a few days, leaving small hard red spots on the skin. It is by reason of this other exanthema, and the analogy which it bears to the same, that the cow-pock, the moment it takes, removes in a permanent manner those cutaneous eruptions which exist in some children, and which are often troublesome and of long standing. This has been attested by numerous observers.

"Vaccination, whose special symptom is a swelling of the arm, cured, after its eruption, the tumefaction of an arm that was half paralysed.

"The vaccine fever which takes place at the period of the formation of the red areola has, according to the information of Hardège, cured two cases of intermittent fever homœopathically, which confirms the remark formerly made by J. Hunter, that two fevers (or diseases that are similar) can never exist together in the body." (P. 135.)

By tenia, our translator means tinea capitis.

But, while nature is very limited in these homœopathic resources, the physician possesses them in the greatest abundance, and, after such evidence and examples, says Hahnemann, it is impossible that he can use any others; for, to use allopathic remedies is quite absurd, and the common antipathic or enantiopathic medicines palliate the symptoms for a moment, and then they return with increased intensity. But here we come to the weakest point in the homœopathic theory: our author is obliged to allow that there are cases where palliatives are admissible.

"It is merely in urgent and dangerous cases, or in diseases that have just broken out in persons who were previously in health, such, for example, as in asphyxia by lightning, suffocation, freezing,

drowning, &c. that it is either admissible or proper in the first instance at least to re-animate the feeling and irritability by the aid of palliatives, such as slight electric shocks, injections of strong coffee, stimulating odours, warmth, &c. As soon as physical life is re-animated, the action of the organs that support it resumes its regular course, as is to be expected from a body that was in the full enjoyment of health previous to the accident. Under this head are also included the antidotes to several poisons, such as alkalis against mineral acids, liver of sulphur against metallic poisons, coffee, camphor (and ipecacuanha) against poison by opium, &c." (P. 157.)

But, if allowable in these very urgent cases, where life is immediately saved by them, why not in cases where the danger, though great, is not quite so urgent?

After some less important matter, we come to the startling assertion that

" Psora is the sole true and fundamental cause that produces all the other countless forms of disease which, under the names of nervous debility, hysteria, hypochondriasis, insanity, melancholy, idiocy, madness, epilepsy, and spasms of all kinds, softening of the bones, or rickets, scoliasis and cyphosis, caries, cancer, fungus hematodes, gout, hemorrhoids, yellow jaundice and cyanosis, dropsy, amenorrhea, gastrorrhagia, epistaxis, hemoptysis, hematuria, metrorrhagia, asthma and suppuration of the lungs, impotency and barrenness, megrim, deafness, cataract and amaurosis, gravel, paralysis, loss of sense, pains of every kind, &c. appear in our pathology as so many peculiar, distinct, and independent diseases." (P. 168.)

On first perusing this sentence, it would appear to many persons that our learned author had adopted a nosology even more loose and comprehensive than that of the very vulgar, who are apt, under the denominations of scurvy, inward affection, &c., to comprehend a whole host of diseases, yet not quite so many as psora seems to cover. But a little farther on we find that " the homœopathic physician, at every chronic disease (psoric) that he is called upon to treat, ought not to be less careful than before in seizing upon the perceptible symptoms, and everything that is connected with them; for it is no more possible in these diseases than in others to obtain a real cure without particularizing each individual case in a rigorous and absolute manner." (P. 173.) So that psora is merely an awkward synonyme for the cachexiæ, or rather for chronic disease in general, and not a malady to be treated blindly with some one specific: on the contrary, our author is for investigating all the symptoms with indefatigable minuteness, and gives long directions as to the manner of examining patients. The following remark appears to us very acute:

"On the other hand, the patients are so accustomed to their long sufferings that they pay little or no attention to the lesser symptoms, which are often very characteristic of the disease and decisive in regard to the choice of the remedy; they look upon them as though they were in a manner belonging to their physical state, and constituted a part of that health the real sentiment of which they had forgotten during the fifteen or twenty years their sufferings have endured, and never entertain a suspicion that there can be any connexion between these symptoms and the principal disease." (P. 183.)

Passing over much curious matter, which our limits compel us to leave untouched, we come to the other essential point of Dr. Hahnemann's theory—the minuteness of the doses. No reasoning, however ingenious, says our author, can show how small they ought to be.

"It would be absurd to bring forward as an objection the large doses used in ordinary medicine, which are not applied to the suffering parts themselves but merely to those not attacked by the disease. This would be no argument against the weakness of the doses which pure experiments have proved to be necessary in homœopathic treatment." (P. 292.)

The next section informs us of the principle by which we know whether a homœopathic remedy has reached the highest possible degree of attenuation, which is at the same time the acme of perfection.

"It has been fully proved by pure experiments that when a disease does not evidently depend upon the impaired state of an important organ, even though it were of a chronic nature and complicated, and due care has been taken to remove from the patient all foreign medicinal influence, the dose of the homœopathic remedy can never be sufficiently small so as to be inferior to the power of the natural disease, which it can extinguish and cure, provided it retains the degree of energy necessary to excite symptoms rather more intense than its own immediately after it is administered." (P. 293.)

Mr. Devrient and Dr. Stratten ought to have found out between them, that "more intense than its own" makes nonsense of the sentence: it should have been "more intense than those of the disease;" and so it stands in our Hahnemann, "So lange sie noch einige, obschon geringe Erhöhung ihrer Symptome über die ihr ähnliche Krankheit gleich nach ihrer Einnahme zu verursachen im Stande ist." [p. 268, Ed. 1824.]

The smaller the dose the better, provided it fulfils this indication, even though the diminution should be so great as to appear incredible to the coarse material comprehension of

every-day physicians: their babble (says Hahnemann) must be struck dumb when infallible experience pronounces its sentence. They may learn, too, from mathematicians, that the smallest fraction of matter is still something, and can never be reduced by subdivision to nothing; and, if they are capable of instruction, they may learn from those skilled in physics that enormous powers exist which have no weight at all, such as heat and light, which are therefore lighter than the smallest homœopathic dose.*

The scale by which the doses are to be regulated is explained in the following section:

"The effects of a dose are by no means diminished in the same proportion as the quantity of the medicinal substance is attenuated in the homœopathic practice. Eight drops of a tincture taken at once do not produce upon the human body four times the effect of a dose of two drops; they merely produce one that is nearly double. In the same manner the single drop of a mixture, composed of one drop of a tincture and ten of a liquid, void of all medicinal properties, does not produce ten times the effect that a drop ten times more attenuated would produce, but merely an effect that is scarcely double. The progression continues according to this law, so that a single drop of a dilution, attenuated in the highest degree, ought, and does in fact, produce a very considerable effect." (P. 297.)

To this is appended a note, giving a more detailed explanation; a note which Mr. Devrient has misunderstood and mangled as never note was misunderstood and mangled before. Hahnemann says, that if a drop of a mixture containing $\frac{1}{10}$ of a grain of a medicine produces an effect $= a$, then a drop of a weaker one, containing $\frac{1}{100}$ of a grain, will produce an effect $= \frac{a}{2}$; if it contains $\frac{1}{10000}$ of a grain, the effect will be $= \frac{a}{4}$, and so on; which may be put into a tabular form thus, to make it clearer:

Quantity of medicine contained in the mixtures.	Effect produced by a drop.
$\frac{1}{10}$ of a grain	a
$\frac{1}{100}$	$\frac{a}{2}$
$\frac{1}{10000}$	$\frac{a}{4}$
$\frac{1}{100,000,000}$	$\frac{a}{8}$

So that each dose of the medicine is the square root† of the preceding one, while each effect is one half of the preceding

* The translator, at p. 294, *note*, has mistaken Physikern for physicians: it means those skilled in physics, (*physici.*)

† Or the square, if the dose be considered merely as a fraction.

one, the quantity of mixture taken always being the same. But our translator and commentator, not understanding these matters, have put Hahnemann's light under a bushel, in the following manner:

"Suppose, for example, that one drop of a mixture containing the tenth of a grain of any medicinal substance produces an effect $=a$; a drop of another mixture containing merely an hundredth part of a grain of this same substance will only produce an effect $=\frac{a}{2}$; if it contains a ten-thousandth part of a grain of medicine, the effect will be $=\frac{a}{4}$; if a millionth, it will be $=\frac{a}{8}$; and so on progressively, to an equal volume of the doses, the effects of the remedy on the body will merely be diminished about one half each time that the quantity is reduced nine tenths of what it was before. I have often seen a drop of the tincture of nux vomica at the decillionth degree of dilution produce exactly half the effect of another at the quintillionth degree, when I administered both one and the other to the same individual, and under the same circumstances." (P. 297.)

The latter part of the note has been translated correctly, but the reader must not imagine, as Dr. Stratten does, (note xv.) that quintillionth means the five millionth part: it means the $\frac{1}{1{,}000{,}000^5}$th part; for quintillion does not signify five millions, but a million raised to the fifth power; and decillionth, which Dr. S. (Note vi.) explains to mean "a degree of dilution common in homœopathic practice," signifies the $\frac{1}{1{,}000{,}000^{10}}$th part: so that, in the above note of Hahnemann, the decillionth and quintillionth of a grain mixtures stand to one another in the same relation as those respectively containing $\frac{1}{10}$ and $\frac{1}{100}$ of a grain.

In another place, our translator (or his commentator,) has endeavoured "to explain the degree of dilution substances are capable of." But they have made sad work of it! Having no original in this case to guide us, we are compelled to leave the passage to our readers to clear up and understand as well as they can.

"One grain of nitrate of silver dissolved in 1560 grains of distilled water, to which were added two grains of muriatic acid, a grey precipitate of chloride of silver was evident in every part of the liquor. One grain of iodine dissolved in a drachm of alcohol and mixed with the same quantity of water as in the preceding experiment, to which were added two grains of starch dissolved in an ounce of water, caused an evident blue tint in the solution: in these expe-

riments the grain of the nitrate of silver and iodine must have been divided into $\frac{1}{15360}$ of a grain." (P. vii.)

We have now given a sketch, though we fear an imperfect one, of the theory of that great and ingenious physician, Dr. Hahnemann; and it will naturally be expected that we should offer our opinion as to its truth. If the practicability of his method of healing rested on his own authority alone, we should of course rank it with those notable discoveries of which our medical books are full; as, when we are informed, for example, that, in the hands of Dr. A., of B., the flowers of C. would infallibly cure the disease D., but always failed to do so in the hands of every one else, we reasonably conjecture that Dr. A. picked out the slightest cases for the exhibition of the powers of his new remedy. But Dr. Hahnemann's system is not open to this objection at least, as it has been tried with success, on the largest scale, by other physicians, in other towns. We are compelled to allow, therefore, either that a drop of mixture containing $\frac{1}{1{,}000{,}000^{10}}$ of a grain of aconite may have very decided effects on the morbid animal economy, or that cases will get well under the influence of well-regulated diet and regimen, (for on these Dr. H. lays the greatest possible stress,) which have hitherto been considered incurable by these means alone. The latter supposition appears by far the most probable.

Dr. Stratten has tacked to this translation some of the poorest notes in existence. It is impossible to say for whose use they can be designed: certainly not for persons qualified to read or appreciate Hahnemann. The first four may show how flat and trite these annotations are.

"NOTE I, page 2.—DYNAMIC, from *δυναμις, force*, used to denote vital force.

"Hahnemann presumes that the origin of disease acting on the animal economy, and effecting general changes therein, is to be removed by medicinal agents which operate upon the morbid essence, and consequently upon the entire system.

"NOTE II. p. 2.—NORMAL, from *norma*, form or pattern; the state of the body in those who died a natural death, or according to the law of nature, the parts having undergone no change from the healthy condition.

"NOTE III. p. 3.—FACTORS, from *facio*, to make. This term applies to the individual parts of the nervous system, which, as a whole, is the source of sensibility, irritability, and nutrition.

"NOTE IV. p. 4.—CAUSAL INDICATION. Causal, from *causa*, relating to causes; indication, from *indico*, to point out. Indication is of four kinds, vital, preservative, curative, and palliative; 1st,

as it directs what is to be done to continue life; 2d, cutting off the cause of an approaching disease; 3d, curing it whilst it is actually present; 4th, or lessening its effects.

"Experience corresponds with the doctrine of the author, and proves that a practice founded on causal indication frequently fails in curing disease." (P. 309.)

Dr. Stratten, indeed, is rather fond of teaching the etymology of the technical terms in physic; an office for which he is most eminently disqualified; *e. g.*

"Hæmaturia, from αἱμα, blood, and τυρενω, to mix together; the medicinal term for discharge of blood from the urethra mixed with the urine." (P. 324.)

Is there any one but the commentator who does not know that Hæmaturia is derived from αἷμα, and ὀυρεῖν, to make water? Τυρενω, by the way, is an imaginary word.

The names of plants, like the plants themselves, have so often been brought from the East, that, if we wish to trace their etymologies to the fountain-head, we must look for them in the languages of Arabia, Persia, or Hindoostan. Dr. S., on the contrary, has indulged in such plays on words as the following, which have very much the air of being imitations of Swift's jocose derivations of Ajax from *a jakes*, and so on:

"Daphne, from Δα, to burn, and φωνω, to make a sound; because the leaves crackle when burning." (P. 319.)—Where was Δα picked up?

"Senna. *Name*, from *sanare*, to cure." (P. 325.)

We are sorry to disturb Dr. S. in his jest; but senna is an Oriental word: in Arabic, for instance, it is Sunā, as we learn from Ainslie.

"Datura Stramonium, name from *daturus*, because it is given as a narcotic, and στρυχνομανικον, from its causing madness." We assure our readers that this inimitable bit of drollery is copied *verbatim et literatim* from Dr. Stratten's book, p. 328 *et seq.*

We will not mention the true etymon of Datura, (from Dhétoora, its Hindoostanee name,) lest we should be accused of throwing cold water on the best attempt of the kind that has been made since the days of the dean of St. Patrick's; but we will recommend tyros, should they be asked, in their examinations, for the derivations of senna, datura, &c., not to copy our commentator's waggery; for what might pass for a jest in a doctor of physic, would in them be accounted ignorance.

A Report of the Method and Results of the Treatment for the Malignant Cholera, by small and frequently repeated Doses of Calomel; with an Inquiry into the Nature and Origin of the Complaint, with a View to the more just Appreciation of the Means for its Prevention and Cure. With numerous illustrative Cases. By JOSEPH AYRE, M.D. London, 1833. 8vo. pp. 167.

DR. AYRE, who is favourably known as the author of two practical treatises on important subjects, has now added a third to the list, which will not detract from his well-deserved reputation. Our author, who is a resident in Hull, had a large number of cholera cases under his care, when that town was invaded by this Asiatic pestilence, last year; and the following extract from the Introduction gives a summary of his method of treatment, and its results:

"To prevent any misconception, also, as to the kind of cases admitted to be of cholera, it is to be understood that no case was recorded or reported as one, which was merely premonitory, or limited to what has been called the bilious diarrhœa, and which had not those characteristic symptoms of the disease, the gruelly or whey-like discharges, with cramps, and with the other indications equally distinctive of the disease, and of its impending or commencing collapse. In respect to the treatment, it must be borne in mind, and I therefore here repeat it, that the same mode was undeviatingly pursued with all in the stage of collapse, and that only one remedy was used for all,—that remedy being calomel, and commonly in single-grain doses, and given generally every five minutes in the severer cases, and in others at somewhat longer intervals, with a single drop of laudanum with each. No auxiliary remedies, of any kind whatever, were used in the stage of collapse, excepting a mustard cataplasm to the stomach, and bags of warm sand to the feet; and these were frequently omitted. The largest quantity of calomel taken by a patient under my care, [Case 6, an hospital patient, who recovered,] was 580 grains, and the smallest about fifteen or twenty, by an infant; the medium amount being about eighty; though many patients, and some of them children, took from two hundred to three hundred. No evil effects of any kind,—and this is a fact meriting, on many accounts, a full share of consideration, no evil effects of any kind arose, either then or since, from the medicine. Not an instance, or the semblance of an instance, of severe ptyalism occurred in any case, or where the effect continued more than a few days; and indeed it was, I believe, only to four patients (and one was a premonitory case, and not reported,) that I thought it necessary to order anything whatever to correct it.

"No patient was reported recovered who was not in a condition to walk out, and whose recovery was not entire, and did not re-

main so; and it will be seen that nearly all were returned cured by the fourth or fifth day, and therefore that very few were affected with consecutive fever.

"The following will be found, upon an examination of the cases, the summary of their number, and condition, and results, and of the causes which severally contributed to produce in some of them a fatal issue:

"Number of patients		219
Of whom there were in extreme collapse . .	86	
In severe collapse	33	
In a medium degree	46	
In a mild degree, more or less advanced . . .	26	
Having symptoms of impending collapse, with cramps and the characteristic discharges . . .	28	
	——	219
Recoveries	176	
Deaths	43	
	——	219
Of the deaths		43
There were of those who were dying when first seen, and either could not, or did not, take any medicine	13	
Of those in whom the treatment began very late, and was more or less negligently pursued . . .	19	
In whom there was previous disease . . .	2	
Dropsy of the brain supervening with neglect . .	5	
Relapse from palpable neglect in diet . . .	4	
	——	43

(P. xxiii.)

Passing over the first chapter, in which the symptoms of cholera are detailed at length, we find in the second an investigation of its remote causes. These are, according to our author, a specific malaria, and poor living; the former being the exciting, and the latter the predisposing cause. Dr. Ayre is a decided anti-contagionist, and thinks that the high roads have been unjustly stigmatised as conductors of the disease, when, in fact, the rivers accompanying those high roads should bear the blame.

"What, it may be asked, upon the assumption of the disease being infectious, and of its having been brought to, and extended amongst us, by infection, is the reason why the towns of Whitby, and Scarborough, and Bridlington, and Beverley, and Hedon, with the villages lying between them, should remain free from the disease, while so many other places with which they had intercourse were affected by it. The answer plainly is, that it is not communicable; but that in the same way as the malaria producing ague, or that

occasioning the yellow fever, is generated in certain known localities, so in like manner the malaria of cholera, under atmospheric influence, is produced in certain situations, and not in others. Of the cause of this difference in the fitness of certain localities, and the unfitness of others, it is neither necessary nor easy to pronounce an opinion. It may be thought, however, not undeserving of notice, that there is one peculiarity in the towns of Goole and Gainsborough, and Selby, with York and Hull, as well as in most, if not all the other towns and villages of the country that have suffered by the disease, which distinguishes them from those of Scarborough, and Whitby, and Bridlington, and Beverley, and a multitude of others, both towns and villages, which have escaped it; and this peculiarity is, in having a navigable river running by or through them. In the track which the disease took across the continents of Asia and Europe, it was assumed to have proceeded as an infection, and by an intercommunication of persons, because it was seen to attack the inhabitants of towns placed on the high roads; but the high roads of those countries are not numerous, and they lead generally up to, and through towns which are situated on the banks of rivers. In this country, covered over as it is by its numerous population, all the roads may be said to be high roads; but the disease did not travel along them, or, if it did, it was by an arbitrary and partial choice of them; for it was not along those on which there was the most traffic, and which, according to this hypothesis, it should have done, but along those alone which terminated at towns or villages that were placed on the banks of rivers. There is a high road, and a constant intercourse between this town and Beverley, and there is the same between York and Beverley, and between this town and Scarborough and the other towns and villages of the East Riding; yet upon none of these roads did it travel to these places, or appear in them, and for the single reason that their localities were unsuited to the generation of the malaria which should produce the disease. They are distinguished from Hull, and York, and the other towns mentioned in no other discoverable circumstance than in having no rivers passing through them; but whether their exemption depended wholly, or only partially upon this cause, must be left for further and more extended observation to determine. We are at present much too uninformed of the nature of this malaria, and of the materials producing it, to decide upon what it precisely depends; or whether it is essentially, or only accidentally the produce of materials supplied by the banks of rivers. In this district it was wholly limited to places so situated; but it is quite conceivable that there may be localities apart from the banks of rivers, and yet analogous to them, which may be capable, like them, of generating the malaria of this disease. The main fact upon which it is of importance to insist, is, that the malignant cholera does not travel along roads by an intercommunication of persons, but that it owes its origin to a malaria; that this malaria, like that giving rise to ague, and to the remittents of

Walcheren and of other fenny districts, is of a specific nature, and is generated by materials supplied by rivers, or the banks of them, or by localities which are favorable to the same end, from possessing some certain properties in common with them." (P. 22.)

To this river-malaria our author adds the noxious vapours arising from drains; and mentions that, in a report drawn up by Mr. Baker, the influence of defective drainage in giving rise to the disease in Leeds is illustrated by a map, "in which it is shown that the quarters where the disease most prevailed were precisely those in which the drainage was most defective." (P. 25.) It was once supposed that insufficiency of clothing was a predisposing cause; but the disease prevailed most in the hottest weather. It was supposed, again, that the want of cleanliness in the dwellings of the poor favoured the progress of the disease; but, in the greater part of Hull, these humble tenements are not only clean, but in numerous instances remarkably neat.

"It was not therefore in the state of their clothing, nor anything in the interior arrangement or condition of their dwellings, as favouring or fostering the origin or spread of an infection, that the poor should have been the especial subjects of the disease.* There remains therefore but one other peculiarity distinguishing their condition from that of the class above them, and that is, in their diet; and in this lies the secret why the poor in this, and in all countries, endured its attacks, and why the better-conditioned classes were almost wholly exempt from it. Of all the patients whom I saw in this town, not a dozen, out of perhaps two hundred, were in circumstances to procure meat daily, and many only once or twice a-week, and some only very occasionally; while the remainder, forming an immense majority, not at all. There was indeed, among our poor, notwithstanding the appearances of cleanliness and comfort in their houses, great and varied destitution. Their food was composed of the coarsest bread and potatoes, and frequently not enough of these; both the bread and potatoes being at the same time of a bad acescent quality, and as injurious on this account as they were from the quantity required to be eaten of them to compose for the hungry a sufficient and satisfying meal. By such the stomach and system are at all times insufficiently supported, and are exposed to be affected by all the ordinary ex-

* "The author had frequent occasion, in his visits among the patients, to have it remarked to him, that the seeming comfort about their homes, as evidenced by the quality or quantity of their furniture, was in no degree real; for though, by pawning their goods, they might procure meat, yet, by being in arrears in their rent, they would be stripped by their landlords of the rest, if a single article was disposed of. They had lived and lingered on in the forlorn hope of better times for them; and it was painful to hear from the mourners, in their agony for the death of a father or husband, how the privations and self-devotion of the deceased had been the causes of their bereavement."

citing causes of disease. Such a diet, indeed, is but a mitigated species of famine; and, from its acescent and unnutritive nature, is well suited, from the disorder it induces in the digestive organs, to fit them to be acted on by the poison or malaria of the malignant cholera. And here I need scarcely remind the medical reader, that the cholera is a disease which pertains to, and commences in, the digestive organs; and that the specific malaria will act the more readily and the more powerfully upon them, if previously disturbed by an unwholesome and unnutritive diet. Hence, therefore, wherever the prevalent diet of the people consisted of an undue proportion of vegetable food, there the disease, other things being equal, prevailed the most. In Paris, from the general use of vegetable soups and dishes, and of an acescent wine, and the very defective state of its drainage, the ravages of the disease were great; and, with thousands of the poor, many of the wealthy, from the operation of these causes, became the victims of the disease. In this country, the people generally, where their means admit of it, indulge in the daily use of meat, and their soups are made of the same substantial food. A few persons only, therefore, of this class were affected; and with those who were so, it could be traced to a highly concentrated state of the malaria, or to an irregularity in their diet; as a heavy supper of some unwholesome food, or an inordinate quantity of fruit. Of all the patients whom I saw in the disease, there were but six of this class; of whom two were female servants, who from choice had abstained from meat; one had eaten for two days of indigestible ham; two had eaten inordinately of pears at supper; and one was an habitual drunkard, and had but little appetite for any food." (P. 28.)

We by no means agree with Dr. Ayre in the slur he casts on French wines: even if those consumed by the poorer Parisians are a trifle too sour, they must be far wholesomer, and far less prone to disturb the digestive organs, than narcotic porter, or cauterizing gin; and the wines consumed by all above the lowest classes are beyond all question the finest in the world—to the follower of Hygeia, as well as the disciple of Epicurus. Depend upon it, too, Dr. Ayre, that not only in this country, but in France, "the people generally, where their means admit of it, indulge in the daily use of meat, and their soups are made of the same substantial food." Indeed, all classes in tolerably easy circumstances swallow such quantities of food, including large portions of meat, that a raw stranger, sitting for the first time at a French *table d'hôte*, and gazing in speechless astonishment on the endless deglutition, is apt to become a believer in the unlimited extensibility of the human stomach, and to distrust his Soemmering, in which he reads that it will contain only from five to eleven pounds. We recollect indeed finding it stated,

in the Gazette Médicale, last winter, in an ingenious article on *Choleraphobia*, that a great *gastronome*, who was also a great *choleraphobe*, caused the word CHOLERA to be placed in the inside of his snuff-box, that his progress amid the long array of dishes might be arrested by this Abernethian admonition. The number of cases, too, among the opulent classes, this summer, in London, has tended to show that the protecting power of good living is not quite so great as Dr. Ayre supposes, though it would be absurd to deny that it is very considerable; and we therefore agree with him, that a more liberal distribution of animal food among the poor would have been highly desirable.

"This was then alone the course to be followed, and for this object establishments should have been formed for the daily issue to them of rations of meat and animal soup, beginning the issue of such rations on the first appearance of the disease in a town, and continuing it during the limited period in which the epidemic influence prevailed. To lighten the burden of such measures of relief, besides the aid of public subscription, employment might have been provided for the poor in works of public improvement. Nor would the Boards of Health, in doing this, have exceeded their powers; for they were directed by the instructions issued to them by the Lords of the Privy Council, to employ every practicable means to obviate the occurrence of the disease, and to raise and apply the funds required for that purpose." (P. 38.)

In the third chapter, in which our author discusses "the Nature or Pathology of Cholera," he brings forward a number of objections to the theory which supposes cholera to arise from noxious changes in the chemical constitution of the blood, and the loss of some of its principles carried off by the discharge from the stomach and bowels. To this Dr. A. first objects, that the premonitory diarrhœa "may be arrested, and the full development of the true disease prevented, by remedies of a common kind, and which have confessedly no power to prevent or correct any change in the condition of the blood." (P. 43.) But surely this is begging the whole question: the chemical physician would say, "Two patients have the premonitory diarrhœa; one of them takes nothing, is seized with cholera, and his blood is found to have lost some of its saline constituents; the other takes rhubarb and opium, and is not seized with cholera; therefore rhubarb and opium confessedly have the power of preventing or correcting changes in the condition of the blood."

Our author proceeds to say, "The means also which act beneficially in removing the collapse, and in stopping the

profuse discharges from the bowels, have no chemical properties by which to effect this change. (P. 43.) But, granting that they have no chemical properties by which to effect this change, they may produce it as vital agents; even mechanical agents are able to produce remarkable changes in animal fluids: is not the quality of the remaining blood changed by venesection, and does not a severe blow on the spine make the urine alkaline? Again, says Dr. Ayre, "In many cases they act too rapidly to admit of the supposition of their acting as chemical agents, particularly emetics, which, upon being taken, are instantly ejected from the stomach, and are thus precluded, whatever may be their composition, from effecting any changes of a chemical nature in the blood." Now, the protracted vomiting which emetics frequently cause indicates either that they are not instantly and entirely ejected from the stomach, or that their influence on the system can be kept up by habit long after every particle of the medicine has been thrown up: it is not necessary to suppose that they are absorbed into the blood; it is enough if they can modify the nervous energy, which presides not only over the circulation, but probably also over the constitution of the blood; and we can thus indirectly alter the chemical condition of the blood, just as we can correct the errors of a watch, not merely by a violent movement of the hands, but by an almost imperceptible alteration of the regulator.

Dr. Ayre proceeds to state several other objections to the chemical theory, to which it would not be very difficult to find replies; but it is needless: for the saline treatment having been tried without success, it is hardly worth while to show that the ingenious speculations on which it was founded are not so indefensible as our author imagines.

Dr. Ayre, after having demolished the saline theory, as he supposes, points out, with considerable ingenuity, the strong resemblance between the Asiatic disease and the worst forms of our old English cholera; and then gives his own theory of the nature or essence of the malignant cholera, supposing it to arise from congestion in the liver.

"Now the congestion thus produced in the portal or venous system of the liver, and in its associated organs, constitutes the stage of collapse of the cholera; and under various modifications and grades of intensity, whose real nature and amount are unknown, forms the essence of it in all. In the collapse of the disease, when rendered intense by a total and sudden cessation of the secretion of the bile, there is an abeyance of the vital powers, as the result of the venous congestion, and the disturbance which it gives to the

nervous system. The pulse becomes feeble, and at length extinguished, from the twofold influence of a mechanical disturbance to the heart's action, and of the diminished energy of the brain. The surface becomes cold and of a livid hue, the eye appears sunk, and the countenance shrunken and collapsed; the secretion of the kidneys becomes diminished, and at length suppressed, from the congestion extending to the renal veins, and thus obstructing, at the same time, the action of the renal arteries; the voluntary muscles are excited into spasmodic contractions by the irritation given to the vertebral chord by the congested state of its veins; while the capillaries of the mucous surfaces of the stomach and bowels are impelled into an increased action by the stimulus of the same congestion, and profusely pour out their secretions. Now this state of the system, constituting the stage of collapse in its worst or malignant form, can only be relieved by relief being afforded to the congestion causing it. In the ordinary cases of an interruption in the secretory action of an organ, there is a provision made by nature for its relief. The congested and inflamed state of the female breast, to which a sudden cessation of its secretory functions gives rise, if not removed artificially by the local abstraction of blood, or by other means, or naturally by a renewal of its proper secretion, terminates in inflammation, and this last in suppuration, which is to the other a natural remedy, and by which the congested state of its arterial circle of vessels is relieved; while a termination is put for a time to its secretory action, which is from its nature only temporary, and a healthy state of the organ at length induced. But inflammation, and suppuration, which is one of its remedies, are the results alone of arterial action, and cannot be produced in vessels, or by the agency of vessels, whose character and structure are venous. But a permanent interruption to the secretion of the bile, and the congestion resulting from it, are conditions incompatible with life. Relief must be afforded to the collapse which the congestion creates, or death must ensue. Now the relief which is thus required may be afforded by one of two modes, but differing greatly from each other in the degree of relief which they give. The first in value and importance is a sudden reaction taking place in the secretory vessels of the liver, to which the spontaneous vomiting of the complaint not unfrequently contributes, and by which a copious secretion of bile in the milder cases of the disease is often suddenly produced. This is the usual termination of the common cholera, and the natural remedy of the complaint, although often erroneously regarded as the complaint itself; because the overflowing bile, by accidentally rising into the stomach, prolongs for a time that irritable condition of it, which the previous congested state of the liver had first induced. When this salutary reaction of the secretory vessels of the liver does not take place, and the struggle with the disease is prolonged, a second mode of relief to the collapse will take place, which is of less efficacy, and consists in a reaction of the arterial system of vessels of the structures involved in the con-

gestion, and to which the congested state of the veins had afforded an indirect stimulus. The excited or inflamed state thus set up in these structures, and particularly in the mucous surfaces of the stomach and bowels, which, as they shared in the congestion, next partake of the increased action, forms in this, as in other cases of venous congestion, a partial but morbid remedy to it. By the inflammatory action thus established a febrile state is set up in the system, and all the symptoms of collapse disappear. The tongue, which before was moist, and perhaps cold, becomes dry and hot; the bowels no longer pour forth a copious serous secretion, but become confined, and are moved with difficulty, and their contents are laden with mucus, and of a dark, and sometimes sooty hue. The fever is termed consecutive, as following the stage of collapse, but differs in nothing from the common bilious fever of other seasons, excepting in severity, and in the circumstance of the stage of collapse in the bilious fever being occasionally too brief or too slight to be observed. In both cases the pathological conditions are the same; and mainly consist in a limited interruption, instead of an entire suppression, of the secretion of the liver, with such an increased action in the arterial circle, or system of vessels associated in the congestion, as is sufficient to force on the circulation of the blood through the congested veins, and remove, or considerably relieve, the stage of congestion and collapse. In numerous cases this relief is only partial as concerns the state of collapse; for, though the pulse may return to the wrist, and some warmth to the surface, and even to a degree sufficient to show that the circulation has become more free, this flattering state in a short time becomes succeeded by a renewed collapse, in which, if there be less coldness of the surface, there is not the less danger; for, indeed, the transition to the state of reaction in the malignant cholera is often little more than the substitution of one fearful evil for another, as many sink under it with all the signs of gastro-enteritic inflammation." (P. 58.)

In some patients, observes Dr. Ayre, a partial reaction takes place, so as to restore in a slight degree the warmth of the skin; yet they sink under a second collapse, not arising from congestion, but the result of a failure in the vital powers, and identical with the one which takes place at the fatal close of all acute diseases. In such cases the post-mortem appearances are not those of congestion, or only partially so.

This chapter is closed by several recapitulary observations, the following of which is perhaps the most important, as it is the one on which our author's practice is based: "6th. That in the cases where the congestion terminates spontaneously and *favourably*, it is by a renewal of the secretion of the bile, and frequently, in the English or common type of the complaint, by such a sudden and copious discharge of it

as to occasion a copious purging and vomiting of that fluid." (P. 69.)

We now arrive at the Treatment. Dr. Ayre, after remarking that the disorder consists of three stages, viz. the premonitory diarrhœa, the stage of collapse, and the consecutive fever, dilates at some length on the first of these from p. 72 to 81, where, to our no small surprise, it makes its appearance again under the name of *the premonitory stage.* This little blemish, however, Dr. Ayre will no doubt "correct, in his second edition," as reviewers have it. The following passage gives the leading points of our author's practice in the first two stages:

"1. *The premonitory stage.* The usual dose which I gave of the calomel in this stage was one grain, united with two or three drops of laudanum, and repeated hourly, or every half-hour, for six or eight successive times, and then every six hours, or twice a-day, for a short period; directing the patients at the same time to substitute rice, in a considerable degree, for their bread and potatoes, and to take what they could procure of animal diet; enjoining them, besides, that if the disease should proceed to put on a more serious form, to begin immediately with the pills every ten or five minutes, and to acquaint me forthwith of the change. Of a very great number whom I saw in this stage of the complaint, and who were thus treated, only very few went forward in it, and required to have their cases reported.

"2. *Stage of collapse.* In the ordinary cases of the disease in this stage, I gave the calomel, as has been stated, in a single-grain dose, made into a pill with bread rubbed into a mucilage with gum-water, and so minute as to weigh, when dry, but one grain and a half, and taken every five minutes, and with it a single drop of laudanum, or Battley's sedative liquor, in a teaspoonful of cold water. In the early periods of my treating this disease, and when less experienced in it, I was led to believe that cases of it, which appeared to be mild, might be treated less actively. But I was soon undeceived in this respect; for often the mildness of it depended only upon its slower development, which at length took place, through the inefficiency of the calomel, given at wide intervals, to arrest it. The same fact was also too often forced upon my attention by the neglect of the attendants in giving the medicine regularly, by which the stage of collapse was frequently prolonged, and sometimes allowed to become most fearfully developed. In the aged this neglect was sometimes fatal, but in the young it was more easily corrected; and, on such occasions of neglect, it was a matter of agreeable surprise to observe with what effect the calomel even so given had retarded the course of the disease; and, when renewed and punctually exhibited, with what manifest power it arrested it. And here let me observe upon an objection which I have heard alleged against the practice of small and repeated

doses, and which I have reason to believe has influenced many to adopt it only partially, and others wholly to reject it. The objection I refer to is, the supposed irksomeness and sickening effect to a person so ill, of taking so many pills, and that so frequently. The truth however is, that the pill, from being exceedingly minute, as it may, and should be, and placed in the cold water and swallowed with it, is readily taken; and, from the great thirst and impatient desire of the patient for cold water, is even coveted by him, and the times, as they return for having it, are even hailed by him with satisfaction. It may be also added, that with the thirst the disease abates, and with both abates also the necessity for the frequent repetition of the medicine; and thus the evil (if evil it can be called which is neither felt nor acts as one,) works out its own relief.

"In a few cases of extreme severity, I gave two grains of calomel every five minutes for an hour or two, and then resumed the ordinary dose of one grain. In giving this medicine, no other limit is required to be set to its use than that which the stage of congestion or collapse imposes; for, pending its duration, the medicine must be uninterruptedly continued, watching at the same time the decline of the disease, and widening the intervals of giving the medicine to ten, fifteen, and twenty minutes, until it becomes evident by the symptoms that this stage of the disease has passed away; for the mercurial effect of ptyalism, which is of no advantage to the complaint, will be excited if the medicine be used to any extent, either before the collapse has commenced, or after it is removed. In a very few cases only were there any ptyalism produced, and in them it was inconsiderable, and chiefly confined to the slighter kinds, and to those which were treated as premonitory, and not reported." (P. 81.)

The treatment of the consecutive fever does not offer any thing very remarkable; but Dr. A. insists strongly on the necessity of abstaining from drastic purgatives: nothing stronger than castor-oil is requisite, and that only in doses of a teaspoonful or two.

The fifth and last chapter is entirely composed of accounts of cases, and is divided into four sections. The first contains a detailed account of ten cases, all of which recovered; the second gives a detailed account of twenty-one cases, four of which died; the third section contains short notes of the remaining cases that recovered, 149 in number; the fourth section gives similar notices of the fatal cases, thirty-nine in number. The following is one of the first ten:

"CASE VI. John Vaughan, aged thirty-two, a tramp, of drunken habits. Cholera Hospital. August 14.

"Eleven P. M. Is affected with a vomiting and purging of the characteristic fluids; the skin is cold and livid; the eye sunk; the voice choleric, and the pulse extinguished at one wrist; has been

affected with a diarrhœa for two days, and has only just entered the town from York; has eaten of raw grain from the fields. To have one grain of calomel with a drop of laudanum every five minutes.

15th. Ten A. M. Has been closely attended by the hospital assistant; has taken seventy pills, and a small quantity of brandy on his admission; the pulse is now quite distinguishable; the skin still cold and livid; the eye much sunk; voice very hoarse; has vomited and purged several times as before. To continue the pills.

"Two P. M. Has not been so well during the last hour; purging and vomiting continue; skin still cold and livid, but without any dampness; countenance, and voice, and pulse, still the same. To take two grains of calomel every five minutes for an hour, and afterwards one, as before. To have a broth and rice clyster, and a teaspoonful of brandy occasionally.

"Five P. M. Is better; purging stopped; sick only once. Continue the pills, omitting the laudanum.

"Nine P. M. The temperature of the skin is improved, but is still cold; the eye is also still sunk, and the voice choleric; some sickness. Pills to be continued as before, every five minutes.

"16th. Seven A. M. Has had a good deal of sleep; the voice still choleric; pulse feeble; skin less cold and livid; purging still characteristic; has taken his pills regularly when awake; has had some beef-tea. To have a clyster of broth, and to continue the pills.

"Seven P. M. The countenance somewhat better, but the skin is still cold. Continue the pills.

"17th. Seven A. M. Has passed a good night, and is considerably better; stools of an ash colour; has passed some urine for the first time for three days; skin of a natural heat; countenance and voice greatly improved; pulse calm. To omit the pills; to have clysters of broth and effervescing draughts.

"18th. Has passed a good night, and declares himself to be quite well; tongue clean and moist; appetite returning.

"Eight P.M. Rejects his food from the stomach. To have eight leeches applied to his body.

"19th. Retains his food, and is in every respect better: the stools are black.

"20th. Is quite free from complaint, and is only detained in bed from not having clothes. Is anxious for food. This patient on the following day was able to leave the hospital, but, from having no clothes, remained a week from this time: he left us then quite well, and without any soreness of the mouth, although he took the extraordinary quantity of 580 grains of calomel between the evening of the 14th and the morning of the 17th." (P. 107.)

The following are the four fatal cases in section ii.

"CASE XXVIII. Fatal. Joseph Mason, an infant. Was attacked with water of the brain, and was in entire collapse when first seen, and got no medicine.

"CASE XXIX. Fatal. George Headley, aged thirty-four Alboro street. October 12. This patient was in a profound collapse when first seen; was visited twice during the day, and was coming out of it, when I was informed by some neighbours that he was dead, and I missed seeing him again. On the following morning early I had to pay a professional visit up the river Trent, and did not learn until the next day that he was still living. On going to him, I found him in the consecutive fever, and taking stimulants. He struggled through a fortnight, and died with symptoms of ulceration in the mucous lining of the ileum.

"CASE XXX. Fatal. Mary Allas, aged twenty-two. Alboro street. October 6. Was seized very suddenly, and the course of the disease was most rapid and violent. I saw her early after she fell into collapse. The parties who sat up with her fell asleep, and the giving the medicine was much neglected. I visited her twice in the night, and, by counting the pills, detected the omission. She died in twelve hours.

"CASE XXXI. Fatal. Eliza Crabtree, aged fifty. Scott street. October 6. Was seized in the evening, and was in extreme collapse before she was seen. At this time there had been withdrawn the privilege, previously enjoyed by me and others, of engaging, at the instant, such of the poor for hire who were willing to act as nurses to their sick neighbours. I had in this case to give one person directions to be delivered to another, who was to come to be with the sick; and in this instance, through some misdirection, instead of the seventy pills and seventy drops of laudanum left for her being given in single doses every five minutes, the whole of the laudanum was given at once, and only twelve of all the pills were taken. In the morning, when I expected to find her nearly convalescent, she was speechless and dying." (P. 125.)

It is impossible to read these, and the other fatal cases, which are narrated by Dr. Ayre with a candour which is above all praise, without being almost forced to reflect how much of the success of medical practice depends on attention to the minutest details: the intoxication of a nurse, the false information of a stupid neighbour, or the misunderstanding a verbal direction, are sufficient to nullify the results of the best-laid plan of treatment. We hope that it will be found not absolutely necessary to continue the administration of the calomel every five minutes throughout the night, as it must be impossible to obtain any large number of sleepless nurses, and without them the scheme falls to the ground.

We will now extract a few of the short cases.

"CASE XLV. Ann Naylor, aged twelve. Green Lane. Collapse of medium severity; took sixty grains; slight ptyalism; convalescent in five days. Her two brothers had died of cholera three weeks before, under the saline treatment.

"Cases XLVI. and XLVII. Ellen Watson, aged fifteen. Bella Watson, aged eight. Green Lane. Both attacked at the same time; collapse somewhat severe; each took a medium quantity of calomel; convalescent in four days.

"Case XLVIII. Richard Watson, father to the above. Collapse, but early seen; took only about thirty grains; convalescent in three days.

"Case XLIX. Michael Gibson, aged thirty. Newton Court, Machell Street. Collapse severe; took two grain doses of calomel every ten minutes, with laudanum; was recovered in four days; very slight ptyalism.

"Case L. Mary Bransby, aged twenty. Green Lane. Collapse severe; urine suppressed seventy-six hours; took about 150 grains of calomel; recovered in five days.

"Case LI. Mary Hall, aged thirty. Green Lane. A sweep's wife. Collapse of medium severity; took about sixty grains of calomel." (P. 129.)

Dr. Ayre is so persuaded of the efficacy of his plan, he is so zealous a calomelarian, that he thinks it necessary to offer a sort of apology for each of the unsuccessful cases; as, for example:

"Case CXCVII. E. Smith. Wincolmlee. This was a young married woman, who, after recovering from a most severe attack of the disease, relapsed into it from eating too hearty a supper at the house of her father, and sank, at the end of a fortnight, from the exhaustion caused by a miscarriage, which the second attack of the disease had produced. No second case.

"Case CXCVIII. Plumstead, aged forty. A watchman. Mill Street. I saw this case at Mr. Sharpe's request. He was brought out of the collapse, and appeared, during several days, to be recovering; when, unknown to us, he had ginger beer and other improper things given to him, and he died from an inflammation of the mucous surfaces. No second case.

"Case CXCIX. Jane Henderson, aged twenty-two. Bellamy's Square. This was a young married woman, whose husband was at sea, and who, after exerting herself with the most distinguished humanity and zeal in her gratuitous personal aid to the very numerous sick of the square she lived in, became herself the subject of the disease, and at length, the victim of it. I saw her in the collapse, but early in it, and she had become convalescent; when, being hungry, and having no other food, she ate for her supper the half of a flour-and-water dumpling; relapsed early in the night; and in the morning, when I first learnt of her relapse and saw her, she was just expiring. She merited a better fate." (P. 151.)

We confess that half of a flour-and-water dumpling seems scarcely an adequate cause for a relapse, and ginger beer no cause at all: call it *Haustus effervescens cum Pulv. Zingib.*

gr. iij., and it might not only be tolerated, but prescribed. "The other improper things," however, cannot be defended.

We have now given a very copious analysis of Dr. Ayre's work, with but little commentary of our own; for such a book does not require it. The facts and figures speak very forcibly, whatever may be thought of the theory with which they are connected; and a mortality of only one in five, in so large a number of cases, must procure our author a host of proselytes. We certainly think that the two most plausible methods of treating cholera hitherto proposed, have been to stimulate the liver with calomel, or to administer the sulphate of quinine, considering the disease simply as an intense ague.

The Principles and Practice of Obstetric Medicine, in a Series of Systematic Dissertations on Midwifery, and on the Diseases of Women and Children. Illustrated by numerous Plates. By DAVID D. DAVIS, M.D., M.R.S.L., Professor of Midwifery in the University of London. Parts I. to XXII. London, 1833. 4to.

ALTHOUGH our predecessors have not neglected to notice Dr. Davis's work as its numbers issued from the press, yet, as we are now entering upon a fresh stage of existence, and as the science of obstetrics will, from a conviction of its paramount importance, occupy a considerable share of our attention, we shall probably gratify our new readers by noticing in the first number the work whose title stands at the head of this article.

To any one exercising the common powers of reflection, considerable astonishment must have been felt at the apathy and neglect with which, until of late years, the subject has been treated. We dare venture to assert, that, previous to the enforcement of attendance upon midwifery lectures by the College of Surgeons and the Apothecaries' Company, not one pupil in twenty paid any attention to this necessary department of his studies; and even now the regulations are very insufficient to secure that degree of information which ought to be possessed by every man before taking upon himself the responsibility attached to the practitioner of midwifery: for what, after all, do their rules amount to? Do they require the candidates to undergo a searching examination as the test of his qualification? Do they require that he shall not only have studied the theory, but that he should have had opportunities of putting his principles into practice in the lying-in room? Not they; nor, until very recently, was even an attendance upon the lectures required. It is true, a certificate of such attendance is now demanded; and

what is proved by it? simply, that the pupil has paid a sum of money to an obstetric teacher for the purpose of "taking out his ticket." Knowing that he will not be examined upon any subject treated of by the lecturer, he, perhaps naturally, directs his attention to matters of minor importance, but which nevertheless "tell" at the college and hall. Notwithstanding, however, the want of encouragement which has attended the practitioners of midwifery, men have been found among them of no ordinary stamp; and we need only mention a few names, such as William Hunter, Smellie, Denman, Burns, Gooch, Haighton, Blundell, and Clarke, to prove the truth of this assertion. But why this neglect of what must be considered a very important part of professional knowledge? Why have not our medical colleges and corporations bestirred themselves in this matter? To those acquainted with the history of all chartered monopolies the secret is soon revealed. One common spirit appears to have actuated them from their earliest formation down to the present day, viz. the exclusive benefit of the privileged few, to the manifest disadvantage of the community at large. The regular physician, considering it as belonging to the department of surgery, refuses to practise it; the *pure* surgeon, knowing that all places of honour and of profit are closed to him if he practises midwifery, also disavows it, although it is a notorious fact that these very men will attend in consultation upon cases involving in their consideration a thorough acquaintance with the principles of obstetric science. It is greatly to be hoped, however, that in the inquiry concerning the state of medical education which will shortly take place, the evils attending the present system will be brought to light, and a more complete, just, and perfect one adopted. Now, however, to the subject more immediately before us.

Dr. Davis's work is published in monthly parts, twenty-two of which have already appeared. We are told that it will be completed in between thirty and forty numbers: judging from what has been printed, we should be inclined to suspect it will reach double that number, which will render it exceedingly expensive, when compared with our two standard works, Denman and Burns, neither of which, we prophesy, will be superseded by it; for, whilst the matter is by no means superior, the style is very decidedly inferior to either of them; and the expressions made use of by his reviewer in the "London Medical and Physical Journal" so exactly meet our views, that we assert with him that it is "a diffuse and inappropriate style of writing, which savours more of the efforts of a novel-writer to amuse his readers,

than of a learned physician to instruct them." Some of the cases in illustration of particular subjects are related without much respect to delicacy; a most egregious failing in an obstetrical writer or teacher, whose grand aim should be to impress upon the minds of his readers or hearers, the necessity of avoiding every thing that can be construed into a want of the utmost delicacy and propriety of feeling.

Notwithstanding these deficiencies, Dr. Davis's work is valuable, not only as being the result of an extensive practice, but from the great number of references which are so frequently made to authors who have preceded him; so that the reader knows where to refer to without trouble, should he desire to be acquainted with the opinions of others upon any important disease. Dr. D. deserves great credit for his industry in this respect.

The arrangement of the subject is also good. Professor Burns has been followed in this respect, the anatomy of the parts concerned in the parturient act being first considered, and then the diseases to which these parts are subject; the osseous structure of the pelvis forming, as usual, the groundwork upon which alone can any accurate knowledge of the different varieties of labour be built. This part is especially deserving the student's attention. It would be quite as reasonable for a person to try to understand a language without knowing the alphabet, as to attempt the practice of midwifery without a thorough acquaintance with the shape, dimensions, and axis of the different parts of the pelvic cavity.

The chapter on "Diseased Conformations of the Pelvis" is well worthy the reader's attention.

Our author then proceeds to the external organs of generation, describing their "structures and diseases." We perfectly agree with the following observation respecting the *morbus pediculosus* of the mons Veneris: "There is no truth in the supposition, (a notion, however, which very generally prevails,) that the morbus pediculosus can only be acquired by sexual intercourse, or personal approximation in any other way to another individual previously affected with it;" facts proving the contrary having occurred in our own practice.

The treatment recommended in abscess of the labium is judicious; the recommendation of some authors not to interfere, but to allow it to burst of itself, being to our view very objectionable. There appears to be no good reason why the common treatment of abscess should in these instances be deviated from. We have been in the constant habit of making an early puncture, and are fully convinced

that much time and uneasiness are saved to the patient by so doing.

Some interesting cases of enlargement of the labium from extravasated blood are related. The reader will do well to consult Burns' Midwifery upon this head; in a note appended to which he will find a number of references illustrative of this subject. It is highly necessary for the practitioner to be able to distinguish the causes which are giving rise to enlargement of the labium, which he will find to be numerous. Thus, in addition to that just mentioned, it may arise from common inflammation, from effusion into the cellular structure, either as a symptom of general anasarca, or it may be a local affection arising from the pressure of the gravid uterus interrupting the returning circulation; and, even in this latter affection, the size of the tumor will sometimes be very large, and materially interfere with the female's convenience. Where this is the case, relief will be experienced by making a few punctures with a clean sewing needle, through which the fluid will escape, and the tumor be consequently diminished; and the patient, by a repetition of the operation, if necessary, be rendered comfortable until after delivery. Enlargement of the labium may also arise from aneurism, from hernia, and from various kinds of tumors, fatty, encysted, scirrhous, &c.

The nymphæ are liable to many of the diseases which affect the labium, but the reader will find nothing of a novel nature upon this head in the work before us.

For the relief of virulent gonorrhœa, Dr. Davis advises a lotion composed of half a grain, or a grain, of oxymuriate of mercury in a pint of distilled water; which application was some years ago recommended by Dr. George Fordyce. The use of a mercurial wash, however, in the earlier stages of the disease, is objectionable. The local means which, in our own practice, have been found the most serviceable, consist in the assiduous application of a wash composed of half an ounce of tincture of opium, one drachm of Goulard's extract, and half a pint of distilled water; which, if properly applied, exerts an almost magical influence in allaying the ardor urinæ, which is the most distressing symptom of the disease. We are also at variance with the author respecting the general treatment, being convinced, from no inconsiderable experience, that "ample general bleedings" are seldom, if ever, required, brisk purgatives being much more efficient. After the subsidence of the actively inflammatory symptoms, astringent injections will be found more advantageous than the mercurial ointments recommended by Dr. Davis, espe-

cially when combined with the internal administration of one of the terebinthinate balsams.

The reader will find some very interesting observations upon the manner of introducing the catheter; and, in treating of the diseases of the urethra and bladder, a case is related in which a piece of wood had been forced up the urethra; and, although it "had been only fifteen days in the bladder, it exhibited on its surface a calcareous incrustation."

Pruritus of the external parts is a very troublesome and painful affection, which arises from various causes, and will therefore require a corresponding variety of treatment. Where its origin can be traced to herpetic eruptions, a solution of the nitrate of silver, dissolved in an ounce of distilled water, will seldom fail in procuring relief, and in many instances has succeeded in effecting a perfect cure, after other means has failed. This application is not noticed by Dr. D.

The experience of the author unfortunately coincides with our own respecting the uncertainty of affording relief in those fistulous openings which sometimes occur between the bladder and vagina. He observes:

"Various contrivances have been suggested to plug up the artificial passage between the bladder and vagina; such as globular bodies and pessaries of various forms and materials, sometimes hollowed out, and at other times solid: some smooth, others resisting, or elastic, yielding, mouldable, absorbent, &c.: but the author does not recollect a single example of the means in question having effected a permanent cure, where the intermediate aperture had been the result of sloughing.

"The practice of bringing the edges of such breaches of continuity together, and connecting them by means of ligatures, has in like manner very seldom been attended with success. The author does not wish to attach to either of these modes the discredit of having universally failed. But he is very much disposed to believe that in by far the greater number of cases in which they are represented to have been successfully employed, either the injuries for which they were used were trifling as to the magnitude of the original wound, or else the wound had been the effect of penetration by an edged or angular portion of fœtal bone, rather than of long-continued pressure and contusion; or, finally, the incontinence might be the result simply of reduced power, or possibly of reduced substance of the sphincter of the bladder, rather than that of a communication between the bladder and the vagina, in consequence of any variety of solution of continuity. A well-adapted globular body of proper size to admit a suitable part of its convex surface to be accurately adjusted to the boundaries of the aperture; capable also of some modification of its figure for the greater convenience of introduction and adjustment; readily chargeable with air

for the purpose of distention, but nevertheless admitting of being made perfectly air-tight; so smooth on every part of its surface as to be easily tolerated when applied to the parts intended even in their most tender state: such an instrument might in many, perhaps in the majority of cases of intercommunications between the bladder and the vagina, be safely recommended, as a means of relief or mitigation of the distressing evils consequent upon the accession of so grievous a calamity. But no mechanical contrivance, nor any mode of management that has hitherto been proposed or adopted, can be relied upon as an absolute remedy." (P. 127.)

The various diseases of the vagina are clearly detailed, and the respective methods of treatment recommended upon sound and scientific principles.

The attention of the reader is earnestly directed to one very important part of this section, viz. on "hernial protrusions of intestines forming tumors within the vaginal passage." The necessity of discriminating between hernial and other tumors is great; not only the patient's comfort, but her life, might be sacrificed by an error in this respect. The importance of this branch of his subject has not been overlooked by Dr. D., who has consequently devoted a large space to the consideration of it.

Cystocele, or hernia of the bladder, is not frequently met with: it may take place either independently of, or connected with, pregnancy. If it occur at the time of labour, care must be taken thoroughly to evacuate its contents, and to endeavour to return it to its natural situation, by making steady pressure with two fingers, in the interval of the pains, so as to push it up beyond the head of the child, and keep it out of the way of pressure. The different kinds of cystic protrusion are described at length in the work before us.

The anatomy and function of the unimpregnated uterus form the next subject for consideration, and several curious cases of precocious menstruation are given on the authority of different writers. It is a well-known fact that menstrual evacuation generally makes its appearance when the female has arrived at the age of fifteen, or thereabouts, and that its cessation takes place at about forty-five; but Dr. Davis transcribes a case from the Transactions of the French Academy for 1768, which exhibits a remarkable deviation from the general rule. The subject of the communication was ninety-one years of age, and was then "subject to the ordinary evacuation of her sex;" and this discharge had continued regularly since the age of seventeen, excepting the periods of gestation and lactation, for she had borne and suckled twelve children. We quite concur in the opinion

that "genuine menstruation has really never existed during gestation," although similar discharges of blood are by no means uncommon during that period, and are often the precursors of premature delivery. The following explanation is, to say the least, very ingenious.

"If the uterine branches of the internal iliacs be in a state of extraordinary fulness and development during gestation, is it not to be expected, nay, is not the fact obvious and undeniable, that its great sister branches, the vaginal arteries, should also sustain if not an equal, at least a very great enlargement of their capacity? It has been already seen how numerous are the inosculations of the several branches of the uterine epigastric arteries. Certain channels from a general reservoir being obstructed and securely made up, is it not perfectly intelligible, how other channels not similarly guarded may be made the subjects of new determinations and of unusual pressure of momentum, so as occasionally to be forced to yield to the extraordinary impetus made against them, and thus become the seats of transudations and floodings of similar character, and perhaps of not inferior importance to those of their contiguous and more considerable channels before the date of their supposed security? Such, in fact, is the explanation of the sanguineous discharges, at least when actually periodical, which take place during pregnancy. The natural outlet of the uterus is made up and fortified. No discharges can therefore take place from the arteries which administer to the operations carrying on within its cavity, without a violent removal of the flood-gate or plug, which nature has thrown across the narrow passage out of it." (P. 254.)

The supposed causes of menstruation are detailed at large. In a practical work, such unprofitable speculation should be avoided as much as possible; its only use (if use it may be called,) being that of increasing the size of the volume.

The disordered conditions of this function form very interesting and necessary objects of study. Every practitioner of midwifery knows the importance which is attached by females to the regular performance of the menstrual secretion, attributing in fact every ailment which they may at the time experience to the absence of it. This opinion has been productive of great mischief, inasmuch as it has led them to trust to empirical remedies, with the express intention of forcing, or "bringing down," as they term it, this discharge; whereas, in a very large majority of cases, if a proper investigation be had recourse to, it will be found that the absence of the catamenial flow is not the disease itself, but a mere symptom of it, and that consequently, in our curative attempts, the uterus must by no means be the only organ to which attention is to be directed.

In profuse chronic menorrhagia, the condition of the liver ought to be carefully inquired into; a free flow of blood through which is so necessary to the preservation of the healthy balance of the circulation. Congestion in this organ is the well-known cause of some of the worst cases of hemorrhoids, and we believe many long-continued discharges of blood from the womb may also be attributed to the same cause.

Dr. Davis's remarks on dysmenorrhœa and leucorrhœa deserve a very careful perusal. Many instances are related, showing the ill effects of suddenly suppressing leucorrhœal discharges which have existed for any length of time, and clearly proving the necessity of having recourse to internal in addition to topical measures of relief. The difficulty of distinguishing leucorrhœa from gonorrhœa is noticed, and we entirely agree with the author's conclusions; and, as the peace and happiness of families not unfrequently depend upon the opinion given by the medical man concerning the nature and cause of the discharge, we shall transcribe them for the benefit of our readers.

"It has been often a great desideratum in the profession to establish a satisfactory diagnosis between the matter of gonorrhœa, the known or suspected result of impure sexual intercourse, and the produce occasionally of some of the severer forms of leucorrhœa. It has been supposed that the accession of an irritating discharge from the vagina in a case never before the subject of any discharge at all, supervening upon a sexual congress, within the usual time and after the usual manner of a gonorrhœal affection, could be no other than the actual result of infection from that source. But it is a well-known fact, that the mechanical irritation attendant upon the first conjugal embrace is sometimes followed by a leucorrhœal secretion so abundant, so painful in its accompaniments, and in all respects so similar in its sensible properties to the matter of virulent gonorrhœa, as not to be distinguishable from it. The author has known many married ladies, the wives of perfectly healthy husbands, who were never subjects of leucorrhœa before marriage, and who have never been free from it subsequently. It has been a notion of some writers that gonorrhœa alone is accompanied by extreme phlogosis of the surfaces forming the vaginal orifice, and especially by the symptom called ardor urinæ. Both these statements are unfounded in fact. De Graaff, de Mulier. Organ. p. 140, supposes that we may distinguish fluor albus from venereal gonorrhœa by the respective localities of their sources; the former deriving its origin from the uterus, and the other being exclusively produced by a morbid secretion from the surfaces which form, or are immediately within the genital sulcus; as those of the external orifice of the vagina, of the external orifice

of the urethra, of the clitoris, nymphæ, &c. In refutation of this opinion it need only be observed, that the surfaces just enumerated are liable to inflammatory affections, not to be distinguished in their appearance from similar conditions of parts produced by gonorrhœal infection, though certainly never exposed to the action of that virus, and often perfectly well known to be the results of other causes of irritation. Authors have sometimes attempted to discover the means of a diagnosis between the discharges incident, respectively, to gonorrhœal and leucorrhœal inflammations of the mucous membranes of the genital surfaces, from supposed differences in their colour, odour, density, and quantity. Baglivi, Prax. Medic. lib. ii. cap. 8, art. 3, propounds, as a principle of diagnosis in these cases, the assumed fact, that the leucorrhœal discharge ceases during menstruation, and *vice versa*. The experiments of Swiediaur and others, and the experience generally of the profession, and especially of accurate modern surgeons and pathologists, have abundantly proved the futility and unsatisfactoriness of all these distinctions." (P. 349.)

The propriety of "general bleeding" for the cure of leucorrhœa may very fairly be questioned; for, even in cases which are attended with an inflammatory state of parts, it will commonly be found that the profluvium itself is quite sufficient to relieve it; and, if not, the application of leeches is a preferable method.

After noticing the different hypotheses respecting the nature of hysteria, Dr. Davis very justly remarks:

"The most characteristic phenomenon incident to this remarkable disease is that of the convulsions by which its subjects are agitated. Were all its other properties to present themselves at the same time in the same individual, unaccompanied by this, they would scarcely be recognised as constituting a case of hysteria. If we examine closely the character of the greater number of premonitory, concomitant, and consecutive symptoms of an attack of hysteria, we shall not find it difficult to refer a very considerable proportion of its phenomena to the head as their principal source, the disturbances manifested by the thoracic and abdominal viscera being almost always consequences of the violent spasms which characterize the malady.

"If to that consideration we add that many subjects of hysteria, in its most violent forms, are often remarkable for possessing, during the intervals between its paroxysms, a good state of their chylopoietic functions, and that they exhibit the appearance of excellent general health, with much freshness of complexion; that the ordinary consequences of hysteria, when, after becoming a disease of many years' duration, such consequences follow, are most frequently lesions of the understanding, of the senses, and of the organs of voluntary motion; that, at the commencement of the malady, the organs of nutrition rarely exhibit any remarkable dis-

orders of a permanent character; that hysteria has sometimes been seen complicated with epilepsy and catalepsy; that a great proportion of the causes of the disease are intense moral affections: if all these circumstances are really as they are stated, then is the hypothesis which refers the disease to derangements of the cerebral system as its principal and primary source, obviously entitled to much consideration. But, although hysteria might very truly have for its source certain morbid conditions of the brain and spinal marrow in the first instance, it is nevertheless a fact of so little importance, that in the sequel the viscera of the thorax and abdomen become frequently seats of lesions deserving of the most serious attention of the physician." (P. 398.)

And again,

"The hypothesis of its origin in some morbid but unknown condition of the cerebral system, may perhaps upon the whole deserve to be considered as the most probable. The reader, however, will be kind enough to observe, that all the speculations which have yet been offered on the subject have amounted to little more than to simple statements of opinions." (P. 400.)

The effect of a very powerful impression on the mind in preventing a fit of hysteria does not pass unnoticed, and the following curious circumstance is related from Boerhaave:

"In the poor's-house in the city of Haerlem, a young girl, greatly terrified, fell into a violently convulsive disease, which returned in successive paroxysms. One of the spectators and assistants, perhaps the most devoted to the performance of her friendly offices to the patient, was seized by the same disease. On the following day another was seized in the same way, and presently a third and a fourth, and at length nearly all the occupants of the ward, boys as well as girls. A most miserable state! observes the learned reporter of the scene. One was seized here, a boy; another was seized there, a young female. The one observed the fate of the other, and all, or nearly all, became prostrate together. The most skilful physicians had recourse to the exhibition of the most approved anti-epileptic medicines in vain. It was at length determined to seek the assistance of the celebrated Boerhaave, who, pitying the unhappy lot of the pauper establishment at Haerlem, was induced to go over to pay it a visit. On examining into the matter, he observed that, on the invasion of a paroxysm of the disease in the case of one of the patients, many others were immediately seized with similar convulsions. The best remedies having already been exhibited in vain by very intelligent practitioners, who had very duly recognised the ordinary influence which the imagination seemed to have exerted in propagating the malady from one person to another, that eminent physician nevertheless believed that, by restraining the operation of that influence, he might still be able to obtain a cure; and he did obtain a cure.

The magistrates of the city having been privately advised of his intention, and being all assembled, he ordered portable furnaces to be placed in different parts of the gallery, and strong fires to be kindled in them, and to be well fed and kept up by the most rapidly burning firewood. Into these furnaces he then ordered iron hooks of a particular shape to be thrust, in order to be made red hot. When all was ready, he spoke loudly to the following effect: 'Since all other means have fallen short of our object, I know of only one more remedy to propose, which however I expect will prove an infallible one, viz. that of applying one of these red-hot implements to the naked arm, and carried down to the bone of the first young man or woman who shall be seized with a paroxysm of this cruel disease.' As the whole of this address was enunciated with the utmost gravity, the inmates of the establishment were one and all much terrified, and stood aghast at the idea of a remedy so barbarous. The stronger impression, the fear of the pain of being burnt, prevailed over the influence of the extraordinary sympathy which had hitherto been competent to propagate the disease; and no person, either male or female, became on that occasion the subject of a paroxysm." (P. 421.)

Dr. Davis's treatment is upon the whole judicious, though we are no advocates for the abstraction of blood to the amount of from "twenty to five-and-thirty ounces" in any case; and, in by far the greater number of instances, venesection is not required at all, the tumult of the circulation being more readily subdued by what are usually termed antispasmodics. The state of the bowels should be carefully attended to, as hysterical paroxysms may be caused simply by an accumulation of fæces in the larger bowels.

The subject of nymphomania is discussed at very tedious length, and in a way not calculated to reflect much credit on the author. The chapter consists almost entirely of a tissue of indelicate (might we not say indecent) tales, which we should be very sorry to see transcribed on our pages, and therefore shall at once dismiss the topic.

We shall take leave of Dr. Davis for the present, intending in future to notice the different parts as they are published.

Outlines of Botany; being a Practical Guide to the Study of Plants. By G. T. Burnett, Professor of Botany in King's College, &c. Nos. I. to XI. London. 8vo. pp. 390.

This work differs essentially from any hitherto published on the subject; at least, from all that we have seen. As regards botanical science, the plan may be considered as original; and the advantages of such a scheme being confessed by zoologists, it is only surprising that it has not long since been introduced into botany. In studies so extensive as the several departments of natural history, subdivision is obviously of the utmost importance: hence zoology, botany, &c. were soon distinguished and acknowledged as separate sciences. In zoology further natural subdivisions were speedily introduced; birds, insects, reptiles, and fish, being distinctly studied, and their anatomy, physiology, and habits constituting the materials of the subordinate branches, called respectively ornithology, entomology, herpetology, and ichthyology: and thus the confusion was avoided which would have been the necessary result of studying without such distinctions the structure and the functions of the whole.

In botany, on the contrary, the systematic distribution being rather more artificial, and the great natural groups, although for the most part acknowledged in name, being in general neglected in reality, the study of plants has been considered as a single science, and often thought to be indivisible, because it has not been usual to subdivide it. It is true that partial efforts have been made to distinguish it into subordinate departments, equivalent to the subordinate branches of zoology; but although some groups, as the mosses, fungi, &c., have been occasionally treated of separately, as the subjects of the secondary sciences, muscologia, fungologia, &c., the present is the first work in which this scheme has been attempted to be carried through the whole vegetable kingdom.

The scheme of the work having our approval, the execution must form the next subject of consideration; and we confess that, notwithstanding the favourable prepossessions the plan had excited in our minds, we have read the first eleven numbers with mingled feelings of satisfaction and displeasure, in which, however, the former most decidedly predominate. With the matter we have no fault to find, but the style is peculiar, and formed upon a model long since obsolete. This is chiefly evident in the first fasciculus, which, as we are informed in the preface, was originally delivered as an intro-

ductory lecture: but we would suggest to Mr. Burnett, that many sentences flow freely from the speaker's mouth that read uneasily when found in print. For example, take the following passages, which are certainly too abstract for the simple introduction which these Outlines profess to be. It is indeed the bane of science, that the initiated so soon forget the difficulties which they have surmounted.

"(16.) Plants are the subjects of botany; their attributes the objects of the science: hence, two schemes of study, the subjective and the objective, lie before us; each of which may be pursued in opposite courses; *i. e.* either by analysis or synthesis, whence the anterior and posterior arguments result; between these the selection must be made. The former descends from generals to particulars, the latter ascends from effects to causes; that being essentially more abstract, this more practical in its course. Each has advantages peculiarly its own; hence, both should in turn be studied, and neither exclusively neglected or pursued. But, as the anterior argument requires much antecedent knowledge, while the posterior can trace back from none, that being the fruits of learning, while this is the means to learn; although the first is the most comprehensive, the last is the most familiar, and hence it is that with which we shall commence our labours.

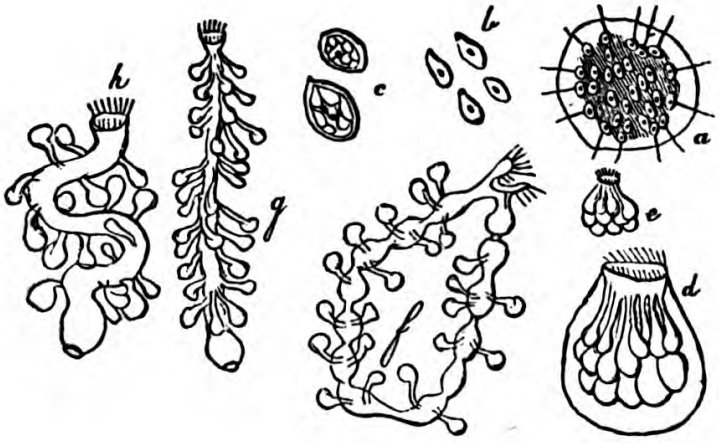
"(17.) Although differing essentially from the usual schemes of investigation, synthesis shall here precede analysis, and the subjective now be made the forerunner of the objective view; for it seems advisable, at least occasionally, to commence with a practical demonstration of plants as they are found to exist in nature; and to show their positive characters before comparisons are instituted between them and the other kingdoms of the organic and inorganic worlds: in fact, first to have materials to compare before comparative views are taken. Hence, after giving a general conspective glance at the whole, it is proposed to demonstrate the special structures, functions, properties, and uses of each succeeding group of plants, from the lowest to the highest grades; and this before any general views or comparisons are instituted, even between the varied developments of equivalent organs, as pervading the whole vegetable kingdom, and much before any are made between the different, and often essentially diverse, constitutions of the adjacent animal and inorganic reigns."

Having now discharged the disagreeable part of our duty, which we always like, when possible, to get through first, the path is free for us to discuss those points which have our approbation, and to cull examples to justify our expressed opinion. We shall pass by the introductory sections, and extract the commencement of the General Outline:

"(25.) In the ocean, in rivers, and especially in stagnant water, as well as in many damp situations on shore, myriad of minute animals and plants exist, which for ages were utterly unknown; or, if noticed, were mistaken for the foam of the waves, or the exuviæ of the bodies amongst which they abound.

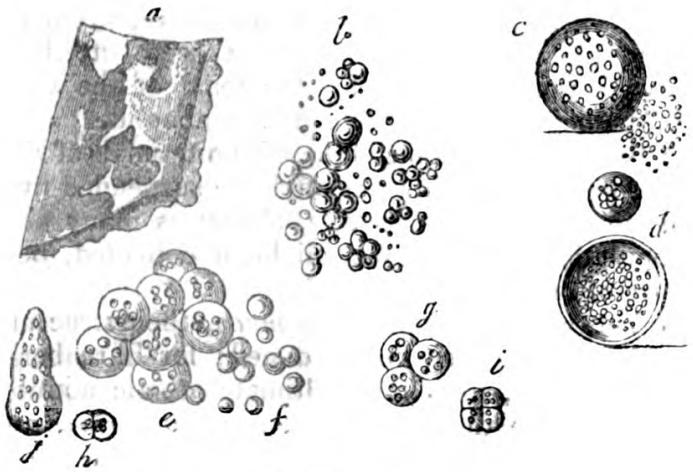
"(26.) So minute are some of these infinitesimals of vitality, that, in a drop of water, it is said there might be suspended five millions; and eight hundred millions, that is, almost as many as the entire human population of this globe, might, if collected, be contained in the space of one cubic inch.

"(27.) Yet, small as are these *monads*, their structure is by no means so simple as is their bulk reduced; for Ehrenberg describes those species which, from their ultimate atomic minuteness, and resemblance to fine dust, have been called *termo*, *atomus*, and *pulvisculus*, to possess each from four to six, and in the atom many stomachs; and, furthermore, in the allied genera,* he has counted no fewer than from one to two hundred stomachs: *i. e.* from one to two hundred internal sacs, or digesting pouches, into which coloured fluids have been seen to pass; and in many others, these organs are equally elaborate, and the collateral structures curious in the extreme.



"(28.) The most minute vegetables, however, which have been as yet discovered, are much less complex in their structure than animalculæ are found by zoologists to be; for these, in the lowest grades that have been accurately examined, appear to consist of simple cells, or threads, [vid. § 41, 47, 121, &c.] either free or springing from a slimy film, and which, although frequently associated, and often in contiguity, appear, in many cases, to have no necessary connexion with each other.

* Cyclocæla, Orthocæla, Campylocæla, and Paramæcium. From Ehrenberg's monograph on Infusorial animalculæ.



(*a*) Masses of Globulina botryoides, (Turpin.)
(*b*) Groups of plants removed and magnified: globules, some free and some uniting.
(*c*) A single parent cell, in which many smaller cellules are contained, and from which some have escaped. Also a young cell, in which they are just beginning to appear.
(*d*) Section of such a cell, to show the parental attachment of the young.
(*e, f*) Groups of cells and cellules, more or less connected or distinct: the younger opaque, and becoming transparent by extension.
(*g, h, i*) Cells united, and the form more or less changed by their union and compression.
(*j*) A distorted cell, probably formed of several united, their intervening coats becoming obliterated.

"(29.) Allied to these simplest plants and animalculæ are certain ambiguous beings, which, on the verge of both kingdoms, seem to belong indisputably to neither: for in them some of the most distinctive characteristic signs of animals and vegetables are so conjoined, that at times they would appear to be both, and again indifferently either. Thus, their germs take root and grow like ordinary plants, while the fruit they bear seems to be possessed of voluntary motion, and to pass, in its development, through a stage of animal existence, before it, in its turn, takes root, and bears another generation. *Zoocarpes*, or *fruit animalculæ*, are the names which, not improperly, have been given to these connecting links of the animal and vegetable reigns.

"(30.) Through these neutral tracts, which, while they bound, connect both kingdoms, the oft-disputed line of demarcation runs. From such obscure and debateable beginnings, plants and animals, as the dominion of each is on either side confirmed, gradually become less questionable in their forms, and assume their more essentially diverse structures. At this utmost verge of the vegetable domain, the present demonstration shall commence." (P. 25.)

The nine classes into which Professor Burnett has distributed the vegetable kingdom nearly coincide with those

which are popularly acknowledged, and which are admitted by most writers on the subject. They are, 1, the Flags, or Algæ; 2, Mushrooms, or Fungi; 3, Mosses, or Musci; 4, Ferns, or Filices; 5, Grasses and Sedges, or Gramina; 6, Palms and Lilies, the Palmæ and Lilia of Linnæus, forming the Palmares of our author; 7, the Pines and Zamiæ; 8, the Angiospermous Dicotyledonous Plants; 9, the Flowering Cellular Plants, such as the Rafflesia.

In the general outline a short sketch is given of each of these nine groups, the fuller descriptions of which will form the contents of the subsequent fasciculi. We doubt not that others besides ourselves have long been convinced of the necessity of reducing the very numerous natural groups called *orders* or *families* of plants, which, from the fifty-eight of Linnæus, and the hundred of Jussieu, have in modern times been increased to upwards of two hundred and fifty: for their very number has become oppressive, and the orders are themselves in a very confused and disordered state. For example, no two persons agree in their succession, or other disposition, and as little concord is found in their extent; the *Rosaceæ*, *Amentiferæ*, &c. of one writer being five or ten times larger than groups of the same name in another. This, which is the natural result of a progressing science, and the subordinate distribution of the first acknowledged general orders, becomes perplexing to the student, not only from the diversity of extent, but also, and still more so, from the several grades of analysis and synthesis having no signs in their denominations by which they can be distinguished from each other. We know not whether the scheme of nomenclature here proposed will be generally adopted, but it appears to us to have been one of the simplest that could have been devised, and changes as little as possible the names already given to the various groups. The terminations which are now indifferently affixed to the distinctive title of an order, whether of primary, or secondary, or tertiary magnitude and importance, are appropriated by Professor Burnett to the several major and minor groups. Thus, for example, the order *Rosaceæ* in modern systems has been subdivided into the orders *Rosaceæ*, *Pomaceæ*, *Amygdaleæ*, *Dryadeæ*, &c.; the order *Amentiferæ* into the *Cusculiferæ*, *Betulineæ*, *Salicineæ*, &c. Now it is clear that these terminations might easily be made distinctive of larger or smaller groups; just as, in chemical nomenclature, the terminations are distinctive of different acids; *e.g.* the sulphur*ous* and the sulphur*ic*, &c.

As the majority of the orders at present established termi-

nate in *aceæ*, our author proposes that all of them should do so, which may be effected by calling the Butomeæ *Butomaceæ*, the Irideæ *Iridaceæ*, and so on. The larger collective groups, which very frequently, in Professor Burnett's arrangement, almost coincide with the *orders* of Jussieu and Linnæus, are distinguished by the termination *inæ:* thus, the section Acorinæ includes the subsections (or types) Callaceæ, Orontiaceæ, and Lemnaceæ; the section Alisminæ contains the subsections Juncaginaceæ, Alismaceæ, and Butomaceæ; the section Scitaminæ contains the subsections Zingiberaceæ, Marantaceæ, and Musaceæ; and so of the rest. The larger groups, in which the sections again are collected, are known by the names terminating in *ales;* as, for example, the Cyperales.

It would be very easy to find fault with any professedly natural arrangement reduced to such a seemingly artificial state; but, on examination, it will be found that the larger associations are not, in comparison, at all more arbitrary or artificial than the smaller ones, which are the most natural that have been hitherto devised: and thus great simplicity has been given to a subject which has often with justice been considered difficult and complex. This is therefore one of the features in the present work with which we are the most pleased, and which has our hearty commendation; for we must remind our readers, that no such thing as a *really* natural system exists: it is a mere chimera, a beau ideal, which it is well to contemplate in the imagination; but all associations of plants beyond species are more or less arbitrary, and merely conventional assumptions not known to Nature, though essential to her student. Nothing indeed can be more artificial than many genera, which are often dwelt on as being the most natural of all the collective groups, while, on the contrary, they are frequently less so than the more comprehensive classes, orders, and sections in which they are contained: for example, take the generic distribution of the seaweeds, the liverworts, the true mosses, the ferns, the grasses, the sedges, the palms, and other petaloid monocotyledons, or almost any of the larger groups,—who does not recognize the more general affinities, while the subordinate distinctions are frequently faint, and made out with difficulty?

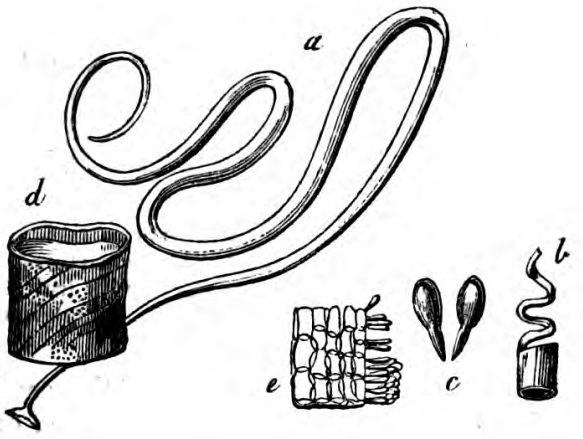
The second fasciculus of Professor Burnett's work contains outlines of Algologia, in which the Algæ, or Flags, *i.e.* the *Confervales*, or articulate flags, the *Fucales*, or inarticulate ones, and the *Lichenales*, or aerial algæ, are treated of in succession. Each of these subdivisions contains an "account of the structure, functions, systematic arrangement, geogra-

phical and geological distribution, medicinal, dietetic, and other uses," with historical and critical notices of the plants in question.

Although more collateral knowledge is here condensed than is usually admitted into botanical works, still, from each great natural division of the vegetable world being separately described, the subjects are mastered with much more ease than when dry systematic details form the unvaried topics of *one* work; the anatomy and physiology of the whole vegetable kingdom the subject of another; while the geographical and geological distributions, the uses, &c. of the successive groups are often treated of cursorily, if not altogether disregarded. The following extracts may enable our readers to form some opinion of the manner in which this plan has been executed:

"(264.) DICTYOTACEÆ. The sea networks, forming the first type of this section, are well characterised by the beautifully reticulated texture of the tegument, whence indeed the name *Dictyotaceæ*, which has been given to the group, from its normal genus *Dictyota*. The fronds are of various forms, but in all, excepting *Halyseris*, the sea-endive, ribless; and the conceptacles are pellucid, inclosing the sporules, which are for the most part produced beneath the epenchyme.

"(265.) The Peacock's tail, or *Padina pavonia*, affords a beautiful example of this section; but *Chorda filum*, sea-whiplash, or sea-catgut, is perhaps a more familiar instance. This plant is often found thirty or forty feet in length; and Lightfoot says, the Highlanders twist it, when skinned, into fishing lines; and so abundantly does it sometimes grow, that, as Mr. Neil declares, it is with difficulty a pinnace can make its way through oceanic meadows of this weed.



(*a*) Chorda Filum. (*b*) Portion of frond artificially unrolled to shew its spiral structure. (*c*) Spores magnified. (*d*) Portion in fructification. (*e*) Section, to shew internal structure.

"The frond of this cord-like flag is hollow within, and the channel interrupted at short distances by transverse partitions, the use of which, according to Colonel Stackhouse, is to confine the air, or elastic vapour, to certain spaces; so as to act like swimming bladders and increase the buoyancy of the plant, which extends itself to such an amazing length, and always shoots upwards to the surface.

"(266.) The smell of (Halyseris) the sea-endive, the only genus with a ribbed frond, is said to be, 'when fresh gathered, extremely powerful and disagreeable.'

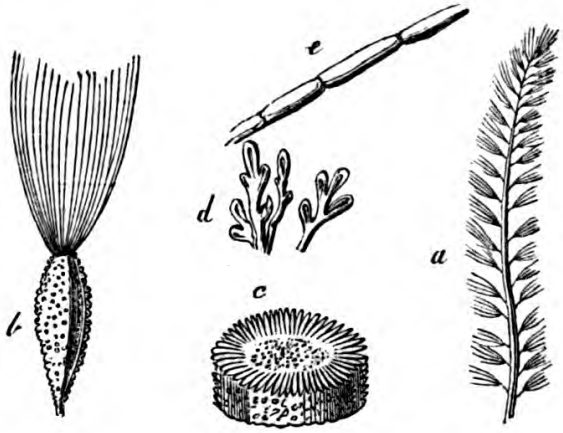
"(267.) *Chordariaceæ.* The *Chordaria*, or sea-whipcord, which differs from all other Algæ by its *solid* filiform cylindrical frond, even although the fructification is very imperfectly known, has been arranged in a separate section by Greville, who thinks 'its singular structure removes it from all the other orders;' and hence it is the only known example of the *Chordariaceæ*, or twine-wracks.



A. MACROCYSTIS PYRIFERA. B. LAMINARIA BUCCINALIS. (*a*) Transverse section of stem. (*b*) A portion magnified, to shew structure. C. CHORDARIA FLAGELLIFORMIS. (*c*) Transverse section of frond, with fruit. (*d*) Fibres and sporidia. (*e*) Spores still further magnified. (*f*) Longitudinal section of frond magnified.

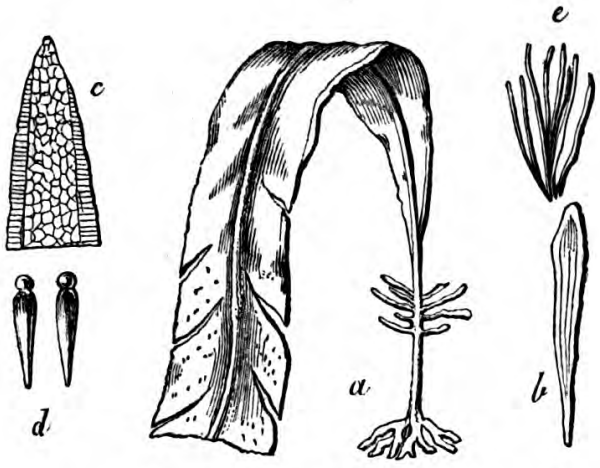
"(268.) *Sporochnaceæ.* Another type of this section, the *Sporochnaceæ*, which contains the genera *Sporochnus*, or scatter-tuft, *Dichloria*, or changeling, and a genus named in honour of Desmarest, *Desmarestia* or *Desmia*, is chiefly characterised by bearing little tufts of fine green filaments on the fronds, but which are deciduous

in some, and not yet observed in all the species. The fructification is collected in tubercles, either stalked or sessile. These plants, which are all marine, and of an olive or yellowish green colour, although they do not change to black in drying, become flaccid on exposure to air, acquiring a verdigris colour, and then possess the curious property of rapidly decomposing other delicate Algæ in contact with them.—*Grev.*



(*a*) SPOROCHNUS PEDUNCULATUS, natural size. (*b*) A receptacle terminated by its tuft of filaments. (*c*) Section of the receptacle. (*d*) Filaments with their fertile summits. (*e*) Portion of a filament of the receptacle.

"(269.) The sea-belts, or sea-girdles (*Laminaria*), the murlins, honey-ware, or bladder-locks (*Alaria*), with the interminable (*Macrocystis*), [§ 267, fig. A.], or bladder-thread, form, with a few other allied genera, such as *Durvillæa*, *Lessonia*, and so forth, a very natural and well-marked type, called, from their flattened



ALARIA ESCULENTA. (*a*) Immature frond. (*b*) Fructiferous leaflet of a mature plant. (*c*) Section, to shew internal structure. (*d*) Spores. (*e*) Filaments issuing from minute pores in the frond. *Grev. Alg.* iv.

form, and from *Laminaria*, or tangle, the name of the normal genus, *Laminaceæ*, or tangle-wracks; by Bory St. Vincent and Greville they are denominated Lamina*rieæ;* this termination, however, as in the other cases where a similar alteration has been made, is only changed from the manifest expediency of designating similar grades of analysis by somewhat similar words.

"(270.) The *Laminaceæ*, or tangles, are all marine, and their structure densely fibro-cellular; the fructification is collected in *sori* on the surface of the frond, which rises from a more or less divided rhizoma, and forms a longer or shorter stipes terminating in a plane expansion, either entire or divided; and sometimes ribbed. These plants are chiefly coriaceous, occasionally membranaceous, and become but little changed in hue on exposure to the air." (P. 115.)

"(424.) The distribution of the Lichenales chiefly assumes a topographical rather than a geographical interest. This will already have become apparent from the notices of stations so frequently introduced, and by which they have been shewn to become such admirable guides in the distinction of some of the officinal barks; and moreover, indexes of the states of their preservation: their general statistics will be found, however, not wholly unworthy of attention.

"(425.) The whole number of known species of this order has been estimated by Fee at between two and three thousand. This, however, is probably too high a sum, even including the Byssinæ, many computed by him being only varieties.

"(426.) Geographically considered, they are, in the first place, aerial plants, and their range is most extensive: proceeding either from the poles, or descending from the polar heights of hills, they are found to be first heralds of life, encroaching even on the confines of perpetual snows, vegetating at a temperature below the freezing point; and they cease not to struggle against every impediment to vegetable growth, for they flourish even among the burning sands of *Africa*, and in the hottest and driest regions of the torrid zone. Wherever light comes Lichens grow, but they are rarely produced in obscure places. When deprived of light they degenerate in their forms, and it is the lowest section only, viz. those approaching to the Fungi, that vegetate in the dark. So little is heat regarded by these plants, that when utterly parched, by months of drought, they revive when rain returns; and even if hot water be poured over them, they are not destroyed. Heat seems rather to favour the development of their fructification, for in the hottest and driest places their apothecia the most abound.

"(427.) With regard to the general geographical distribution of the European Lichens, and no others have been hitherto studied with sufficient minuteness to allow generalizations to be made, Fries gives the following summary account. In the southern parts of Europe, on the shores of the Mediterranean Sea, there are found several species of tropical genera, which likewise occur in the warmer regions of America; such as *Chiodecton* and *Dirina*.

From this southern district, it is believed that other more northern Lichens are absent; such as *Parmelia tartarea*, the *Umbilicariæ*, &c.; while *Evernia villosa*, *Ramalina pusilla*, *Cladonia endiviæfolia*, and many *Parmeliæ*, are present. The *Graphidaceæ* are also here abundant.

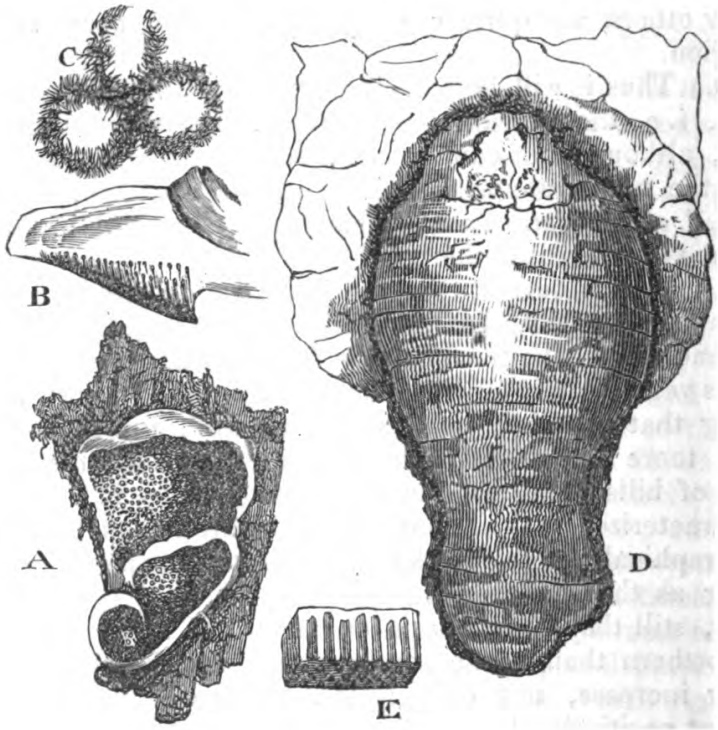
"(428.) Along the whole western coasts of the Atlantic, even from the south of Spain to Finmark, many of the same Lichens are common; such as Ramalina scopulorum, and various Strictæ and Parmeliæ: the moist atmosphere and more agreeable temperature of a maritime station favouring the extended range. This tract, however, may be subdivided into northern and southern regions: in the latter, the *Roccella tinctoria*, *Sagedia aggregata*, and numerous *Verrucariæ* and *Graphidaceæ* are found; in the former, *Parmelia gelida*, *Biatora atrorufa*, and the *Umbilicariæ*, predominate.

"(429.) In the Arctic regions, as in Iceland, and especially in the alpine parts of Lapland, the *Cetrariæ* and *Cladoniæ* prevail: the former flourishing on the tufa and volcanic scoriæ; the latter clothing an otherwise barren soil, even from the sea-shore to the summits of the mountains. In these districts, *Evernia vulpina*, and many other lichens, cease to grow; as the Calicia do in warmer regions: for Fries observes, that in the tropics these last-named lichens are unknown. *Usnea barbata* and *Cladonia pyxidata*, and a few others, are quite cosmopolites, for they occur in almost every region.

"(430.) Thus it will be perceived, that the Phyco- and Myco-Lichenes, *i. e.* the *Verrucarinæ*, with a large proportion of the *Byssinæ*, although not confined to, predominate in the southern parts of the temperate zone; while, on the contrary, the Byro-Lichenes, *i. e.* the *Cetrarinæ*, become most abundant in those regions that verge towards the pole.

"(431.) Fries observes, that the *Verrucarinæ* are so numerous in the southern regions, that it would almost seem as if the excess of heat had driven the tribe to take refuge under the epidermis of trees. As vegetation is far less luxuriant towards the north, it is not surprising that epiphytic lichens become rare, and at last wholly cease, in more and more northern regions, and on the northern altitudes of hills; and that the saxicolous species, in a great measure, characterize, by their abundance, the arctic zone. Although the geographical range of the lichens is thus most extensive, spreading as they do over the whole earth, from the equator to the poles, still they should seem on the whole to be plants rather of the northern than of the southern regions; for their numbers gradually increase, not only relatively, as compared to other plants, but positively also, in the higher latitudes, until at length they remain alone—the last which yield to the exterminating power of cold. The properties likewise which they possess, seem to be more fully developed in the northern than in the temperate and torrid zones." (P. 171.)

"(668.) Several of the Polypori are possessed of more or less important medicinal virtues. *Polyporus igniarius* has long been famed as a styptic; *P. annosus* is reported by the Swedish peasantry to be a cure for snake-bites; and *P. officinalis* is enumerated by the Germans as one of the articles in their extensive list of vegetable medicines: its action is cathartic. Amadou, or German tinder, is made from the *P. igniarius*, by separating the porous hymenium from the harder parts, and steeping it in a solution of nitre, after it has been beaten into a soft and spongy state. Various other species of Polyporus, besides the igniarius, as the *hispidus*, &c., retain fire when dry, and are also collected and used as amadou. The Laplanders have long been in the habit of employing these, and other fungi, for the same purpose, and in a similar way, as the natives of Japan and China do the moxa. Whenever they suffer from pains in their limbs, they bruise some of the dried fungus, or amadou, and, pulling it to pieces, put a small heap of it on the part nearest to the seat of the pain. It is then set on fire, and, burning away, it blisters the skin; and, although some persons may think it a coarse and rough method of treatment, it is generally a very successful one. *Polyporus suaveolens* has a smell like that of aniseed, and it is one of the few luxuries of Lapland. Linnæus says that the odour is there so much admired, that the young men carry it



POLYPORUS OFFICINALIS. A. Two Polypori growing together, and reversed, to shew the inferior porous hymenia. B. Section, to shew the receptacle and pores. C. Transverse section of pores, shewing the numerous asci. D. Entire plant, front view.

about them when they visit their mistresses, in order to render themselves more agreeable.

"(669.) It is not unlikely that other species of Polypore may possess useful properties, or might be resorted to as the sources of valuable drugs. From *P. dryadeus* (the old *Boletus pseudo-ignarius*), Braconnet obtained his boletic, and from *P. squamosus* his fungic acid; and from *P. sulphureus* Dr. Scot, of Dublin, and Drs. Greville and Thompson, of Edinburgh, have procured oxalic acid and bin-oxalate of potash. Mr. Purton had previously noticed the pungent acid taste of this fungus, and especially of the porous part; and I once found an enormous mass of it, like that described by Dr. Greville, on an old willow-trunk in Kensington Gardens, which, while drying, became covered thickly, as if frosted over with a white salt, the bin-oxalate of potash, some of which, with part of the fungus, I now have by me." (P. 248.)

The woodcuts with which Professor Burnett's book is illustrated, and with several of which the publisher's kindness has allowed us to adorn our pages, will most materially facilitate the progress of the young botanist. In a word, the work is an excellent one, and deserves, not a superficial perusal, but the deepest study.

Observations on Injuries and Diseases of the Rectum. By HERBERT MAYO, F.R.S., Surgeon to the Middlesex Hospital. London, 1833. 8vo. pp. 220.

WE have often thought that the most agreeable moment in a professional man's career is that in which he receives the appointment of physician or surgeon to a metropolitan hospital. Opportunities of boundless improvement are placed before him, and a thousand cases of undefined disease await but the approach of a master-mind to show that their phenomena are as regular as those which physiology presents, and that what is called an anomaly in nature is merely a law not understood. When compared with the occasions of undisturbed study ever offered to the hospital practitioner, all others appear like hasty snatches of instruction, tolerated indeed, but not encouraged; and, should the healing art ever rise to the dignity of a science, it will be to these fortunate students of nature that it will be indebted for its elevation. Whoever therefore is invested with this important charge, should be considered as pledged to the advancement of the art which he professes; and we cannot be thought unreasonable in requiring that a man who has had a myriad of important cases under his care should teach us the diagnosis of some obscure disease, or the method of palliating the effects of some incurable disorganization; that he should

either clear up some great truth, or at least pave the way for it, by exploding some long-established error. This pledge Mr. Mayo has redeemed; and, though it should be objected that so short a treatise is rather the outline of a book than a book, it must be allowed that every page gives ample promise of the most finished excellence.

In the first chapter, "on Laceration of the Rectum," our author remarks, that constipation is a common cause of this accident: this is true; but he might also have added, that the purging and straining which attend on the operation of drastic medicines, or which may even arise without any very obvious reason, will occasionally produce the same effect. The dose of calomel, scammony, and gamboge, for example, with which Madame Noufer was wont to assist the operation of her anthelmintic, might easily have lacerated the rectum in a predisposed subject.

In the first case given by Mr. Mayo (p. 3) he says, "Upon examining the bowel, I found a small transverse fissure in the lining membrane, at the back part of the bowel immediately within the sphincter, *which is the point where fissure is most common.*" The expression which we have marked in italics is perfectly correct; but the reader must not suppose that fissure is confined to this point, though most common there. A case was recently communicated to us by an eminent surgeon, in which the laceration occurred at the fore part, opposite the end of the os coccygis.

A complete rupture of the rectum into the vagina, occurring independently of parturition, must be considered as one of the rarest of accidents: the following, however, is an example of it.

"IV. ******, ætat. forty, naturally of a very constipated habit of body, and at the time being on a journey, on striving to relieve the bowels, which had not acted for many hours, felt something give way, (to use her own expression,) and on the following morning some fæces passed per vaginam. On examination by the vagina and rectum, a transverse rent was found two inches within the parts, sufficiently large to admit the end of the finger. The only treatment adopted in this case consisted in frequently and carefully cleansing the part by injections of water, and regulating the state of the bowels by proper medicines. The patient entirely recovered. In five weeks the fæces had ceased to pass per vaginam." (P. 13.)

It is highly probable that in this case a slight fissure existed previous to the straining at stool, and was aggravated by this exertion into a considerable rent. This dreadful accident, however, is most frequently the result of unfavourable par-

turition, and is remarkably well discussed by our author in the following passage:

"But the most frequent instances of laceration of the rectum into the vagina result from other causes than those already described, and are produced by violence acting from the vagina towards the bowel. This violence is the pressure of the head of the child in labour. The degrees of injury which it occasions are very various.

"Occasionally the injury is the same in its degree as in Case IV. being a laceration within the sphincter of trifling extent, which heals as readily when ensuing upon this cause as where it follows any other.

"Frequently the laceration is limited to the perineum, is quite external, and involves at the utmost the marginal fibres of the sphincter muscle. In this instance again, the recovery is certain and spontaneous: but it is necessary in both instances to employ cleanliness and rest to promote the reparation of the part.

"There are however severer cases, in which the sphincter being completely ruptured, the extremity of the bowel communicates with the vagina by a longitudinal fissure from three-fourths of an inch to an inch in length. It is known in such a case that all the fibres of the sphincter are torn through, by the total want of tonic contraction of the bowel at the part where it begins to be entire.

"In many instances in which this accident happens, spontaneous reparation of the part does not take place. The force of the sphincter muscle is employed in keeping the rent wide open; and the fæces continually passing through it contribute to prevent its uniting.

"In a conversation with Mr. Copeland, I learnt, that in a case of this description he had successfully employed the following method. It occurred to him, that if the sphincter were divided at a second part, its strain upon the rent into the vagina would be greatly lessened, and that the chance of reparation would be proportionately increased. I understood from him, that he had divided with this object the sphincter laterally, and that the case had turned out completely to his wish.

"Soon after this conversation, a similar case came under my own care.

"VI. I was requested by a medical practitioner to see, in consultation with him, Mrs. Quye, who had been confined of her fifth child eight days before, March 31, 1830. The labour had been rapid, and the pressure of the head of the child had ruptured the perineum and the sphincter. The fæces passed freely through the vagina by a gaping fissure nearly an inch in length. As the edges of the fissure were not cicatrized, I thought the present a very favorable opportunity for repeating Mr. Copeland's operation. To give the parts every chance, I divided the sphincter muscle upon both sides, performing therefore on either side the operation for

fistula ani. A small strip of lint was introduced into each wound. The edges of the original rent were afterwards washed daily with a solution of nitrate of silver, and fresh lint was replaced in the incisions as often as it was removed by the passage of fæces. The original rent healed very speedily: when it was nearly closed, the lateral wounds were allowed to unite. In five weeks from the operation the incisions had healed, and the patient had recovered the use of the sphincter. She has continued perfectly well to the present time, and was safely confined of another child in November 1832.

"The remarkable success which has attended this practice in recent cases has induced me to determine to employ it, after the manner recommended by Dieffenbach, in cases in which laceration of the sphincter has occurred, and has not been remedied at the time.

"In cases of long standing, it is however obvious that the lateral division of the sphincter is a part only of the operation requisite for the restoration of the parts. It is necessary besides, at the least, to produce a granulating surface upon the edges of the fissure.

"And as the parts in this class of cases have lost, from time, the tendency which exists in the freshly-torn parts to come together, I conclude that it is absolutely necessary to use ligatures to bring them and to hold them in contact. In other words, I recommend the performance of the following operation. The first step of the operation consists in paring the edges of the fissure; the second is the introduction of sutures, to be tied afterwards in the vagina; the third is the division of the sphincter on either side; the operation is completed by tying the ligatures in the vagina, and by introducing a strip of lint into each of the two lateral sections of the sphincter. I am the more sanguine as to the general result of this operation, since I had the good fortune to apply ligatures successfully to an old laceration of the rectum into the vagina, without the assistance of the method which I have now described, and therefore under circumstances considerably less favourable. Much, after all, in such an operation, depends upon causes over which the surgeon has a very imperfect control. Inflammation of the parts supervening, or diarrhœa, would still be liable to render the operation ineffectual. But the surgeon of course defers attempting it, till the patient is in her best state of health, and the bowels have been thoroughly unloaded by repeated doses of opening medicine. The bowels should not be moved for several days after the operation." (P. 21.)

We will freely confess, however, that, in our opinion, cases like that of Mrs. Quye are among the rarest in the annals of obstetric surgery, and that, for one woman who suffers this laceration through the labour-pains, a thousand owe it to the forceps.

The second chapter, "Of Protrusion of the Rectum,"

treats of the disorders ordinarily called Prolapsus or Procidentia ani, and is replete with sensible and practical remarks. Dupuytren and others "have described prolapsus ani as consisting in an extrusion of the mucous and submucous coats alone, through the action of the muscular coat of the bowel." But Mr. Mayo corrects this error, or, at any rate, shows that Dupuytren's theory is not universally true, by giving a woodcut of a preparation in King's College museum, in which it is clearly seen that the muscular layer is inverted as well as the lining membranes. Mr. M. has given the diagnosis of prolapsus ani from piles in a very satisfactory manner: indeed, it is surprising to us that these affections should be confounded; for, though no doubt there are piles which, when quiescent, are only folds of membrane, still these troublesome tumors cannot have the intestinal channel opening in their centre, as a prolapsed rectum would, and consequently cannot be mistaken for it by any one possessing an ordinary share of surgical tact.

In the third chapter our author treats "of Bleeding from, and Pain in, the Rectum." Hemorrhage from this part is to be viewed "as a warning that there is something wrong in the habits of life; that the diet is too stimulating; or that sufficient exercise is not taken; or that the secretions from the bowels are not sufficient in quantity. The recurrence of the attack may probably be prevented by attending to the precautions suggested by the preceding views. The attack itself may be relieved by the use of gentle aperient medicines, with cold bathing to the part." (P. 50.)

If the discharge has continued a long time, however, astringent enemata must be used.

We regret that Mr. Mayo has not touched upon the interesting subject of arterial hemorrhage from the rectum. In these cases the patient imagines himself to be suffering merely from bleeding piles, and the disease is only detected by an examination, when an artery is discovered bleeding *per saltum* at the apex of a minute fungous tumor. Dr. Abercrombie has given a good account of this disease, and observes, that the cure consists in tying the artery, and, if that should not be sufficient, the spongy mass is to be freely touched with lunar caustic.

In the next chapter we come to the consideration of the most common disease to which sedentary man is subject—the Piles. We like Mr. Mayo's definition of these tumors very much.

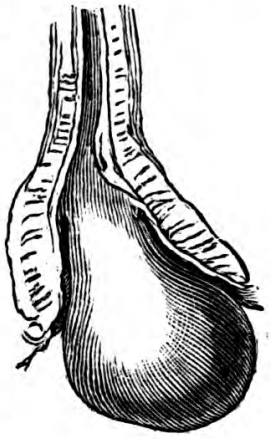
"Piles, or hemorrhoïds, are soft tumors, which form either within the rectum or about the anus. In the first case they are

covered with the mucous membrane of the intestine, and are termed inward piles. In the second case they are covered entirely, or in part, with the common integument, and are termed outward piles." (P. 58.)

In the first section the subject of inward piles is so well discussed, that we cannot resist the temptation of laying a considerable portion of Mr. M.'s observations before our readers.

"SECTION I. *Of Inward Piles.* Inward piles vary from the size of a pea to that of a large walnut. They are sometimes single, at other times there are several. Sometimes they grow immediately within the sphincter; at other times at some distance above it. They are sometimes attached by a narrow pedicle; at other times they have a broad or elongated base. In some cases they do not protrude beyond the sphincter; in others, they are extruded at every motion.

"A pile protruding at each action of the bowels, and afterwards returned by pressure, in what does it differ from a prolapsus? It differs in this respect essentially: it is a tumor formed internally to the muscular coat of the bowel, and not involving it. The canal of the rectum is therefore in its natural place, without elongation or eversion, the pile being an accidental growth of its inner surface. The adjoined diagram represents a section of the rectum with an inward pile in a state of protrusion. It is evident that, if there be a doubt as to the nature of the protrusion, an examination will at once remove it. It is no less evident that the two complaints will occasionally exist together. The one indeed naturally leads to the other. Neglected piles often prove a source of irritation sufficient to produce prolapsus, which ceases to recur upon the removal of the cause which occasioned it.



"The colour of internal piles varies with their condition. It is sometimes that of the bowel itself, a shade of reddish brown; at other times a dark purple, approaching to black; at other times a bright red. Internal piles are particularly liable to bleed; yet in some instances they exist for several years without bleeding.

"The following case will serve to exemplify one form of this disease, as well as the efficacy of a very simple remedy, attention to which is in every case of the greatest advantage.

"A gentleman, ætat. fifty-seven, of a spare frame of body, and of temperate habits, consulted me for piles. Thirty years before, when in good health, he lost by stool a large quantity of blood; in a few hours the anus became tumefied, knotty, painful. The following day he was obliged to ride thirty miles on horseback. As

he proceeded on his journey, he became better, and on the ensuing day he felt quite well. About four months subsequently he had an attack of the following description: The anus, without any assignable cause, became tender, tumefied, and painful. This state of things continued three days; on the third night he became better; some discharge of mucus, with blood, took place, and in a day or two he was well again. These attacks were repeated during the following twenty years, and usually recurred once in three months: they were extremely severe and distressing. This gentleman, who is in the medical profession, entertained a strong aversion to medical or surgical treatment: he therefore bore the pain, and contented himself with bathing the parts with cold water.

"During the last ten years the character of the complaint had been different. The patient had suffered less severely than before, but he had suffered constantly. The bowels had acted regularly, and that without pain; but every afternoon, about one o'clock, the part had become heated and uneasy, indisposing him to exertion of any kind. Towards evening the uneasy sensations had left him.

"Such was the story which this gentleman told me a year ago, when he consulted me. Upon examining the part, I found two internal piles, about as large as beans, which half protruded upon his straining. As he would take no medicine, and use no medicated application, I recommended him to use, with scrupulous regularity, a lather of soap and water to the part after each action of the bowels, and before the piles were returned. This practice he has followed ever since, and the piles have for several months ceased to give him any inconvenience.

"The best soap that can be employed is common yellow soap. It is serviceable in two ways: on the one hand, it removes completely any remains of fæcal matter; on the other, it acts as an astringent. In the case which I have described, the latter object was, I have no doubt, quite as important as the former; the piles being in that simply uneasy state, not very irritable and angry, in which astringent applications are commonly found useful. But the first object is likewise one of great consequence. The want of complete cleansing of the bowel is one of the causes which most tend to the production of piles, whether external or internal. Water alone is not sufficient to cleanse the part; complete ablution with soap as well is necessary for this purpose. Those who are thus scrupulously cleanly suffer less from piles than other people.

"A remedy very commonly tried for indolent internal piles, and which in many cases proves of service, is the Confectio piperis composita of the Pharmacopœia. This remedy is to be taken internally, in the dose of a drachm, two or three times a-day; it seems to act as an astringent when applied locally, giving a salutary tone to the vessels of the part." (P. 60.)

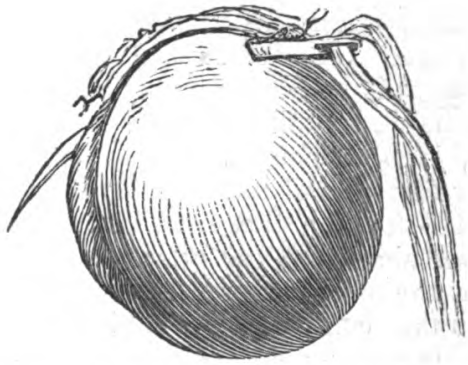
Our author sees no danger in removing piles by the ligature, provided the following precautions are attended to:

"The patient must not undergo this trifling operation when labouring under any casual indisposition.

"Before its performance, the bowels should have been several times freely moved with aperient medicine.

"If the patient should be unable easily to extrude the tumors, they may be brought to protrude upon the patient sitting over hot water, and endeavouring to force them down, or after the use of a lavement of warm water.

"The ligature should be drawn round the base of each tumor so tightly as thoroughly to strangulate it. To ensure this object it is desirable, after the ligature is applied, before finally tying it, to cut into the pile; after which precaution the ligature may be drawn much closer than it would otherwise be possible. If the pile be of large size, it is desirable, for the same purpose, to pass a double ligature through the tumor with a needle, and then to tie either half separately, in the manner shown in the following diagram.



"If there are several internal piles, it is necessary that all should be tied.

"After tying a pile, the ligature is to be cut short, and the ends are to be returned with the strangulated pile into the rectum. If much pain follow the operation, it may be allayed by a dose of laudanum. The pain generally in a short time subsides entirely; and it is only requisite for the patient to remain at rest for the next few days, when the ligatures and the piles come away without his knowledge. But occasionally fresh pain supervenes on the second or third night. When this happens, it is presumable that the pile has not been entirely strangulated: the parts should then be examined, and the ligature should either be removed for the time or drawn closer, according to the state of the parts. If much pain supervene after tying piles, it is always safe and useful to apply leeches to the extremity of the bowel." (P. 71.)

In the next section the subject of outward piles is ably discussed; and a curious instance is given, showing the pos-

sibility of mistaking an external for an internal pile. A physician, whom Mr. Mayo had formerly attended for inward piles, came to town to consult him again. On his arrival in London, and before he was seen by our author, the part was examined by an experienced surgeon, who told him that the tumour might be returned within the sphincter, but that the necessary pressure would give considerable pain. The following passage will show the aspect of the case, while it exhibits Mr. Mayo in a very favourable light, as a thinking and analytical practitioner.

"The appearance which the part presented was that of a solid tumour on one side of the anus, extremely firm, partly covered with tense and shining integument, partly with the mucous membrane of the margin of the bowel. On examining the rectum, the swelling and hardness were found to extend an inch within it. It was evident that no operation would be of service; and that as the tenderness and pain in the part, though still considerable, were progressively lessening, no treatment would be necessary beyond the use of a poultice and occasional doses of opening medicine, with abstinence from wine and heating food. The tumour I concluded to be an outward pile, no part of which would on its diminution be drawn or forced within the sphincter. The result proved that this opinion was right: the tumour only shrunk.

"The case which has been described appeared to me interesting in three points of view.

"In the first place, it was a striking instance of the possibility of mistaking an external for an internal pile. This mistake might have been of consequence; if it had been acted on, the patient would have been put to great pain, and the complaint, instead of being benefited, would have been materially aggravated.

"In the second place, this case established that an hemorrhoidal tumour may form in the part of the bowel surrounded by the sphincter. The swelling was not merely prominent by the side of the anus, but could be traced some way within the sphincter. I mark this circumstance, because I believe that it is laid down on no common authority, that the pressure of the sphincter precludes the formation of the hemorrhoidal tumor within its circumference.

"Thirdly, the preceding case gave me an opportunity of ascertaining what becomes of inward piles, when they cease to give uneasiness and to be felt by the patient. This gentleman had consulted me two years before for an inward pile, which protruded on the action of the bowel, as a round and vascular and turgid knot. By the use of appropriate remedies he had entirely recovered; but I found, upon examining the bowel on the present occasion, a soft insensible pendulous process within the rectum, nearly cylindrical, about an inch in length and a third of an inch in diameter. This had been the inward pile with which he had

formerly suffered; it had shrunk, and little remained but the elongated membranes which had formed its covering." (P. 86.)

The subject of the fifth chapter is Fistula Ani. Our author is singularly happy in giving the definition and brief history of a disease; as in the passage we are about to quote.

"By a fistula is meant a narrow channel or sinus, secreting purulent or serous discharge, and having an external opening near the anus, through which the matter has vent. The opening of a fistula is often extremely small, so that there may be difficulty in finding it. The channel itself, or fistula, is usually a little larger than a common probe: it is sometimes strait, sometimes crooked: its length may vary from half an inch to several inches. Towards its inner extremity a fistula reaches the coats of the rectum: it may terminate inwards by a small aperture of communication with the intestine, or blindly, as a cul de sac. There may be one fistula, or there may be several; and in the latter case the fistulæ may or may not reciprocally communicate.

"A fistula is a consequence of an abscess, which, when it has broken or been punctured, contracts to such a narrow channel as has been described, which continues permanent. The complaint requires to be studied separately in its two stages, first as an abscess, secondly as a permanent sinus.

"Abscesses near the rectum again admit of a practical distinction into two kinds; either they are small and superficial, which is the character of those that lead to fistula; or they are deep-seated, when they often contain large accumulations of matter, but rarely produce the secondary complaint." (P. 101.)

Mr. Mayo has forgotten to notice the frequency of this affection among tailors, which forms an exception to his rule, that diseases of the rectum are more common among the higher than the lower classes of society. Mr. Thackrah, in his work on the diseases of artisans, informs us that a fistula club exists among the journeymen employed by Stultz; so that sartorial prudence has suggested the necessity of insuring themselves against the loss of wages entailed on them by this distressing complaint: it were well, however, if the prophylaxis proposed by this benevolent surgeon could be adopted, and the attitude of the workmen made more compatible with health.

The following case illustrates a cognate subject:

"William Knight, æt. sixty-five, was admitted into the Middlesex Hospital, August 9, 1832. For five months previously, he had experienced violent aching pains about the hips and loins, and down the back of the thighs to the knees, slight dysuria, and habitual constipation of the bowels. During the last six weeks he had suffered more acute pain within the anus, shooting to the projections of the ischia and round the haunch bones. He passed urine

with great difficulty, and could scarcely void it unless at the same time he strove to empty the bowels. Upon examining the rectum, I found a collection of fluid in the region of the prostate gland. This patient experienced relief from the use of the hip-bath, with an opiate suppository at night, and mild aperient medicines. But in five days after his admission, the abscess broke into the rectum, discharging as he thought a pint of matter, which was followed by the complete removal of all his symptoms, and a very speedy recovery. He left the hospital perfectly well on the 28th of September." (P. 110.)

The sixth chapter treats of "Constipation of the Lower Bowels, and of the Use of Instruments." Mr. Mayo observes, and the remark is an acute one, that constipation may occur from want of fæces; and he gives two cases which exemplify, in different degrees of intensity, "the consequences which result when the blood is not relieved of this excretion." Our author might have noticed the analogy between this disease and Ischuria renalis; and, as this rare anomaly usually terminates in serous effusion on the brain, so in the following curious case, narrated by Mr. M., obstinate constipation was found to be connected with *ramollissement* of the spinal cord: it would be difficult, we think, to decide which was cause and which effect. Our author supposes the primary disease to have been in the cord.

"I was consulted in the case of a young lady, one of whose symptoms was obstinate constipation of the bowels, requiring that she should take nightly from twenty to thirty grains of compound extract of colocynth, to produce an action of the bowels the following day. She had been ill four years, and her sufferings had commenced with severe pain across the belly, and obstinate costiveness. After a fortnight's illness the constipation yielded; but one leg became feeble, and the knee of that side was frequently spasmodically bent. This complication of palsy and spasm soon after affected the opposite leg; afterwards one hand became feeble and contracted. These symptoms grew upon her; but she retained a remarkably fine complexion, and had the appearance, when making no exertion, of perfect health. I entertained little doubt that all the symptoms in this case originated in an affection of the spinal marrow. The vertebral column was indeed perfectly strait and even; but the patient often experienced pain at the lower part of the dorsal portion, and pressure there gave her uneasiness. I recommended that issues should be made at the lower part of the back. The remedy was followed by great relief of all her symptoms. The legs seemed less weak, the knees were not so frequently or so painfully contracted, and the bowels acted with half the usual dose of drastic purgatives. This improvement however was temporary only; and, disappointed of obtaining permanent relief, this patient consulted other surgeons, as she had consulted several be-

fore she applied to myself. She died six months afterwards; and, on examining the spinal cord, it was found for the length of two inches in a state of softening at its lumbar portion." (P. 141.)

The chapter concludes with some observations on the mischief which may be caused by the hasty or injudicious introduction of instruments into the rectum. These cautions are now more necessary than formerly, as within a few years enemata seem to have become fashionable; and the violent encomiums lavished on these inelegant purges have induced many unprofessional persons to provide themselves with a clyster-pipe, as if it were an article of prime necessity in every decent household.

"Stricture of the Rectum" is the subject of the seventh chapter. Mr. Mayo very justly observes, that "the rectum resembles the œsophagus in its affinities for disease, and stricture is as rare in it as ulceration and schirrus are common." (P. 153.) In detailing the symptoms of this morbid affection, our author mentions flattened fæces as one of them. Of course we do not object to this; but we could have wished that he had added the fact, that flattened fæces may and do occur without stricture of the rectum. Generally speaking, Mr. M. thinks the use of bougies sufficient, and is averse to the division of the stricture by the knife.

In the last chapter, which treats of "Cancer of the Rectum," we find three operations recommended as likely to afford some relief in this formidable disease. The first is the division of the scirrhus:

"Instances of fungoïd scirrhus occasionally present themselves, in which the quantity of the malignant growth is so considerable, and the sensibility of the part so great, that the bougie cannot be introduced or borne. When this is the case, the channel may be enlarged by the division of the scirrhus. No ill consequence follows the operation, and great relief is obtained by it. Of course this practice is only applicable when the part to be divided is within reach of the finger.

"Mary Woolgrove, ætat. thirty-two, was recently admitted into the Middlesex Hospital. In the year 1818 she had been cut for fistula, and since that time had never been entirely free from occasional discharges of blood and mucus from the bowel. But it was not till three years and a half ago, that pain and obstruction, and other symptoms of carcinoma, appeared. At the period of her admission she was greatly extenuated, having suffered for several weeks constant painful purging of liquid matter. The anus was indurated, and surrounded with scirrhous nodules partly in a state of ulceration. Upon an examination of the rectum, the finger was stopped at an inch within the gut by a mass of fungoïd scirrhus, through which an urethra-bougie could only be passed. By means

of opiates the pain which this patient suffered was mitigated, and the purging checked: I then tried to enlarge the passage by the use of bougies. But the attempt was ineffectual, and violent liquid purging returned. Under these circumstances I determined to divide the scirrhus. For this purpose I introduced the blade of a strong strait probe-pointed bistoury upon the fore-finger of the left hand, and divided the scirrhus towards the sacrum, gaining space enough to allow the finger to be passed further into the bowel. I then divided in the same manner the part beyond. The scirrhus terminated, as I had anticipated, at three inches within the anus, so that the operation was entirely successful. It has given the patient great relief, who now has a free passage through the part, which is besides less sore and painful than before." (P. 204.)

The second is the excision of the carcinoma; and a case is given, in which Mr. Crosse, of Norwich, performed this operation, with temporary benefit to the patient, who was even able to resume his occupation as a hackney-coachman for a short time, but sank under a return of the disease in a few months. "But," says Mr. Mayo,

"We may go further, and inquire whether a part of the entire cylinder of the bowel may not be removed along with the scirrhus, the matrix of the disease with the disease itself.

"M. Lisfranc recommends, and has several times performed, excision of the lower part of the rectum, in cases in which the finger can be passed completely beyond the limits of the disease, and the intestine at three or three and a half inches from the anus is ascertained to be healthy.

"I performed this operation in the case of a woman about forty years of age, in whom the inner surface of the bowel began to be ulcerated half an inch within the orifice. The ulcer extended round the rectum, and was upwards of an inch in breadth: there was considerable induration. The patient had suffered long and severely, and could not quit the recumbent posture.

"The steps of the operation were, first, an oval incision through the skin around the anus, at a distance of half an inch from the mucous membrane; secondly, dissection of the bowel from the adjacent parts, and securing the vessels as they were cut through; thirdly, division of the bowel, by which the already isolated part including the disease was separated from the sound bowel above.

"The results of the operation were as follows. The patient expressed a strong sense of relief and comfort almost immediately after it was concluded. She felt, to use her own expressions, that the cause of her previous sufferings was gone. In a month her appearance became surprisingly altered. The extenuation and distress of countenance that had before been so remarkable left her, and she became a fat and cheerful and comely person. I was now apprehensive of one of two alternatives, either that the hollow cylindrical cicatrix leading to the bowel would contract and form a

troublesome stricture, or that, as the sphincter was completely removed, there would be distressing incontinence of fæces. Neither of these evils, however, occurred. The cicatrized surface did not contract; and, unless the bowels were in a very loose state, the patient was always aware when their action was likely to take place. But a serious evil ensued, which I had not anticipated, and could not obviate. Prolapsus of the bowel came on; some length of intestine was gradually pushed out in a state of eversion; and the mucous surface, irritated by exposure and pressure, became a new and constant source of uneasiness.

"About two years after the operation this patient died of an attack of abdominal inflammation. The mucous membrane adjoining the cicatrix had begun anew to ulcerate." (P. 211.)

The large extracts we have made from Mr. Mayo's treatise will show our opinion of its excellence; but, considering the nature of the subject, there is one feature which deserves an especial panegyric: it is not addressed to hypochondriacal patients, but to scientific surgeons,—to those, in short, who are best qualified to appreciate its merits, and supply its deficiencies.

Nouveau Formulaire Pratique des Hôpitaux; ou, Choix de Formules des Hôpitaux, Civils et Militaires, de France, d'Angleterre, d'Allemagne, d'Italie, &c.: contenant l'Indication des Doses, auxquelles on administre les Substances Simples et les Préparations Magistrales et Officinales du Codex; l'emploi des Médicamens Nouveaux, et des Notions sur l'Art de Formuler. Par MM. MILNE EDWARDS et P. VAVASSEUR, D.D. MM. Paris, 1832. Pp. 466.

THIS is a pocket volume containing an European Dispensatory, and certainly comprises a vast fund of information in a very small space. The medicines are not arranged according to the forms in which they are exhibited, as pills, powders, &c., but according to their therapeutic action. Thus, the first division consists of astringents, the next of tonics, and so on. This part of the work is preceded by some well-written observations on the art of prescribing, partly abridged from Gaubius. Thus, the authors dwell on the necessity of attending to idiosyncrasy, and give two remarkable instances of it; one from Gaubius, of a man in whom a small dose of powder of crab's-eyes produced all the symptoms of arsenical poisoning; and another, of a family attended by one of the compilers, in all the members of which castor-oil acts almost like a poison. They also mention the endermic method of administering remedies, remarking that it should be employed only when the medicine acts in very small doses, as morphia and strychnine.

The endermic method is very useful whenever we have reason to apprehend the irritating effect of a medicine on the mucous membrane lining the stomach and intestines, or when we fear that its qualities might be impaired by the digestive process.

Messrs. Edwards and Vavasseur give the well-known table of Gaubius for proportioning the doses of a remedy to the age of the patient: thus, if the quantity to be taken by an adult be represented by 1, a child two years old will take $\frac{1}{3}$, one of three years $\frac{1}{6}$, &c. This table is not very easy to recollect, and we therefore prefer the ingenious formula given by the late Dr. Young; a man, the profundity of whose genius could be equalled only by its versatility, and who was equally at home in the loftiest flights of physical science, and in the minutest details of practical art. Dr. Young says, "for children under twelve years old, the doses of most medicines must be diminished in the proportion of the age to the age increased by twelve: for example, at two years old, to $\frac{1}{7} = \frac{2}{2+12}$. At twenty-one, the full dose may be given." (*Med. Liter.* 2d edit., p. 453.) That is to say, the dose taken by an adult being called 1, the dose to be taken by a child will be represented by a fraction whose numerator is the age of the child, and the denominator is the age + 12.

Our authors observe (p. 11) that in general we ought to prefer simple to compound remedies; and, if we have recourse to the latter, we should still aim at simplicity as much as possible. We ought, say they, always to recollect the important maxim, "*Superflua nunquam non nocent.*" Surely the old maxim is "*Superflua non nocent*;" perhaps it has been improved by reversing it: but old saws should be quoted fairly.

"It is usual to put at the beginning of the first line of a prescription the sign ℞ or R, which is the abbreviation of the Latin word *recipe.*" (P. 17.) Gray, in his Supplement to the Pharmacopœia, gives a more ingenious, and perhaps a more correct explanation: he says, "R. Recipe, take: but for this the old authors, and the French to this day, use this sign ℞, being the old heathen invocation to Jupiter, seeking his blessing upon the formula, equivalent to the usual invocation of the poets, and of Mahomedan authors, or the *Laus Deo* with which bookkeepers and merchants' clerks formerly began their books of accounts and invoices; a practice not yet quite extinct." (4th edit. p. lv.)

At page 44 our authors give a receipt for "pilules stypticques," containing one fourth of a grain of acetate of lead in each pill, from two to four pills being a dose; and they add

that, in the London hospitals, the dose of the acetate is carried to from one to three grains a-day; as if this were something remarkable. Now, in the preceding recipe, we are directed to make one drachm of acetate of lead into thirty-six pills, and the dose is to be from four to twelve a-day. As the French *gros*, represented by ʒi., contains seventy-two grains, each pill will contain two grains of the acetate of lead, and the patient will take from eight to twenty-four grains a-day. It is strange therefore that they should think the London dose a remarkable one.

We dwell on this subject, not so much for the purpose of pointing out the inconsistency of Drs. Edwards and Vavasseur, as to attract attention to the doses in which it is necessary to give the acetate of lead in urgent cases. Mr. Laidlaw, a very industrious practitioner, published an essay, about five years since, detailing several cases of menorrhagia cured by large doses, such as ten grains a-day, or more. Dr. Christison also says that he has often given it, in divided doses, to the amount of eighteen grains daily, for eight or ten days, without remarking any unpleasant symptom whatever, except once or twice slight colic; and he observes, that Mr. Daniell gave it in larger doses; and "Van Swieten even mentions a case in which it was given to the amount of a drachm daily for ten days before it caused any material symptom." (*Christison on Poisons*, p. 413.)

Under the head of *Excitans Généraux*, we find an anti-gonorrhœal draught, composed of two drachms of cubebs, two ounces of wine, and one drop of essence of bergamot. This is used at the Montpelier hospitals, and seems to us a very elegant formula. Of course the wine is of the lightest kind. There is also an enema, containing six drachms of cubebs, to be used in similar cases.

Under the head of *Opium*, we are informed (page 312) that ammonia, the carbonates of soda and of potass, corrosive sublimate, nitrate of silver, acetate of lead, the salts of copper, iron, and zinc, and the infusion of nutgalls, are incompatible with it; yet we have previously been directed to combine opium and acetate of lead in pills. We suspect that the combination is an exceedingly good one, practically, even though the opium may be partially decomposed.

At page 313 it is stated that eleven grains of Dover's powder contain one of opium. This is the case in the Parisian codex; in our Pharmacopœia the proportion is one in ten.

At the Montpelier hospitals things seem to be carried on in a truly regal style; for they have a sirop d'or and a pom-

made d'or, composed of gold dust, with gum and lard respectively. They are chiefly used in venereal cases.

This little manual is certainly, upon the whole, an excellent one, and does great credit to the tact of MM. Edwards and Vavasseur; and we think that, if it were translated by an able hand,—not merely done into English, but altered and anglicised, it would stand a good chance of becoming a popular work in this country.

Treatise on Diseases of the Skin. Founded on new Researches in Pathological Anatomy and Physiology. By P. RAYER, D.M.P. *Translated from the French*, by W. B. DICKINSON, Member of the Royal College of Surgeons. London, 1833. 8vo. pp. 400.

DR. RAYER's treatise is evidently the work of a physician of industry and judgment, and his classification of cutaneous diseases, which we subjoin, shows considerable ingenuity:

"SECTION I. DISEASES OF THE SKIN.

CHAPTER I. *Inflammations of the Skin.*

1°. *Exanthematous:* Rubeola, roseola, scarlatina, urticaria, erythema, erysipelas.
2°. *Bullous:* Vesication, ampullæ, pemphigus, rupia, zona.
3°. *Vesiculous:* Herpes, psora, eczema, miliaria.
4°. *Pustulous:* Varicella, variola, vaccinia, vaccinella, ecthyma, cuperosa, mentagra, impetigo, tinea, artificial pustules.
5°. *Furunculous:* Hordeolum, furuncle, anthrax.
6°. *Papulous:* Strophulus, lichen, prurigo.
7°. *Tuberculous:* Lupus, cancer, elephantiasis of the Greeks.
8°. *Squamous:* Lepra, psoriasis, pityriasis.
9°. *Linear:* Fissures.
10°. *Gangrenous:* Malign pustule, carbuncle of the plague.
11°. *Multiform:* Burns, frost-bite, syphilitic eruptions.

CHAPTER II. *Cutaneous and Subcutaneous Congestions and Hæmorrhages.*

Cyanosis, vibices, petechia, purpura hemorrhagica, ecchymosis, dermatorrhagia.

CHAPTER III. *Neuroses of the Skin.*

Exaltation, diminution, abolition of the sensibility of the skin, without appreciable alteration in the texture of this membrane.

CHAPTER IV. *Alterations in the Colour of the Skin.*

Decoloration — Leucopathia — Partial / General
Chlorosis

Accidental Colorations — Ephelis, lentigo, chloasma, meladermis, icterus, *nævus maculosus*, bronze tint produced by the internal use of lunar caustic.

CHAPTER V. *Morbid Secretions.* — Ephidrosis, acne, folliculous tumours.

CHAPTER VI. *Defects of Conformation and Texture; Hypertrophies, and Accidental Productions.* — Distention of the skin; cicatrices, vegetations, nævus hematodes, subcutaneous vascular tumours; warts, pearly granulations; corns, ichthyosis, horny appendages.

"SECTION II.

ALLTERATIONS OF THE APPENDAGES OF THE SKIN.

CHAPTER I. *Alterations of the Nails, and of the Skin which produces them.* — Onyxis; increased growth of the nails; spots, change of colour, fall, desquamation, reproduction, &c. of the nails.

CHAPTER II. *Alterations of the Hair, and of the Follicles which produce it.* — Inflammation of the bulbs of the hair; accidental colorations, canities; alopecia; matting of the hair; plica; accidental pilous tissue.

"SECTION III.

FOREIGN BODIES OBSERVED ON THE SURFACE, OR IN THE SUBSTANCE OF THE SKIN.

Inanimate. — Dirt, dirt of the scalp of new-born children; inorganic matters, artificial colorations.

Animate. — *Pediculus humani corporis; P. capitis, P. pubis; pulex irritans, P. penetrans; acarus scabiei; æstrus; gordius.*

"SECTION IV.

DISEASES PRIMARILY FOREIGN TO THE SKIN, BUT WHICH SOMETIMES PRODUCE PECULIAR ALTERATIONS IN THIS MEMBRANE.

Elephantiasis of the Arabs."

We quote the following passage, because it is interesting in itself, and treats of a subject which has been omitted by Bateman.

"*Bronzed Tint of the Skin, produced by the Nitrate of Silver.*

"§ 655. Nitrate of silver, employed internally now for some years, in the treatment of certain nervous diseases, and particularly epilepsy, sometimes produces a bronzed tint of the skin, analogous to that of mulattos, and which may increase to blackness.

"§ 656. This coloration appears to have been first observed by Swediaur. 'A protestant minister,' says he, 'labouring under obstruction of the liver, took, by the advice of an empiric, a solution of arg. nit. Having continued its use for several months, the skin changed insensibly, and at last became nearly black. This colour remained for several years, and then began to diminish. J. A. Albers, of Brême, prescribed, in 1801, the arg. nit. for an epileptic woman, about thirty years of age. This patient, relieved by the remedy, continued its use for three years and a half. Towards the end of the last year, she being pregnant, the skin became blueish, particularly of the face, neck, hands, and nails; the sclerotic was also coloured. The blue tint increased at the approach of the menstrual period: the colour of the blood was natural, and she

was in other respects quite healthy; and, despite of various measures had recourse to, the skin retained its blue colour. Struck with the singularity of this phenomenon, Albers inquired if other practitioners had observed it. Reimar, of Hamburg, wrote to him that he had met with two cases. Professor Rudolphi said that a similar result had been observed by a physician at Greifswalde. Doctors Schleiden and Chaufepié have communicated three cases of this coloration. Dr. Roget, of London, prescribed lunar caustic for a young woman affected with epilepsy, and she continued its use for four or five months; and he remarked, after the suspension of the remedy, that the tongue and pharynx assumed a blackish-brown shade. At the end of some months, a darkness was observed beneath the eyes, and successively on different parts of the body. This change was permanent, and in no way influenced by the menstrual discharge. Three similar cases are mentioned by Butini, in his work on the internal use of the arg. nit. Professor Sementini has published a memoir on the same subject. M. Planche, in giving an analysis of this work, says that he saw, in 1817, in Guy's Hospital, a woman, seventy years of age, the whole of whose body was of a deep blue tint, after being treated by the nitrate of silver. Lastly, I have myself seen this change in the colour of the skin, in four epileptics who had been submitted to the influence of this remedy.

"§ 657. I saw at the Bicêtre two other epileptics, treated unsuccessfully with the nitrate of silver, and who presented this dark tint of the skin. One of them had this morbid alteration very marked, particularly on the hands and face; it was fainter on the parts kept constantly covered. This patient had several cicatrices of the same tint as the skin. The mucous membrane of the tongue and the conjunctivæ were of a similar colour as the tegument; the hair and nails had undergone no change.

"§ 658. When diffused throughout the animal structure, does the nitrate of silver undergo any particular modification, or does it operate some peculiar alteration on the mucous body? Or, again, does it meet on the surface of the body with nitrate of potass, and thus become transformed into an insoluble muriate, as some authors have imagined?

"§ 659. The alteration of colour in the skin caused by this salt cannot be confounded with any other change in the pigment; it is very different even from the black colour produced by rubbing the lapis infernalis over the skin.

"§ 660. This bronzed tint of the skin has not, as yet, yielded to any of the means employed for its removal. It generally diminishes after some years' duration; but I am not aware that its entire disappearance has ever been effected. Perhaps this coloration might be dissipated by the employment of some stimulating baths; since Badeley has ascertained that, after the application of blisters, the skin assumes its natural tint." (P. 303.)

In the above quotation, for Brême, we ought to have had Bremen.

Mr. Dickinson's translation is tolerable, though far too literal.

A New Exposition of the Functions of the Nerves. By JAMES WILLIAM EARLE. Part I. London, 1833. 8vo. pp. 195.

WE confess that at first we were somewhat angry with Mr. Earle for publishing his essay in this shape as a substantive book, and not sending it to us as a review of Dr. W. Philip's Treatise on the Vital Functions. Cut down a little, we said, it would have made a capital leader; but we must take it as it comes, and acknowledge that it is an honest, gentlemanly review, and obviously the production of a man of talent, who, while he impugns the soundness of Dr. Philip's conclusions, does homage to his genius. It cannot be denied, moreover, that, in spite of its having the air of an "answer," it contains much original matter. The following is Mr. Earle's division of the nerves:

"In unison with my plan of arranging the nerves according to their separate functions, I propose, that the term cerebral nerve, instead of as hitherto being applied to every one which passes through an aperture in the skull, should be restricted to the olfactory, ophthalmic and auditory nerves, on account of their being more particularly connected with the intellectual functions which are now generally regarded by physiologists as performed in some way or other by the brain, and from their being the most simple in their function, which is only that of transmitting impressions from their extremities to the brain, and from their filaments not being intermingled with those of any other nerve, that they should form the *first class*, and be considered as the only purely cerebral nerves.

"That the *second class* should comprehend every nerve by means of which muscles are subjected to the influence of volition; these are the anterior nerves, and belong to the anterior columns of the spinal marrow. As this division embraces the third, the fourth, the anterior root of the fifth, the sixth, the portio dura of the seventh, and the ninth nerves, it will be seen that I have partially adopted the classification of Sir C. Bell, and, consequently, consider all the medullary fibres below the first formation of the crura cerebri, as comprised under the term Anterior Columns of the spinal marrow, without regard to the circumstance of those fibres being encompassed at a particular part by other bands of medullary substance, termed pons varolii; or separated by other bodies which have been termed corpora olivaria.

"That the *third class* should comprehend every nerve belonging to the Posterior Columns of the spinal marrow; thus including the posterior root of the fifth, the glosso-pharyngeal, the pneumo-

gastric and Spinal Accessory nerves, all of which, with the exception of the last, transmit impressions from their extremities to the brain, and have protuberances upon them just before their respective junctions with the posterior columns of the spinal marrow; by the term Posterior Columns is signified their whole extent as far as the termination of the restiform bodies in the posterior peduncles of the cerebellum. The ganglions on these posterior nerves will, in the course of these observations, always be distinguished from those of the sympathetic by the term posterior ganglions, for the sake of avoiding any misunderstanding.

"Lastly, that the *fourth class* should comprehend every nerve proceeding from the sympathetic ganglions.

"Every part to which branches of these nerves are distributed, whether its structure is muscular as that of the heart, or fibrous as that of the arteries and iris, has a power of motion altogether independent of any influence that the will can exercise.

"Such is the classification which I consider the distinct nature of the nerves obviously points out, and which I think is more particularly warranted by the well-known fact that nervous filaments however intermingled, whether united with others near to the brain and spinal marrow, or at a distance from them, never change their character. I must particularly beg the reader's attention to this arrangement, because it will enable him to understand more readily the observations I shall have to make respecting the functions of the nerves, and the effects resulting from their combination." (P.39.)

Mr. Earle supposes that a nervous fluid is constantly emanating from the brain, constituting the *one* vital power on which every function necessary to the continuance of life depends. The following passage, in which this theory is involved, is ingenious and well-written:

"There is but little evidence by which we may be guided in judging of the rapidity with which the nervous circulation is carried on, but we know that it is not so great as to prevent the voluntary muscles from becoming weary, as also that, when they are fatigued, they are required to be a considerable time at rest before their power is perfectly restored. The ordinary degree of rapidity may be, I think, inferred from observing what occurs in a limb whose nerves have been pressed upon some time, and which has become benumbed, or, as it has been more commonly called, asleep. When the pressure is removed, a sensation of tingling, vulgarly called pins and needles, is quickly perceived, and it is not until after the cessation of this sensation that the muscles are again completely qualified to act in obedience to the will. The same sort of tingling, though in a slighter degree, may frequently be perceived in the legs and feet after an unusually long walk, if the attention be directed to it; and also in the female breast during the secretion of the milk. The fact of our being sensible of the tingling distinctly proves the participation of the posterior nerves

in the process by which the power which enables muscles to contract is restored; and, as this power cannot arrive at the muscles from the brain except along the anterior nerves, I consider this fact as affording strong evidence of the passage of the *cerebral influence* from the extremities of the anterior to those of the posterior nerves, and consequently it becomes a confirmation of the opinion that there is a circulation in the nerves. Although it cannot be precisely determined with what degree of rapidity this circulation is carried on, there is great reason to believe that it varies more or less in nearly every individual, of which the pulse is the index; for inasmuch as the circulation of the blood is dependent upon that of the nervous system, it must always bear a certain relation to the vigour and activity of the power by which it is supported." (P. 185.)

When Mr. Earle favours us with the second part of his investigations, we shall return to the subject, and give his theories at greater length.

On some Points connected with the Anatomy and Surgery of Inguinal and Femoral Herniæ: being the Substance of the Lectures delivered in the Theatre of the Royal College of Surgeons, in February, 1831. By G. T. GUTHRIE, F.R.S., Surgeon to the Westminster Hospital, &c. London, 1833. 4to. pp. 44.

THIS is a masterly though brief essay. Mr. Guthrie, in his introductory sentences, has enunciated in so lucid a manner the problem which it is his intention to demonstrate, that it would be an injustice to our readers to withhold the passage from them.

"I had the honour of delivering the Lectures in the Theatre of the Royal College of Surgeons, in February 1831, on the Anatomy and Surgery of Inguinal and Femoral Herniæ; and I took the liberty on that occasion to demonstrate the anatomy of some of the parts concerned in these derangements in a manner which had not been commonly adopted, but which I trust will be found more satisfactory than the method which is usually followed. A difference of opinion in regard to the structure of a part of the body is not of much real importance, unless it involves some practical point; and it is under this impression I venture to hope that the dissections made on that occasion, and the elucidations and explanations which resulted from them, have enabled me to remove a discrepancy that existed between the anatomy and surgery of these parts, which I had always pointed out in my private lectures, but was unable previously to explain.

"According to the prevailing opinion of modern surgeons, the parts through which an inguinal hernia passes or proceeds, have little or nothing to do with the causes of strangulation; which are

supposed to depend upon certain circumstances connected with the state of the protruded parts themselves, rather than upon any positive contraction or diminution of the size of the aperture through which they pass. If it had been generally demonstrated or believed that the inner or superior opening of the inguinal canal was a muscular opening or split, through or between the fibres of which the protrusion took place, there would have been little difficulty or hesitation in attributing the cause of strangulation to a sudden or irregular contraction of these fibres: but as such fibres were not believed to exist, or were supposed only to exist on the upper part, the impossibility of any circular contraction was necessarily inferred; and other causes of strangulation were sought for in the ingenuity of those individuals whose attention was devoted to the subject. I am quite aware, that these individuals have been and are among the number of the most celebrated anatomists and surgeons in Europe; that any effort to add to their labours may be considered an act of supererogation; and that any attempt to differ in opinion from them will be thought, perhaps, a matter of vanity. Facts have, however, forced themselves upon me so strongly, that I could not help acknowledging their influence; and it will be for those who doubt, to investigate this subject by their aid, and, by a similar patient inquiry, to confirm or confute the opinions I have founded upon them; viz. that the inner or superior opening of the inguinal canal is a muscular opening, or rather split, capable of a great degree of contraction, which is usually the cause of strangulation in cases of recent herniæ, and is by no means an infrequent one even in older ones. Before I was enabled to demonstrate the muscular structure of these parts, I had had the opportunity of examining the bodies of two persons who had died from strangulated herniæ, in both of whom the stricture on the intestine had been so great, that a common silver probe could not be easily passed in the canal of the gut. The last case was that of a person who had been operated upon, and died shortly afterwards; the intestine had been returned into the cavity of the abdomen, and was found lying behind the inner ring, with a narrow but deep indentation around it, marking the place at which the stricture had existed, and through which a probe could only be passed by dilating the contraction. I showed the preparation at my lecture, and declared, what I believe to be true, that this could only have taken place from some direct muscular pressure from without, and not from any congestion or dilatation from within or below the stricture. I also acknowledged that I could not show, by dissection, in what manner this contraction had taken place, or by what parts it was effected. I have always, however, continued to impress upon the minds of the gentlemen attending my lectures for the last ten years, that the principal cause of strangulation in recent hernia was a contraction of the superior or internal opening of the inguinal canal, the cause and nature of which I could not satisfactorily explain; that it was, therefore, a point in anatomy deserving investigation, for a discre-

pancy of this kind could not exist in nature; and that there must be something defective in our knowledge of the subject." (P. 1.)

Mr. Guthrie then gives (from S. Cooper's Surgical Dictionary,) the conflicting opinions of the most eminent surgeons of Europe on the anatomy of the parts concerned in inguinal hernia, and says,

"I hardly dare venture to give the reason which in my mind has led to the great apparent discrepancy of opinion which exists between so many able men on so plain a matter of fact. It is possible that it may have arisen from the great minuteness with which it has been attempted to describe parts that scarcely deserve it, especially the fascia transversalis, and from the great variety which exists in the formation of several of the principal parts.

"Sir Astley Cooper first gave to the fascia the name of fascia transversalis, and drew attention to it in so marked a manner as to attract that of other anatomists. Jules Cloquet made it an object of particular study, and Blandin and Velpeau consider it to have been more accurately investigated by him, on which account I have transcribed his account of it, page 5. Cloquet says, that he had not seen Sir Astley Cooper's work, but had formed his ideas of it from that of Mr. Lawrence; and it appears to me that he, Blandin, and Velpeau, have fallen into a misapprehension on the subject, common to many of our own countrymen, who have described that to be fascia transversalis alone, which is in reality the tendon or aponeurosis of the transversalis muscle implanted upon it; for without such misapprehension it is impossible to say that the spermatic cord always lies on the fascia transversalis in any part of its course after it has passed the superior opening of the inguinal canal, and has emerged from under the fleshy fibres of the transversalis muscle; nevertheless this is said to be the case. The statement made by Cloquet, Blandin, and Velpeau, that the fascia transversalis arises from the inner edge of Poupart's ligament by a reflection upwards of that part, whilst Sir Astley Cooper describes it as passing beneath to form the sheath of the femoral vessels is another cause, I suspect, of the misunderstanding which has taken place. Cloquet, who wrote from very laborious observation, says, in a note at page 26 of his work, and in addition to the observations I have quoted, page 6, 'that very often the fascia transversalis is evidently formed of two aponeurotic layers, which are united on a level with the top of the crural arch. Of these the anterior comes from the arch itself (Poupart's ligament), the posterior being only a continuation of the fascia iliaca, which quits the iliac muscle to ascend upon the anterior wall of the abdomen. These two layers thus reunited proceed back to back between the transversalis muscle and the peritoneum. It is easy to separate them on the outside of the superior opening of the inguinal canal, but on the inside and around it they are intimately united. When this formation is met with, the posterior layer passes usually behind the rectus muscle in its

way to the linea alba, whilst the anterior one is continuous with the edge of the tendon of the rectus. The epigastric artery is sometimes posterior, sometimes anterior, and sometimes even between these two layers.' This description, which Cloquet gives as of an accidental occurrence, is, in my opinion, that which most frequently takes place; and if the fascia transversalis be said to be composed of two layers, the anterior being fibrous, the posterior cellular, much confusion will be avoided.

"The division which is made of the fascia transversalis into two parts, where it lines the wall of the abdomen, one being called external, the other internal, or anterior and posterior by Sir Astley Cooper, (but which are not the anterior and posterior layers of Cloquet,) the spermatic cord passing between them through an opening, which is named the superior opening of the inguinal canal; is also a fertile source of inconvenience to the student, who will seek in vain for any such opening. If he is taught to consider the fascia transversalis as a sheet of condensed cellular membrane divisible in some parts into two layers, passing upwards from Poupart's ligament to fortify the peritoneum, he will readily understand it; and if he is shown that at a certain spot it becomes much thinner and allows the spermatic cord to pass through, he cannot fall into any misapprehension. This part is not however an opening; it is merely the thin portion of the fascia which, as the testis escaped from the abdomen, was carried forward by that gland, and is now seen attaching itself to the spermatic cord. If this cord be drawn down and an incision be made around it close to where it is attached to the peritoneum, a sort of ring is formed, and if the finger be introduced, the thin part can be stretched or torn, until the firm internal edge of the denser anterior layer of fascia transversalis can be distinctly seen, having the epigastric artery a little to its inner side. The outer side of the ring is not so well marked, and the hole thus made by the finger is usually so large, and its outer edge so weak, as to occasion little fear of any great constriction being made by it on any portion of the contents of the abdomen which may be protruded through it. It is therefore not the part which constitutes the stricture at what is called the inner ring." (P. 10.)

Although hernia is one of the commonest of all infirmities, so frequent indeed, that it has been conjectured that one sixth of the whole population of the kingdom is afflicted with it, and though, consequently, the opportunities of dissecting a hernial sac are innumerable, yet doubts still linger round this part of surgery, and throw their cold shade over the attempts to explain the exact nature of these morbid protrusions. Our author observes:

"From the misapprehension which has taken place with reference to the inferior portion of the transversalis muscle, the coverings which a hernia of direct descent receives at this part has been a

matter of doubt. Mr. S. Cooper gives (page 660 of his Dictionary,) the opinions upon this point of Messrs. Hesselbach, A. Cooper, Cloquet, Lawrence, and Stanley, leaving it, however, undecided whether the covering or investment is or is not formed as, he says, Sir Astley Cooper is reported to have described it in his lectures, viz. one half by the tendon of the transversalis, and the other half by the fascia transversalis. According to my version of the anatomy, it appears to me quite clear that there are two investments, one formed of the two layers of the fascia transversalis, and another external to that formed by the tendon or aponeurosis of the transversalis. The statement said to be made by Sir Astley Cooper can only be correct when there is no inferior portion of muscular fibre or of aponeurosis to the transversalis muscle, and which is sometimes wanting, although rather as an exception to the general rule, than as the general rule itself, or when the insertion of the superior fibres of the transversalis is effected by a narrow tendon. In the hernia of direct descent, or the internal inguinal hernia of Hesselbach, the coverings, when enumerated from within, are, the peritoneum, fascia transversalis, tendon of the transversalis, and tendon of the internal oblique more or less conjoined, the intercolumnar fascia, the superficial fascia and integuments. As this hernia passes to the inside, and rather underneath the spermatic cord, it does not receive a covering from the cremaster. The external inguinal hernia, or of oblique descent, lies upon or above, and to the outside of the spermatic cord; the internal inguinal hernia, or of direct descent, lies to the inside of, or below and underneath the cord, constituting the principal features of diagnosis, especially in old herniæ. In the latter species, or of direct descent, the internal oblique muscle may not always be inserted low enough down towards the pubes, so as to give a covering to the hernia, which then only protrudes, or carries before it the transversalis. This fact will not however be discovered in operating; for the pressure on the parts causes such a consolidation of them, that the two tendinous expansions, when they exist, become so closely united as to form but one covering. When enumerated from without, the coverings are the integuments, superficial fascia, intercolumnar fascia, the tendinous expansions of the internal oblique and transversalis muscles when they exist, the fascia transversalis, and peritoneum.

"The internal oblique muscle would in the male form a layer of muscular and tendinous fibres external to the transversalis, and a complete support or covering to this part of the abdomen, if it were not for the opening to admit of the descent of the testis and the passage of the spermatic cord. The gubernaculum testis, a part of original formation, is supposed to possess the power of drawing down the testis through this opening, which I very much doubt. I believe that the testis descends or ascends, as the case may be, at the proper period, for the same reason that a child is usually born at nine months in preference to any other period of utero-gestation, which is, as Avicenna says, by the will of God. The office of the

gubernaculum appears to be to keep a passage open which might otherwise be closed, if it were not occupied in this manner, rather than to operate on the testis by any contraction of its substance. As the testis passes through the transversalis muscle it may bring down with it any fibres which lie in its way; and when this occurs, the transversalis is found to be united at this part to the internal oblique, and the fibres thus brought down assist in forming the cremaster muscle, which is nothing more than a certain portion of the lower edge of the internal oblique caught by the testis and carried before it. The fibres caught on the centre of the testis are carried down with it into the scrotum by a gradual elongation, so that they form a sort of sling around the testis, which supports and can raise it towards the abdominal ring, whilst those fibres which are only entangled on its anterior and posterior surfaces, form arches, which descend before or behind according to the situation of the points of entanglement. The cremaster muscle is then a portion of the under edges of the transversalis and of the internal oblique muscles, arising also from Poupart's ligament by its under edge, until it is carried away by the descent of the testis; but the point of insertion of these fibres remains the same, viz. into Poupart's ligament near the pubes, after forming the sling and the arches above described, and which point of insertion was considered by Scarpa and others until the time of Cloquet, to be another or second origin, which is evidently an error. When the testis is detained in the abdomen, it is not for the want of an opening in the transversalis or internal oblique muscles, but for some reason which has not yet been sufficiently explained, as the person commonly suffers from a hernial protrusion, the consequence of the part being less defended than usual by the natural structures.

"The anatomy of the inguinal canal from without inwards is as follows. The tendon or aponeurosis of the external oblique muscle being turned down upon the thigh, the spermatic cord is seen lying in the inguinal canal, embraced by the cremaster muscle, which passes down upon it. The lower edge of the internal oblique separating from the cremaster which is a part of it, passes on to form its share of the sheath of the rectus. The cremaster being cut across and turned upwards, the spermatic cord is seen passing from under the fleshy edge or through the split of the transversalis muscle, and having beneath it another fleshy or aponeurotic portion of the same muscle descending to be inserted into Poupart's ligament. It is on this part that the cord lies, and it forms of course the posterior wall of the inguinal canal, having behind it more or less closely attached the fascia transversalis. If the internal layer of fibres of the transversalis curve downwards to be inserted into Poupart's ligament after passing over the cord, this part lies more decidedly upon them, and not on the fascia transversalis. See Plate III. fig. 1." (P. 16.)

In very old herniæ, the ring or opening is no longer affected by the contractions of the transversalis; and bleeding to syn-

cope, which is so useful in the strangulation of a recent hernia, is prejudicial in an old one. In the latter case, "the first evil is from congestion and distention; the first stage is that of incarceration, followed ultimately by inflammation, first shown by pain at the umbilicus, and, after a greater or less lapse of time, by pain in the part, but which is never so acute as in the recent cases." (P. 22.) Mr. Guthrie has seen a case of this kind which had lasted three days, and terminated favourably.

"The swelling was large and very hard; but as the integuments were thin, and the part not painful, it admitted of accurate examination. The hardness appeared to be dependent on a collection of solid fæcal matter, and after some trials a portion of it at the upper part was broken, and pressed through the external ring. This was followed by a second, and so on in succession until the whole was pushed into the abdomen, with the intestine which had contained it. The symptoms immediately subsided, and a dose of purgative medicine completed the cure. The openings in the abdomen through which the parts protruded were in this case entirely passive." (P. 26.)

The regret we feel that our limits do not permit us to make any more extracts, is somewhat diminished by the probability that Mr. Guthrie's essay is already in the hands of half the operating surgeons in England. It is not only illustrated, but embellished with several handsome plates.

A New Dictionary of Medical Science and Literature: containing a concise Account of the various Subjects and Terms; with the Synonymes in different Languages, and Formulæ for various Officinal and Empirical Preparations, &c. By ROBLEY DUNGLISON, M.D. Boston, 1833. Two Vols. 8vo. pp. 1239.

THIS compilation does credit to the industry of Dr. Dunglison, who is a professor in the university of Virginia; it contains an immense number of short and pithy explanations of scientific terms, which are rarely suffered to expand into an essay on the subject. In a few instances, however, as under the words Climate, Diet, and Feigned Diseases, the author has ventured to be more diffuse, and has, in general, made good use of the greater liberty he has allowed himself. A few extracts may give our readers some idea of the plan of the work.

"ABRACADABRA (*Med. Antiq.*), the name of a Syrian idol, according to Selden. This word, when pronounced and repeated in a certain form, and a certain number of times, was supposed to have the power of curing fevers, and preventing many diseases. It

was figured on amulets, and worn suspended round the neck. The following description of it is given by Serenus Sammonicus, who had great faith in it.

"'Inscribas chartæ quod dicitur *Abracadabra*,
Sæpius et subter repetas, sed detrahe summæ,
Et magis atque magis desint elementa figuris,
Singula, quæ semper rapies et cætera figes,
Donec in angustum redigatur litera conum.
His lino nexis collum redimire memento.'

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"ACCLIMATEMENT, (F.) (*Hyg.*) The act of becoming acclimated, or accustomed to a climate. The constitution of a person who goes to live in another and very different climate, usually experiences changes, which are frequently of an unfavorable character, and the study of which is of considerable importance in medicine."

We should rather have said the *process* of becoming acclimated, than the *act*, as it does not take place at once.

"ANENCEPHALUS, *(Path.)* ανενκεφαλος, from α priv. and εγκεφαλος, brain. A monster devoid of brain. *Bonetus.* A weak, silly person. *Hippocr.*"

Our author, whose forte is certainly not in Greek, should have written ανεγκεφαλος. In another place, he derives that formidable word χολερα (cholera) from χολη, bile, and ρεω, I flow; but it is hardly necessary to say that χολερα, the nom. fem. of χολερος, is derived from χολη alone, and agrees with νουσος; the name of the malady at full length being ἡ χολερα νουσος, the bilious disease.

"The A'ZYGOS MUSCLE. *A'zygos U'vulæ* is the small muscle which occupies the substance of the uvula. *Morgagni.* The name is however inappropriate, as there are two distinct fasciculi, placed along side each other, forming the *Paláto-staphylíni*, *Staphylíni*, or *Epistaphylini* muscles, *Staphylíni médii* of Winslow."

The eminent physician mentioned in the following article will smile when he reads it. Long may the latter blank remain unfilled!

"BREE, ROBERT, M.D. (*Biogr.*) A native of Warwickshire, and

practised in London; he was born in ; died in . Works: Practical Inquiry on Disordered Respiration, &c. Lond. 1797, 8vo.; with an appendix, 1800, 8vo."

Dr. Dunglison is not quite *au niveau du siècle* in this little biography: there have been several editions of the work mentioned since 1800.

"CUTAM'BULUS (*Med.*), from *cútis*, skin, and *am'bulo*, I walk. Walking in the skin. An epithet given to certain parasitical animals which creep under the skin; such as the Guinea-worm, and to certain pains felt, as it were, between the skin and flesh."

We quote this merely for the purpose of warning our younger readers from indulging in the use of barbarous terms like Cutambulus, with the vain hope that they are adorning their style, and gaining credit for scholarship. Quite the reverse; they are only laughed at. There are many imaginary words in this book which happily have never been brought into use; such as *Aconusi, Adenochirapsologia, Æsthematonusi, Allantotoxicum, Amasesis, Amnioclepsis*, &c.

"DENG'UE (*Path.*) *Dingee, Danga, Dandy, Bouquet* and *Bucket Fever*. A disease which appeared, in the years 1827 and 1828, in the West Indies, and in the southern states of North America. It was extremely violent in its symptoms, but not often fatal. It usually commenced with great languor, chilliness, and pain in the tendons about the smaller joints. To these symptoms succeeded burning heat and redness of the skin, pains in the muscles of the limbs, or in the forehead, with vomiting or nausea. The fever continued for one, two, or three days, and usually terminated by copious perspiration. In different places it put on different appearances, but seems in all to have been a singular variety of rheumatic fever. The usual antiphlogistic treatment was adopted. and successfully.

"FÚGILE, (*Path.*) This term has several acceptations: it means, 1, the cerumen of the ear; 2, the nebulous suspension in, or the deposition from, the urine; 3, an abscess near the ear, (*Ruland* and *Johnson*;) 4, abscess in general. *Forestus.*"

"LY'TTA VITTA'TA, (*Mat. Med.*) *Cantharis vittáta, Potátoe Fly.* Four species of melöe that blister are found in the United States. The lytta vittata feeds principally upon the potatoe plant, and at the proper season of the year may be collected in immense number.

"The potatoe-fly resembles the cantharides in every property, and is fully equal to them.

"(F.) *Canthariде tachetée.*"

"NOM'ADE, (*Anthropol.*) Nómas, νομας, from νομη, pasturage; an epithet given to people who have no fixed habitation, and who travel with their flocks from country to country, for pasturage.

Such are the Tartars. By analogy, the word Nomad'ic has been applied to spreading ulcers."

"PHLEBECTA'SIA, (*Path.*), from φλεψ, a vein, and εκτασις, dilatation. Dilatation of a vein, or of a portion of a vein. *Alibert.*"

Alibert is much better employed in copying *dartres* than in coining Greek words, which seems to have become a sort of passion among the French.

"QUANDROS. Ancient name for a precious stone believed to exist in the brain of the vulture, and to which was attributed the property of augmenting the secretion of milk, and preserving from deadly accidents. No such stone exists."

A similar stone was supposed to exist in the head of the toad. Steevens, in his commentary on the well-known passage,

"Sweet are the uses of adversity," &c.

has quoted some directions from an old writer for ascertaining the genuineness of the toadstone: we are to show it to a toad, and, if it be "a ryght and true stone, the tode will leap towarde it, and make as though he would snatch it: he envieth so much that man should have that stone."

"SYPHILOMA'NIA, (*Path.*), vulgarly *Noddle-pox.* A mania with which some persons are affected, so that they will subject themselves to antivenereal treatment, under the belief that they are affected with the syphilis of which they may have been previously cured."

These specimens will show the plan of Dr. Dunglison's Dictionary, which certainly, upon the whole, deserves considerable commendation.

Graphic Illustrations of Abortion, and the Diseases of Menstruation. By A. B. GRANVILLE, M.D. F.R.S. London, 1833. 4to.

How far a work of science is demanded by the state of knowledge, is a question which it behoves every author to ask himself, previous to offering his lucubrations to a public already possessed of an accumulation of information from former sources, and therefore more fastidious concerning the character of novelty which any present production may bear. The title of Dr. Granville's volume might very probably cause the question to be raised by all those English medical men who have seen and admired (and who has not?) the splendid illustrations of the gravid uterus, published by Dr. Hunter. Our author, anticipating the probability of such a question, has himself broached it in the "advertisement"

to the Graphic Illustrations; and, as his own answer must be that of every impartial student, we give it in his own words:

"Not to speak of the many authors on matters of this description who preceded Dr. Hunter and Professor Soemmering, in giving representations of the human embryo in many of its metamorphoses, such as Ruysch, Noortwyk, Albinus, Krapft, Wrisberg, Camper, Blumenbach, Denman, and others, I am ready to admit that both Hunter and Soemmering had given to the world delineations, such as are here referred to, which ought to satisfy the medical profession. The one, in his splendid work on the 'Gravid Uterus,' a gigantic folio edition; the other, in his no less valuable folio plates of the human embryo. But, unfortunately, neither of these works can be considered as accessible to the generality of professional readers, on account of their high price and rarity; and even if either were accessible, the subjects therein treated are viewed differently from those collected in the present work. Those works, moreover, present no coloured specimen of delineation of parts, most of which, if not all, from that circumstance lose their principal value; and, as productions of art, they are not equal to what Mr. Parry has enabled me to offer to the public."

Again, as to the want of similar plates, Dr. Granville says,

"I support the affirmative by appealing to all those of the profession who have had occasion to be consulted in cases of abortion, and the expulsion of those singular productions of the uterine cavity which seem connected with menstruation or faulty conception. Let them say whether a work in which the principal of the infinitely varied aborted human ova, and of the uterine productions alluded to, are faithfully represented, be not likely to be useful; whether, in fact, it be not wanted; or whether it exists already anywhere?"

The reader will find that, in these answers, Dr. Granville has paid all the respect that is due to his predecessors in this path of investigation, and has not discovered too much of the self-complacency which the labour of years permits an author to assume. Nor will this be the less evidently true on perusing the letter-press, and examining the plates which accompany it.

The letterpress is composed of physiological "prolegomena," contained in 102 propositions; with explanations of the pathological plates, and remarks upon them.

In the Prolegomena, the author combats the "antiquated theories" concerning the fecundation and development of the ovum; theories which, he says, "the great and rapid strides which physiology has made in France, as well as in Germany, have contributed to explode." And, when we peruse the

arguments and authorities cited in this part of the work, to establish more modern doctrines, we cannot but think it essential that every medical man, reared in the belief of older ones, should learn from these propositions of Dr. Granville on how uncertain a ground his own creed is founded. In order to give such a reader, as well as the one of more modern notions, some idea of the doctrines advanced in the work, we transcribe a few of the propositions.

"The ovulum has been traced, after fecundation, into the cavity of the womb, where the external covering becomes what Boer has called 'the cortical membrane' (cortex ovi of the present work), improperly considered as a uterine production by preceding writers, and denominated the reflected caducous or deciduous membrane." (Prop. 20.)

"The more intimate covering of the yellow body of the ovulum, that which closely invests its surface and appears only after fecundation, is afterwards changed into what is called the shaggy chorion." (Prop. 21.)

"The cortical membrane is destined to be absorbed during the first months of utero-gestation, thus exposing the next membrane to the contact of the uterine lining (decidua), with which a connexion takes place in that part where the placenta is to be formed. In that part, however, the cortex ovi is never altogether obliterated, but only made thinner; and in process of time it is converted into a mere pellicular envelope, which not only serves to divide the filiform vessels of the chorion into groups, or cotyledons, in order to form the placenta, but also covers all over those cotyledons or groups of vessels." (Prop. 26.)

"On the cortex bursting, the lanuginous or fibrillous membrane within it (see prop. 21,) is exposed, when the fibrils will forthwith entwine themselves with the flocculi of the decidua, and thus the ovulum fastens itself to the uterus by one or more contiguous points. Carus." (Prop. 43.)

"The membrane having these fibrils on its surface has been called the chorion; and from the circumstance that these fibrils, both before the cortex which lies over them has burst, as well as afterwards, serve to promote the nourishment of the fœtus, I have styled it the nutritive membrane, or involucrum of the fœtus." (Prop. 44.)

"The amnion is a sac formed by the reflected epidermis of the embryo, (Velpeau, Boer, Pockels.) It does not exist before the twelfth day (Velpeau.) At the eighteenth day it is found as a bladder placed on the back of the embryo, and continuous to it along its edges or sides, and at its extremities (Velpeau.) It has been distinctly seen on the twelfth day (Pockels.) It is then not a concentric membrane with the chorion, but a vesicle, on the outside of which the embryo rests as on a bed. Until the day in question, the embryo is connected to the vesicular amnion at the

back, by a cellular transparent membrane. From that time till the sixteenth day, the embryo progressively gets into the cavity of the amnion, which before was connected with the chorion by one of its pyriform extremities, while the other conical extremity penetrates slowly into the albuminous fluid of the chorion (Pockels.)" (Prop. 54.)

"The nervous system is not developed, beginning at the centre, and proceeding towards the circumference of the embryo, but the reverse. Thus the lateral nerves of the head, trunk, and pelvis, are already formed, when the cerebro-spinal system is in a liquid state. It follows hence, that those nerves cannot be considered (as it has all along been supposed,) in the light of emanations from, but as distinct bodies proceeding to, that particular portion of the nervous system (Serres.") (Prop. 69.)

Though thus abounding in modern authorities, it must not be supposed that Dr. Granville has omitted to verify by his own observations those points which have been recently advanced: on the contrary, his personal experiments continually come to bear upon such, as well as to elucidate doctrines purely his own. The latter is more particularly seen in the propositions included within the 77th and 88th. In these the formation and structure of the placenta are well laid down, and his own experiments detailed in a clear and forcible manner.

Suffice it to state, in the author's own words, (Prop. 89,) that his "view of the real structure of the placenta differs from that of Dr. Hunter only in the non-adoption of that great man's notion that continuous vessels go from the uterus, *through* the decidua, direct into appropriate cells, or laminæ, where he supposed that the arteries deposited their blood, which the veins pumped back into the uterine vessels' system of the mother, after it had served the purpose of bathing the terminal or cotyledonic vessels of the fœtus."

With regard to the fœtus, the author holds the opinion that it is independent of the mother *quoad* life, but dependent *quoad* nutrition. (Prop. 100.)

Respecting the plates, we can only add our tribute of praise to that which has already been bestowed upon them.

Memoir on the Advantages and Practicability of dividing the Stricture in Strangulated Hernia, on the Outside of the Sac. With Cases and Drawings. By C. Aston Key, Senior Surgeon to Guy's Hospital. London. 8vo. pp. 161.

The author of this volume has long been known to the profession as one of the best operating surgeons of the day. The subject on which it treats is of great practical importance, and one which it is hardly possible to do justice to in the limited observations of a review. In order to substantiate the general practicability of the operation, he details thirteen fatal cases of hernia, in which the sac was divided after the usual manner. Although, upon a perusal of them, we see no circumstances which would have afforded any valid objection against the external division of the stricture, we feel nevertheless bound to add, that it does not appear to us at all clear that their fatality resulted from laying open the sac; for, of the thirteen cases adduced, it is clear that five died from mortification, consequent, in all probability, upon delay in operating; two from doubtful causes; and six only from peritoneal inflammation. We confess likewise that we should have been better satisfied if the treatment of these last had been given somewhat more in detail; and especially if our author had mentioned the quantity of blood which was taken away; for we believe that peritonitis, from whatsoever cause it may have arisen, is often permitted to terminate fatally from a too sparing use of the lancet.

After giving an "historical sketch" of the operation, which was first performed by Petit, in 1718, Mr. Key adduces the arguments in favour of its performance, as mentioned by Monro, Sir A. Cooper, M. Boyer, and others; and, in connexion with this part of the subject, remarks,

"A prominent character of the operation, and one that raises it above many of the objections that have been brought against it, is, that should the attempt to execute it fail, either from want of dexterity on the part of the operator, or from any peculiar difficulty in the case, the operation can be completed in the ordinary way, by laying the sac open. A surgeon may possibly find great and insuperable difficulty in dividing the stricture externally to the sac; or, having divided the stricture, he may be unable, by the best directed efforts, to return the contents of the hernial tumor: in such a case, he has not brought himself into any dilemma by his unsuccessful attempt; the operation may proceed, as if it had not been made; and neither patient nor surgeon are in a worse position than if the sac had been opened in the first instance, without the attempt to preserve it entire. It is no slight recommendation of the operation,

that its failure involves the surgeon in no embarrassment, but leaves him at liberty to adopt the old mode of operation.

"But an intermediate line of proceeding remains for his choice, between the division of the stricture on the outside of the sac, and the laying the latter open in the usual way, so as to expose its contents; namely, the operation, as recommended and practised by Monro, in his fourth case, of making an opening into the sac below the stricture, introducing a director into the opening, conveying it under the stricture, and dividing the latter upon it. Such a proceeding diminishes the danger of inflammation, by less freely exposing the surface of the intestine; and in a simple case of recent enterocele, strangulated, appears to be free from objection. An unusual degree of tightness in the stricture at the inner ring, in inguinal hernia, rendering it impossible to divide the tendon without wounding the neck of the sac, or a thickening of the neck of the sac in femoral hernia, might render this modification of the operation expedient, and perhaps these are the only cases in which it can be considered to be strictly necessary, or indeed to possess any decided advantages. If the stricture could not be relieved without passing the bistoury within the neck of the sac, the operation would be preferable to the more free incision of the sac; but it would not render the return of the contents of the sac more easy than if the stricture were divided on the outside of the peritoneum. It also equally conceals from examination the state of the intestine and omentum, and precludes the possibility of knowing whether they are in a condition to be returned into the abdomen. To these latter objections it is equally liable with the external division of the stricture." (P. 47.)

A few pages farther on he adds:

"I need not again urge the main benefit derived from the external division of the stricture, in the non-exposure of the patient to those causes of inflammation to which the ordinary operation subjects him, and, as experience frequently proves, with most unhappy consequences. The exposure of a bowel in a state of incipient or active inflammation, the handling it in this susceptible state; the incision made into a peritoneal bag already disposed to, if not in an actual state of inflammation, are, as every surgeon will admit, and as his forcible efforts to reduce the hernia without the knife prove that he feels them to be, dangers of no ordinary magnitude to a patient labouring under a strangulated intestine. I do not feel that I have exaggerated the risk of inflammation; for frequently enteritis comes on when, at the time of the operation, the bowel appears to be healthy, and the abdomen free from tenderness; and, when general inflammation precedes the operation, the release of the intestine by the knife rarely succeeds in checking it.

"Cases are sometimes met with in which the patient appears to be doing well after the operation, the evacuations being free and

natural, and the sickness and pain subsiding; but, after the lapse of two or three days, the powers begin to sink; the abdomen, though not very tense, is uneasy under pressure, the pulse small and quick, and the tongue becomes dry and coated. This condition is perhaps protracted for several days, and the patient at length dies. A post-mortem inspection discovers the cause of death in the dark colour and lacerable condition of the strangulated portion of bowel, and the vascular state of the surrounding parts.

"This unexpected termination of a case, when it does occur, usually takes place in patients of enfeebled constitution, whose powers are unequal to the restoration of the healthy circulation in the strangulated bowel after its release from the stricture; and in whom, therefore, a slight degree of inflammation gradually ends in the extinction of its vitality. At the period of the operation the intestine, when exposed, presents none of the usual indications of present or approaching gangrene; no infiltration of its tissues, no discoloration beyond that which retarded circulation in a healthy bowel produces, no lack of peritoneal lustre, and no lacerability of texture; it in no point appears to differ from those cases of strangulation in which an early operation is had recourse to before severe symptoms come on, and in which a favourable prognosis is verified by a rapid convalescence. Exposure of a portion of bowel possessing such feeble powers of resistance to morbid influence cannot but tend to increase, probably to excite, a disposition to inflammation; which, though low in degree, is sufficient to destroy its vitality; and it may therefore be fairly regarded as the main agent in the production of gangrene.

"In cases in which great depression of the powers are observed to precede the operation, death sometimes rapidly takes place without any other obvious cause than the exposure of the bowel. The condition of the patient is often found to be manifestly worse after the operation, and stimulants are obliged to be plentifully administered, in order to sustain the sinking powers of life. This may happen without inflammation of the abdominal cavity, or gangrene of the bowel, and is attributable solely to the depressing effect of the operation." (P. 51.)

These copious extracts will clearly show Mr. Key's reasons for giving a preference to this operation over that in ordinary use. In the validity of his views we in some points fully concur, though we think he has laid rather too great a stress on the effect of atmospheric influence on the "exposed bowel," and the danger of dividing the epigastric artery; but we must refer our readers to the work itself for a more extended examination of this part of the subject.

After giving the arguments which have been brought forward in favour of and against the operation, he details his "own experience of it, and the steps of the operation in the

three most common forms of the disease." With a candour which cannot be too much praised, he gives the particulars of the first two instances in which he attempted it, and in both of which he was ultimately compelled to lay open the sac. Great merit is due to him for the plain and straitforward manner in which these cases are mentioned, and which, we ought in fairness to add, offer no valid objection to the general adoption of the operation. When operating upon femoral hernia,

"The extent, as well as the form of the incision through the integuments, may seem of minor importance, except as far as it tends to facilitate the after steps of the operation; yet it may be as well to disturb the subjacent cellular membrane as little as possible, as inflammation is less likely to follow, and to assume the form of erysipelas. For this reason, the inverted T incision, usual in the operation for femoral hernia, may be in most cases reduced to a single incision, either at right angles to Poupart's ligament, or in a transverse direction across the tumor. In patients who are spare, and in whom the neck of the sac lies at no great depth from the surface, it is unnecessary to disturb the cellular membrane by turning aside the flaps of the integument. This will diminish the suppurative inflammation, and in such cases will afford ample room for the operation. I have not made trial of the perpendicular form of incision, but a single transverse one I have found sufficient, when the integuments have been loose, and the tumor not large. The superficial fascia adheres firmly to the common integuments, and is usually turned aside with them, especially when the latter are pinched up for the purpose of making the first incision. The fascia propria is therefore quickly exposed, and forms the first distinct covering of the tumour, being darker than the more superficial cellular investment. It is under the outer layer of this fascia that the adipose structure is formed, and which often assumes the appearance of omentum. The director easily makes its way under this fatty matter as far as the neck of the sac, which lies deeper than the operator at first supposes. The point of the director should be applied rather to the inner than to the outer part of the neck of the sac, as it will be found more easily to pass under the stricture at this part. It should not at first be attempted to be thrust under the stricture, as the firmness of the parts forming the stricture would resist it. But the seat of stricture being felt, the operator should depress the end of the director upon the sac, which will yield before it, and then, by an onward movement, the director slides under the stricture." (P. 142.)

"In inguinal hernia the incision may be so conducted as to enable the surgeon to divide the stricture either at the internal or at the external ring. The opening in the skin must be made higher than is usual in the ordinary operation on a bubonocele. The incision should begin at the neck of the tumor, or where it seems to

quit the abdomen, and should be continued downward for about an inch and a half. This will lay bare the lower portion of the external oblique tendon, where it forms the ring. A small opening should then be made in the tendon, just above the ring, sufficient to admit the end of the director, which will enable the operator to ascertain if the stricture be at the lower or upper opening. The size of the hernia, and the length of time it has existed, will, in some measure, serve to guide him; but he may immediately decide the point by passing the director downward under the edge of the external ring, and feeling whether it embraces the tumour firmly or not; or, by making pressure on the swelling below, he may feel if the fluid contents of the tumor can be forced upward above the ring, so as to distend the sac in the inguinal canal. This point being decided, if the stricture be at the lower ring, he has only to pass his director under its margin, and to divide it to a sufficient extent.

"If the stricture exists higher up at the neck of the sac, where it will be found in the majority of herniæ of this description, the opening in the tendon should be enlarged to the extent shown in the second drawing, for the purpose of passing the director under the deeper stricture. The lower margin of the two muscles will be brought into view, with some of the descending fibres of the cremaster. These may be separated by disturbing the cellular membrane with the end of the director; and the instrument may then be introduced under the transversalis muscle till it reaches the stricture. In the subject the director, when introduced in this manner, passes before the transversalis fascia: this will diminish what little risk there may be of wounding the peritoneum, and will carry the knife farther from the epigastric artery: the tenuity, however, of this fascia will, perhaps, often allow the director to pass beneath it. The instrument should be depressed upon the sac, in order to carry its point under the border of the transversalis, which may be divided to the extent required. This operation is more difficult than the division of the stricture in femoral hernia: the principal difficulty lies in the accurate separation of the lower edge of the internal oblique muscle, for the easy passage of the director. The stricture, however, is not so firm in inguinal as in femoral hernia, and the introduction of the director under the transversalis tendon will not be difficult, where it is fairly passed up to the neck of the sac before the attempt is made. The steps of the operation will be much the same in those smaller hernia which are lodged in the inguinal canal. When the stricture is divided, a greater degree of pressure will be required to return the contents of a large inguinal hernia, on account of the distance from the neck of the sac to the bottom of the tumour, and especially when the omentum forms a part of its contents.

"In small bubonocele, where the protrusion has scarcely reached the external ring, and accompanied, as it commonly is, with an imperfect descent of the testicle, the same manner of operating may be followed.

"I prefer making the opening in the tendon in the manner described in the drawing to slitting up the external ring, as the opening in the tendon will afterwards unite more firmly if the ring be left entire, and will not dispose the patient more to the disease than when the operation is performed in the usual way."

In umbilical hernia, which Mr. Key states is, of all forms of the disease, the one which most requires the sac to be preserved entire,—

"The division of the tendinous margin of the umbilical aperture is not difficult; it requires care, on account of the extreme thinness of the sac; and the operation, therefore, consists in a cautious exposure of the linea alba, where the tumor emerges from the abdomen. The orifice of the sac is rendered readily accessible at its upper part by the descent of the swelling towards the pubes; the sac, when it emerges from the abdomen, does not extend equally in all directions, but gradually makes its way downwards, in consequence of the weight of its contents; and therefore, in old large herniæ, though the aperture in the tendon bears but a small comparison to the size of the tumor, it is scarcely at all overlapped by it at the upper part." (P. 150.)

In conclusion, we must express our regret that Mr. Key has not furnished us with a greater number of cases, illustrating the advantages of the operation which he advocates. In this most important point our author is extremely deficient; and we cannot help thinking that he would have acted more wisely, if he had delayed the publication of his memoir till experience had enabled him to place it before the profession in a more satisfactory manner.

Clinique de l'Hôpital Saint-Louis; ou, Traité complet des Maladies de la Peau: contenant la Description de ces Maladies, et leurs meilleurs Modes de Traitement. Orné de 63 *Planches gravées au burin, parfaitement coloriées, et retouchées au pinceau.* Par M. le Baron J. L. ALIBERT, Officier de la Legion d'Honneur, Chevalier de plusieurs Ordres, Médecin en chef de l'Hôpital Saint-Louis, &c. 4me Livraison. A Paris, 1832.

THIS is the second edition of the celebrated work of Alibert on the diseases of the skin. An additional experience of more than twenty years has enabled him to arrange his materials in better order, and he can no longer be charged, as he was by Dr. Bateman, with a "total defect of discrimination and method." It must be confessed, however, that Alibert is weak in the diagnosis: in the present number, which contains the *Dermatoses dartreuses*, he gives no distinct definition of this group, and is contented with endea-

vouring to distinguish it from the last one, the *Dartres teigneuses.* Even Bateman, however, allowed that Alibert was fortunate in the artists whom he employed; and it must be granted, that he is as superior in pictorial illustration as our countryman was in nosological definition. In the present number, the Herpès furfureux circiné, and the Melitagre chronique ou nigricante, are exquisite specimens both of drawing and colouring. Their breadth, freedom, and bold relief, are such as are rarely met with in the illustrations of medical works. This group, the *dartreuses,* is divided into four genera, Herpes, Varus, Melitagra, and Esthiomenos. The Herpes of Alibert is equivalent to the Psoriasis of Bateman: thus, the plate which he mentions as giving a good representation of Psoriasis palmaria illustrates what Alibert calls Herpès squameux centrifuge, (the Dartre squameuse centrifuge of the former edition.) The Varus of our author is the Acne of Willan or Bateman. He observes, that varus is a Latin name for this disease, and occurs in the old pleasantry, a sort of Roman Joe-Miller: "*Miramur cur Servilius pater tuus, homo constantissimus, te nobis tam varium reliquerit.*"

Under the name of *Varus orgéolé,* or *Varus hordeolatus,* he speaks of a chronic hordeolum, or stye, which he says must not be confounded with the acne furuncule that may arise in the same situation: the *varus* may last a lifetime. Alibert thinks that *lippus,* in Horace, means afflicted with this chronic stye. On this point we rather side with the multitude, who suppose lippus to mean sore-eyed; in other words, affected with a slight ophthalmia.

Another species of varus is the *Varus goutte-rose,* the Gutta rosacea of many books, the Acne rosacea of Bateman, who observes: "This species of Acne seldom occurs in early life, except where there is a great hereditary predisposition to it: in general it does not appear before the age of forty; but it may be produced in any person by the constant immoderate use of wine and spirituous liquors. The greater part of the face, even the forehead and chin, are often affected in these cases; but the nose especially becomes tumid, and of a fiery red colour; and, in advanced life, it sometimes enlarges to an enormous size, the nostrils being distended and patulous, or the alæ fissured, as it were, and divided into several separate lobes." And Sennert, who is quoted by Bateman, saw a man whose nose had attained such a size as to be a hindrance to him in reading; for which reason he had some slices cut off, in the year 1629. (*Pract. Med.,* lib. v. part i. cap. 31.)

Alibert confesses that, in these desperate cases, cosmetics are in vain: "cet accident est fréquent chez les femmes, et il se montre souvent irréparable. On peut sans doute a l'aide d'un fard plus ou moins ingénieusement inventé, dissimuler, chez elles, les ravages occasionnés par le temps, corriger des teintes défectueuses, effacer jusqu'aux traces d'une légère altération cutanée; mais les prestiges et les soins étudiés de la coquetterie la plus raffinée ne sauraient corriger ces engorgemens partiels qui se forment dans l'épaisseur des tégumens, qui changent les rapports, et la configuration des traits, qui enlèvent à la physiognomie sa régularité, sa finesse, et son charme."

The third genus, or Melitagra, (the Impetigo of Willan and Bateman,) is divided into two species only, the acute and chronic. The following case, which is an example of the acute form, was treated in the hospital of St. Louis:

"A woman, aged thirty, of a bilious temperament, black hair, and a dark but very fine skin, observed, during the hot summer weather, that a small acuminated pustule had arisen above the right eyelid; its base was surrounded by a deep red areola. New pustules began to appear on different parts of her face, forming by their union a kind of corymb. The sero-purulent fluid contained in them soon burst forth, but, hardly had it been exposed to the contact of the atmosphere, when it coagulated in round crusts of a bright yellow, whose colour might be very properly compared to new honey, or to the globules of gum which in spring transude through the bark of plum-trees. These patches appeared to be the result of a real crystallisation. When carefully examined, each of them was seen to be formed by the junction of small cylinders, which were pointed where they emerged from the skin, and globular at the other end.* Each patch contained as many of them as there were pustules, and hence the surface of the crust was wrinkled and irregular. The crusts were surrounded by a bright red areola, which did not extend more than two lines at most; the rest of the intervening skin was perfectly healthy. Both eyelids, which were of a lively red, were covered with yellow patches, and both eyes were affected with a slight ophthalmia. The lobe of each ear was also covered with honey-like patches, not so thick in consistence, and of a greenish-yellow colour. When these patches were moistened with tepid water, they were partly dissolved, and were easily detached. This singular property of being soluble in water is a fresh reason for comparing these morbid products to gummy substances. (*Alibert*, page 184.)"

Two cases of Melitagra were cured by ioduro-sulphureous lotions; and Alibert remarks, that this shows why warm

* The baron should have called these *pointed cylinders* inverted cones.—ED.

sulphureous baths, containing traces of iodine, are so efficacious in the majority of cutaneous diseases.

The fourth genus, or Esthiomenos, is the Lupus of Willan, Bateman, and Plumbe. Miners, braziers, curriers, tanners, &c. are very liable to this horrible disease, if they neglect the hygienic precautions which their trades require. The Esthiomenos is a disease of youth, and disappears with the approach of manhood; but the unfortunate patients are so disfigured by it as to be disqualified for mixing in society, and therefore cannot resume their former occupations; they usually therefore take the place of servant in some hospital, or other charitable institution. The Esthiomenos is not to be confounded with the Noli me tangere, which is a disease of manhood and advanced life.

Some of our readers will be glad to hear that the price of this second edition of Alibert's great work is exactly half the price of the first; being three hundred francs instead of six hundred.

A Synopsis of Systematic Botany, as connected with the Plants admitted into the Pharmacopœias of London, Edinburgh, and Dublin; accompanied by a Planisphere, shewing at one View the Class and Order of the Medical Genera, according to Linnæus and Jussieu. By THOMAS CASTLE, F.L.S. &c. London, 1833. 4to. pp. 17.

IT is the opinion of a celebrated German physician that anthelmintics are unnecessary medicines; for, says our learned Saxon brother, those parasitic animals we call tæniæ, lumbrici, or ascarides, can exist only when the animal economy is in a low, degraded condition: restore the unfortunate patient to decent average health, give fresh tone to his muscles, and the long-lost elasticity to his step, and, depend upon it, he will be able to eject these loathsome tenants of his bowels, without gamboge, turpentine, or Aspidium filix mas. Now, it seems to us that this dictum of the quaint and original Hahnemann was written for your instruction, O Court of Examiners of the Society of Apothecaries! When you apply to parliament for a new act, demand no clause enabling you to banish *grinders*, or to burn their books; but reform your examinations, make them more healthy, more solid, and the grinder—for man is but a worm—will drop off spontaneously. The strange looking tables of contents which grinders love to palm off as books, must unquestionably be considered as quiet unanswerable sarcasms on the examinations to which they are intended to be passports. Pope or Garth might have written more polished satires, but we doubt if they

could have been keener; and the bold botanical examiner who could bear the heavy blows of the "Synopsis" without flinching, might endure the knout with the most courtly serenity. But we do not expect any examiner to display this unwincing apathy. The *ironie sanglante* of Mr. Castle cannot be misunderstood: he says, as plainly as a "planisphere" can speak, "Your examinations turn on routine phrases, and dry classification, the mere skeleton of botany; a good crammer might inject a passing knowledge of all this into a pupil in two hours. Reform it altogether. Put a dozen plants on the table, selected not from a hundred medical ones, but from the boundless stores of the Hortus Britannicus; ask the young tyro to describe these; question him as to their natural affinities, and probable properties; observe, too, if he possesses the invaluable art of scientific analysis, and can thus reduce the number of classes to which an unknown object may possibly belong. If he can do this, or only a part of it, (for we do not expect to find a Burnett in every tyro,) he is on the road to knowledge, and incomparably superior to one who can say the *Synopsis* by heart, without missing a word."

We are afraid that Mr. Castle will complain that we have dealt out but scanty justice to him, in stating that this Synopsis contains only seventeen pages; for, in reality, the eighteenth page, though not numbered, is covered with advertisements of Mr. Castle's works. They are eight in number, of which six are born, and two unborn. Four have a planisphere, four have none. The advertisement of one of the "planispheric" books has given us so much pleasure, that it would be selfish to deny our readers a participation in it; and we shall therefore quote the whole, with the seal of approbation stamped on Mr. C.'s book by a kindred genius.

"V. Price four shillings and sixpence. A table for finding the commencements, characteristics, and regular inflexions of Greek verbs; by affording at one view: first, a list of the letters which may commence a verb, with the manner in which they respectively receive the augment; secondly, a list of the characteristic letters of the present tense, with the change that takes place in the formation of the four other fundamental tenses; thirdly, a table for finding the person, number, tense, mood, and voice of any inflexion of regular verbs in ω."

"This is one of the neatest and most ingenious pieces of planispheric engraving we have seen. The arrangement is extremely simple, and, any person at all acquainted with the Greek language may easily understand the table."—*Literary Gazette, Jan.* 19*th*, 1833.

Capital! This is evidently a hard hit at some examination,

but where held we know not. The potent aristocracy of Blackfriars do not meddle with Greek, and, amid the manifold Greek examinations we have passed through, (a score or thereabouts,) we do not recollect a single one where any benefit could have been derived from tables of the augments, &c. being put into a circular form. For ourselves and our children, we shall be content with books printed in strait lines; but we see clearly that Mr. Castle is acquainted with the derivation and original meaning of the word encyclopædia —*instruction in a circle.*

A Practical Essay on Stricture of the Rectum: illustrated by Cases, shewing the Connexion of that Disease with Prolapsus of the Bowel, Piles, Fistula, Affections of the Urinary Organs and of the Womb, &c. By FREDERICK SALMON, F.R.C.S. *Fourth Edition.* London. 8vo. pp. 317.

THIS work is worth consulting chiefly as a repository of rare cases, of which it contains a considerable number. The following is an abstract of one of those added in the present edition, and is certainly a remarkable one.

Mrs. B., a lady, aged fifty-nine, had long suffered from diarrhœa, with occasionally bloody dejections, and had experienced a violent attack of inflammation of the bowels and retention of urine; and, about nine months before she sought the advice of Mr. Salmon, she thought she perceived fæces in her urine. Our author first saw her in March 1831, when he found her "suffering from pain in the region of the sigmoid flexure of the colon and the bladder, extending into the rectum and vagina. She had a frequent inclination to make water, and her bowels were relieved, upon an average, ten times in every twelve hours: she complained that, at the period of passing her stools, the scalding and pain in the fundament almost distracted her; she also suffered much uneasiness in the front passage, particularly when she began to pass her motion, but, as her bowels were emptied, this generally subsided. The stools did not always come the wrong way, but appeared to depend on the looseness of her bowels; the quantity which passed in this manner increasing or diminishing according to the relaxed or confined state of her body." (P. 137.)

On examination, our author found a stricture at the sigmoid flexure of the colon, but no communication between the rectum and vagina could be detected. The treatment consisted chiefly of opium administered by the mouth and *per anum.* The unfortunate patient lingered on till the 27th

of August, in the same year, when she expired. The following were the post-mortem appearances:

"*Sectio Cadaveris.* August 29th, two P.M. Though there was much general emaciation of the body, the fat over the parietes of the abdomen was of considerable thickness. Upon making the usual incision through the abdominal muscles, the peritoneum covering the rectus muscle was found closely adherent to the sigmoid flexure of the colon, the adhesions being firm, and evidently of some standing. The membrane at this part, and in that portion of it which was reflected upon the bladder, and over the lower part of the colon, was thickened in texture, and of a dark-green colour. The descending colon, sigmoid flexure, and that portion of the rectus muscle which was agglutinated to it; the rectum, pelvic viscera, together with some of the soft parts around the anus and meatus externus, were then removed from the body. There was not any disease of the rectum worthy of notice, and, after examining the bowel with the greatest care, no communication could be discovered between it and the vagina. The latter passage laid open, presented no morbid appearance of moment, being only triflingly inflamed. The womb was likewise healthy, as far as its general structure was concerned, but a portion of its cavity towards the fundus was obliterated, from coagulated lymph having become organised in several bands. A very small polypus grew just within the os tincæ. The urethra was next laid open into the bladder; this canal was much dilated and vividly inflamed. The bladder was much contracted, but, notwithstanding the destruction of a part of its fundus, it was not generally diseased, nor was there any material inflammation or thickening of its internal surface; but the colour of this part was of the peculiar green cast before alluded to.

"An incision was now made through a part of the descending colon, its sigmoid flexure, and the first curve of the rectum, so as to bring into view the extent and nature of the stricture. Immediately above the sigmoid flexure, the colon was distended, and contained a considerable quantity of fæces, but at this part the intestine was so contracted, that the point of the fore-finger could hardly be passed through it. The contraction was of a circular form, and about an inch in length, the mucous membrane of the intestine immediately before, throughout, and for some short distance beyond it, being destroyed by ulceration. About three inches of the bowel were adherent by its superior surface to the peritoneum covering the abdominal muscles, while the inferior portion of the intestine was in like manner firmly united to the fundus of the bladder, a part of which was destroyed by ulceration, together with the colon to which it was united, so as to form a direct channel for the passage of the feculent matter. There was not so much thickening of the intestine as might have been expected, and the ulceration appeared as if it had been produced more from acute inflammation, than chronic disease of the part.

"The viscera of the chest and abdomen were healthy." (P. 146.)

A Manual of Experiments illustrative of Chemical Science, systematically arranged: Remarks on the Nomenclature, &c. By JOHN MURRAY, F.S.A., &c. *Third Edition.* London, 1833. 12mo. pp. 149.

MR. MURRAY, who is not only an F.S.A., an F.L.S., an F.H.S., and an F.G.S., but a member of nine mechanics' institutes, is decidedly one of the greatest little-book makers of the age; and we venture to prophesy that he will run Mr. Pinnock and Professor Rennie very hard. The public are busily engaged in reading fifteen treatises which he has already published, and two more are announced as in the press: nay, perhaps while we are penning these lines, the Essays on the Physiology of Plants, and on the History and Phenomena of Poisons, may have seen the light; for the utero-gestation of these tiny treatises is short, and the parturition easy. We are afraid, however, that we shall be considered as exhibiting the callousness of old and hardened reviewers, when we confess that we have never read any of these Lilliputian encyclopædias of every thing worth knowing; nay, that we have never read even Mr. Murray's Treatise on Pulmonary Consumption, though recommended by the Record, the Friend's Magazine, the Imperial Magazine, and other highly scientific authorities. This book, of which the Metropolitan Magazine said, on the 1st of February, 1832, that "the faculty cannot but highly appreciate Mr. Murray's volume," has never been appreciated by us at all; so that, in sitting down to the thin duodecimo before us, we do so with the glaring disadvantage of being unskilled in Murrayan ways of thinking.

Mr. Murray commences his manual with a panegyric on the modern chemical nomenclature, and says,

"A proper estimate of the superior value of the new nomenclature may be best obtained by comparison, contrasting the new and old in juxta position; and we much mistake, if, while it throws the old terms into the background and the shade, it does not bespeak a ready acquiescence in favour of the new nomenclature. In this estimate and contrast, amplification would be useless and uncalled for; the selection may therefore be limited, and yet supply an ample specimen. Oil of tartar, oil of vitriol, butter of antimony, horn silver, sugar of lead, and cream of tartar, are terms altogether void of meaning, and 'signify nothing.' The nomenclature, which forms a part of this volume, will supply abundant materials of a similar complexion. Is sugar of lead said to be descriptive of its peculiar sweetness? so are the salts of ittria and glaucina in a still higher degree. Oil of vitriol, &c. mislead by the adjunct oil, as the chemical constituents of oil are entirely absent. In the term copperas we consider copper to be present; and we naturally enough expect

to find lead in 'black lead;' while the former is a sulphate of iron, and the latter a compound of iron and carbon. Nor is this the worst of these antiquated and unmeaning epithets, for the unwary would little suspect a fatal poison under the gifted name of 'acid of sugar."

"When we turn to the new nomenclature, a more welcome language presents itself, though it cannot be reasonably expected, that we are enabled to apply terms critically descriptive of some invariable feature, to all the principles and elements of chemical research. Could this indeed be effected, the structure erected would be a durable monument of skill, it would be stamped with a permanence which nothing could by possibility destroy, and the novelties of discovery could never affect. Chlorine and iodine are examples of this description, the names are full of meaning, and the features on which they are founded can never change. Chlorine as chlorine, whether simple as now considered, or hereafter proved to be compound, can never cease to be compound in a *green* attire; and iodine in the state of vapour will ever assume a violet colour. Chlorine is derived from a Greek word signifying green; and iodine from a Greek word importing violet. So far these names are expressive and appropriate." (P. 4.)

Unquestionably Mr. Murray must have been half asleep, or writing two little books at once, when he ventured to assert that "oil of tartar, &c." are terms altogether void of meaning. Cannot Mr. M. see, too, that if *sugar* of lead is a bad name, because the salts of ittria and glaucina are sweet, then *acetate* of lead is equally bad, since there are other acetates in abundance? Again, "oil of vitriol, &c." do *not* mislead by the adjunct *oil:* everybody knows that the expression is founded on one or two points of resemblance only. Suppose, for example, that some rival chemist, stung into envious madness by the never-ending praises bestowed on our author in the Courier, the Spectator, the Athenæum, the Bristol Mercury, &c., were to call him A GOOSE, surely he would not attempt to defend himself by observing, that he had no feathers, that he was not web-footed, that he was rarely, if ever, afflicted with the *cutis anserina*, and that his brother chemist was endeavouring to mislead the public by this "adjunct?" No; after retaliating in the most approved fashion, he would point to the fifteen published treatises, and the two with which he is big, and he would ask, are these the works of a goose?

Mr. Murray, though he has hit upon several imaginary advantages of the new nomenclature, has hardly hinted at the real one, namely, that it shows the proximate composition of the substances named.

It is scarcely worth our while to go through Mr. M.'s

book. The experiments are of an amusing kind, and, as our author has a salutary horror of blowing up his readers, it may be safely recommended to persons in search of a little semi-scientific diversion: chemical students must get books of a very different kind.

Dictionnaire Universel de Matière Médicale, et de Thérapeutique générale, &c. Par F. V. Mérat et A. J. De Lens. à Paris, 1829—1833. Tom. I—V. 8vo. pp. 3422.

Five volumes of this Dictionary of the Materia Medica have already appeared, and one more will complete the work. The book certainly does credit to the industry and judgment of the compilers; it is remarkably rich in synonymes, as the following extract may show:

"Cétique (acide). V. *Acide margarique*, I. 38.

Cetracca, Cbetrach,* Citracca. Noms arabes du Cetrach officinarum, DC.

Cetraria Islandica. Ach., lichen d'Islande, *Lichen Islandicus*, L. Voy. *Lichen*.

Cetrivolo. Nom italien du concombre, *Cucumis sativus*, L.

Cetros. Nom grec du sain bois, *Daphne Gnidium*, L.

Cetus. Un des noms Latins du *Physeter macrocephalus*, Shaw.

Cevada. Nom portugais de l'*Hordeum vulgare*, L.

Cévadille. Nom du fruit du *Veratrum Sabadilla*, Retz.

Cévadique (acide). V. *Acide cévadique*, I. 32.

Ceynas. Un des noms indiens du *Bombax Ceiba*, L. (I. 637.)

Ceyx, Ceyeus. Noms donnés par Pline à l'*Hirundo esculenta*, L.

Cezé, Cezes, Cezerous. Noms languedociens du pois chiche, *Cicer arietinum*, L." Tom. ii. p. 193.

The reader must not suppose, however, that the bulk of the work consists of articles treated in this laconic style; *Opium*, for example, occupies eighteen pages.

We can fairly recommend this book to be purchased by medical clubs or societies. It will occasionally furnish scraps for our Collectanea.

Description of an Apparatus intended to facilitate the Treatment of Fractures of the Lower Extremity. By T. M. Greenhow, M.R.C.S. London, 1833. 8vo. pp. 22.

It would be hopeless to endeavour to give a description of Mr. Greenhow's apparatus, without giving a plate of it also, (which is of course quite out of the question.) But Mr. Greenhow has thought fit, in a somewhat novel

* Probably this should be Cetrach.—Editor.

fashion for a regular practitioner, to append to his pamphlet the favourable testimonials of a dozen eminent London surgeons. Sir Astley Cooper and Sir Charles Bell, with Messrs. Brodie, Guthrie, Mayo, Travers, &c., "have had much pleasure in examining," "have been much gratified in seeing," and so on, the apparatus. Now all this demonstrates, to our mind, that Mr. Greenhow's invention is of a good sober mediocrity. Were it very bad indeed, these excellent surgeons would not have yielded this handsome crop of laudatory notes: were it very good, Mr. Greenhow, who is an infirmary surgeon, would have known by experience that those who have to treat fractures, instead of praising it, would adopt it. It is surprising how little set panegyric is required by a really good invention, whether in or out of surgery: it asks no advertisements, no written testimonials,—*volitat vivu' per ora virûm.*

La Manœuvre de tous les Accouchemens contre Nature, reduite à sa plus grande Simplicité, et précédée du Mécanisme de l'Accouchement naturel. Par JULES HATIN, Docteur en Médecine de la Faculté de Paris. *Seconde Edition.* Paris, 1832. Pp. 369.

THIS does not appear to us to be a very important work; and, though the author imagines that he has filled up an aching void in obstetric literature, we are sure that the student who is in possession of Denman and Merriman need never refer to Dr. Hatin. He says, at page 242, speaking of face presentations,

"In positions of this kind the delivery must never be left to nature, although, in some rare cases, it may be accomplished by the unassisted efforts of the woman; for the labour is so long and difficult, that the life of the child is almost always sacrificed."

Dr. Hatin accordingly recommends either turning, or the application of the forceps. Not so Merriman, who holds (and rightly, we think,) that, in general, the best plan is to let these cases alone:

"I am quite convinced that, as a general rule, it is wrong to turn in face cases; yet, under some very favourable circumstances, such an operation may perhaps be admissible. If, for instance, the head of the child were found lying above the brim of the pelvis, the membranes unruptured, the os uteri well dilated, and the vagina and perineum in a state of relaxation, the probability of saving the life of the child would be considerable, and might justify the operator in having recourse to such a proceeding.

"Professor Bang, in the *Acta Nov. Reg. Soc. Medic. Havn.*, vol. i., 1818, relates ten cases of face presentation.

"In 3 cases the child was turned, and in every case was stillborn.

"In 4 cases, after ineffectual attempts to turn, the children were at length expelled by the pains, and were all stillborn.

"In one case the forceps was used about twenty-four hours after the labour began: the child was dead.

"In 2 cases, left entirely to nature, the children were born alive.

"All the mothers recovered.

"In most of the cases, turning seems to have been undertaken sooner than would allow the parts to be properly dilated. I have twice known the presentation of the face converted by the pains alone into a natural presentation." (*Merriman on Difficult Parturition*, 4th edition, p. 47-8.)

Dr. Hatin is gratified to think that his book, being a pocket volume, can be carried about by the accoucheur, and consulted whenever he is puzzled. Quere: Is this ever done; and are Vade-mecums allowed to verify their names? We think not.

A Compendious History of Small-pox; with an Account of a Mode of Local Treatment which prevents the Seaming or Scarring of the Skin, and the Occurrence of that Aggravation of Symptoms in the advanced Stages of the Disease, hitherto denominated Secondary Fever. By HENRY GEORGE, Surgeon; Surgeon Extraordinary to H.R.H. the Duke of Gloucester. London, 1833. 8vo. pp. 112.

MR. GEORGE proposes to prevent pitting in small-pox by sprinkling calamine on the pustules, and gives four cases (which he already has had printed in the Medical Gazette,) in which he tried this plan. It succeeded in the first, third, and fourth; but, in the second, the patient died. To what unfathomable bathos medical literature may sink, we will not venture to foretell; but we have the most dismal forebodings on the subject. In the meagre work before us there is an account (at page 99) of John Grimslay's state of health on the 30th of February; and the fourth case, which is continued to the 2d of September in this year, breaks off with the words "Contin. omnia;" a conclusion of a case, and of a book, which we believe to be quite *unique*.

Exposition of the False Medium and Barriers excluding Men of Genius from the Public. London, 1833. Pp. 330.

THIS angry little book contains hardly anything that is germane to the subjects treated of in a Medical Review, and we notice it merely on the following account. The author, who appears to be a faint imitator of Hazlitt, gives a dreadful description of a monster called a *reader*, who prevents booksellers, it seems, from purchasing works of genius. Now we think, on the contrary, that these same readers are too milky in their dispositions, as witness the vast quantity of paper spoiled annually by medical treatises. Most unquestionably we should have voted against the publication of the anti-barrier Exposition.

The author, though angry, is dull, and the leading topic of his essay has been ably discussed by D'Israeli. We should be glad to learn what work of genius has been ultimately defrauded of public applause by *readers*,—aye, or by reviewers? Those who imagine that "Paradise Lost" was neglected, should read, not the whine and fustian of our expositor, but the plain and honest account of the case given by Dr. Johnson.

ORIGINAL COMMUNICATIONS.

Cases extracted, by permission, from the Note-books of HENRY DAVIES, M.D., Physician-Accoucheur to the Brownlow-street Lying-in Hospital, &c.

CASE I. Ruth Parberry, aged forty-three, the mother of five children, applied for advice at the Welbeck-street Dispensary, July 7, 1828. Between two and three years before this period, she first perceived a tumour in the lower part of the belly, occupying the situation of the uterus, and of the size of that organ about the third month of pregnancy; it was not painful, nor did it cause her any inconvenience. Some months after its appearance she became subject to attacks of menorrhagia, attended with violent bearing-down pains, the blood being generally discharged in large coagula. These attacks continued at irregular intervals till she fell pregnant, fourteen months ago, and did not entirely cease till the period of quickening. During the latter months of pregnancy, she suffered much from excruciating pains in the abdomen, which came on in paroxysms, and were not confined to any one part. The labour, she states, was tedious and severe. Since the birth of the child the pains have subsided, and there has been no return of menorrhagia; within the last two or three months small substances resembling pieces of skin have been discharged from the vagina, but there has been no leucorrhœa. The tumour has gradually increased in size, and now occupies nearly the whole of the hypogastrium. She often suffers from nausea, and a sensation of sinking at the pit of the stomach. Much exercise produces dyspnœa, and there is a constant sense of weight and numbness in the lower extremities, with a dull pain in the loins. She has no other symptoms of disease; the urine is retained and voided without difficulty; the digestive functions are unimpaired, the circulation natural, and her general appearance denotes perfect health. Among the various remedies which have been employed she has found most relief from the local abstraction of blood, but this has produced only a slight and temporary diminution in the size of the tumour. Liniment. Hydrarg. hypogastrio infricetur. Sumat Tr. Iodin. gtt. x. quotidie.

July 28. Sumat Tr. Iodin. gtt. xij. quotidie.

August 18. Sumat Tr. Iodin. gtt. xxv. quotidie; Rep. Liniment. Hydrarg.

September 1. The hypogastrium is two inches less in circumference. Sumat Tr. Iodin. gtt. xv. ter de die; Applicentur Hirud. hypogastrio.

15. The tumour is larger, and the patient complains of headach. Omit. Tr. Iod. Sumat Haust. cum Rhei pulv. et Magn. Applicentur Hirud. xij. hypogastrio.

29. The Catamenia returned last week, though she still continues to suckle. She feels better in every respect, and the tumour is evidently smaller. Resumatur usus Tr. Iodin.

June, 1829. The patient is extremely weak and emaciated, after a recovery from an attack of inflammation of the bowels. The tumour, on measuring her, is found to be larger.

October. A couple of months since, she was suddenly seized with severe bearing-down pain, and profuse floodings, which weakened her so much that she rallied with difficulty. Since this attack her health has given way, and she has rarely been free from pain in the abdomen. The tumour is larger, and distends the whole cavity.

December. The abdomen is immensely distended; the tumour is felt more distinctly on the right side; the integuments are tense, and there is an evident fluctuation. The patient complains of severe lancinating pains in different parts of the abdomen, but particularly on the right side; the tumour rises to the right hypocondrium, where there is a considerable degree of soreness, and the patient cannot lie on the opposite side, from the sense of dragging she feels at this part. She is emaciated, and confined to her bed.

January, 1830. The abdomen daily becomes more tense. There is general soreness on pressure, and acute lancinating pains in different parts of the tumour, and also in the loins. At the latter end of the month she was admitted into the Westminster Hospital, where she remained for a few days, and was then sent home. Shortly after her return the integuments gave way at the umbilicus, and, according to her account, a thick discharge of a red colour issued from the orifice, and gave her great relief.

July 30, 1833. Mrs. Parberry has generally enjoyed tolerable health since the last report. She occasionally suffers from violent pain and tension of the abdomen, but this is eventually relieved by a discharge from the umbilical orifice, which admits a probe easily. She was this day found actively engaged in her avocations as a laundress.

Case II. January 27, 1819. Sarah Larman, æt. forty-three, has been a widow these twelve years. She has en-

joyed very good health until eighteen months ago, when, after straining herself by lifting a heavy weight, she was immediately seized with a violent flooding, which continued for eight months; this was succeeded by a tumour in her left side, which gives her great pain, and her abdomen has since gradually enlarged. She has been in St. George's Hospital, where she was cupped, salivated, &c. There is perceptible fluctuation more particularly on the right side; her bowels are irregular, and she does not make water oftener than once a day. She sleeps ill; her countenance is pale, and her tongue exsanguine; her pulse eighty and of moderate fulness. ℞. Pil. Hydrarg. gr. iv.; Opii pulv. grss. ft. Pil. o. n. sumenda. Sumat Potassæ Supertart. ʒi. bis in die.

February 7. Cont. Med. sed adde pil. Extr. Elater. gr. ss.

10. Has been much purged. There is retention of urine, and acute pain over the hypogastrium; pulse seventy-five. Hirud vi. loco dolenti. Postea appl. Empl. Canth. Sumat Mist. Salin. cum Pulv. Ipecac. C.

15. Is much better.

March 20. She is obliged to have her urine drawn off; and, with the exception of two days, has passed it voluntarily but twice. The abdomen is tender on pressure. ℞. Potassæ Supertart. ʒss.; Sp. Juniperi ʒij.; Aq. Puræ ʒxiv. M. sumat cyath. vinos. bis in die. ℞. Hydr. Subm. gr. i.; Ext. Opii gr. i.; Ext. Hyoscyam. gr. ij. M. fiat pil. h. s. s. Lin. Ammon. c̄ Hydr. abdom. o. n. infricetur. Let her water be drawn off twice a day.

April 3. Her general health has improved, but the mercurial was discontinued on account of the soreness of her mouth. Cont. Mist. Sumat Extr. Hyoscyami ϑss. h. s. Let dry friction of the abdomen be employed, and let the water be drawn off twice a day.

July 1. Her health has improved, and the pain from distension is much less. She was now furnished with a catheter. Her abdomen became enormously distended, and she went on with variable health till

August, 1825, when she had a severe attack of abdominal inflammation, which was treated with copious venesection and cupping; she was also unintentionally salivated by the exhibition of calomel and opium. A profuse serous discharge from the vagina now followed, so as to require four or five napkins daily; and the abdomen gradually diminished in size until it became comparatively flat towards the beginning of October. From this time she enjoyed tolerable health, and was much employed as a nurse, until her death, by an apoplectic attack, in the spring of 1830. A post-mortem ex-

amination was obtained, and the right lobe of the liver was found to be entirely attached to the peritoneal lining of the lower ribs. The uterus was firm in its structure, and attached to the peritoneal covering of its fundus; a fleshy membranous tumour of small size, having no very distinct or decided character, was adhering to it. This was apparently the remains of the ovaria and fallopian tubes, but there was no cyst.

To the Editor of the Medical Quarterly Review.

SIR: Should you consider the accompanying observations upon permanent stricture of the urethra to be worthy the attention of the profession, I shall feel obliged by your giving them a place in the MEDICAL QUARTERLY. My object in offering them is to direct the attention of the junior members to this important subject, and I shall be highly gratified if the perusal of the paper should deter any of them from adopting a practice, which, though occasionally attended with eclat, is, according to my own experience, fraught with the greatest danger. I intend, at an early opportunity, to forward to you the results of my observations upon the subjects of inflammatory and spasmodic stricture, should you have space in a future number for their insertion.

I have the honour to remain yours respectfully,

FREDK. TYRRELL.

New Bridge street; September 18th, 1833.

Observations on Permanent Strictures of the Urethra.

THE symptoms of permanent stricture are, 1st, a more frequent desire than usual to void the urine, with some slight irregularity in the stream, not noticed perhaps by the patient, and some little dribbling from the passage after he thinks he has emptied the bladder. 2dly. After a time the alteration in the stream becomes so great as to attract the patient's attention; it is usually diminished in size, is twisted, as a screw, as it quits the meatus, or it spreads or divides, sometimes into two, sometimes into numerous smaller streams; occasionally it quits the meatus at an angle, being projected upwards, downwards, or laterally. The patient occasionally complains of uneasiness or pain about the perinæum. 3dly. As the disease progresses, the stream becomes further diminished, and at length the urine merely passes *guttatim*. The urgency for micturition is greatly increased, so that the patient is scarcely a quarter of an hour without the inclination to pass his urine, and then discharges but a small quantity, and that with great effort. The violent straining made use of by

some patients frequently induces hernia, hæmorrhoids, or prolapsus ani. The bladder, in the aggravated state of the disease, is seldom completely emptied, and the urine remaining in it undergoes some change, which creates disease of the mucous membrane of the organ. The muscular coat is sometimes enormously thickened, from its almost constant and violent exertion to expel the urine. Now and then sacculi are formed, from the mucous membrane protruding between the fibres of the muscular coat. Usually, years elapse from the occurrence of the first symptoms before the disease reaches this distressing condition; but occasionally it arrives at this extent in the course of a few months.

The *causes* of permanent stricture are principally chronic inflammation of the mucous membrane of the urethra, subsequent to gonorrhœa; inflammation, the result of violence to the mucous membrane, as in the introduction of a bougie, sound, or catheter; or from external injury, as a blow upon the part.

The *proximate cause*, upon careful examination, appears to be a partial thickening of the mucous membrane, from deposition of fibrine, which is thrown out in the substance of the membrane, and in the subjacent cellular tissue. The extent of this deposit varies extremely, and is seldom equal around the canal, being most frequently greater at the inferior or lateral parts than at the superior. Sometimes it produces an elevation of the membrane of scarcely an eighth of an inch in extent, whilst at other times the thickening extends for the space of an inch or more. The condition of the diseased portion of the canal is generally firm like callus, and more resisting than the natural structure; but sometimes it is soft, and easily broken down: in the first instance its vascularity is trifling; in the latter, it is very great. If the calibre of the canal be diminished by a deposit equally around it, the stream of urine is simply diminished in size; but, when the deposit is unequal, the stream either spreads, divides, or scatters, as it quits the meatus.

Situation of Permanent Stricture. From very extensive experience and careful observation, I am satisfied that permanent stricture occurs most frequently (fully in the proportion of twenty to one,) in that portion of the urethra which is surrounded by the accelerator urinæ muscle. The length of the canal itself, when the penis is moderately stretched, will be found, on the average, to be about eight or nine inches; and the seat of the stricture I have usually found to be about six or seven inches from the external meatus: occasionally I have found it anterior to this point, but

rarely beyond it; and usually, where I have discovered stricture at a short distance from the anterior meatus, I have found a second at the distance of six or seven inches. The part of the urethra surrounded by the accelerator muscle is, I consider, more susceptible of disease than the other parts: it is abundantly furnished with mucous follicles, it is highly vascular, it is surrounded by a large mass of erectile tissue, which is again enclosed in the accelerator urinæ muscle; for this muscle does not merely lie upon the lateral and inferior portions of the bulb of the corpus spongiosum, but the lateral fibres are continued above the corpus spongiosum, where they are joined to a tendon which completes the circle. Besides, this portion of the urethra is extremely sensitive, so that the introduction of an extraneous body, as a bougie, whilst the urethra is in a healthy condition, usually produces pain in passing through this portion of the canal. The great sensibility of this part I consider to be designed for the purpose of exciting, by sympathetic influence, the action of the accelerator muscle during coition. We find the urethra in this situation to be more dilated than at any other part; and I conceive this to be for the reception of the fluids poured from the prostate, vesiculæ seminales, and vasa deferentia, which, accumulating in the part, excite spasmodic contraction of the muscle, which causes their forcible ejection. In accordance with this opinion, I think the old name of ejaculator seminis more applicable to the muscle than that now usually employed, of accelerator urinæ. In corroboration of my opinion, I would state that, in several instances in which I have known permanent stricture to exist, with an irritable condition of the urethra, patients have complained of severe pain in this part, at the time of the venereal orgasm during coition; and further, that in other patients, subject to permanent stricture in this part of considerable extent, the seminal fluids have not been ejected, although the orgasm has occurred, but have almost dribbled away subsequent to the orgasm.

Treatment of Permanent Stricture. In the first place, I must state that permanent stricture is very frequently supposed to exist when it does not, and that the means employed to relieve the supposed stricture frequently create a permanent disease. Very often have I seen young men who have supposed themselves to be the subjects of permanent stricture, from having read or heard accounts of the disease, and perhaps having been subject to gonorrhœa, which is so generally considered as the exciting cause. During the existence of gonorrhœa, either in the acute or

chronic form, and even for a short time after the subsidence of all discharge, I grant that symptoms of permanent stricture may, and very frequently do exist; for, during the continuance of such disease, the portion of the mucous membrane from which the morbid secretion is poured out is somewhat thickened, and has its vascularity and sensibility increased; and even a trifling thickening of the membrane, in so small a canal as the urethra, must produce some alteration in the stream of urine; whilst, from sympathy of the bladder, there exists a more frequent desire to pass the urine. These symptoms also may exist when the discharge has subsided; for the membrane does not immediately recover its natural condition, nor does the sympathetic affection of the bladder immediately cease.

In my opinion, there are very few of these cases but would recover, unless for the interference of the surgeon. If we take a man in good health, and with sound urethra, and we introduce a bougie into the urethra with some little force, the progress of the bougie will be impeded, usually when it has passed to about the extent of six inches, or to that portion of the canal surrounded by the muscle; and, if force still be employed, the resistance becomes greater, and the membrane may be lacerated. The impediment arises from spasmodic contraction of the accelerator muscle, in consequence of the irritation of the mucous membrane by the bougie. If this will take place in the healthy urethra, (which I have ascertained by experiment,) how much more would it be likely to occur at a time when the membrane must be in a state of irritability. When therefore a patient is suffering from gonorrhœa or gleet, or is just recovered from such disease, but has slight symptoms of permanent stricture, if he unfortunately applies to a surgeon who is fond of the use of the bougie or sound, he is very likely to have some injury inflicted in the portion of the canal subject to spasm, which may give rise to permanent disease. One of my medical friends, during the period of his pupilage, after hearing a lecture on strictures, fancied himself to be the subject of the disease, and consulted a surgeon fond of the use of instruments. A moderate-sized bougie was introduced into his bladder without much difficulty; but the surgeon, not content with this, said that he must introduce a larger instrument before he could be satisfied. He accordingly endeavoured to pass a large sound; but, after repeated trials, and causing severe hemorrhage, he was obliged to desist. The patient had not previously been the subject of

any urethral affection whatever, but has almost constantly been a sufferer since, during a period of more than twenty-five years.

I could relate many cases which have come under my own observation, in which instruments have been used when no stricture existed, and several in which the forcible use of the instrument has created formidable disease. Supposing the symptoms of permanent stricture to be decidedly developed, it is the duty of the surgeon to make an examination of the canal with the utmost caution and care; and the best instrument to effect this is the common wax bougie, which should be perfectly smooth and rendered moderately flexible by holding it in the hand for a short time; it should be smeared with sweet oil, and slightly curved towards the extremity which is to be introduced into the passage; in introducing it, (supposing the patient erect, and standing with his back against the wall of the apartment,) the penis should be drawn forwards, and somewhat upwards with the left hand, to put it on the stretch and bring it on the same plane as the perinæum. The point of the bougie being introduced into the urethra, it should be very gradually pushed on; the convexity of the curve (previously given to the instrument) being kept against the under part of the urethra, so that the point, as the bougie is carried on, passes along the superior part of the urethra. If any impediment arise, the surgeon should direct the point laterally or downwards, by slightly rotating the instrument between the finger and thumb, and, if he then find that he cannot pass it further, he should wait a few seconds, and then make a second attempt in the same way.

When the obstruction arises from permanent stricture, there is usually a sensation as if the point of the instrument struck against some hardened substance, and the bougie can be retracted with ease, but, when the obstruction is occasioned by spasm, the same sensation is not communicated to the surgeon, and the point of the instrument is grasped, so that it cannot be retracted without some force. Further, when the impediment proceeds from the existence of permanent stricture, the application of force is not productive of much suffering; whilst, in the case of spasm, the suffering is usually severe. In the first instance the impediment is not lessened by allowing the patient to rest; but, in the second, if gentle pressure be continued, the obstruction usually ceases.

It is best, in my opinion, to make the examination first with a bougie of moderate size, but if the first examination convinces the surgeon that permanent stricture exists, which pre-

vents the passage of the instrument, he should select one of smaller size to enable him to pass the seat of stricture without violence. As the thickening which causes the stricture is most frequently partial, the course of the canal at the seat of disease generally deviates from the direct course, and it requires therefore a little manœuvring on the part of the surgeon to find its direction. It is not uncommon, when the contraction of the passage is considerable and irregular, for the surgeon to succeed in passing an instrument at one time with facility, and at another time to be altogether frustrated in his endeavour to do so. This may frequently be obviated by carefully observing the curve which the instrument has acquired in its introduction, and by giving a similar curve to any new instrument which may be employed.

When the first examination is made, if the surgeon finds the urethra to be exceedingly tender, and that hemorrhage occurs from the use of very slight force, he should not repeat his examination, but should adopt such local and general means as he may deem advisable to correct such condition of the part. I have generally found it in connexion with debility and morbid nervous excitement, requiring careful dietetic means, with the administration of tonics and narcotics generally, and local bloodletting by leeches, with evaporating lotions or fomentations. I am satisfied that no good can result from the continuance of mechanical interference under these circumstances, but that the mischief may be greatly augmented.

In the ordinary cases of permanent stricture, where the callous induration exists, many surgeons employ and recommend the use of metallic instruments in the outset of the treatment: such practice, even in the hands of the experienced surgeon, I consider to be attended with great risk; but, with the young and inexperienced surgeon, it is pregnant with the greatest danger. If the stricture be of very trifling extent, it may be sometimes rapidly subdued by such means; but, when it occupies a space of more than an eighth or a quarter of an inch, I am confident that more evil than good results from the practice. The diseased portion of the canal is, as I have observed, usually more resisting than the healthy part; and, if much force be employed, the healthy structure gives way, and the mischief thereby becomes extended. But this is not the only evil; for the urine may escape by the lacerated opening into the surrounding cellular tissue in small quantity, producing subsequent inflammation and suppuration, or to a great extent, so as to distend the cellular membrane of the perineum, scrotum, &c., and occasion sloughing, or such extensive

disease as may be followed by great loss of structure; or, by creating constitutional disturbance, destroy life. I wish it to be distinctly understood that I am not here speaking theoretically but practically, having often witnessed the distressing and dreadful facts which I have described. My own practice is, cautiously to find my way through the stricture, at first with the common wax bougie, which I have made slightly conical at the extremity, to be passed into the urethra, and I persevere in the use of such instruments until I can pass one of moderate size with facility; when I resort to the use of the gum-elastic bougie, which offers more resistance, or to the sound. I prefer, however, the former. I do not consider either of them to be applicable to the early treatment of the disease.

I have not yet sufficiently tried the plan recommended by the Baron Dupuytren, of retaining a full-sized bougie in contact with the stricture for many hours together, to be able to speak confidently respecting it; but I am induced to believe that, when the stricture is not very extensive, it is likely to be serviceable; at all events, it cannot produce much mischief. I object to the use of caustic, or of the division of the stricture by a stilette, for the same reasons that I object to the sound; namely, the risk of perforating the wall of the canal, so as to allow of extravasation of urine.

A Case of Softening of the Brain, with Strumous Tubercles, causing Apoplexy and Palsy. By C. J. Roberts, M.D. one of the late Physicians to the General Dispensary, and Physician to the Infant Orphan Asylum.

Acute inflammation of the tunica arachnoidea and pia mater, terminating by effusion into the cerebral cavities, calls for little or no comment, for, generally speaking, the practice to be pursued is so obvious as hardly to leave room for doubt; for the patient sinks, unless the disease is promptly met by active practice; but it is when an inflammation of a chronic character is already about to terminate by effusion of serum into the ventricles, and symptoms of pressure are becoming apparent, that the inexperienced practitioner first sees the perilous situation of his patient. In many cases, the approach of the disease is so insidious, as to completely throw the practitioner off his guard, and it is not until it is past remedy that he is aware of the danger. This is more peculiarly applicable to that disease to which Dr. Abercrombie

of Edinburgh has given the title of "Chronic Inflammation of the Brain," and which most commonly terminates in that peculiar alteration in the structure of the cerebral mass which has been termed by the French writers "ramollissement," and by us, softening of the brain.

The symptoms, as detailed by both Dr. Abercrombie and the French authors, on the subject, are so obscure and passive, as rarely to arouse either the patient or the practitioner to a due sense of their dangerous tendency, unless the latter has been previously acquainted with attacks of this description, when he will be on his guard against their insidiousness and peril. In the case which is the subject of this paper, the disease did not commence its aggression in its usual way, but shewed itself in another guise, putting on the appearance in the first instance of an apoplectic seizure, and continuing under that of palsy, and from occurring in so young a patient, its progress was rendered more obscure.

Thomas Garrett, æt. four. Admitted a patient of the General Dispensary, November 29, 1832.

On the 26th of November, while at play, in the afternoon, he was suddenly seized with giddiness and fell down, striking his left temple with so much violence as to bruise it considerably. On being lifted up he was found to be insensible, and remained in that state for ten minutes. On recovering, his speech was found to be imperfect, and which remains indistinct: and he also partially lost the power of controlling his left hand, but not his left leg. At present he is very drowsy, particularly in the day time; and during the night sleeps very heavily, snoring deeply; complains of headach. He is thirsty, has no appetite; his bowels are regular. His mother has observed that, since the attack, his sensorial powers are much impaired, that he has become mischievous, and that during play he will carefully keep in the room, and avoid going near to the stairs, as if he was fearful of losing his balance and falling down them: she adds, that he had complained of headach for about a fortnight previous to the sudden loss of speech and palsy of the left arm. He was bled with leeches; cold lotions were applied to his head, and he was purged. This treatment was followed by considerable relief, and he nearly recovered the use of his arm and his speech, but the latter was still tremulous, and he was unwilling to talk. The headach was reported to be gone. This improved state of things continued from the 3d until the 27th of December, when, although not complaining of headach, he was described as being less capable of standing, and to have exhibited symptoms of great

irritability of temper. On the 1st of January, the pain in the occiput returned, and he lost the use of the right leg, and dragged it after him; the pupils now became very much dilated. Leeches were again applied with relief, but still the power over both the legs was evidently diminished, and he was unable to stand. He was now put under a mercurial course, in addition to the use of cold lotions and leeching. After using the mercury twice a day for a fortnight his mouth became sore, and he then recovered his mental faculties, and the power to a certain degree over the lower extremities. When the effect of the mercury began to go off, strabismus came on, and the symptoms continued to vary in violence until the 5th of March, when these being materially increased, it was thought advisable, at a consultation which was held upon his case by the physicians of the dispensary, that the head should be relieved by bleeding from the jugular vein. His father objected to this, and he was afterwards cupped to the extent of ʒvi. and with very great relief. He continued to linger in this paralytic state until the 15th of April, when he died. He was at times free from pain in the head, and at others he was afflicted with it severely.

We were allowed to examine the body: on removing the skullcap, which was preternaturally thin, the dura mater was observed to be more vascular than usual. The tunica arachnoides was thickened, and was also adhering in several places to the dura mater. The vessels of the pia mater were much gorged, and the entire cerebral mass had lost its usual firmness, was of the consistence of custard, and was spotted all over with bloody points. The lateral ventricles were much dilated, and contained nearly ʒviij. of fluid. The thalami nervorum opticorum were much enlarged, and in the centre of the left one, a cluster of yellow strumous tubercles were found, some of them approaching in size a large nut, or small walnut. The vessels of the cerebellum were very much gorged; the tuber annulare and crura cerebelli were harder than natural, and in the left crus a cluster of similar tubercles was found. There were also two tubercles about the size of horse-beans on the middle lobe of the brain.

The other cavities presented no particular appearance.

It was not supposed, when he first came to the dispensary, that any organic destruction of the cerebral mass existed, but that being a child of a gross habit of body, he had some determination to the brain, which would be relieved by depletion.

The softening of the brain, although it must have proceeded to some extent when first brought under my care

never manifested itself in its usual way; and the presence of strumous tubercles in the brain was never once suspected, as the symptoms usually denoting them were never well marked.

The alteration which takes place in the structure of the brain after attacks of this description is very peculiar, for although, so long as the mass is kept in situ by the membranes, the form is unaltered, no sooner is this support removed than the entire cerebrum is found to have lost its usual firmness, and to be reduced to a pulpy consistence. It is not surprising that such an attack should be followed by so great a disorganization: but it is very remarkable that so important an organ as the brain should suffer so complete and destructive a change, unattended by any symptoms which shall decidedly shew the serious mischief which is so rapidly proceeding. The cerebral functions appear to be still performed, although laboriously and imperfectly, but yet not to that extent of incapacity and invalidation which is witnessed when pressure only is the active cause. We very often find tumours in the brain producing local pressure, but not exciting those symptoms which are usually looked upon as denoting its presence, but setting up other irritations, which, although less permanent in their violence, are no less durable in their attendance, as we find in old cases of epilepsy, arising from these bodies. In the case just detailed it is a fair conclusion, I conceive, to believe that the tumours were the cause of the paralytic symptoms, and that, instead of giving origin to epileptic paroxysms, they caused pressure, and gave rise to a genuine attack of palsy. The mode of aggression was decidedly similar to the apoplexy of maturer years, and that the symptoms, although relieved by the usual antiphlogistic treatment, did not entirely give way. The paralysis also was perfect, and as the disease advanced paraplegia supervened. After every bleeding he was certainly better, and when the mouth became affected by the mercury the signs of improvement were more decisive; these, however, were but temporary, and he gradually, and insensibly sank.

In most of the cases mentioned by Dr. Abercrombie, of softening of the brain in which tumours were discovered, he says, that in nearly all, the symptoms were accompanied by convulsions, and in others by chorea, but in this no convulsions were observed; the attack was completely apoplectic, and was succeeded by the consequence of apoplexy—complete palsy.

Wepfer, in his "Historia Apoplecticorum," relates concisely two cases of adults who were seized in a like manner, and in whose brains similar tumours were found.

To the Editor of the Medical Quarterly Review.

SIR: I beg leave to forward for insertion in your publication the following case, not because it led to the necessity of amputation at the shoulder-joint, (as that operation is too frequent to be a matter of professional interest,) but in consequence of the complete laceration of the axillary artery being unattended with bleeding; presenting a beautiful illustration of the process which nature employs in spontaneously suppressing hemorrhage.

I have the honour to be, sir, your very obedient servant,

BRANSBY B. COOPER.

CASE.

James Clark, æt. thirty-four, by employment a waggoner, was admitted into Guy's Hospital, August 29th, 1833, with a compound comminuted fracture of the left humerus, near the shoulder-joint.

He states that the accident occurred from his attempting to lock the wheel of his waggon, containing about four tons of paper, previously to his descending Shooter's hill; and this he did without first stopping his horses, so that the hinder wheel knocked him down, and passed over his arm. The patient says that he lost a considerable quantity of blood upon the spot where the accident happened; and when brought to the hospital, about an hour and a half afterwards, his pale countenance, and small jerking pulse, indicated that such had been the case.

Upon examination, I found a wound upon the inner side of the upper part of the arm, just above the insertion of the pectoralis major muscle; and, upon putting my finger into this large lacerated opening, I discovered that the humerus was not only fractured, but severely comminuted, and the upper portion of the fractured bone so near to the wound as to leave no doubt that it had occasioned the laceration of soft parts, which were also extensively contused. The extreme phalanges of the fore, middle, and ring fingers were completely smashed; and the patient had lost all sensation and motion in the arm, below the fracture.

Upon exploring the depth of the wound with the finger, it was ascertained that it sunk deeply into the axilla, where the pulsation of the axillary artery could be felt, beating just as if it had been compressed by a ligature; but immediately below this point no vestige of artery could be detected; neither was there any sensation of pulsation to be discovered below the upper part of the wound. The axillary plexus

was also partially torn through. When I first began to examine this patient, and until indeed I discovered that the axillary artery and nerves were lacerated, I intended to have attempted the preservation of the limb; but, upon considering the injury sustained by the surrounding soft parts, and the laceration of the blood-vessels and nerves, I felt assured that I was right to remove at once by amputation what would otherwise probably have proved the cause of death. I therefore pointed out to him the propriety of his submitting to the operation, as the only hope of saving his life, there being no chance left of preserving the limb. He readily consented, and, being carefully conveyed into the operating theatre, I removed his arm at the shoulder-joint, in the following manner:

Having placed him on a low chair, with a folded sheet around his body, held by an assistant, for the purpose of giving the patient support, I raised his injured arm, so as to separate it from its side to the angle, which I thought most convenient for the completion of the operation; and then, and not till then, I requested Mr. Callaway to compress the subclavian artery above the clavicle. I speak of the precise moment at which the vessel was compressed, because, as has been before observed by authors, there should be no further occasion for moving the limb after the subclavian has been pressed upon the first rib, as the slightest change of position may liberate the vessel from the assistant's command. With a very strong and large scalpel, I then commenced an incision from about the centre of the spine of the scapula, and continued it downwards to the insertion of the deltoid muscle; cutting deeply, so as to divide the muscles in one sweep, down to the bone. I commenced my second incision at about the junction of the middle with the inner third of the clavicle, and continued it downwards to meet the termination of my first: this cut was not so deep, as, from the laceration of the skin and part of the pectoralis major, I had much less substance to cut through. The deltoid was now detached from the humerus and capsular ligament, and turned up, attached at its base by its origin, so as to form a triangular flap. The capsular ligament was now opened, and the head of the humerus readily disarticulated, when, instead of removing the whole arm at once, as is usually done, I detached the upper portion of the bone which was completely separated from the remainder by the fracture.

Thus far in the operation there was little or no bleeding, although Mr. Callaway did not press upon the subclavian artery, finding there was no occasion for it. The operation

was now completed by cutting through the remaining soft parts which held the limb attached to the trunk.

The axillary artery, with several of its branches, could now be seen plugged up with coagulated blood, so as completely to account for the absence of hemorrhage. From the extremities of these vessels portions of coagulated blood could be seen extending from their open mouths, from an inch and a half to two inches in length, and apparently to a considerable extent within their calibre, as indicated by their distention, colour, and feel. This coagulum, until the period of that profound physician, Dr. Jones, whose book on hemorrhage should be in the library of every surgeon, was considered as the sole means of suppressing hemorrhage; but he has shown that, however much the coagulum may assist in staying loss of blood, during the diminished action of the heart under approaching syncope, still it is rather to be considered as essential in effecting this great object, by rapidly inducing an adhesive inflammation in the coats of the lacerated artery and surrounding cellular membrane, and thus permanently sealing the open mouth of the vessel, than as checking the bleeding merely as a mechanical agent. It is this coagulable lymph which fills up the interstices between the coats of the artery, and consolidates the surrounding cellular membrane, so as to form that solid cord, the remains of an obliterated artery. Firmly as the coagulum was fixed in the axillary artery, I did not think it right to run the risk of trusting to this process of suppressing hemorrhage, and therefore placed a ligature around the main trunk, and one or two of its important branches. Having removed the fibro-cartilaginous rim of the glenoid cavity, I secured the upper to the lower flap by three sutures and adhesive plaster. The patient was then put to bed, and ordered immediately to take forty drops of laudanum in an ounce and a half of camphor mixture.

30th. The patient slept very well; bowels open once; tongue slightly coated, but moist; no pain; pulse 100, and rather full.

31st. Slept well; bowels open twice; tongue moist, and somewhat coated. There is considerable oozing of bloody serum from the wound.

September 1st. Did not sleep quite so well; complains of some pain in the neck just above the posterior part of the wound, where however there does not appear to be any puffiness. The wound was dressed this morning, and a considerable quantity of bloody serum was discharged: it seems, indeed, as if there were a considerable coagulum of blood at the anterior and superior edge of the flap, the inferior part of

which was so much contused at the time of the injury as now to be in a sloughy state: the rest of the wound, however, looks very well. Tongue moist; bowels open; skin natural; pulse 106, less full. Ordered some beef-tea. ℞. Sulphat. Quin. gr. ij.; Liq. Opii Sed. m. iv.; Inf. Rosæ comp. ℥iss. M. fiat haustus, 4ta quâque hora sumend.

Four P.M. The pain in the neck is rather increased; pulse 120, slightly jarring; skin moist; tongue rather dry; is somewhat restless. ℞. Liq. Opii Sed. gtt. xv. statim sumend.

2d. Slept tolerably well, talking a little however in his sleep; pain in his neck considerably diminished; bowels open; skin rather hot, but bedewed with perspiration; tongue coated, but moist, except in the centre; pulse 112, still rather jarring.

Nine P.M. Is much easier; has now little or no pain in the neck; pulse 110, and rather less jarring; tongue coated, but moist. Has slept a little this evening.

3d. Eight A.M. Did not sleep well last night; the pain in the neck however, has entirely subsided; pulse 125, irritable and jarring; skin moist; tongue coated, and moist; bowels not open this morning: complains of some pain in his right leg and thigh. Wound looks very unhealthy, and somewhat emphysematous in parts; has no pain in or about the flaps. Ordered some porter, and to continue the beef-tea, &c.

Half-past three P.M. The pain in the leg is considerably increased; countenance rather anxious; respiration quicker than natural; pulse 136, jarring and irritable; skin a little moist; tongue rather dry, and slightly brown in the centre. Feet rather cold: to have warm-water bottles applied to them. Complains of some pain and cramp in the arm. ℞. Tr. Opii, m. xxx.; Julep. Ammon. ℥iss. M. fiat haust. statim sumendus.

Five P.M. Has less pain in his leg, but it is much increased in the arm; bowels open; tongue dry; skin slightly moist; pulse 130, weak and jarring; some delirium. To continue the beef-tea.

Nine P.M. Less pain and cramp; the delirium continues; pulse 132; tongue coated and dry; skin moist; feet warm; countenance anxious; great restlessness; some twitchings of the right arm, in which, as well as in the leg of the same side, he complains of pain, especially in the joints. Wound looks very sloughy, and the emphysematous appearance has extended considerably, even under the pectoralis major. ℞. Morphiæ muriat. gr. i. statim, et gr. ss. rep. omni horâ si opus sit.

The patient, after this, took two half-grain doses of the muriate of morphia; notwithstanding which, the pain in the arm and leg, as also the twitchings, increased, and the delirium became complete raving. At

Twelve P.M. the spasm and pain in the right leg and arm became aggravated to an alarming extent, the raving continued, and the face was drawn somewhat to one side. In this state he continued for about twenty minutes, when he suddenly fell back, and expired.

His body was examined twenty-four hours after death, when the whole wound presented so sloughy an appearance, that one structure could scarcely be distinguished from another.

On opening the chest, the pleura upon the left side was found very much inflamed, and there were recent adhesions of the pleura pulmonalis to the pleura costalis. The brain indicated no morbid changes, although, from the symptoms immediately prior to his death, (there being a tendency to opisthotonos,) it was clear that he died under a high degree of nervous excitement, amounting nearly to tetanus.

On examining the artery, it was found perfectly sealed by the adhesive process.

Case of Empyema: with Remarks. Communicated to the Harveian Society, by WILLIAM STROUD, M.D. one of the Presidents of the Society; Physician to the Northern Dispensary, &c.

A COLLECTION in any of the thoracic sacs of liquid, whether serous, or purulent, the product of inflammation, and the cause of additional disorder, is a morbid condition of much interest, and of not unfrequent occurrence. Such a collection may either originate within the part itself, or may be derived from without. Vomicæ of the lungs, for example, not unfrequently burst into the pleural sac; and abscesses in the parietes of the chest sometimes, although rarely, take a similar course. In either of these cases, it is usually to be expected that the rupture of the membrane will lead to its inflammation, and to a rapid increase of the liquid introduced.

The following is an example of simple pleuritis on the right side of the chest, attended with a copious effusion of liquid, at first serous, but ultimately purulent, which, by its powerful and continued pressure, occasioned obliteration of the lung; and, notwithstanding the temporary relief afforded by tapping, at length destroyed life by exhaustion.

Abraham B***, aged thirteen years, was placed under my

care, as a patient of the Northern Dispensary, March 31, 1832. When five years old, he suffered an injury of the forehead, in consequence of which his head was for some time liable to a sort of oppression, which was spontaneously relieved by occasional bleedings at the nose. Although of rather delicate constitution, he subsequently enjoyed good health until within the last two months; during which, owing, as is supposed, to his having overstrained his back by carrying heavy burdens, he has been seriously ill, and, since the last month, has been confined to his bed. His symptoms are at present as follows: Irregular fever, with dryness of the skin, and pain in the back of the head; which has lately, however, been relieved by the application of a few leeches to the temples. Pulse at the wrist about 140, very small, and weak, so as scarcely to admit of being counted. Tongue clean, and moist, with much thirst, and little appetite. Bowels rather lax, dejections dark coloured, and hard: urine natural. Sleep disturbed. Mental faculties unimpaired. He has much disorder of respiration, frequent palpitation of the heart, troublesome cough, and a white, viscid expectoration tinged with blood. He constantly lies on the right side, in which posture he is tolerably tranquil; but, on assuming the erect posture, he is often seized with nausea, and sometimes vomits a watery liquid. If he attempts to lie on the left side, the cough and difficulty of breathing are so much increased that he is soon induced to resume his usual position. On carefully examining the chest, a remarkable contrast is soon perceived between its two sides. On the left side the respiration is puerile, and a clear, tympanic sound is elicited by percussion. On the right the respiration is nearly inaudible, and the sound yielded on percussion is perfectly dull. Unless between the shoulders, the spinal column bears handling well; but almost the whole abdomen, except the right iliac region, is painful on pressure.

Prescriptions. Hirud. vi. scrob. cord. Vesicatorium inter scapulas. Ol. Ricini f℥ij. primo mane, prout opus fuerit. Aquæ puræ f℥vi.; Cetacei: Sacch. purificat. *aa* ℥ij.; Pulv. Acaciæ gummi, ℥iv.; Tinct. Digital. m. xx.; Tinct. Camph. comp. f℥iij. Sumatur f℥i. ter, vel quater indies.

April 6. The leeches drew a very large quantity of thick, black blood; the blister was not applied. Bowels open; dejections dark coloured, and scybalous. He is free from pain, and his cough is somewhat relieved; but he has much palpitation of the heart, is still affected with nausea on attempting to sit up, and his sleep is disturbed. On further

examination, the right side of his chest is now observed to be somewhat protuberant.

Prescriptions. Pil. Hydrarg. gr. iij. cum Ext. Hyoscyam. gr. iv. omni vesp. Rep. med. antea præscripta.

April 11. Dejections rather more natural: urine sufficiently copious. Abdomen bears pressure well: cough continues relieved: sleeps better, and has less palpitation of the heart: pulse very frequent, small, and feeble: countenance good: point of the tongue rather red, with prominent papillæ: skin dry, with dark-coloured, adherent sordes, not easily removed by washing. The whole right side of the chest is now found to be decidedly, and equably protuberant, yielding a dull sound on percussion, and transmitting little, or no respiratory murmur. Pressure between the ribs, or on the right hypochondrium, gives pain.

Prescriptions. Aquæ puræ f℥vi.; Potass. Nitrat. ʒi.; Pulv. Acaciæ gummi, ʒiij.; Tinct. Gentian. comp. fʒiij.; Tinct. Camphor. comp. fʒiv. Sumatur f℥i. ter in dies. Repet. Pil. Hydrarg. cum Extract. Hyoscyam. omni vespere, etiam Ol. Ricini primo mane, prout opus fuerit.

April 16. The symptoms continuing nearly the same, and the indications of a large collection of liquid in the right pleural sac being sufficiently manifest, it was determined, with the concurrence of my colleagues, Dr. Roget and Mr. Skey, to try the effect of puncturing, and gradually evacuating, the right side of the chest. To the indications previously mentioned, Mr. Skey, after a separate investigation, added the following: Extrusion of the heart towards the left side; an obscure sense of fluctuation, on using careful percussion between the ribs of the right side, and enlargement of the intercostal spaces. Dr. Thomas Davies, who had the kindness to give his assistance, suggested two more, namely: On measuring the circumference of the chest, the right side was found to exceed the left by nearly two inches; and, on inserting a needle into the right pleural sac, a drop, or two of serous fluid exuded.

All doubt respecting the nature of the case having been thus removed, the right side of the chest was now punctured by Mr. Skey, with a moderate-sized trocar, a little below the inferior angle of the scapula, and about a pint of transparent, yellow serum was immediately extracted. A catheter of elastic gum, furnished with a plug, was afterwards introduced into the pleural sac, and retained there by plaster, and bandage.

Prescriptions continued, with the exception of substituting

Tincturæ Hyoscyam. f℥i. in the place of Tincturæ Camphor. comp. f℥iv.

April 19. On this day, as on each preceding one, eight or ten ounces of yellow serum were extracted by Mr. Skey from the right pleural sac. During the first two or three days the irritation produced by the instrument excited occasional nausea. The boy is somewhat better, can lie on either side, has scarcely any cough, and sleeps tolerably well.

The respiratory murmur can now be heard in the upper part of the right chest. Pulse at the wrist small, feeble, and scarcely to be counted: tongue thinly coated with yellowish mucus; little thirst or appetite; no pain of abdomen: bowels moderately open; dejections whitish: urine scanty and turbid.

Prescriptions. Hydrarg. Submuriat. Sacch. purificat. *aa* gr. ij.; Pulv. Scammon. gr. iv. Fiat pulvis, primo mane sumendus, prout opus fuerit. Aquæ fervent. Oj.; Gummi Tragacanth. ℥i. Fiat potio mucilaginosa, cui frigefactæ adjicr. Tinct. Hyocyam., Tinct. Scillæ, *aa* f℥i.; Tinct. Cinch. comp. f℥iv. Sumatur f℥i. ter in dies. Repet. omni vespere Pil. Hydrarg. et Extract. Hyoscyam.

April 23. The serum daily extracted from the right pleural sac has gradually become denser, and more albuminous. That drawn yesterday, and to-day, was observed to contain a portion of greyish pus, which subsided to the bottom of the vessel. Yesterday morning, the left side of the abdomen was attacked with severe pain, accompanied by frequent vomiting of mucous liquid; but these symptoms have since abated. The pulse is, however, very frequent, and rather stronger: skin dry and hot: tongue whitish, with red edges, and thirst. Except to-day, the bowels have been sufficiently open, and the dejections better coloured. The urine is copious, and reddish. The pil. hydrarg. was omitted yesterday evening, and ten grains of extract. hyoscyam. were given at once, yet the sleep was disturbed.

Prescriptions. Hirud. iv. abdom. sinistro. Ol. Ricin. f℥ij. vel. iij. primo mane, prout opus fuerit. Extract. Hyoscyam. gr. v. omni vesp. Aquæ puræ f℥vj; Cetacei, Sacch. purificat. *aa* ℥ij.; Pulv. Acaciæ gummi ℥iv.; Tinct. Hyoscyam. f℥iss.; Sumatur f℥i. ter, vel quater indies.

April 26. The leeches were not applied; and, on account of the increasing debility of the patient, the following tonic potion was this day substituted for the Mist. Cetacei, &c.; namely, Infus. Rosæ. f℥viij.; Acid. Sulph. dilut. f℥ss.; Sulph. Quinin. gr. x.; Sumatur f℥i. ter in dies. The elastic gum catheter, which hitherto had been constantly retained in the

right pleural sac, was yesterday withdrawn by Mr. Skey. The proportion of pus in the liquid discharged had been gradually increasing. The whole quantity of liquid drawn off during the interval of ten days, from April 16 to 25, inclusive, was nearly a gallon; of which twenty-one ounces were extracted on the 20th, and eighteen ounces on the 25th; the previous day having been the only one on which none was evacuated.

April 28. The boy has slight hectic fever, with progressive emaciation, and debility, but sleeps well, without the aid of hyoscyamus, and can lie easily on either side. He has little cough, and no pain, except in the scrob. cord. when pressed. Pulse in the radial artery 134, feeble, and scarcely to be counted: tongue natural, some thirst, little appetite: bowels rather confined, dejections still whitish: urine high-coloured, and sufficiently copious: skin dry, and slightly yellow, with tenaciously adhering sordes. The respiratory murmur is very obscure in the right side of the chest, and less distinct than formerly in the left side.

Prescriptions. Ol. Ricin. f℥ij. vel iij.; aut Pulv. Scamm. cum Hyd. submur. gr. viij. primo mane, prout opus fuerit. Pil. Hydrarg. gr. v. om. vesp.; Aquæ puræ f℥iv.; Liq. Ammon. Acetat. f℥ij.; Pulv. Acaciæ gummi ℥iij.; Tinct. Hyoscyam. f℥i.; Tinct. Gent. comp. f℥iv.; Sumatur f℥i. ter in dies.

30. The orifice in the right side of the chest this day spontaneously discharged a large quantity of fetid pus. The respiratory murmur is again puerile on the left side of the chest, and slightly audible in the upper part of the right side, but scarcely perceptible below. The scrob. cord. is still somewhat painful on pressure. The dejections, and urine, are more natural.

Prescriptions continued.

May 5. Yellow pus of extreme fetor is freely discharged from the pectoral orifice: owing, perhaps, to this fetor, the boy vomited a little to-day. His symptoms are, otherwise, chiefly negative. He has scarcely any cough, or fever, sleeps well, and can lie on either side. Pulse about 134: urine dark-coloured, but dejections nearly natural.

Prescriptions continued.

13. Yellow pus flows freely from the pectoral orifice; and the respiratory murmur can now be heard, in a slight degree, as low as the middle of the right side. The boy becomes gradually weaker, is consequently unwilling to sit up in bed, and yesterday evening was in a state approaching to fainting. His gums have never yet been affected by mercury, and his

medicines are not regularly taken. He sleeps well, has occasional nausea, and is free from pain. Pulse 120, and rather stronger: countenance good: bowels lax; dejections rather dark-coloured: urine nearly natural.

Prescriptions. Infus. Cuspariæ f℥vi.; Acid. Sulphur. dilut. f℥i.; Sulphat. Quinin. gr. vi.; Tinct. Opii m. xx.; Tinct. Zingiber. f℥ij.; Sumatur f℥i. ter in dies.

17. With a view to produce adhesion, or change of action in the diseased membrane, Mr. Skey endeavoured, two days since, to inject into the right pleural sac a solution of sulphate of zinc; but, owing to the difficulty of the process, and the weakness of the patient, the attempt was unsuccessful. The boy is gradually wasting, and sinking from simple exhaustion, without fever. He takes little solid food, but does not refuse wine, or porter. Much thin, fetid pus flows at intervals from the pectoral orifice, and the breath exhales a similar fetor. The respiration is occasionally short and frequent, but he has little cough. Pulse 120, and tolerably strong: tongue red: bowels sufficiently open: urine dark-coloured. During sleep the eyelids are half open, with the pupils turned upwards, and he sometimes talks, or wakes in a fright.

Prescriptions. Aquæ puræ f℥vi.; Aluminis f℥i.; Tinct. Opii, m. xx.; Tinct. Catechu f℥iv.; Sumatur f℥i. ter, vel quater in dies. Sulphat. Ferri; Sulphat. Zinc; Sulphat. Quinin. *aa* gr. xij.; Confect. Ros. canin. q. s. Fiant Pil. xij.; quarum sumatur i. ter, vel quater in dies.

20. After an interval of three days, a quantity of extremely fetid pus, preceded by a little blood, issued this day from the pectoral orifice; and the patient's chamber, as well as an adjacent room, are infected with its gangrenous odour. While the pus was confined, the cough was renewed, and was attended with difficulty of breathing, with nausea, and at times with vomiting. The boy is progressively sinking from simple debility, with little fever, and scarcely any thirst, or appetite. He takes white wine, but refuses porter, lies only on the right side, and sleeps pretty well. His left leg has lately been painful, but he is, otherwise, without pain; the pulse at the wrist can scarcely be counted; the mental faculties are free from disorder; the bowels and urine are natural, except that the dejections are blackish, from the action, probably, of the sulphate of iron. His skin, which has hitherto been constantly dry, and sordid, is now more moist and perspirable.

Prescriptions. Rep. Pilulæ tonicæ.

24. After a second interval of three days, another eruption of yellow and exceedingly fetid pus, mixed with a little

blood, took place from the pectoral orifice. During this interval, as during the former one, the cough, nausea, and difficulty of breathing, were troublesome; but, on the discharge of the matter, all these symptoms subsided. Owing, apparently, to the fallacious excitement which sometimes precedes death, he seems much better to-day, complains only of a little pain in the left leg, and has a desire for acids.

Prescriptions. Aquæ puræ f℥vi.; Acid. Sulph. dilut. f℥i.; Sulph. Quinin. gr. x.; Pulv. Acaciæ gummi ʒiij.; Tinct. Opii m. xv.; Tinct. Gent. comp. f℥iv.; Sumatur f℥i. ter in dies. Pulv. Ipecac. comp. gr. v. hora somni.

26. After the last visit the boy rapidly declined, and died between three and four o'clock this morning; about four months from the date of his first attack, during the latter half of which, alone, he was placed under my care. In the afternoon the body was inspected by Mr. Skey, from whom I obtained the following account of the appearances observed by him.

Post-mortem Appearances. On the right side of the chest the costal pleura was, at its upper part, connected with the pulmonary pleura by several thick bands of adhesion. With this exception, the right pleural sac was open, enormously dilated, and lined by false membrane. It contained from three to four quarts of thin, whey-like, puriform liquid, of an extremely fetid odour, with a thicker and yellower portion lying at the bottom. By the pressure of this accumulated liquid, the diaphragm on the same side had been pushed downwards, so that the liver extended a little below the umbilicus. The right lung was condensed, but flabby, of a greyish blue colour, and about the size of the fist; its function having evidently been at length completely abolished. A small portion of the root of each lung was carnified, or converted into a red, fibrous substance resembling muscle. In other respects, the left lung, like the heart, was in a healthy state. The mesenteric glands were pale, and somewhat enlarged; but the abdominal organs were otherwise sound.

REMARKS. From the case above related, the following remarks relative to the symptoms, the diagnosis, and the treatment of empyema, may naturally be deduced.

On the Symptoms of Empyema. The first circumstance deserving of notice is the occurrence of intense pleuritis without pain; which, in this instance, seems to have been almost entirely absent from first to last; although, at an advanced period, the sensibility of the diseased pleura was sufficiently manifest, from the pain occasioned by pressure between the

ribs of the affected side, as likewise by the introduction of the needle, and the trocar. Pain must not, therefore, as formerly, be regarded as an essential character of acute inflammation of serous membranes, of which, although undoubtedly a frequent, it is by no means an inseparable attendant. To ascertain the conditions which determine its presence, or absence, would be an interesting, but difficult task. The ultimate seat of pain must be placed in the nerves, since the most acute pain may occur when no other parts are materially affected; whilst, on the other hand, when these alone are disabled, or divided, all pain is at an end. But it is not every morbid condition, even of nerves themselves, which is productive of pain; since, as in some cases of caries of the teeth, the nerves of parts, which at other times are extremely sensitive, may participate in their gradual ulceration and destruction, without the slightest pain being experienced. That the inflammation of nerves is a powerful cause of pain is abundantly proved by numerous observations; but the fugitive and transient character of some severe pains shows that inflammation is not essential to their existence. The conclusion seems, therefore, to be, that pain depends on some undefined state of irritation, that is, of increased and disordered action in nerves, which is freely communicable to their centre. Of the more remote causes of pain, pressure or tension is one of the most efficient; but even this is neither an absolute, nor an universal cause; since, as is evident in the case now under consideration, pressure on one entire lung to the extent of obliteration was unattended with pain.

A second subject for consideration is the gradual transition, under certain circumstances, of serum into pus; or, to speak more correctly, of albuminous into purulent secretion. That the qualities of exhaled or secreted liquids are in exact relation to the kind and degree of the action whence they are derived, is sufficiently manifest from the phenomena of catarrh, of diarrhœa, and of ulcers. In proportion to the progressive intensity of the local action in each case, the discharge, from being simple and watery, becomes loaded with saline or animal matter, proceeding from gelatine, and mucous, to albumen, fibrine, and ultimately to blood itself. In the subject of the present history, when the chest was first punctured, the liquid evacuated was transparent, inodorous, slightly glutinous, of a pale yellow colour, and, in short, purely albuminous; but, within a few days afterwards, pus began to be added. It was easily recognised by its opacity, incoherence, separation from the serum, and subsi-

dence to the bottom of the vessel; and it daily increased, both in quantity and in acrimony, until, at length, the liquid became perfectly purulent, and intolerably fetid. To this unfavorable change the puncture itself may, possibly, have contributed, since, in the corresponding operation of tapping the abdomen, the same cause is often sufficient to induce or increase peritoneal inflammation; owing to which the dropsical accumulation proceeds more rapidly, and each successive puncture becomes more painful. But, as the secretion of pus did not take place until after an interval of some days, it is more probable that the elastic gum catheter retained in the pleural sac, and replaced when it occasionally escaped; or else atmospheric air, which, during inspiration, could scarcely fail to be sometimes admitted through the external aperture, was the cause of that increased and morbid action, to which the formation of pus must ultimately be ascribed. The noxious influence exercised by atmospheric air, and more especially by its oxygen, on surfaces ill adapted to sustain its impression, although not without limits and exceptions, is sufficiently proved by daily observation. One of the most familiar illustrations of this influence is furnished by burns and scalds, in which, while every other condition remains the same, the pain is uniformly and rapidly aggravated by the admission of atmospheric air, and relieved by its exclusion, whether effected by mechanical means, such as cotton-wool, the incrustation of nitrate of silver, &c., or by chemical ones, such as the oil of turpentine, and other disoxygenating substances. Numerous facts concur to show that a peculiar mode, or a higher degree of inflammatory irritation, thus induced, will convert albuminous into purulent secretion, and will give rise to putrescence and fetor, where none would otherwise exist.

A third topic for inquiry is suggested by the extremely dry, and unperspirable state of the skin, throughout the greater part of the complaint; until, in common with other parts, its texture and action seemed to soften, and relax, on the immediate approach of death. During health, and even in many diseases, free perspiration, and the perpetual abrasion of the cuticle by exercise and friction, preserve the external surface of the body in a comparatively clean and polished state; but, under that interruption of the cutaneous secretion which occurs in various disorders, and more especially in those of children, accidental sordes, or vitiated cuticle, of a dusky colour, is found to adhere so tenaciously, that neither by ablution nor by mechanical agency, can it without much difficulty be detached. This condition, immediately owing to a deficiency of exhalation, and perhaps also to an increase

of absorption, is probably produced by the remote influence, through the medium of the nervous system, of some diseased internal organ, which is often suffering from the opposite state of excessive effusion.

A fourth subject of attention is the remarkable agency of this, and of similar thoracic complaints, on the abdominal functions. In consequence, perhaps, of the downward pressure of the liquid in the pleural sac, as likewise of the diminution of respiration, and of the impeded return of venous blood, slight symptoms of inflammation, irritation, or congestion, occasionally take place in the abdomen; and particularly in the liver and kidneys, as is denoted by the morbid alteration of their respective excretions; but the occurrence of the same symptoms in empyema, when occupying the left pleura, is sufficient to show that mere mechanical pressure on the liver is neither the only, nor the principal cause of such symptoms. Owing to the strong reciprocal influence of the several parts of the living body, and chiefly of those co-operating in a common and important function, such as that of nutrition, irritation is often extensively communicated from one part to another, and sometimes with a salutary and compensating effect, which used formerly to be dignified by the appellation of the *vis medicatrix naturæ*. On this, as on other occasions, the author has frequently observed the striking influence of pressure, or of other irritation, originally affecting the pleural surface of the diaphragm, in exciting nausea and vomiting. In the progress of the complaint above related, it will be remembered that when, owing to temporary obstruction of the external aperture, the accumulation of liquid in the pleural sac was to a certain extent increased, nausea and vomiting were not less obviously induced than cough and dyspnœa; and that, on an eruption of pus taking place, all these symptoms immediately and simultaneously subsided. The peculiar constitution, and important relations of the diaphragm are calculated to prevent any surprise at such effects, although the precise manner in which they are generated may be open to further inquiry.

Lastly, in considering the symptoms of empyema, an interesting comparison may be instituted between the character of simple thoracic inflammation, and that of phthisis. In pleuritis, for example, the symptoms of debility, and of exhaustion predominate; while in phthisis, those of hectic fever, and of universal irritation, are usually more conspicuous; and the capacity of the sound portions of the lungs to maintain in some measure the function of the entire organ seems to be greater. The more decided and deleterious

influence of phthisis on the general health, is probably owing to its coming more immediately and actively in contact with the pulmonary nerves, more especially those belonging to the ganglionic system, which, under the agency of pleuritis and its results, are either protected, or destroyed. In like manner, in the progress of phthisis itself, all the symptoms become strikingly aggravated, whenever, by the supervention of inflammation, or of suppuration, the parenchyma of the lungs is more deeply and more violently irritated.

On the Diagnosis. In noticing the diagnosis of empyema, it is impossible to overlook the immense superiority of the indications afforded by the modern resources of auscultation, and percussion over those resulting from the remote, and general symptoms. During the early part of the case here considered, the latter means alone were employed; and owing to the absence of pain in the chest, and of urgent dyspnœa, the complaint was regarded by a very respectable practitioner as simple fever, attended with a determination of blood to the head. Nor could it well have been otherwise, since daily experience proves that, without extensive and accurate investigation, aided by direct physical indications, the highest degree of professional knowledge and talent is often inadequate to determine the nature and seat of disease; whereas, with these advantages, a very moderate share of intelligence and information are equal to the task. In the present case, when the mechanical exploration of the chest was at length employed, the evidence furnished by the opposite sounds elicited from its two sides was prompt and decisive; and, had this mode of inquiry been employed at the commencement, it might, perhaps, have led to a happier termination. A circumstance may here be briefly noticed, which on reflection might have been anticipated, namely, that the impossibility of hearing the respiratory murmur, when there is much liquid collected in the pleural sac, does not depend on any deficiency in the liquid as a conductor of sound, but on the compression which it exercises on the subjacent lung. This is proved by a fact, which the author has repeatedly observed, namely, that when an abscess is seated in the parietes of the chest, without encroaching on its cavity, the respiratory murmur can be distinctly heard through the contained pus. Decisive as is, in such cases, the evidence of sound, there are some persons of a peculiarly cautious and inflexible frame of mind, whom it fails to convince, and who, strangely enough, are disposed to ascribe their difficulty of conviction to superiority of intelligence. In favor of these persons, it is fortunate that there exists an additional, and an irresistible means

of elucidation, in the needle, or minute trocar employed by Dr. T. Davies, an expedient which, in other respects, can rarely be required; but which, in determining the presence or absence of a liquid in the chest, is happily beyond the reach of contradiction.

On the Treatment of Empyema. In this part of the subject, the principal topic for consideration, is the propriety and utility of puncturing and evacuating the pleural sac. When the diagnosis is clearly ascertained, there is a strong inducement to perform this operation, on account of the facility with which a morbid and otherwise permanent collection of liquid may thereby be removed. But, unless there is either an evident tendency to spontaneous perforation, denoted by slight inflammation and œdema of the adjacent integuments, or much danger of suffocation, or of some other serious evil resulting from its omission, experience seems to be rather unfavorable to its use. The proportion of successful and of unsuccessful cases is, at least, nearly equal, showing the importance of investigating and avoiding all the sources of failure. If the operation is deemed requisite, the sooner it is performed the better, on account of the rapid tendency of the compressed lung to become condensed and obliterated; a circumstance which furnishes an additional argument in favour of early and accurate diagnosis. The contrast between what may be termed the dry and the humid forms of pleuritis, is, in this respect, remarkable. When new or false membranes alone are the product of inflammation, they have a slow but powerful tendency to contract, and thereby to constrict the parts with which they are connected, until both the pleura and the whole side are much diminished; whereas, under liquid effusion, the pleural sac becomes progressively enlarged, and the lung alone is compressed.

When puncture of the chest is to be performed, it should probably be executed with all the precautions usually observed in opening psoas, or lumbar abscess, namely, by a small oblique and valvular orifice, which is afterwards to be closed, and healed as soon as possible; and as in tapping the abdomen, a fresh aperture may be made from time to time, as occasion requires. The admission of atmospheric air, and all other sources of irritation, should be studiously avoided; and, with such care and circumspection, the operation, if seasonably practised, under favourable circumstances, may be expected, not indeed to restore an organ already destroyed, but to relieve urgent symptoms, and to prevent further mischief.

COLLECTANEA.

PATHOLOGY AND PRACTICE.

CHOLERA CURED BY SULPHATE OF QUININE.

GRAFE and WALTHER's Journal (band xix. heft 2,) contains two important papers, detailing a number of cases of cholera cured by large doses of the sulphate of quinine. The first is by Dr. Bluff, of Aix-la-Chapelle. He observes, that when the Asiatic cholera was approaching the Rhenish provinces, he had become persuaded, by reading a number of books, (especially Walther's preface to the German translation of Searle,) that the cholera was an intermittent fever, of the most aggravated character. However, he treated his first cases with venesection, emetics, &c., but they died; and Dr. B. reflecting that, when several persons, suffering under the same disease, are treated in the same manner, without even temporary benefit, it is probable that the physician has adopted an erroneous plan of treatment, resolved to try the effects of the sulphate of quinine in large doses. We shall content ourselves with giving the first case at length.

Th. P., aged nineteen, a weakly factory girl, as she was returning home after her work, on the evening of the 24th September, 1832, was taken ill in the street, where she vomited her food and a sour fluid. When she got home, she vomited water only, and was attacked with severe pain in the belly. At nine o'clock, Dr. Bluff was called to her. She looked weak, her eyes were sunk and heavy, her countenance pale, the point of the nose cold, the tongue had a yellow coat, and was cold at its extremity; her breath was short, her pulse not to be felt; the hands blueish, cold, and covered with a clammy perspiration; there was pain in the abdomen, but no cramps in the calves, and no wrinkles in the skin. Vomiting alternated with diarrhœa, and the evacuations were choleric. Her consciousness was undisturbed, but there was a state of indifference to every thing going on, which could not be mistaken.— ℞. Quinæ Sulph. ʒss.; Aq. Meliss., Aq. Menth. Pip. *aa* ℥iij.; Syrup. Papav. Alb. ℥i. M. She was ordered to take a tablespoonful every quarter of an hour, and to use cold water as a drink.

At twelve o'clock the vomiting and diarrhœa had ceased; the patient was very red in the face, and complained of headach. Cold poultices were applied to the head, and the medicines still continued.

At five in the morning of the 25th the patient felt well, and the medicines and cold applications were omitted. She was ordered to drink weak but hot chicken-broth, in small quantities at a time. On the 26th she got up; and on the second day afterwards she returned to her work.

Dr. Bluff details seventeen cases treated in this manner, but occasionally with larger doses of quinine; the recoveries were thirteen, and the deaths four. The ages of the patients varied from twenty months to sixty-six years.

Dr. Bluff mentions a number of cases from the practice of other physicians, showing the striking analogy between ague and cholera, and observes that, when the latter disease broke out at Burtscheid, close to Aix-la-Chapelle, the four persons first attacked were convalescent from ague.

He gives the following table of cholera cases at Aix-la-Chapelle:

Age.	No. of Cases.	Cured.	Died.
From 1 to 2 years	12	4	8
2 — 3 —	6	3	3
3 — 5 —	21	7	14
5 — 10 —	30	12	18
10 — 20 —	28	22	16
20 — 30 —	59	35	24
30 — 40 —	64	42	22
40 — 50 —	60	32	28
50 — 60 —	47	22	25
60 — 70 —	48	17	31
70 — 80 —	31	9	22
80 and upwards	11	None	11
Total	427	205	222
Males	216	99	117
Females	211	106	105

The other paper is by Dr. Kosser, an army physician, who adopted a similar method of treatment in Poland, and with even greater success. In the town of Wreschen, Dr. Kosser had sixteen cases of cholera, of which fifteen recovered: he administered ten grains of sulphate of quinine every two hours, with half a grain of extract of hyoscyamus; and, gradually growing bolder, he diminished the interval between the doses to a quarter of an hour, and even to ten minutes. He also employed frictions, with spirits of camphor, liq. ammon., or ol. terebinth., together with warm fomentations and tepid baths.

Dr. Kosser afterwards had seven more cholera patients, whom he treated with the sulphate of quinine, and six recovered. In one case a sentinel fell down senseless at his post; he had cramps, and cold extremities, with blue hands and face, but did not vomit. Dr. K. gave him ipecacuanha, in doses of five grains, every half-quarter of an hour; the fifth dose caused copious vomiting; in ten hours consciousness returned, and a few hours afterwards he was able to speak. Violent fever now succeeded, accompanied by rigors, heat, and perspiration. The quinine was administered in large doses, and his health was re-established, says Dr. K., without any critical appearances.

MISTAKES AS TO THE PRESENTATION IN LABOUR.

Nor is it right to wait too long after the efflux of the waters before proceeding to this examination: for the longer you wait the more the uterus contracts on the fœtus, and presses it against the aperture of the pelvis. It may, in that case, happen that the presenting part will swell to such a degree as to change its form, so to express it, and become undistinguishable. It is thus that even experienced accoucheurs have often taken the breech for the cheeks of the child. We ourselves thought, on one occasion, that we had introduced our forefinger into the ear, and imagined that we recognized one of the temporal regions, when in fact the child presented the lower lumbar vertebræ with a spina bifida, which had broken some time before. Another time we shared the mistake of several of our brethren, among whom was one of the most distinguished accoucheurs of the capital, and we despaired of saving a young woman who was in labour, as it seemed to us that she was about to eject through the vulva the intestines and abdominal viscera, and we thought that we could already perceive their gangrenous smell. It may be easily imagined how great was our surprise when suddenly a violent pain put an end to our mistake and our embarrassment. The woman whom we thought lost was very safely delivered of a child that had been dead several days; it was very deformed, and was bent double backwards: the intestinal canal preceded the trunk, because it had escaped from the abdomen, whose weak and slender parietes were not able to confine it.—*Capuron, Cours d'Accouchemens*, sixième edit.

INHALATION OF CHLORINE GAS.

The inhalation of chlorine gas we have tried rather extensively among the workers in flax, suffering from chronic bronchitis. Sixteen of these men I induced to come every evening, after the day's work, to an apartment, the atmosphere of which we impregnated with chlorine, by pouring muriatic acid on manganese. Here they remained at first for a quarter of an hour, and afterwards for about an hour. One individual declared, the second evening, that he had not slept so soundly for several years as he did the night after inhaling; and, on the fifth evening, all the men declared their breathing freer, and the cough considerably reduced. Those who previously could obtain little unbroken sleep had better nights; and others had regained appetite. The plan, from accidental circumstances, was omitted for three evenings. A recurrence of cough and dyspnœa was the speedy result. They gladly therefore returned to the inhalation of the chlorine, and continued it for several weeks, with the most marked advantage. They have since resolved, on the approach of next winter, to take a room for themselves, adjoining their mill or houses, for the purpose of the regular inhalation of chlorine. Two hatters, labouring under similar diseases, joined the flaxmen, and experienced the same benefit.—*Thackrah on the Effects of Arts, &c. on Health and Longevity.*

WANT OF PULSE IN THE RIGHT ARM.

During a sitting of the Royal Academy of Medicine, a letter was read from Dr. Poujol, of Montpelier, detailing the case of a woman who has no arterial pulsation in any part of the right arm, either at the wrist, at the bend of the arm, or at the axilla; and yet this arm is as well formed as the left; its temperature and sensibility are the same. The woman says, however, that during the severe cold of winter, she feels a numbness and a coolness in the little finger of that hand, which gradually extends to the other fingers. She attributes the absence of arterial pulsation in her right arm to a violent blow with a stone on the elbow, which she received at the age of ten or twelve; at least, before that period she had a pulse in both arms.—*Archives Générales de Médecine*, Juillet.

BELLADONNA AS A PROPHYLACTIC AGAINST SCARLET FEVER.

At Monastir, in 1829, scarlatina raged, both among our troops and the inhabitants of the towns and villages where we were quartered. The grand vizier, who had expended much time and money on the discipline of this his favourite *corps d'armée*, gladly accepted my proposal to try the effects of belladonna. As the troops were generally very young men, and totally unaccustomed to narcotics, the dose I gave was comparatively small: thirty-six grains of the extract of belladonna were mixed up with one pound of the extract of liquorice, and ten grains of this were given morning and evening to each soldier. The success of the experiment far exceeded my most sanguine expectations, for not more than twelve men, out of twelve hundred, sickened after this plan was adopted; of these twelve six died, and it is to be remarked, that the disease continued unabated among the inhabitants where the soldiers were quartered, after it had ceased among the latter, although they lived in the same houses.—*Dr. Oppenheim, transl. in Dublin Journal.*

THE RADICAL CURE OF HERNIA IN TURKEY.

I had an opportunity of witnessing, at Jenetschär (Larissa), this operation performed by surgeon Michalaki of Sagor. The patient was a robust man, about forty years old, who had the hernia for many years, and was now resolved to get rid of it, on account of the inconvenience it caused when he rode. When the operator had convinced himself that the gut could be easily returned, he tied the patient on a board, forming an inclined plane, so that the patient's feet were much higher than his head.

With one hand he pressed against the neck of the sac, so as to prevent the gut from re-entering it, with the other he made an incision into the tumor, extending from about one inch above Poupart's ligament, or two inches below it. He thus brought to view the proper hernial sac, or as he termed it, the bladder of the rupture. This he pulled forcibly with both hands out as far as possible, tied a strong silken string round the neck of the sac near the ring, and cut away the sac below the ligature. The spermatic chord

was evidently included in the ligature, which I remarked to him; but he stoutly denied the possibility of his having committed so unfortunate a mistake.—*Ibid.*

CHOLERA MORBUS ON BOARD A FRENCH FRIGATE.

At a meeting of the Royal Academy of Medicine, a letter was read from M. Guibert, surgeon of the *Melpomene*, relative to the ravages of the cholera among the crew of that frigate, in consequence of its station before Lisbon, and during its passage from Lisbon to Toulon. The frigate was stationed with impunity in the Tagus for three months, although during that period the cholera was at Lisbon. On the 30th of June the crew was still in perfect health. The disease broke out suddenly, attacking a considerable number, and destroying its victims in a few hours. The sick were immediately disembarked, to be treated on land, and the frigate was got under weigh, and set sail July the 3d. Unfortunately it was followed by this scourge, and on the 5th there were thirty-two new patients on board. On the 7th, however, the symptoms began to abate in severity, and the disease in the rapidity of its progress.

M. Guibert is of opinion that the frigate was attacked by this calamity through the same unknown cause that made it ravage Lisbon. In the first cases there were no premonitory symptoms, and no gradations in the disease, but death ensued in a few hours: the evacuations were abundant and frequent, the face and extremities were cold, there was no perceptible mark of the circulation; the other symptoms were blueness, viscous sweats, aphonia, and the most painful cramps in the limbs, and the muscles of the abdomen, the loins, and thorax, and even in the diaphragm itself. Speedy death, or speedy recovery, were the terminations, except that the patient long suffered from general weakness and dyspepsia; sometimes the disease was converted into a typhoid fever, if the reaction had not been decided, or if stimulants had been given too freely.—*Archives Générales de Médecine*, Juillet.

REMARKABLE CASE OF ABORTION.

A lady, who was the mother of three children, requested the advice of Dr. Taxil, of Brest, together with another practitioner, to ward off, if possible, a threatened miscarriage, the third within fifteen months. In spite of their endeavours abortion took place; the abortive ovum was entirely excluded, and it was found that the funis passed three times round the child's neck, which was so compressed by it as not to be more than two lines in diameter. It was clear that this malposition of the funis prevented the maternal circulation from passing to the child, thus causing a reflux of blood to the placenta, which was very large in proportion to the child. Dr. Taxil observes, that this twisting of the cord round the neck of the child at so early a period of pregnancy had not hitherto been described. He asks if this twisting was not the cause of the miscar-

riage. He is surprised too that the body of the child should have been properly developed, though the pressure on the neck must have entirely stopped the fœtal circulation. *Ibid.*

THE HARDENING SYSTEM.

I am afraid that Dr. Underwood's strongly expressed opinion *of the absolute necessity of inuring very young infants to endure the cold air, as essential to their health*, supported as it is by other popular writers, has been productive of great and extensive mischief.

That *pure* air is essential to the health and growth of children, is too evident a proposition to require proof; and that, from the open air, of temperate quality, all children, even very young infants, derive great advantages, is daily manifested by their general healthy appearance, by the colour of their cheeks and lips, and by the firm feel imparted to their muscles. But a belief seems to obtain, that the more cold the temperature of the open air, so much the more pure and bracing will it prove. Now the contrary is rather the fact. It is the temperate quality, not the coldness of the air, which renders it pure and salubrious. Our coldest winds blow from the proverbially unsalutary north and east; and, during the prevalence of these winds, the most severe pulmonary affections, croups, sore throats, swelled glands, &c. continually occur, not only among children, but among adults likewise, who are much xposed to their influence.

It is rather extraordinary that we should be urged to expose our young infants to "very cold and other inclement weather," for the purpose of hardening them, as it is absurdly called, when we find from experience that the young of the irrational creation are injured by such exposure. The gardener, well knowing that "the tyrannous breathing of the north shakes all our buds from blowing," carefully preserves his young plants from the bleak weather; the good housewife secures her young broods of turkeys and other poultry, and the husbandman his tender calves and lambs, from the cold and piercing winds: it is our children alone that we voluntarily expose to the chilling and inclement sky.

Dr. Underwood, indeed, advises that the children should be properly clothed and attended to: this will moderate the evil, but will not cure it. Warm clothing alone is not sufficient to sustain the animal temperature: combined with exercise, indeed, it admirably answers this purpose, but very young infants are incapable of the necessary exercise, and, though warmly clad, soon suffer under the distressing effects of cold. Nor is this consequence of cold upon passive, quiescent subjects, confined to infants. Those who drive or ride in open carriages are usually clothed with as much care to exclude the cold as the infants who are carried in their nurses' arms, but, notwithstanding, frequently suffer extremely from the degree of cold to which they are exposed; and why should children, who are less able to bear such effects of cold,

be inured to that which even strong men and women cannot bear with impunity?

True it is that some very robust infants endure the cold in a very remarkable manner, and these are often quoted as examples of the benefit to be expected from the hardening system; but a wise man will be cautious how he follows that as an example which is mentioned only because it is extraordinary. The rules which are to guide our practice should be drawn from what is usual, not from what is uncommon; yet we are too often led away to imitate what is marvellous, and despise that which is more accordant with nature's laws and precepts. Thus, on the evidence of one strong, vigorous infant, the hardening system is applauded and adopted, and we neglect to inquire what numbers have sunk into the silent grave, in the vain attempt to render them, by exposure to the cold, equally vigorous and robust.—*Merriman's Notes on Underwood.*

CASE OF TRAUMATIC TETANUS.

A boy, aged fifteen, of a bad constitution, had a large phagedenic ulcer on the left heel, for which it was thought necessary to amputate the leg. The first three days passed over favourably, and union by the first intention took place over a considerable surface; but an increased sensibility of the limb, and some convulsive movements in the stump, caused apprehensions of an attack of traumatic tetanus. On the sixth day the patient was seized with a trismus, and all the muscles of inspiration soon shared in the attack. He was bled five or six times, but in vain; the disease invaded the extensors of the arms, and the patient died the eighth day after the amputation.

Post-mortem examination. Beyond the stump, at the head of the peroneus, there was a small quantity of pus, and there were traces of inflammation all around it; the sciatic nerve, where it passes through this point, was so injected, that it was of a deep red colour, and this alteration in its appearance extended towards the hip joint for a distant of eight or ten inches. M. Lepelletier pointed this out as a sign of a neurilematic inflammation, which he believes to have been the origin of the local tetanus. In fact, the spinal marrow presented a similar vascularity of the pia mater, but only in the portion corresponding with the origin of the nerves which experienced the direct influence of the wounds, and which confer sensibility and motion on the muscles which were affected by the tetanus. This case, observes M. Lepelletier, confirms an opinion which he has published, namely, that traumatic tetanus is the effect of a neurilematic inflammation.—*Archives Générales de Médecine,* Juillet.

CASES OF EASY PARTURITION IN DEFORMED WOMEN.

A woman, aged forty, came to the hospital of the medical school to seek relief for some chronic affection. This unfortunate creature, besides the strangest distortions of her limbs, and a curvature of her spine, had a depression of the sternum, and a humpback;

the clear and ineffaceable marks of a disease which she said she had experienced at the age of eighteen. Professor Antoine Dubois asked her if she was married, to which she answered in the affirmative, adding that she was the mother of six children, whom she had brought into the world without the least difficulty. It is therefore extremely probable that her pelvis had not been injured either in its shape or its proportions. Another woman, not less strangely distorted than the one we have just mentioned, became pregnant twenty years ago, in consequence of intercourse with a grenadier; her deformity was so great that, towards the end of her pregnancy, the hip of one side approached the axilla of the other, from the curvature of the spine, and the slope of the pelvis. Nine months afterwards, however, she was delivered in our amphitheatre of a large living child, to the astonishment of the pupils, and especially of some accoucheurs who had condemned her to the Cæsarean knife. We must observe that this woman did not lose the symmetry of her shape till the age of twelve, when the bones of the pelvis were probably solid enough to resist the inroads of the malady which had curved her spine and deformed her limbs. The same woman was delivered again quite naturally in the month of October, 1813, in the presence of Dr. Barbette, our president, and several midwives who were pupils; but she died of general dropsy two months afterwards; and, on the post-mortem examination, we saw that the pelvis, though not regularly formed, was nevertheless sufficiently wide to allow a fœtus of ordinary size to pass through it.—*Capuron, Cours d'Accouchemens*, sixième edit.

MISCELLANEOUS.

THE PRESCRIPTIONS IN GÖLIS ON HYDROCEPHALUS.

Dr. Gooch, in the preface to his translation of Gölis (published in 1821,) observes, "there are some parts which I cannot satisfactorily understand; what the masked fatal intermittent is, I can neither guess nor learn; I should be puzzled to prepare the decoctions according to the formulæ given. And at page 267 he says, "The following formulæ are reprinted from the original treatise, though of some (the decoctions) the exact mode of preparation is not clear."

As it is reasonable to suppose that what perplexed so clear a head as Dr. Gooch's, must have been a stumbling-block to others, we will quote the first two of the prescriptions, and explain what seems to have been the difficulty.

Rp. Radic. althæ. alb. unciam semis.
Coq. per ¼ horæ Colat. unciarum sex.—Adde
Nitri puri drachmam semis
Syrup. ononidis
—— Althœæ āā unciam semis.
Every half hour one or two table-spoonsful.

IV.—Rp. Rad. alth. alb. unc. semis
—— Ononid. drachm. duas
Coq. per ¼ hor. s. q. aquæ Colat. unc. sex.—Adde
Acet. ammon. solut. drachm. semis
Syrup. ononid. unc. unam.
To be taken as the preceding.

The meaning is, take as much water as after boiling and straining will amount to six ounces: the quantity necessary is not stated, but would easily be learned by one or two trials.

The "masked fatal intermittent" is probably an aggravated case of infantile remittent fever. Dr. Gooch says, "the water-stroke will be recognised by the experienced reader; it is well named, and deserved to be distinguished." Pref. p. iv. Wasser-schlag, which he translates "water-stroke," means serous apoplexy; the term is not peculiar to Gölis, but used by every German writer.

MEAT, DRINK, AND CLOTHING.

Formerly a certain sum was paid to the soldier, from which he provided himself with food; but he so often spent in liquor what he ought to have spent in meat, that it became necessary for an officer to inspect his meals. A story current among soldiers illustrates the preceding statement. An officer going round the the dinner-table of the mess, saw one without meat before him. "Donald, where is your meat?" "O, here it is, sir," showing a vessel of slop, containing a mass of something like tripe. Day after day the same appearance was presented, till the officer, having some suspicion, demanded the exposure of the meat. "O, it is tripe, sir," said Donald. "What, do you eat tripe every day? I must see it." On striking a fork into the mass, the officer continued,—"Well, Donald, I never before saw tripe with buttons on it." In fact, the meat proved to be a slice of leather smallclothes. —*The Effects of Arts, Trades, &c. on Health and Longevity. By C. T. Thackrah, Esq.*

SNAILS.

That Mecænas of cookery, Sir Kenelm Digby, who is remembered for so many odd things, was one of the persons who introduced the great shell-snail (Helix pomaria) into this country as a delicacy. He dispersed the breed about Gothurst, his seat near Newport Pagnel; but the merit of first importing it is due to Charles Howard, of the Arundel family. The fashion seems to have taken; for that grateful and great master-cook, Robert May, has left several receipts for dressing snails, among the secrets of his fifty years' experience. Snails are still sold in Covent-garden as a remedy for consumptive people. I remember, when a child, having seen them pricked through the shell to obtain a liquor for this purpose, but the liquor was as inefficacious as the means to obtain it were cruel. They were at that time, I know, eaten by the men who worked at the glass-houses, probably from some notion of their restorative virtue.

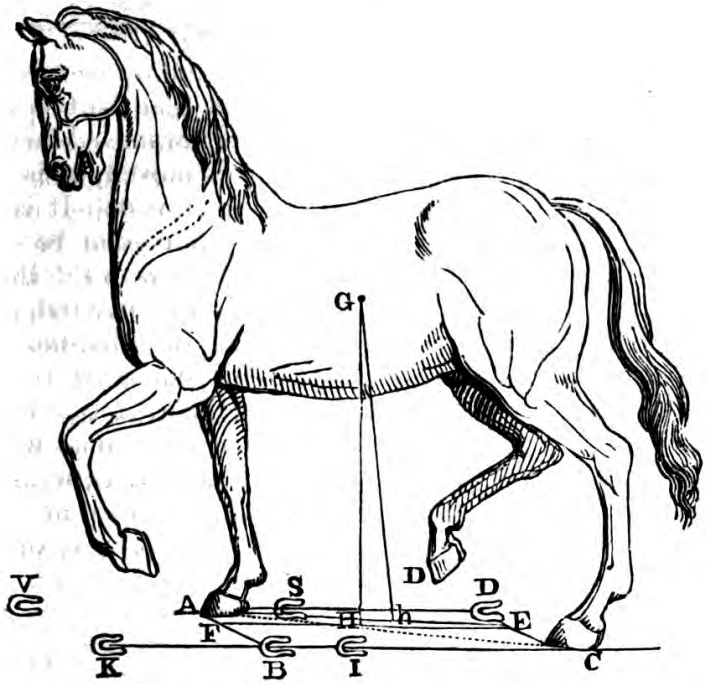
Shell-snails of every kind are rarely found in Cumberland; the large brown species I have never seen there. The snail is so slow a traveller, that it will probably require many centuries before he makes the tour of the island.—*Southey's Omniana.*

ON THE WALK OF QUADRUPEDS.

BY J. A. BORELLI, PROFESSOR OF MATHEMATICS, NAPLES.*

Distinguished philosophers and anatomists, no less than the unlearned, have fallen into gross mistakes upon this subject, in consequence of trusting to theoretical opinion, rather than to the evidence of observed facts.

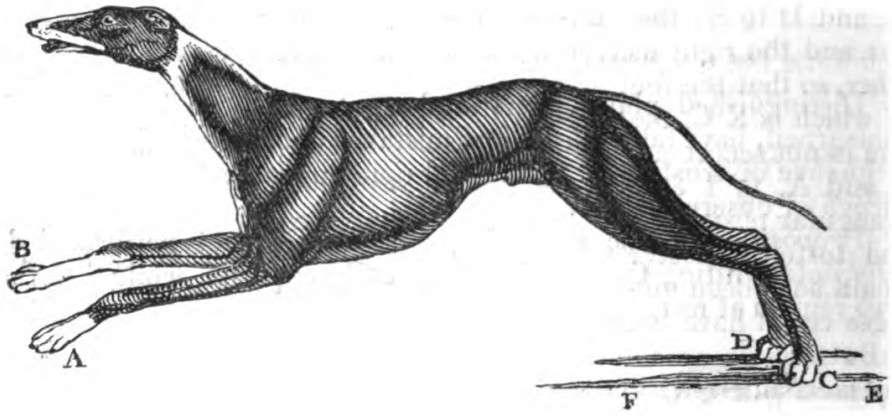
Proposition. The step of quadrupeds is not performed by alternately lifting the two feet diagonally opposite, while the other two remain at rest.



An opinion prevailed that the step of quadrupeds was performed by the moving forwards of two feet together, alternately with the two that are at rest, as in the walk of a man (*bipedis*) by the movement of one foot constantly succeeding that of the other. Under this erroneous impression, the ancients observed that quadrupeds, while they stand upon the four soles of their feet, form upon the ground a four-sided figure, A B C D. It was thence remarked, that when they are at full speed, the two fore feet, A B, are raised and moved forward together, whilst both the hind feet, C D, are at rest. Immediately after A B falls to the ground, the two hind feet,

* Translated from the Latin work "De Motu Animalium," by John Sharp, esq.; and extracted from the "Field Naturalist's Magazine."

C D, are raised and moved forwards near to A B; and in this manner quadrupeds, by successively contracting and lengthening themselves, perform running, as is evident in the case of horses and dogs at full speed.



But, in going at an easy pace, it is evident that the two fore feet or the two hind feet are not raised together, nor moved forwards at the same time, but alternately; when A is moved, B is at rest; and, on the contrary, when B moves, A is at rest. It is certain that this takes place in the hind feet: but it cannot be so easily distinguished in what order the fore feet move with the hind feet, I mean whether the two left feet, A and D, are moved at the same time, or A with C, on account of the quickness of the motion.

They were of opinion, however, that this could be ascertained by a process of reasoning. If the two left feet, A D, were raised and moved forwards at the same time, then the animal would fall upon the left side. Therefore, the right fore foot, B, with the left hind foot, D, ought rather to rise and move forward at the same time, so that the feet diametrically opposite might move or rest together. Moreover this erroneous opinion prevailed to so great a degree, that, in equestrian statues of marble and of bronze, both ancient and more recent, the two feet diametrically opposed are suspended from the ground.

I am truly surprised that the difficulty and absurdity of such a notion was not perceived. They grant that an animal ought to be steady in motion, lest it might totter or fall, and hence they aver that the two left feet, A and D, could not be moved together; for then the centre of gravity of the quadruped, and the line perpendicularly drawn from it to the ground, would fall either upon the same right line, B C, where the two right feet are at rest, or beyond it on the line A D, and in that posture the animal would totter or fall.

But when the two feet, B D, diametrically opposite, are raised and moved together, at the same time, the whole weight of the animal ought to rest upon the two feet fixed upon the ground; I mean the line perpendicularly drawn will fall not upon the large

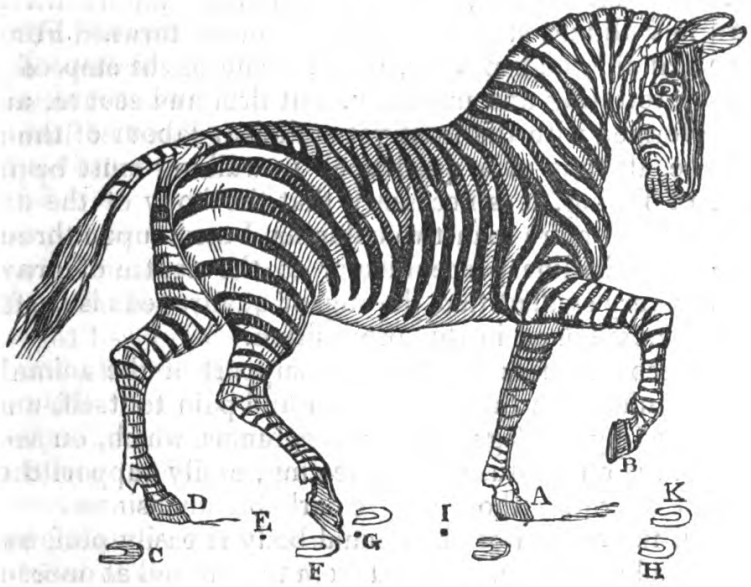
space, but upon the line A C. The animal would therefore equally totter; and thence it will have an insecure and unsteady posture at that time.

Secondly. We may consider the figure, which the four feet form after the first motion—namely, when the foot B is transferred to K, and D to S; then the two left feet, A and S, become contiguous, and the right feet, K C, in turn, are most removed from each other, so that the four feet form a triangular figure, the longest side of which is K C, and the least altitude A B. This posture therefore is not secure enough, and from it, after the motion of the feet, C and A, to I and V, the animal is restored to the steady quadrangular position, I S V K, like the former A B C D. The firm and tottering postures of this kind regularly following each other would have been unwisely ordered by Nature, when these disadvantages could have been easily avoided.

But why do we inquire for reasons, when experience contradicts the facts inferred. Observe a horse moving at a slow space, and you will never see the two feet, A and C, diametrically opposite, to move at the same time, but one foot is always raised from the ground while the other three are at rest. By an attentive observation, you will afterwards perceive that this process is followed in the quick motion of all kinds of quadrupeds.

[In birds, as we shall see in a future page, there are two species of this sort of movement; one group, like the nightingales and sparrows, carrying both legs forwards at the same time, or hopping; another, like the wagtails and the blue-breast (*Motacilla Suecica*), putting one foot before the other. Edit. of F. N. M.]

The manner in which the step of Quadrupeds is performed, explained.



The oblong figure of a horse, which may be considered as resting

upon its legs as upon pillars fixed upon the ground in A B C D, forms a four-sided rectangle; the line drawn perpendicular from the centre of gravity of the horse would fall upon E near the centre of the rectangle, and thus the posture of the animal would be most secure. Afterwards the step is made by the foot behind, as the left, C, which, by pressing the firm ground with a strong effort backwards, the centre of gravity is moved forward from E to G, and this being performed quickly, the foot B is raised and moved forwards to H, which motion can be made with greater effect, because the centre of gravity falls at first within the triangle A B D; next, it falls within the four-sided figure (*trapezium*) A B F D, that is, it is supported upon three or four columns. The next three feet, A D F, remain firm, and include the centre of gravity G; the left foot B, being moved forward to H, and by this impulse the centre of gravity is transferred to I, that is, to the centre of the four-sided figure (*rhombus*) A H F D; the steps of the two left feet being concluded, the motion of the right hind foot D begins, and afterwards that of the fore foot A. The step of quadrupeds is always performed in the order just explained.

Although attentive observation may be sufficient to prove these facts, yet it is the duty of the philosopher to inquire into the advantages and necessity of such a process. It is an invariable law of Nature, while she avoids as much as possible the disadvantages and complexities of any system, to perform her work by means sure and certain, and at the same time the easiest and most simple.

The step of animals does not include the motion of the whole body moved forward, with equal rapidity and in the same direction, as in flying, leaping, or creeping, but it is rather the motion arising from the transference of some parts of the body, which are supported by others at rest, and in this manner an animal is moved forward in walking, standing and moving by turns. For this reason, the standing and moving, which includes the step of animals, cannot be tottering and unsteady, but firm and secure, and ought to be performed with the least yet sufficient labour of the muscles. But as the attitude of a quadruped in walking must be free from the risk of falling, it is necessary that the body of the animal be supported upon more than two columns, I mean upon three or four, within which the line perpendicular to the centre of gravity may fall. It is very evident that the step of quadrupeds is performed in the manner explained in this proposition.

It is moreover necessary that the support of the animal should be accompanied with the least labour and pain to itself, and this is accomplished by the legs serving as columns, which, on account of their hardness and obtuseness of feeling, easily support the superincumbent weight, without any remarkable uneasiness.

Besides, the motion of the animal body is easily performed, because its whole mass is not raised from the ground at once, one foot only being lifted and moved forward. This is performed by first pressing upon the ground with one of the hind feet, and not by one

of the fore feet, for if the former was lengthened while the latter rested upon the ground, the centre of gravity would fall behind; but, on the contrary, by one of the hind feet being lengthened, the fore foot is moved forwards like a gladiator's spear (*ad instar conti*); whence it happens that the whole mass of the animal is moved forward by the bending of three erect columns, not different from the manner in which running upon wheels is performed. Next, by raising from the ground the same hind foot, the joints being bent by the muscles, afterwards by the motion of the fore foot of the same side as has been mentioned, these advantages, I say, show the necessity of such an operation.

THE GUNNER WITH THE SILVER MASK.

Alphonse Louis, aged twenty-two years, a native of St. Laurent, in the Pas de Calais, private in the 5th company, 2d regiment of artillery, of a sanguine temperament, was wounded in the trenches on the 6th December, 1832, by the splinter of a shell. When this misfortune occurred, Louis stood fronting the left wheel of his gun. He held a lever or handspike across his body, in the proper position of a gunner waiting to serve his piece; that is, with the right hand raised and the left depressed, or the very reverse of the position of an infantry officer when holding his sword diagonally, at open order, preparatory to a salute. At this moment a twelve-inch shell burst a few feet above the battery, and a fragment of about seven pounds weight struck Louis.

The projectile first attacked the external part of the left jaw, carrying away almost the totality of the maxillary process, of which there only remained the edge of the extreme left posterior portion, the coronoid process, and condyle. On the right side, the extremity of this bone was preserved as far forward as the first large molar tooth, inclusive. Besides this, the alveolar processes and teeth of the upper left jaw were partly fractured, the body of the hyoides laid bare, the left parotid duct lacerated, and the tongue furrowed on the same side with a deep wound.

The loss of substance, or solution of continuity, occasioned by this wound, was immense; it extended on the left side from the zygomatic process to the anterio-superior articulation of the thyroid cartilage, tearing away almost all the fleshy parts of the cheek, and a large portion of the upper lip; on the right side it ran from the same cartilage to a level with the upper maxillary sockets and the buccinator, to within half an inch of the lobe of the ear. The centre of the wound was occupied by lacerations of the roof and coating of the palate, by the œsophageal opening of the throat, by some remnants of the upper maxillary glands, and the hyo-gloss and genio-gloss muscles; and lastly, by the tongue, swollen to four times the size of its ordinary volume. This organ having been entirely denuded on its lower superficies, as far as its base, and having lost its natural support, hung down in front of the larynx. In short, to render the description still more clear, nothing whatever remained

of the lower jaws save the four fractured double teeth, and injured fragment on the right side, and thus the tongue drooped down to the length of several inches, exposing the cavity of the throat,—a horrible and ghastly sight.

But the sufferings of the victim did not terminate here; the splinter, after committing this fearful havoc in the face, encountered on its descent the up-raised right arm, and striking it about one third of the distance from the elbow to the wrist, caused a compound fracture of the severest kind.

Louis was immediately raised, and carried from the battery to Hoboken, where the surgeon-major on duty forthwith proceeded to sew up several portions of the integuments of the upper maxillary region, as well as those of the neck; that is, both above and below the solution of continuity, in order to diminish the aperture. But the nature of the laceration was such, as to offer little hope of saving the patient; indeed, such was the nature of the mutilation, that death appeared not only inevitable, but ardently to be desired. The amputation of the fore-arm was then performed by the ordinary process, at the distance of about two inches below the articulation of the elbow-joint. The usual dressings were applied in both instances. Symptoms of general re-action were not long in developing themselves, at first not with a degree of severity proportionate to the gravity of the wounds. The most rigorous diet was enforced. The wounds of the face, fearfully swollen, were dressed every day without any remarkable accident; and on the 11th of December, or sixth day, the sewings and first dressing of the fore-arm were removed; and on the 12th the patient was carefully transported to the reserve field-hospital at Boom. On the following days the same treatment and regimen were continued, and Dr. Forjet was not without hopes of saving the man's life.

The suppuration now commenced in both wounds: it was of a satisfactory nature as regarded the stump of the arm, but of a less favourable character in the face, of which several mortified portions gradually sloughed away. Between the fourteenth and twenty-fourth days, the gashes in the face assumed a livid and gangrenous character; the suppuration was more unwholesome, and the dressings more painful than ever. The stump having become the seat of considerable inflammation, the bandages were removed, and emollient cataplasms applied: notwithstanding this, however, the extremities of the bone pierced through the fleshy parts near the lips of the wound, and their death was the inevitable result.

On the 2d of January, or twenty-eighth day, the patient was transported from Boom to the military hospital at Antwerp, and placed under the immediate care of Drs. Forjet and Seutin.

From the 2d to 20th January, the dressings could only be effected by the aid of the chloruret of sodium: these were renewed daily. But, notwithstanding the most energetic treatment, and the moist ndefatigable attention, the aspect of the wounds was extremely

unpromising, and nothing could arrest the gangrene. However, between the 15th and 20th, the surfaces assumed a less unfavourable appearance, and the local and general symptoms were attended with a slight amelioration. This amelioration progressively advanced, in consequence of the unremitting care with which the patient was attended. The nourishment at first consisted of some slight doses of thin broth, afterwards veal soup, and lemonade tinged with wine, and then with vegetable and animal jellies. In proportion as the muscles of the tongue regained some slight power the deglutition of these substances became less laborious and painful. They were administered by means of a narrow curved spoon, moulded for the purpose, the extremity of which was placed on the base of the tongue, and the food, always administered in a liquid state, poured down the œsophagus.

From the 25th January to the 9th February, the progress of general and local amendment became more sensible daily, the edges of the wound subsided to a level with the circumjacent surface, and the work of cicatrization manifested itself. The tongue was now reduced to within double its ordinary volume, and the exfoliation of bony substances continued insensibly. The cicatrization of the stump was only impeded by the complication before mentioned. The portion of dead bone came away on the 9th; other fragments had been previously removed, and the whole appeared in a promising state.

A singular circumstance attended this part of the case, and merits peculiar attention. Although the gustatory surfaces were diminished by nearly three fourths, and the tongue had lost its action, although alimentary substances only came in contact with a small part of the posterior portion of the tongue, and the mucous membrane of the bronchial passage (which generally are not admitted to possess the faculty of distinguishing or appreciating the savour of any given nutriment, but merely that of facilitating deglutition,) it appeared that the sensation of taste, though at first much impaired, was now exercised with perfect discernment.

On the 10th February an exact plaster cast was taken of the face, thus horribly disfigured; it being sufficiently cicatrized to permit this operation without causing great suffering to the patient. A cast-iron mask was then made; and by the aid of this the artist was enabled, at his leisure, to construct a substitute for the lost parts, that might not only render essential service to the individual, but even deceive the eye as to the ravages of the wound. From the 10th to 25th the process of cicatrization made rapid progress. The palate, uvula, the whole of the injured superior surface and adjacent membranes, had returned nearly to their natural state, and the phenomena of deglutition gradually increased in the regularity of their functions; however, the extent of the vault of the palate was still much diminished, and its surface covered with a thick white crust, demanding constant ablution. The left parotid was paralyzed, and the salivary process only went on by the right

side. On the other hand, the stump was in a highly satisfactory state, and almost entirely cicatrized. The general condition of the patient was, in every other respect, that of the most promising convalescence.

The integrity of the vocal organs having remained unimpaired, it is unnecessary to observe that the voice continued unchanged: this however was not the case with the powers of articulation, which could not of course act, from the want of the front of the mouth. It is not however uninteresting to remark, that the phenomena of speech were not entirely annihilated; that the simple and compound vowels were uttered naturally, and that the greater part of the consonants were pretty distinctly enunciated; the labial and hissing sounds were the most indistinct. Nevertheless, the mere habit of attending to the patient sufficed to render his language intelligible, and an improvement in his mode of pronunciation was gradually perceptible; so much so indeed, that there was every ground for predicting that the modifications in his power of articulation would be susceptible of great improvement, under the influence of time and education. This prediction has already been partially verified; for, on our last visit to Alphonse Louis, we were able to comprehend every word he uttered; and the wounded men occupying adjacent beds in the hospital said that they understood him as well as any other of their comrades. He appeared to speak without any great effort or pain. The sounds were not loud, but sufficiently so to be heard at a reasonable distance; and gave one the idea of a person speaking with a wooden gag placed transversely between the open jaw, and pressed against the back of the mouth.

On the 25th Dr. Forjet made some attempts to separate the morbid fragments of the right jaw, and succeeded in detaching the whole portion of the bone that incommoded the patient, and prevented the precise application of the artificial substitute. The rest of the operation was left to nature; and four days subsequently the splinter separated itself from the live parts. It consisted in front and below of the whole thickness of the maxillary body; and above, of the bone that separates the 5th and 6th dental socket. On the outside it was composed of the extreme portion of the body and branch of this bone, including its obliquity, terminating backwards in the coronoid process. The patient still preserved on this side the three large molars, of which the first, imbedded in a half socket, forms the antero-posterior base of the maxillary bone, and might resist for a length of time the ordinary causes of destruction.

It was at this time that the last finish was given to the artificial silver substitute, the execution of which had been intrusted to a skilful artist of Antwerp, M. Verschuylen, from the designs of Dr. Forjet. The ability shewn by the artist in the construction of this ingenious piece of mechanism, is deserving of much commendation; and we venture to recommend such of our readers who may have an opportunity of visiting the Invalids at Paris, to inquire there for

the "Gunner with the Silver Mask;" they will then be enabled to inspect the contrivance, and to see and converse with its proprietor. To practical men the visit will be of deep interest. A short description of the mask itself is necessary, though we cannot pretend to offer a graphic portrait.

The external part is composed of a lower half-mask, without nose or cheeks. The anterior edges are in immediate contact with the lower part of the nasal cartilage and adjacent muscles, and the angles of the upper jaw. The two sides, or half-cheeks, repose on the parotid borders of the maxillary and the sterno-mastoideum, so as to conceal and enclose the whole extent of the deformity. In the front of its centre, that is, the portion occupied by the lips and chin, there is an oblong square plate, or trap, opening with a lateral hinge and spring; this imitates the surface of the chin, two lips, and middle section of the mouth. This trap being opened by the patient's left hand, shews a second, or internal chin, and complete local cavity, with a regular set of metal teeth. By the aid of this aperture, of which the mechanism is extremely simple, a communication is opened between the air and the pharynx, so that he can repose and breathe freely without taking off his mask. This is not strictly necessary for the process of respiration, as there is an opening between the artificial lips; it is merely done to give greater freedom to the action of the lungs, and to diminish the heat.

All the points of contact with the face are skilfully ornamented with mustachios and whiskers, which entirely cover the edges. The inferior parts are covered by the cravat; and the posterior part, which reaches behind the ear, hidden by allowing the hair to grow and fall down over it. At the distance of two or three yards it is impossible to distinguish the artificial nature of the substitute; the subject having the appearance of a man of good constitution between forty-five and fifty years of age. The mask is painted in oils, of a tint analogous to his complexion, so that the illusion is so strong that, unless forewarned, he might be stedfastly examined at a short distance without betraying his misfortune.

The internal part is divided into two compartments. The upper, or sublingual section, is furnished with a platform which supports the tongue, retains it in its proper position, and regularly circumscribes its action by a complete alveolar process, set with gold teeth. This jaw, being adapted with a hinge and spring, can be lowered at will by the man's left hand, so as to admit food. The lower section forms the cavity of the inward chin, and is disposed so as to serve as a reservoir for the saliva and mucous secretions, which are incessantly flowing from the remaining parotid and glandular integuments of the mucous membrane; these fluids are got rid of through a small orifice, by merely leaning the head to one side. The different portions of the mask are of silver, strongly gilt, and so constructed that they can be taken to pieces in order to undergo cleansing, and can be re-united with the utmost facility. The whole contrivance, an admirable proof of mechanical skill, is maintained in its proper place by means of Indian rubber bandages, which hook

on the occiput and vertex, and are strengthened by means of a flexible metallic strap, intended to prevent all possibility of derangement. The weight is about three pounds, and the cost of the whole was about 12*l.* sterling.

The use of the mask is by no means painful or inconvenient, considering the nature of the wound. It is, above all, of great assistance in arresting in their passage, and retaining in the cavity of the artificial chin, the salivatory and mucous secretions; it facilitates the action of the tongue; it has restored a face dreadfully mutilated to a human form; it has singularly softened the rigour of the sufferer's fate, conduced to his comfort, and rendered his existence not only desirable, but comparatively happy. On our last visit to Alphonse Louis, the day previous to his departure for Lille, he appeared in high spirits; he walked about with agility; used the stump of the fore-arm with address; took off and readjusted his mask with his left hand; spoke not only intelligibly but easily; he was high-coloured, and fatter, as he stated, than he had ever been prior to his misfortune. He played at cards, and seemed to be as proud of shewing the mechanism of his artificial jaw, as he was of the crosses of the Legion of Honour and Leopold, that glittered on his bosom.

It would be in our power to detail several other most interesting operations performed by Dr. Forjet during the siege, but we have already occupied too much of the reader's time with the description of the "Gunner with the Silver Mask;" whose history, though less romantic than that of the celebrated "Iron Mask," is infinitely more interesting to science and humanity. Of the one, all that can be said is, that he was the mysterious victim of that most unparalleled despotism that paved the way to the first French revolution; in the other, we have a proof of the glorious triumph of art, and of the immense progress of medical skill. Wounds of a similar nature are not unfrequent; there is an instance, we believe, of something analogous in the case of Colonel Cunningham; but, as far as we have been able to ascertain, no recovery from such complicated lacerations ls on record in France, nor had the substitution of an entire artificial jaw ever been projected, or successfully executed, until the present instance.—*Medical Gazette.*

M. QUETELET ON THE WEIGHT OF MAN AT DIFFERENT AGES.

The facts in this paper are curious and valuable, both with respect to physiology and forensic medicine. All the researches hitherto made on the subject have had reference to the period of birth, or to the epoch of complete development: little has been done for the intermediate ages. But the great importance of the inquiry relative to the progressive development of man, is evident from the problem, which is often proposed to the medical jurist—to state the age of an individual from an examination of his physical properties. An opinion may be hazarded by an inspector, and his report may be received; but, unless he have taken into account the stature and weight of the individual, as well as certain other pecu-

liarities capable of measurement, his opinion is a mere dictum; vague, and destitute of any solid support. The height of man has been frequently examined: the weight it has remained for M. Quetelet to inquire into, with all that exactness of which the subject is susceptible.

As to *new-born infants*, from observations made on 63 males and 56 females, in the Maternité de Saint Pierre, it appears that the mean weight of the former was 3·20 kilogrammes (6·536lbs.), while the length, by Chaussier's mecometer, was 0·496 metres (1 foot, 6 inches, 3 lines); and of the females, the mean weight was 2·91 kilog. (5·923lbs.), the length 0·483 metres (1 foot, 5 inches, 10 lines.) Whence it is inferred that at birth there is an inequality in the weight and size of the two sexes, the males having the advantage in both.

Chaussier seems to have been the first who remarked that the infant, presently after birth, begins to lose some of its weight. M. Quetelet, from seven series of observations, extending in each case to the seventh day, has confirmed M. Chaussier's remark, and shews that the infant does not begin to grow perceptibly till after the first week.

M. Quetelet gives a table of the corresponding weights and statures at the different ages. We extract a few of them, by way of specimen:

Ages.	Males.		Females.	
	Height.	Weight.	Height.	Weight.
	m.	*k.*	*m.*	*k.*
At Birth	0·500	3·20	0·490	2·91
1	0·698	9·45	0·690	8·79
3	0·864	12·47	0·852	11·79
6	1·047	17·24	1·031	16·00
10	1·275	24·52	1·248	23·52
20	1·674	60·06	1·572	52·28
30	1·684	63·65	1·579	54·33
43	1·684	63·67	1·579	55·23
50	1·674	63·46	1·536	56·16
70	1·623	59·52	1·514	51·51

THE CONSTITUTION OF POPE.

Headach was the urgent symptom which Pope constantly complained of, and this he was in the habit of relieving by inhaling the steam of coffee. It is difficult to conceive on what principle this remedy could alleviate his sufferings; but, from the manner in which he aggravated them by improper diet, it is very probable that his remedy was no better than his regimen. It appears that, like all dyspeptic men, he was fond of every thing that was not fit for him. "He was too indulgent to his appetite," says his biographer; "he loved meat highly seasoned, and if he sat down to a variety of dishes, he would oppress his stomach by repletion; and though he seemed to be angry when a dram was offered him, he did not forbear to drink it: his friends, who knew the avenues to his heart, pampered him with presents of luxury, which he did not suffer to stand

neglected. We are told by Dr. King, his contemporary and friend, that his frame of body promised any thing but long health, but that he certainly hastened his death by feeding much on high seasoned dishes, and drinking spirits."

From the various accounts given of his mode of living, and of the sufferings it entailed on him, it was evident that his appetite was depraved by indigestion; and it is no less obvious, that constitutional debility induced by that deformity, either natural or accidental, under which he laboured from his cradle, had given the predisposition to this disorder. His frequent heahach s, and the sensation of confusion and giddiness after application to study, or excess in diet, those premonitory symptoms of dyspepsia, he appears to have looked upon as his original disease, whereas the stomach was the seat of his disorder, and the affection of the head only sympathetic with it. Yet it must be admitted, that when literary men are the subjects of this disorder, that it is very often exceedingly difficult to determine whether the head or the stomach is primarily affected; but in whichever of them is its origin, so immediate is the influence of the one on the other, that the treatment is not materially embarrassed by our uncertainty of the primary seat of the disease. It is the nature of parts sympathetically affected to become disordered in their functions, rather than organically diseased; at least it is a considerable period before any alteration of structure in a symptomatic disorder takes place. The interval between the two results is occupied by a long train of anomalous ills, which are generally denominated nervous. The term is vague and unmeaning enough for all the purposes of nosology. It implies a host of sufferings, which sap the strength and sink the spirits of the invalid, and this hydra-headed malady may continue for years an incubus on his happiness, which utterly destroys not health, but renders valetudinarianism a sort of middle state of existence between indisposition and disease. The symptomatic affection of the head only becomes an organic disease, when the long-continued cause has given it such power that the effect acquires the force of a first cause in its influence on an organ previously weakened or predisposed to disease. It is then easily conceived how the simple headach, in the case of Pope, continued for years symptomatic of a disorder of the stomach, aggravated by mental excitement and improper diet, till the disturbance of the functions of the brain ultimately debilitated that organ, and left it no longer able to resist the effects of the constant exercise of the mental faculties. The result of such long-continued disturbance of the cerebral functions, there is generally great reason to apprehend, will be either alteration in the structure, softening of its substance, or effusion serous or sanguineous.

There is great reason to believe that one of these terminations took place in the case of Pope several years before his death, as it was found to have done in the case of Swift, and more recently in that of Scott. Even when Pope was apparently in the enjoyment of tolerable health, he had evident symptoms of pressure on the

brain, or at least of an unequal and imperfect distribution of the blood in that organ. Those symptoms are only noticed by his contemporaries as curious phenomena connected with his habits of life. Spence says he frequently complained of seeing every thing in the room as through a curtain, and on another occasion of seeing false colours on certain objects. At another time, on a sick bed, he asked Dodsley what arm it was that had the appearance of coming out from the wall; and at another period he told Spence, if he had any vanity, he had enough to mortify it a few days before, for he had lost his mind for a whole day. Well might Bolingbroke say, "the greatest hero is nothing under a certain state of the nerves; his mind becomes like a fine ring of bells, jangled and out of tune!"—*Madden's Infirmities of Genius.*

ON DISSECTING AND PREPARING ANIMALS FOR COLLECTIONS. BY PROFESSOR CARUS OF DRESDEN.

Though the art of anatomising the bodies of animals is essentially the same as that practised upon the body of man, and though want of space precludes me from treating the subject minutely, I conceive that a few remarks may not be altogether unacceptable to those who feel desirous of pursuing such studies for themselves.

The first thing that I have to observe is, that all dissections of small and soft objects, such as worms, zoophytes, insects, mollusca, and embryos, where it is desirable to obtain even tolerable accurate results, should be performed under water, by which the parts are kept floating and separated from each other, and consequently present themselves more distinctly.

A very simple contrivance for investigations of this kind may be prepared in the following manner: A mass of tough wax (not too soft) is to be laid upon one or more porcelain saucers or capsules of different sizes, which are then to be put in a warm place until the wax melts so as to cover the surface evenly to the depth of a half or a third of an inch. If the object to be examined be laid upon this surface, it may be fixed by needles in any position that is wished, and, when covered with clear water, developed and dissected by means of suitable instruments. Of these the best are very delicate forceps; pointed, well-made, sharp-cutting scissors; and small knives, like cataract needles, some round, others with cutting edges, and fixed in slender wooden handles. For separating parts I have also employed small horn probes and fine brushes; whilst, for examining them, a good magnifying glass is frequently indispensable. If it is wished to preserve a preparation thus made, wax, coloured at pleasure as for the purpose of injections, is to be formed into little tablets about one-fourth of an inch thick; one of these is then to be placed upon the saucer or capsule containing the preparation the latter may then be transfered to it, arranged suitably upon it, fixed there by means of short needles, and both together then placed in alcohol. Nor must I forget to mention, that the examination of very delicate

organizations may frequently be conducted with greater facility and accuracy if the object be previously allowed to remain some time in spirit, and thereby to become harder and contracted. This applies particularly to the dissection of nervous organs, and to the examination of very small embryos, of mollusca, and worms. There are various methods of destroying worms, insects, mollusca, &c., for the purpose of dissecting, without injuring their organization: mollusca, snails, for instance, as Swammerdam has remarked, are to be allowed to die in water, because by that means their body swells, and all the parts beeome more distinctly visible; they may be afterwards kept in spirit (though not too long) for dissection. Worms, the larger zoophytes, (for the smaller must be examined while alive,) caterpillars, &c., and also the smaller amphibia and fishes, are best destroyed by means of spirit; insects, on the contrary, by being dipped rapidly in boiling water, or in oil of turpentine. As regards the dissection of larger animals, we may here use with advantage knives of a larger size; and, instead of forceps, suitable hooks with handles.

In animals of considerable size we can generally make artificial skeletons only after the bones have been sufficiently cleaned by boiling or maceration. In smaller animals, on the contrary, such as birds, amphibia, and fishes, of which last it is very difficult to make good skeletons, the object will be best accomplished by at once making the bones as clean as possible without injuring the capsular ligaments, soaking the preparation in water that is incessantly changed; and lastly, bleaching it for some time in the sun. Lastly, we may mention injections as affording a very essential assistance in zootomical investigations for physiological purposes. In small animals, and in the most minute parts, these must consist of compositions with wax, very fluid and coloured; best of all of mercury. The latter, however, is not suitable for very soft bodies, such as medusæ, &c., in which cases we may employ injections of coloured milk, and similar substances.—*Translated by Mr. Gore, of Bath, in the Field Naturalist's Magazine*, No. II.

COMMERCIAL TRAVELLERS.

Few commercial travellers bear the employ for thirty years, the majority not twenty. Thus an occupation, in itself so healthy that a man might follow it from boyhood to eighty in health and vigour, is corrupted to the production of disease, and the destruction of at least half the term of human existence. I attended a commercial traveller who pursued his employ to the age of seventy-nine. His habits, however, were widely different from those of his class.

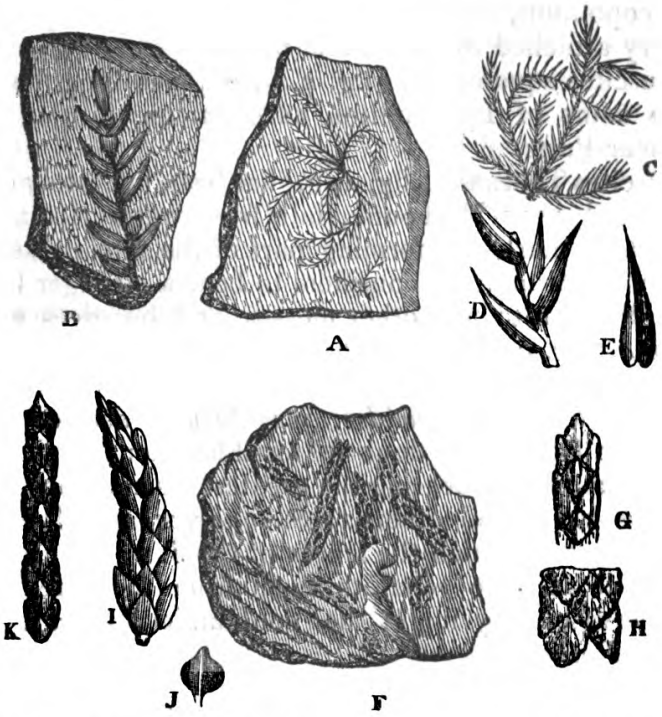
I am favoured by Mr. Pierce with specimens of innkeepers' charges to commercial travellers in 1774 and 1791, from which it appears that, though the diet was generally better, customers were then treated with spirits and wine, and the quantity drunk in such

business-conviviality, was sometimes as great as any modern excess.

February, 1774: "Breakfast (bread and milk,) 2*d.*; Geneva, for customers, 1½*d.*; oats, half a peck, for horse, 4*d.*; hay, 1*d.*; hostler and waiter, 2*d.*"—December 9th, 1791: "Breakfast, 8*d.*; dinner, 8*d.*; tea, 8*d.*; supper, (chickens and asparagus,) 8*d.*" December 10th and 11th, the same routine of meals, at 8*d.* each, with the addition of liquor for customers, 2*s.* 0½*d.* the first day, and on the second and third days, 6*s.* 6*d.*: sums which, in those days, would supply enormous potations.—*Thackrah on the Effects of Arts, Trades, &c. on Health and Longevity.*

GEOLOGICAL DISTRIBUTION OF THE MUSCI.

(816.) Five fossil species of Chara, and one, or at the most two, fossil mosses, are all that have been as yet discovered. No vestige of a fossil liverwort has hitherto been found. It is true, as



A. Muscites Tournalii, reduced. B. Portion magnified. C. Hypnum riparium. D. Portion magnified. E. Leaf separated. F. Muscites (?) squamatus. G, H. Portions magnified. I. Sphagnum compactum. J. Separated leaf of ditto. K. Branch of Juniperus phœnicea.

Brongniart observes, that Daubenton believed he had recognised a variety of these plants in the moss-like markings of Agate; and Mr. M'Culloch published, in the Geological Transactions, several figures having a very strong resemblance to Jungermanniæ. But Brongniart, after much laborious investigation, concludes that they are simply infiltrations, accidentally assuming forms which, without

very attentive examination, might be mistaken for vegetable impressions.

(817.) That the stoneworts should be found in a fossil state from the first epoch of their existence, might be presumed from the dense incrustation with which they surround themselves; petrifaction being to them a natural process, that terminates their life. But, although abundant in the beds above the chalk, their first appearance is in the lower fresh-water formation. The fossil nucules of the Chara, [§ 786, K, L,] were called by Lamarck *Gyrogonites;* but later naturalists considering the fossils to be remains of plants identical with those now existing, they of course must have the same denomination. The stems and fruit of fossil Charæ are very common in this country; and beautiful specimens are procured from the Scotch marl, and from the lakes in Forfarshire, where they are most abundant.

(818.) Of the two species of Muscites, one only is absolutely decided to be a fossil moss; the other, which at first was thought to be a Lycopodium, although now called a Muscites by Brongniart, has a query attached to its generic name.

The Muscites squamatus, [fig. E, G, H,] has long been known under the name of Lycopodites, as occurring in the mill-stone quarries near Paris.

The Muscites Tournalii, [fig. A, B,] has been but lately discovered by M. Taurnal, near Narbonne, in a fresh-water formation, consisting of chalk marl, and forming part of the tertiary series.

The former, Brongniart considers to bear a stronger likeness to the Hypnidæ than to any other mosses, and he gives a figure of *H. riparium*, [fig. C, D, E,] to shew the similitude of the leaves; at the same time pointing out various other resemblances to other species, such as *H. ripariöides*, *cuspidatum*, *denticulatum*, and *elegans*. The latter more doubtful fossil he likens to the *Sphagna*, some of the fragments bearing the greatest resemblance to *S. compactum*, [fig. I. J,] and others to *S. squarrosum*. The regularity of the four ranks in which the leaves of the Junipers are arranged, [fig. K,] will at once separate them from these remains, with which otherwise they might be confounded.—*Prof. Burnett's Outlines of Botany.*

HABITS OF MERCANTILE MEN.

Mercantile custom, in reference to hours, varies, I believe, with place and kind of business; but in towns devoted to trade and manufactures, the application is generally excessive. It may not be improper to adduce an example or two of the cases which present themselves to a medical man. Mr. —— complains of habitual pain in the head, with occasional attacks of severe throbbing, depression of spirits, broken rest, impaired digestion, and a torpid state of the bowels. He is a slight active man of thirty, and has been in a merchant's establishment since he left school. He rises at five o'clock, or soon after, and immediately enters the ware-

house, which adjoins his house. At eight he steps home to breakfast, but returns again in fifteen or twenty minutes, and is at business till half-past one. He then goes to dinner, eats it hastily, rarely sits ten minutes afterwards, but proceeds to the warehouse. Tea and supper are uncertain, and one or other is taken as convenient. The counting-house is closed at nine or ten, and he remains with the clerks to the last. Such is his general routine for five or six days a week.

Mr. —— complains of a deranged stomach, with a morbidly-recurring appetite, occasional acidity, and lately vomiting; pains in the various parts of the trunk, and defect in the action of the intestines, depending, it appears, on fault in the secretion of the bile. On inquiring his habits and circumstances, he says, "I have long been an invalid. Within the last six years I have had great losses; and my mind, of course, has been constantly hurt by finding my property slipping from me. I have worked hard for it in early life. We were at business early and late. My father used to say, 'quick at meat, quick at work;' and I have seldom allowed myself more than a quarter of an hour for any meal. I do not think, however, that the exertion of my early life has injured me so much as the anxiety and grief of later periods." Relations like these might easily be multiplied. In such cases we cannot be at a loss for the causes of impaired health, and shortened life.—*Thackrah on the Effects of Arts, Trades, &c., on Health and Longevity.*

On the simultaneous Presence of Prussian Blue, *and of a* Saccharine Matter, *in a particular Variety of* Human Urine. By M. Cantu, Professor of General Chemistry applied to the Arts, in the University of Turin.

The presence of prussic acid in human urine, secreted during a morbid state of the animal economy, was already announced upwards of forty years ago by Brugnatelli; and MM. Moyon and Julia-Fontanelle observed a few years back that of prussian blue and saccharine matter.

As the knowledge of this extraordinary fact may give rise to new observations and farther experiments on the part of physicians and chemists, and influence the progress of the theory and practice of medicine, this subject seemed deserving the attention of the Royal Academy.

I shall briefly state the experiments which I made on this subject, the results I obtained, and the inferences which I consider it warrantable to deduce from them.

The urine in question was sent me by Dr. Bernetti, member of the College of Medicine. According to the intimations which he had the kindness to communicate to me, it came from a little girl about eight years old, who complained of no indisposition, except some colicky pains occasionally felt in the epigastric region, a little before she experienced a necessity to void urine. It is necessary

to remark that she was not at that time subject to any medical treatment, and that she used nothing but ordinary food and drink, it being merely the extraordinary circumstance of the blue colour of the urine which excited the attention of the parents, and made them consult the physician on so strange an occurrence, from which they dreaded, not without reason, some serious results.

This urine immediately when passed was of a blue colour, similar to that of the solution of indigo in dilute sulphuric acid, at least such was the colour of the urine voided at night; that passed by day was of a less deep colour; it bordered slightly on green, merely because being more watery it contained less prussian blue, on which its blue colour depended, as we shall see presently; scarcely could the odour and taste of ordinary urine be distinguished in it, but there was clearly perceived the odour of syrup of sugar, and a decidedly sweetish taste, similar to that of the urine in *diabetes mellitus*.

A portion of this urine put into an open vessel, and left to the action of the air at a temperature of from 13° to 18° Reaumur, began to assume a less deep shade after about twelve hours, it then became greenish, and finally acquired a yellow citron colour, throwing down some flocculi of mucous matter of the same colour. In the meantime, whilst these changes were becoming manifest, there was developed a slight ammoniacal odour, and re-agents indicated the presence of an alcali.

From these phenomena it may be inferred that the urine experienced a partial decomposition which gave rise to the ammonia: this latter, by decomposing the prussiate of iron contained in the same urine, dissipated its blue colour. The urine thus deprived of its colour, and altered in its nature, still left to the influence of the same causes, lost gradually the ammoniacal odour, and in the space of two days acquired a sour smell, slightly alcoholic, and its blue colour appeared somewhat less intense than before.

Hence it appears that the farther decomposition of the urine gave rise to the formation of acetic acid, and to some alcohol; and that the ammonia, having been saturated by this acid, in proportion as it was formed, the prussic acid reacted on the oxide of iron, and produced by a natural consequence the blue matter of the urine, or the prussian blue. The blue urine, not altered, put into a well-closed glass vessel, in a medium whose temperature did not exceed the sixth degree of Reaumur, was kept for eight days without sensibly losing its colour. But the vessel being uncorked, and left to the influence of the air in a higher temperature, its colour was considerably weakened, and in the space of twenty-four hours the urine was entirely discoloured, and acquired an ammoniacal odour. But, by continuing under the same influences, it presented the same phenomena already described, that is, it recovered its blue colour and a sour smell, slightly alcoholic, one may then deduce the same consequences. Another portion of the blue urine not altered, and to which there had been added some centiemes of sulphuric acid, left

to the action of the air, under a temperature of from 13° to 16°, kept its colour for fifteen days, without disengaging any ammoniacal odour.

This experiment proves that the presence of the sulphuric acid opposed the so easy decomposition of the urine, and the consequent production of ammonia, and that even when any was formed, it must be entirely saturated by the sulphuric acid, with which it was brought into contact, and thus prevent the alteration of the blue colour.

The urine in question, a little time after being voided, did not produce any sensible change either on turmeric paper, nor on that of turnesol, that is, it manifested neither alcaline nor acid properties.

Sulphuric, nitric, muriatic, and acetic acids, poured on this urine, in a quantity sufficient to communicate to it well-marked characters of acidity, did not sensibly diminish its blue colour. Even chlorine added in a small proportion did not produce in it any effect.

On the contrary, with the alkalies, that is to say, with potass and ammonia, all the blue colour was destroyed, and the liquor assumed a yellow colour, similar to that of common urine, and of that which having been at first blue became yellow by the action of ammonia, the result of the spontaneous decomposition, as we have already shewn. On pouring the above-mentioned acids in sufficient quantity on the urine made yellow by potass or ammonia, the blue colour immediately re-appeared, an effect which also took place by the contact of the same acids with the urine made yellow by spontaneous decomposition, that is, by the action of the ammonia produced in the urine in this circumstance.

The blue urine, before being altered, when subjected to the action of the fire, and carried nearly to boiling, scarcely diffused the odour peculiar to ordinary urine, but there was distinctly perceived that of a solution of boiling sugar: this odour became more and more perceptible, in proportion as the liquor became concentrated, and particularly when it approached the consistence of a syrup. During this process the blue colour was not sensibly changed.

The residue arising from the evaporation of the urine, being carefully examined, presented the principles belonging to urine in the natural state: but a comparison being made of the proportions, the latter were found in infinitely smaller quantities in the urine now in question: the urea and uric acid existed in it in very small quantities: instead of it there was in it prussiate of iron, and a saccharine matter similar to that afforded by the urine in *diabetes mellitus*.

A small portion of the same residue being thrown on burning charcoal diffused an ammoniacal odour, but that of burned sugar was particularly distinguished in it. Another portion of the same residue being distilled in a glass retort, afforded slight traces of subcarbonate of ammonia, but more particularly the products yielded by vegetable substances, when treated over fire in close vessels.

The carbonized matter which remained in the retort was sub-

jected to the action of muriatic acid: the solution being filtered and tried with prussiate of potass, and with infusion of galls, yielded with the first re-agent a deep blue colour, and was sensibly blackened by the second, which proves that the quantity of prussian blue contained in this particular urine was considerable. The different experiments just now described clearly prove in this secretion the simultaneous presence of prussian blue and of saccharine matter. However, to remove all doubt, I took another portion of the syrupy residue of this urine, and I diluted it in a sufficient quantity of distilled water; by rest there was precipitated a powder of a blue colour, which being separated from the liquor by decantation, and well washed, acquired a purer blue; when afterwards subjected to the action of the alkalies, acids, chlorine, and other re-agents, it gave precisely the same results as the prussiate of iron.

This being done, I poured into the supernatant liquor some subacetate of lead in a slight excess: by this means all the organic substance was precipitated, except the saccharine matter which remained in solution in the water; then there was made to pass through the filtered liquor a current of sulphuretted hydrogen in order to precipitate all the oxide of lead: the liquor again filtered was evaporated to the consistence of a thick syrup; there was then obtained a substance of a white yellow colour, of a well-marked sweet taste, which, when put on burning charcoal, diffused the odour of burned sugar: and treated with nitric acid presents all the phenomena and all the results which saccharine matter generally presents with the same agents. It appears to me that from all these results we may deduce the following corollaries:

1. That this urine contains prussian blue, and a saccharine matter, similar to that met with in the urine of *diabetes mellitus.*

2. That the blue colour of urine may also depend sometimes on the presence of another substance discovered by Braconnot, or designated by him under the name of *cyanurine:* but that it is without good reason that this learned chemist raises doubts with respect to the discovering of prussiate of iron in blue urine, a fact announced by Julia-Fontanelle, in the *Archives Génerales de Medicine for the year* 1823.

3. That probably the extraordinary presence of these substances, that is, the prussiate of iron and saccharine matter, may develope itself anew by reason of the *innormality* (*innormalité*) of the secreting function of the kidneys, which, according to the experiments of Wollaston, may be regarded in some measure as a chemico-galvanic process.

4. That free prussic acid having been discovered by Brugnatelli in the urine of a dropsical patient, prussiate of iron by Fourcroy in the blood of an hysterical woman, prussiate of iron in the urine by Moyon and by Julia-Fontanelle; that a similar blue matter having been observed by Reisel in the sputa of a woman affected with pneumonia accompanied with frequent vomiting: that the same phenomenon having presented itself to Dolxi, to Mogi, and even to

Julia-Fontanelle, in the perspiration of other individuals labouring under nervous affections,—it seems reasonable to think, that in the animal economy, under a morbid condition, the prussic acid may be engendered more frequently than has been hitherto imagined: but that if the circumstances are rare in which this effect becomes the cause of serious disturbances in the system, this must be imputed to the presence of some bases capable of neutralizing it, and of paralysing its deleterious effects.

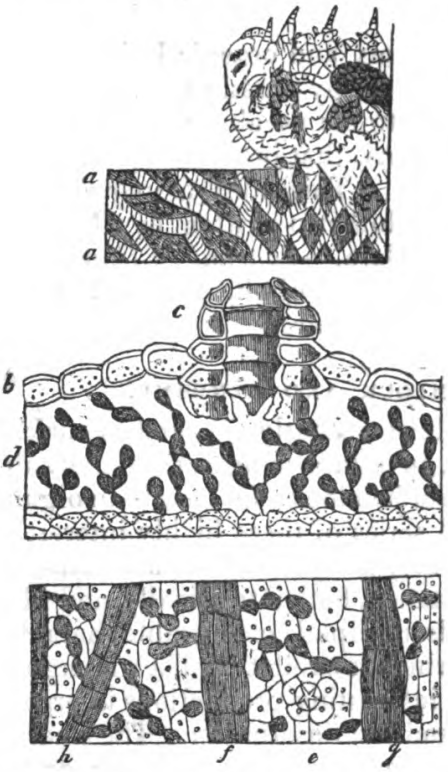
5. That in comparing the symptoms and organic lesions which present themselves in cases of poisoning by prussic acid, and in the cholera morbus of India, it appears to me no abuse of analogy to state the opinion, with other physicians, that prussic acid performs some part in this terrible malady. This idea moreover is in accordance with all that has been hitherto written by Rossi on miasmus, and even on the Indian cholera.—*Journal de Pharmacie*, April, 1833. (Extract from the Memoirs of the Royal Academy of Turin.)—*Dublin Journal of Med. Science.*

EXPERIMENTS ON HEMLOCK AND HENBANE.

Prof. Geiger, of Heidelberg, whilst recently engaged in making chemical experiments, succeeded in establishing some remarkable illustrations of the active principle of hemlock. Its base is an organic salt, which opens an entirely novel series of these highly interesting organic substances, for it is volatile, and similar to a volatile oil. The peculiar qualities of this substance, both intrinsically, and when brought into combination with acids, its rapidly changeable character, and the brilliant play of colours which it exhibits whilst undergoing change, render it one of the most interesting productions in organic chemistry. Its poison is of the deadliest description. The smallest quantity, applied inwardly, produces paralysis; and one or two grains are sufficient to kill the largest animal. Another of Professor Geiger's late discoveries is the active principle of henbane, (*atropin;*) its base is likewise an organic salt, but it is tenacious, admits of being reduced to a crystal, forms a crystalline salt with acids, like hemlock, and has a disagreeable smell, though it is not volatile, unless it be subjected to decomposition. Its poison is quite as deadly as that of the former, but exhibits dissimilar appearances, and is not so rapid in its effects. Animals, where even a minute dose is administered, become languid, cannot stand upon their legs, are attacked by convulsions, and die within six hours. The effect of this poison in dilating the pupil of the eye is extremely remarkable. The minutest portion of it, when applied to the eye of a cat, produces a dilatation of the pupil for the next four and twenty hours; and the hundreth part of a grain prolongs the appearance for the next seven or eight days, besides inducing other singular symptoms of poisoning.—*Rep. Pat. Invent. March*, 1833.

MARCHANTIA POLYMORPHA.

(760.) *Marchantia polymorpha* has lately been rendered peculiarly interesting in a physiological point of view, by Mirbel having shewn, in a memoir just published, that certain organs called *Stomata* exist in this plant, which were previously denied to be present in any of the mosses or their allies, indeed in any vege-



(*a*, *a*) Portion of the frond *Marchantia polymorpha*, with a section of one of the cup-shaped receptacles containing buds, called by some persons an *origoma*. The surface is divided by green lines into lozenge-shaped compartments, in each of which is a large stoma.

(*b*) Transverse section of the frond, shewing the upper and lower cellular layers.

(*d*) Ditto, intermediate cellular structure, the cells in lines with intervening passages.

(*c*) Section of a stoma across its smallest diameter, to shew the cellular structure of which it is formed, and the opening into the air-chamber.

(*e*) Air-cells and stomata.

(*f*, *g*, *h*) Bands of cellular structure which bound the air-chambers.

tables lower in the scale of creation than the ferns. He has, however, proved that they not only do exist, but that they exist in perfection; and, in tracing their evolution, he has thrown much very important light upon an obscure branch of vegetable structure. Mr. Griffith has likewise found Stomata in *Targiona hypophylla*. —*Prof. Burnett's Outlines of Botany*.

ARROW ROOT.

"Arrow root," says Berzelius, "being thought strengthening by some physicians, is sold very dear, for which reason it has been attempted to distinguish it with certainty from other kinds of starch. According to Guibourt it can be recognised, under the microscope, by the grains of arrow root being transparent, and smaller than those of potato starch, though their shape and size are variable also." Though I cannot help congratulating Berzelius on his newly-born tolerance of microscopic observations, still I must lament the complaisance which induces him to register, in catalogues invested with the authority of his name, such superficial observations as those which he takes from Gnibourt. Accord-

ing to the characters attributed by this writer to the fecula of arrow root, there are perhaps a hundred vegetables in France, whose fecula might be confounded with this Brazilian substance. What fecula is not transparent? And what fecula is more transparent than that of the solanum? Moreover, what fecula, with the exception of the fecula of chara seeds, has not smaller grains than the fecula of potatoes, and a size quite as variable? As to shapes, how many there are whose shapes are infinitely varied! But, by an unlucky chance, it happens, that so far from being transparent, the grains of arrow root are more shadowed than any that we have observed, and present characters which we have not met with in any other. These marks of distinction are as follows: The fecula of arrow root, when examined in large quantities, has a crystalline yet faint lustre; it is rougher to the touch than that of potatoes, and almost as much so as that of wheat starch; it contains small clots which resist pressure, and crackle under the fingers. When examined in water, and by the microscope, it presents groups of five or six, and even of ten or twelve grains, which the most rapid movement, and the most prolonged shaking, do not succeed in dissevering, but which continue to float over the liquid in company.

But the most distinctive of all the physical characters of this fecula is, that each grain is the half, or quarter, or third, &c. of a solid sphere; that others are small cylinders, with one extremity rounded *en calotte*, and the other flattened; lastly, that others exactly resemble a painter's *muller*: so that each of these grains has one or more angular surfaces, whose refraction produces those strong and varied shadows which we observe on the contour of the microscopic image; one might sometimes suppose one's self to be looking at crystals. Their structure is such, that it may be better known from a written description, than from the most exact drawing. Moreover, one often sees, through their transparent side, black lines crossing one another, sometimes like a T, and sometimes like a star, just as in the fecula of rye; and if we make the grains turn round, by moving the water, we can assure ourselves that these lines are by no means superficial, but, on the contrary, exist in the very heart of the grain, indicating the existence of cells, like those which I have observed in the lentil; the largest grains do not exceed $\frac{1}{25}$ of a millimetre in diameter. The adhesiveness of a great number of these grains to one another, and the angular surfaces which they have contracted by their agglutination, (always preserving, however, one of their curved surfaces,) would lead one to suppose that this fecula, which is composed of round and softish grains, has been treated, immediately after its extraction, by a violent stove-heat. What confirms me in this supposition is, that the long boiling, which is sufficient to spread out the integuments of potato fecula, so as to make them acquire from twenty to thirty times their original diameter, barely quadruples the volume of the grains of arrow root. This explains

how it is that Pfaff found that ten grains of arrow root boiled in an ounce of water merely produce a mucilaginous liquid, while the same quantity of common fecula, in the same quantity of water, forms a gelatinous mass, a real starch.--*Nouveau Système de Chimie Organique, par F. V. Raspail*, § 3.

THE ITCH.

The cause of this cutaneous eruption was long attributed to the presence and the bite of an insect, which, however, was sought for in vain in the pustules of itchy subjects at Paris. In 1812, Galès, in an *ex professo* thesis, declared that he had discovered this insect more than two hundred times in patients of the Parisian hospital. He caused a very handsome plate to be engraved of it, and even showed it alive to a committee of physicians and naturalists. Since that epoch no one has been so fortunate as Galès. This was not astonishing; for, as I demonstrated in 1829, the memoir of Galès was a mere hoax; and, instead of the itch-insect, Galès had submitted the insect of flour and cheese to the inspection of the committee. Nevertheless, in the treatise which I then published, to refute the memoir of Galès, (which had become quite classical,) I laid it down as a principle, that the hoax practised by Galès ought not to make us conclude that the insect, which the most conscientious observers had pointed out in itch, did not exist; and I added, that in some other climate, and perhaps in a different kind of itch, it might be possible to find it. The question was in this state when I had an opportunity of examining the itch of horses. I found the insect which Degéer had described, and which he had figured, though coarsely. As this question has acquired a certain importance in medicine, I have drawn this parasitic insect, with all the details I could observe, magnified one hundred times in diameter. The insect of the itch has a white, shining body, and its paws, as well as its snout, are purplish, when seen by reflected light; by refracted light its snout and paws are transparent and yellowish. But, what makes an enormous difference between the two insects is, that in the flour insect, (the *sarcopte* of Galès,) the eight paws are united round a breast-plate placed upon the thorax, while, in the insect of the horse-itch, the two front pair are pressed against the head, and, together with it, form a sort of fan, while the other two pair are separated from the first two by a very considerable space, and inserted, two by two, on each side of the abdomen. The paws, and the head especially, come forth from so many sheaths, which give the general form of the body the appearance of certain flattened and foliaceous shell-fish, or that of some fish-scales.—*Nouveau Système de Chimie Organique, par F. V. Raspail*, § 1321.

LONGEVITY OF AUTHORS.

	Natural Philosophers.		*Poets.*		*Moral Philosophers.*	
	Name.	Age.	Name.	Age.	Name.	Age.
1	Bacon, R.	78	Ariosto	59	Bacon	65
2	Buffon	81	Burns	38	Bayle	59
3	Copernicus	70	Byron	37	Berkely, G.	79
4	Cuvier	64	Camoens	55	Condorcet	51
5	Davy	51	Collins	56	Condillac	65
6	Euler	76	Cowley	49	Descartes	54
7	Franklin	85	Cowper	69	Diderot	71
8	Galileo	78	Dante	56	Ferguson, A.	92
9	Halley, Dr.	86	Dryden	70	Fichte, J. T.	52
10	Herschel	84	Goldsmith	44	Hartley, D.	52
11	Kepler	60	Gray	57	Helvetius	57
12	La Lande	75	Metastasio	84	Hobbes	91
13	La Place	77	Milton	66	Hume	65
14	Lowenhoeck	91	Petrarch	68	Kant	80
15	Leibnitz	70	Pope	56	Kaimes	86
16	Linnæus	72	Shenstone	50	Locke	72
17	Newton	84	Spenser	46	Malebranche	77
18	Tycho Brahe	55	Tasso	52	Reid, T.	86
19	Whiston	95	Thomson	48	Stewart, D.	75
20	Wollaston	62	Young	84	St. Lambert	88
	Total	1494	Total	1144	Total	1417

	Authors on Law and Jurisprudence.		*Dramatists.*		*Miscellaneous and Novel Writers.*	
	Name.	Age.	Name.	Age.	Name.	Age.
1	Bentham	85	Alfieri	55	Cervantes	70
2	Blackstone	57	Corneille	78	Le Sage	80
3	Butler, C.	83	Goethe	82	Scott	62
4	Coke	85	Massinger	55	Fielding	47
5	Erskine	73	Marlow	32	Smollett	51
6	Filangieri	36	Otway	34	Rabelais	70
7	Gifford	48	Racine	60	Defoe	70
8	Grotius	63	Schiller	46	Ratcliffe	60
9	Hale	68	Shakspeare	52	Richardson	72
10	Holt	68	Voltaire	84	Sterne	56
11	Littleton	75	Congreve	59	Johnson	75
12	Mansfield	88	Colman, G.	61	Addison	48
13	Montesquieu	66	Crebillon	89	Warton	78
14	Redesdale	82	Cumberland	80	Steele	59
15	Romilly	61	Farquhar	30	Tickell	54
16	Rolle	68	Goldoni	85	Montaigne	60
17	Tenterden	78	Jonson, B.	63	Bathurst, R.	84
18	Thurlow	74	Lope de Vega	73	Thornton	44
19	Vatel	53	Moliere	53	Hawkesworth	59
20	Wilmot	83	Murphy	78	Hazlitt	58
	Total	1394	Total	1249	Total	1257

Authors on Revealed Religion.		*Authors on Natural Religion.*		*Medical Authors.*	
	Name.	Age.	Name.	Age.	Name.	Age.
1	Baxter	76	Annett	55	Brown,	54
2	Bellarmine	94	Bolingbroke	79	Corvisart	66
3	Butler, John	60	Cardan	75	Cullen	78
4	Bossuet	77	Chubb	65	Darwin	72
5	Calvin	56	Drummond, Sir W.	68	Fordyce	67
6	Chillingworth	43	Dupuis	67	Fothergill	69
7	Doddridge	54	Freret, N.	61	Gall	71
8	Fox, G.	67	Gibbon	58	Gregory, John	48
9	Knox, John	67	Herbert, Lord	68	Harvey	81
10	Lowth	77	Jacobi	56	Heberden	92
11	Luther	63	Paine	72	Hoffman	83
12	Massillon	79	Pomponatius	63	Hunter, J.	65
13	Melancthon	64	Rousseau	66	Hunter, W.	66
14	Paley	63	Spinoza	45	Jenner	75
15	Porteus	77	St. Pierre	77	Mason Good	64
16	Priestley	71	Shaftesbury	42	Paracelsus	43
17	Sherlock	67	Tindal	75	Pinel	84
18	Wesley	88	Toland	53	Sydenham	66
19	Whitfield	56	Vanini	34	Tissot	70
20	Wycliffe	61	Volney	66	Willis, T.	54
	Total	1350	Total	1245	Total	1368

Artists.		*Philologists.*		*Musical Composers.*	
	Name.	Age.	Name.	Age.	Name.	Age.
1	Bandinelli	72	Bentley	81	Arne	68
2	Bernini	82	Burton	64	Bach	66
3	Canova	65	Casaubon	55	Beethoven	57
4	Donatello	83	Cheke	44	Burney	88
5	Flaxman	71	Hartzheim	70	Bull	41
6	Ghiberti	64	Harman, J.	77	Cimarosa	41
7	Giotto	60	Heyne	84	Corelli	60
8	Michael Angelo	96	Lipsius	60	Gluck	75
9	San Sovino	91	Parr	80	Gretry	72
10	Verocchio	56	Pauw	61	Handel	75
11	Caracci, A.	49	Pighius	84	Haydn	77
12	Claude	82	Porson	50	Kalkbrenner	51
13	David	76	Raphelengius	59	Keiser	62
14	Guido	67	Salmatius	66	Martini	78
15	Raphael	37	Scaliger, J. J.	69	Mozart	36
16	Reynolds	69	Sigonius	60	Paisello	75
17	Salvator Rosa	58	Stephens, H.	71	Piccini	71
18	Titian	96	Sylburgius	51	Porpore	78
19	Veronese, Paul	56	Vossius	73	Scarlatti	78
20	West	82	Wolfius	64	Weber	40
	Total	1412	Total	1323	Total	1289

Madden's Infirmities of Genius.

MEDICAL POLITICS AND INTELLIGENCE.

I. THE COLLEGE OF PHYSICIANS.

THE following petition was presented to the House of Commons, towards the close of the late session.

To the Honourable the Commons of the United Kingdom of Great Britain and Ireland, in Parliament assembled.

The Petition of the undersigned Physicians, practising in London, humbly sheweth,

That the charter of the Royal College of Physicians of London was granted by Henry VIII., for the advancement of medical science, and for the protection of the public "against the temerity of wicked men, and the practice of the ignorant."

That six physicians were named in the charter, who, together with all men of the same faculty then resident in London, were constituted one body, commonalty, or perpetual college.

That the perpetuity of the college was to be kept up by the future admission of all men of the same faculty into the college.

That several of the six physicians named in the charter studied at, and possessed degrees from, foreign universities; and that no distinction is mentioned, as regards the university where a physician may have obtained his degree.

That all physicians entitled to practise in London are equally entitled, under the charter, to admission to the fellowship of the college.

Your petitioners are prepared to show that by-laws have been framed, and long acted upon by the college, which are directly opposed to, and in violation of, the letter and meaning of the said charter.

That the physicians practising in London are invidiously divided by the by-laws of the college into two orders: one is denominated fellows; the other, constituting by far the majority, is designated (and by implication degraded) by the term licentiate.

That the fellows have usurped all the corporate powers, offices, privileges, and emoluments attached to the college; that the licentiates do not participate in these benefits, but are illegally excluded from all the offices, and any share in the management of the corporation; and so far is this principle of exclusion carried, that the licentiates are not even admitted to the library or museum of the college.

That there exists no foundation in the charter, or in the acts confirming it, for such distinction of orders, and consequent exclusion from all privileges.

That, according to one of the by-laws, no physician can claim admission as a fellow, unless he has graduated, or been admitted *ad eundem*, at the universities of Oxford or Cambridge, where medicine is imperfectly taught; while physicians who have graduated at the other British or foreign universities, celebrated as schools of medicine, are unjustly excluded from the fellowship by this obnoxious by-law.

That the college was admonished from the bench, by the Lord Chief-Justice Mansfield, to amend their by-laws in reference to the admission of licentiates into the fellowship; that, influenced by this censure, the college framed other by-laws, deceptive in their character, which, whenever they have been acted upon, have tended still further to depress and injure the order of licentiates.

That the college demand and receive a large sum of money from the fellows and licentiates, for the supposed privilege of practising as physicians within a circuit of seven miles round London, and that they do not, and cannot, protect them in this privilege.

That the graduates of Oxford and Cambridge are obliged to be members of the established church of England, and consequently all dissenters are excluded from claiming the fellowship: this your petitioners consider as a grievous injustice, and an act of intolerance unbecoming the present age.

That these invidious by-laws, made in the spirit of corporate monopoly, have involved the college in continued litigation, and created a jealousy between the fellows and licentiates, discreditable to the members of a liberal profession.

That your petitioners with deference submit, that the College of Physicians, as at present constituted, is wholly inadequate to the due regulation of the medical profession in this country, and the protection of the public; and, further, that the charter of the college in no way provides for the practice of physicians in the several counties of England and Wales.

Confiding in the wisdom of Parliament, your petitioners therefore pray, that your honourable House will institute such inquiry into the state of the medical profession in this country, and the College of Physicians in particular, as will lead to the framing of laws by which the evils complained of may be removed.

And your petitioners will ever pray, &c.

Gilbert Blane,
Henry Clutterbuck,
George Birkbeck,
W. Somerville,
Alexander Morison,
Thomas Brown,
Alexander Henderson,
Charles F. Forbes,
Charles Locock,
Neil Arnott,
Roderick Macleod,
John Veitch,
W. Gairdner,
William Russell,
Hugh Ley,
James Clark,
Robert Lee,
Marshall Hall,
William Whymper,
Thomas Hodgkin,
C. J. B. Williams,
Alexander Tweedie,
Henry Davies,
J. W. Crane,
Theodore Gordon,
Whitlock Nicholl,
A. T. Thomson,
John Sims,
James Copland,
George Gregory,
J. C. Somerville,
James Bartlet,
John Webster,
Thomas Harrison Burder,
Thomas Davies,
T. Southwood Smith,
David Barry,
Charles Holland,
John Foley,
Francis Boot,
R. M. Kerison,
J. C. Roberts,
William Stroud,
James Johnson,
Edward Rigby,
Robert Richardson,
G. G. Sigmond,
James Hope,
A. T. Holroyd.

It is impossible to deny this document the praise of being exceedingly well drawn up; it is smooth in its style, plausible in its argument, and admirably calculated to make a deep impression on those members of parliament who are but imperfectly acquainted with the state of the medical profession; in plain English, on the whole house, with the exception of half-a-dozen members. There are, however, a few objections which may be made to this petition, so obvious that we should have thought it unnecessary to state them formally, had it not been taken for granted in every commentary that we

have hitherto seen, that the petition was not merely an able piece of special pleading, but was perfectly unanswerable.

In the first place, if the fellows have usurped the power which they exercise, and if those oppressed ("and by implication degraded") beings, the licentiates, desire nothing but the letter of the charter, why apply to parliament? Every lawyer would tell them that the Court of King's Bench is the place to seek redress. We suspect the reason of the coy reluctance of the licentiates to pour their complaints into legal ears to be this: they would learn that the by-laws are not only consonant with the letter and spirit of the charter, but that in a modified form they are necessary to the welfare of the college. Three centuries ago any one invested with the degree of M.D. was admitted a fellow of the college, say the petitioners. Perhaps so. But was the degree of M.D., in the days of his late majesty, Henry VIII. scattered in such profusion among the population of these realms? Was the prodigious fertility of Edinburgh, the liberal facility of Aberdeen, then known? The fact is, that these and other universities have destroyed the value of any distinction founded on the degree of M.D., which is in the present age a mere play upon words; and the use of this historical leger-demain shows a lamentable weakness in any argument which depends upon it.

The Medical Gazette, and indeed the whole of the medical press, with a prudent reserve which is abundantly amusing, have entirely abstained from giving the reasons which may probably have influenced the fellows of a former day when they enacted the by-laws in question. To us it seems most likely that they were passed when the northern seminaries of physic had just discovered the advantage of diploma-making, when Aberdeen, to use Dr. Johnson's pun, was beginning to grow rich by *degrees;* and when the fellows saw that if these titular honours were allowed to pass current at their nominal value, the college would speedily be swamped with Scotchmen. We anticipate that some will admit the consequence, but will ask "what matter is it whether a man be born at Inverness or Dover; is he not in either case a British subject? And even if he were not, is not science of every country, &c." We would ask, in turn, would it not be grating to the feelings of Englishmen to be ruled by a knot of Scotchmen, however wise, learned, and decently behaved they might be? Putting aside all temporary pique, would any one like to see the English college of physicians converted into another India-house, and governed by the Frasers, the Donaldsons, the Mackenzies, the Murgatroyds, and their

cousins, to the fortieth degree of affinity? We are quite sure that there is not one Englishman in a thousand who, in his cooler moments, would think the thing bearable. This cosmopolitan liberality may be worshipped with the lips, but every generous heart is far from it. Should these humble pages meet the eye of any member of the legislature, we would inquire of him what would be thought of an attempt to introduce at one blow only one hundred Scotchmen into his club—the Athenæum peradventure, or the Travellers'. Would not the west-end be distracted with anti-canvassing?—would not all the turners in town be overwhelmed with orders for black balls, at the very sound of such a proposal?

In a word, then, the objections to the indiscriminate admission of M.D.'s, to the fellowship of the college, are chiefly two: first, a majority of the governing body would consist of Scotchmen; and, secondly, from the extreme facility with which many universities grant degrees, this *upper house*, which should represent the whole body of physicians in general society and intellectual warfare, would contain a large admixture of persons, who, though possibly not unskilled in the practical parts of the medical art, could hardly be called members of a learned profession. We shall return to this subject in our next number.

II. ROYAL COLLEGE OF SURGEONS IN LONDON.

The Council of the College of Surgeons has lately published a statement relating to its museum, library, and finances, sufficiently interesting to induce us to reprint a considerable part.

"In pursuance of a Resolution of the Council, on the 29th of January last, "*That an exposition of the state of the College be from time to time made to its Members,*" the Council publish the following STATEMENT:

"The Corporation of Surgeons, established as a distinct body, by Act of Parliament, in the year 1745, having become dissolved in consequence of an accidental informality in their proceedings, the present Royal College of Surgeons was founded, in the year 1800, by his Majesty King George the Third, for the advancement of surgery, for the examination of surgeons in the army and navy, and of other individuals who might wish to engage in the surgical profession.

"The repute in which the corporation was held appears to have been so limited, that a large proportion of the practitioners throughout the kingdom had undergone no examination, and had not even a nominal connexion with it. The inheritance derived by the college from the corporation was as follows: 10,135*l.* 7s. 5d.

3 per cent. consols; 1233*l.* 15s. 0d. due from the city of London for the hall in the Old Bailey; 2862*l.* 16s. 7d. in exchequer bills and at the banker's; the house in Lincoln's Inn Fields, which then occupied one half of the site of the present premises; and a rent-charge of 16*l.* per annum on premises in Snow Hill, bequeathed by Mr. Gale for the endowment of a professorship of anatomy. There were no certain funds of any other description, for defraying the expense of maintaining the great national collection purchased by parliament of the executors of Mr. John Hunter, and which the college now holds in trust for the public.

"When the college received its charter from the crown, it derived no assistance of any kind from the other branches of the legislature. The charter was simply permissive, allowing the court of examiners to examine those who might voluntarily present themselves, but giving them no legal authority whatever, to compel practitioners in surgery to obtain their diploma, nor to prosecute those who took upon themselves to practise without it. The college, therefore, possessing no other influence than that of opinion, was left to rest altogether on its own character. Under these circumstances, it would never have advanced to its present state of prosperity, if it had failed to obtain the confidence of the profession and the public; and the best proof that it has succeeded in this object, is to be found in the increased and increasing number of the members. In the first two years after the establishment of the college, the diploma was granted to three hundred, and in the last two years to not fewer than 770 members.

"Although the college derives an important accession to its scientific character, from the possession of the Hunterian collection, its preservation and public uses have been a source of great expense to the institution.

"The sum of 27,500*l.* obtained from parliament, having been insufficient for building the museum, an addition, amounting to nearly as much, was supplied from the funds of the college. But, independently of what has been laid out on the building of the museum, about 36,000*l.* have been expended on its contents. The council have always regarded the charge of the collection as one of the most important trusts of the college; and they believe they have best performed their duty, by sparing no expense which might tend to make it as complete as possible.

"Thirty lectures are delivered annually in the theatre of the college by two professors appointed by the council. To these the members of the college are admitted by right, and the senior students of the metropolitan hospitals by courtesy.

"The library, collected within the last six years, and comprising the most valuable works in medicine and surgery, as well as in general science, is open to the members of the profession and other scientific persons, on the most liberal conditions.

"Notwithstanding the large demands made upon the funds of the

college by the maintenance of the collection, by the formation of the library, and by the management of the general business of the institution, the annual expenditure has hitherto been kept within the limits of its income, so that a considerable funded property has gradually accumulated, which is now at the disposal of the council, to be applied, as opportunities may occur, for the advancement of the sciences connected with surgery.

"*Finances.* The receipts of the college are, and ever have been, chiefly derived from the sum paid for the diploma; and, inasmuch as there is no well defined law obliging a student to seek this distinction previously to his commencing practice as a surgeon, the income from this source is uncertain. The expenses of the college and library, and especially those entailed by the possession of the Hunterian collection, have been very considerable. It has therefore been a great object with the council to realize such a permanent income as may be sufficient to meet this unavoidable expenditure, in the event of their usual annual resources being materially diminished."

III. THE ALDERSGATE STREET DISPENSARY.

It has been enacted by this governors of this dispensary, that a governor shall be entitled to vote at an election by paying his subscription a week previously; or, in other words, that the election of a medical officer is to be decided, not by his merits, but his purse. Very charitable people might suppose that this blunder of the governors arose from simple fatuity, and that they did not see the inevitable consequences of this absurd law; but it appears pretty clearly, from some babble of the committee, reported in the newspapers, that they knew its tendency, and were delighted with it. Moreover, the alphabet of common sense was explained to the meeting at some length by the medical officers, who were outvoted, however, by a considerable majority. They have all resigned in consequence, and carry with them the sympathy and good wishes of every man of sense, honour, or feeling. As we are not writing for children, we think all comment on this affair quite superfluous. It is rare indeed to see a dispute in which one party contrives to put itself so completely and indefensibly in the wrong, as the Aldersgate street committee.

The following address appears to us worthy of insertion in our pages:

"Gentlemen: At this interesting period in the state of our profession, and especially of the government of medical charities, we should be guilty of the most culpable apathy and indifference did we not hasten to express the high satisfaction with which we have viewed your conduct on a late occasion; did we not testify

how completely our feelings and sentiments are in unison with your own; did we not publicly record our warmest admiration of that brilliant example of integrity and independence which you have exhibited to your medical brethren.

"Whatever sacrifice of feeling or of interest has been made, you have the consolatory approval of upright consciences. You have acted consistently and like honourable men. You have discharged an important duty both to medical practitioners and to society at large. You have nobly withstood a most disgraceful attempt to degrade your profession, and to convert an health-giving charity into an infected source of misery and wretchedness; and, whilst you enjoy the praise of every virtuous and enlightened mind, it may perhaps prove a further gratification to know that your medical brethren in particular are fully alive to the moral force of your example, that they appreciate its worth, and are resolved its memory shall not die.

"Gentlemen: we hail this example, the first practical inroad on a protracted and systematic abuse of medical charities, as the harbinger of a general and efficient reform in those charities; we hail it as the forerunner of an approaching day, when the Legislature shall rescue them from longer prostitution of their legitimate ends,—a day, when the neglected objects of science and the aims of general utility and benevolence shall happily be united, when nor personal interest, nor gold, nor any other corrupt means whatever, shall give notoriety to the officer of an hospital or dispensary, but when talent and knowledge alone, approved by public competition, shall be the test of fitness for office in such institutions.

"The folly which compelled your withdrawal from the charity you upheld foresaw not the consequence about to follow. Its sordid calculations of gain did not reckon that, with the loss of your labours and skill, the very charity you served would cease to exist. For, where shall be found the men reckless enough to succeed you? The very attempt would brand their characters with all that is low, degraded, and debased.

"Accept, gentlemen, this tribute of our gratitude; we deeply feel the obligation under which you have laid the whole profession. Assuredly, the members of that profession will not forget a lesson so disinterested and elevated as that which you have given for their instruction, signalized too as it is, by names distinguished in the scientific and literary history of their country.

"We remain, gentlemen, with the greatest respect and admiration,

"Corden Thompson, M.D., Physician to the Sheffield General Infirmary.
Wilson Overend, Surgeon to the Sheffield General Infirmary.
Henry Paul Harewood, M.D., Physician to the Sheffield Gen. Dispensary.
John Green.
George Calvert Holland, M.D., Physician to the Sheffield Gen. Infirm.
Henry Thomas, Surgeon to the Sheffield Public Dispensary.

George Turton,	R. G. Holland,	Thomas Reade,
Henry Hardy,	Charles Eadon,	Joseph Law,
Joseph Ingall,	R. S. Taylor,	John Carr,
James Wild,	G. Reedal,	George Wm. Clark,
James Ray,	James F. Wright,	Edward Thompson,
Henry Boultbee, F.L.S.	Edward Gillott,	W. Lennard, M.D.
Knowlton Wilson,	John Hall,	Samuel Gaegory,
John Pearce Lewis,	John Foster,	John Turton,

Joseph Riley,
William Staniforth, Senior Surgeon to the Infirmary,
Wright Wilson,
Henry Jackson, Junior Surgeon to the Sheffield General Infirmary,
James Walker,
R. Ernest, M.D., House Surgeon to the Sheffield General Infirmary.

John Pearson Shaw,	W. Favell,	John Haxworth, Surgeon,
William Jackson,	Francis Pearson.	

Sheffield; September 22."

In our next number we shall discuss the subject of Dis-

pensaries, including not only those maintained by subscriptions, but the self-supporting ones.*

* Even those who have never been initiated into editorial mysteries must know, by the apologies ever attending the appearance of a new periodical, how difficult, (we might almost say, how impossible,) it is for an editor to realize even his own expectations in his first number. We trust that the good-natured reader will excuse especially the meagreness of our Medical Politics. The ordinary author rides in his private carriage, and may set off when he pleases: the editor drives a stagecoach, and must be ready at the appointed moment, whether the vehicle be full or empty.

OBITUARY.

Died, on the 10th of August, at Birmingham, Dr. Darwall. His death was occasioned by an injury received in the examination of a dead body, at the Birmingham Hospital, on the 30th of July. He was a man of the most ardent and enlightened benevolence, and the most indefatigable industry, and united a profound knowledge of medicine to great practical skill. His premature decease (for he was not yet forty years of age) is a loss, not only to his friends, but to society.

Died, on the 15th of September, Dr. Gordon Smith, aged forty-one, the author of a Treatise on Medical Jurisprudence. He was a man of considerable talent, but somewhat eccentric in his habits, and, like many men of genius, was deficient in the art of prospering. It is painful to think that the last days of Dr. Smith were spent within the walls of a prison!

METEOROLOGICAL REGISTER,

FROM JUNE 1 TO AUGUST 31,

By Messrs. Harris and Co., Mathematical Instrument Makers, 50, High Holborn.

	Thermometer.		Barometer.		De Luc's Hygrometer.		Winds.		Atmospheric Variation.
	max.	*min.*	*max.*	*min.*	*max.*	*min.*			
June 1 to 7	74	52	29.82	29.37	59	62	WSW	SSW	fine & cloudy, little rain
14	75	53	30.04	29.30	65	57	NW	WSW	— — —
21	72	48	29.87	.43	68	59	W	NNW	— — —
28	75	46	.74	.38	65	58	NW	WSW	showery, rain, and cloudy
July 5	70	49	.91	.60	62	57	WSW	WNW	fine, and cloudy
12	73	56	.85	.44	69	50	NNE	SE	— rain, and cloudy
19	79	54	.96	.51	65	59	SW	NNE	— and cloudy
26	68	52	30.03	.43	67	60	NW	W	— —
August 2	79	54	.15	30.08	64	62	NE	ESE	— —
9	66	50	.10	29.81	63	58	ENE	ESE	— little rain
16	70	51	29.92	.40	63	58	NW	NE	— cloudy
23	72	52	.71	.50	65	57	W	NW	— fine
31	77	48	30.02	28.77	68	59	NW	E	fine, and rain

The quantity of Rain fallen from 1st June to 31st August—4 inches and 87-100ths.

NOTICES.

We regret that we cannot insert Dr. Jameson's *communication: he can obtain it at our publisher's.*

We will shortly answer Dr. Aiton's *letter.*

Dr. Roupell's *"Illustrations of the Effects of Poisons" came too late for review in this number; as did* Dr. Clanny's *work entitled "Hyperanthroxis."*

THE

MEDICAL QUARTERLY REVIEW.

REVIEWS.

Surgical Essays; the Result of Clinical Observations made at Guy's Hospital. By B. B. Cooper, F.R.S., Surgeon of Guy's Hospital, &c.—London, 1833. 8vo. pp. 281, and 4 plates.

The old division of things into good, bad, and middling, though somewhat of the tritest, seems to us to be especially applicable to the classification of medical books. First in order come the works of genius, which the generous superstition of the ancients was ever ready to attribute to the immediate inspiration of the gods: such as those of Hippocrates, which could no more have been achieved in this fidgetty age, when everyone is harassed with business, and overwhelmed with practice, than a Nash or a Wilkins could have planned the pyramids of Egypt. Next to these, but with a long interval between, come those sober but useful works, the offspring of some talent and much experience, which teach the application of the rules that genius has discovered. Lastly, we must mention the small fry of medical literature, those squeezings out of nothing, which produce little but advertisements, and please no one but the trunk-maker. Now, as it would be unjust to place Mr. Cooper's work in the last class, it would be ridiculous to rank it as one of the first: it is an honest, homely, practical book; and, though we could have wished that some literary friend had put it into English, in these degenerate times we must be thankful for what we can get, and confess that these essays will be useful, especially to beginners.

The book commences with a few remarks on "the Physiology of the Growth and Reparation of Bone." Our author says,

"The hardness which forms the great characteristic of bone too frequently leads the surgeon to consider this physical property as separating the osseous system, and the phenomena attending the diseases incident to it, entirely from the same vital influence expe-

rienced in the changes attending the diseased actions of the softer parts. But, upon investigation, it will be found that the same laws preside in both instances; modified, however, in the former, by the presence of a proportion of earthy matter, which differs in quantity not only in different bones, but in separate parts of the same bone.

"By many eminent surgeons this earthy matter has been considered and described as being inorganized; but it is hardly to be conceived that dead matter can exist in connexion with living, without producing the ill effects experienced by the presence of all extraneous substances." (P. 3.)

What surgeon ever thought that the bones of living persons were not alive? And what eminent surgeons ever described the phosphate of lime in the bones as being inorganized matter? We are tempted to cry, Name! name! as they do when incredible statements are broached in a certain great assembly.

Our author's account of the progress of reunion in fractured bones is deficient in precision and exactness. He says, "where the periosteum is extensively lacerated, the production of bone still goes on, partly from the denuded surface, and partly from the surrounding soft structures, so that the common cellular tissue is convertible into periosteum, or a substance capable of performing the same function, when in contact with the granulations arising from bone, which it cannot be until the periosteum has been destroyed. Thus, periosteum may be considered as not only useful in distributing its blood-vessels for the formation of bone, but also as constituting the limit between the osseous and other tissues." (P. 9.)—[*Limit*, quotha! the author must mean *link*.]

Mr. B. B. Cooper would have done well to mention that, except in the rare case of partial fracture, or fracture within the periosteum, this membrane does not contribute to the reparation of bone; and, even in that particular instance, its agency is evidently of little moment. Some years since, our honoured predecessor, the "London Medical and Physical Journal," contained an account of some experiments by Mr. Mayo, in which the common source of reparation, whether in bone, cartilage, nerve, or tendon, was shewn to be in the thickening of the surrounding tissues to form a callus. The most unexpected part of the process is, that the callus, which first mechanically glues together the separated ends of the fractured part, originates the final and textural reparation. We might also remark, that at p. 11, where our author treats of fractures of the flat bones, he has omitted to mention the curious peculiarity in the reparation of fractures of the

cranium: the student ought to have been told, that here no callus is formed, but the injury is repaired by a direct though very tardy extension of the osseous substance itself.

In speaking of fractures of the pelvis, Mr. Cooper says,

"The surgeon should next place the patient in a perfect horizontal posture, and examine if the anterior and superior spinous processes are on a level, and if the lower extremities are of the same length; when a want of symmetry in either of these instances would necessarily indicate displacement of the bones of the pelvis. I should here recommend, before the surgeon attempts to discover which of the bones of the pelvis has sustained the injury, that he should first pass a catheter into the bladder, to discover whether or not the urethra has been injured; for, in the force necessary to ascertain the seat of injury to the bones, an additional laceration of the urinary apparatus might be inflicted, and which may be avoided by having ascertained, in the passage of the catheter, either the safety or injured state of these parts." (P. 15.)

But surely a surgeon cannot be justified in using such force as might produce an additional laceration of the urinary apparatus; particularly since, even if he succeeds in ascertaining the exact direction of the fracture, he can do nothing more than if he vaguely suspected a fracture to exist: in such a case, rest and a bandage are all that surgery can supply.

"The following case," says our author, "is somewhat singular, from there being no fracture of the bones of the spine, but a laceration of the intervertebral substance, admitting of such a displacement of the vertebræ as to press upon the spinal marrow; producing therefore precisely the same symptoms, and leading completely to the same practice, as if fracture had occurred; thus rendering it quite unnecessary to describe this case under a separate head.

"CASE. Joseph York, a stout man, aged forty-five, was admitted on Monday, April 8th, 1833, at half-past nine P. M., with injury to the spine, occasioned by a barrowful of grains falling a height of fourteen feet upon his neck and head, producing three severe lacerations of the scalp, and an immediate loss of all sensation and motion of his lower extremities. He was directly brought to Guy's Hospital, which was in the vicinity, the accident having happened at Barclay's brewhouse; and on admission the symptoms were as follow:

"Paralysis of all the intercostal as well as the abdominal muscles, so that respiration was carried on completely by the diaphragm. He had partial priapism, tympanitic abdomen; complained of general sensation of coldness, although the surface was naturally warm. His pulse were only fifty-six, and labouring. There were three lacerated wounds on the scalp, one of which was sufficiently

deep to divide the bone, but as he was perfectly sensible, there was sufficient evidence that the symptoms did not arise from injury to the brain; he was therefore placed in the prone position to examine the spinal column, when it was found that, on pressure over the sixth and seventh cervical vertebræ, there was some motion of these bones, that pain was felt extending upwards, and was increased by pressure.

"The head was ordered to be shorn, and the wounds dressed; as there was considerable injury of the soft parts about the injured spine, a cupping-glass was applied on either side, and about four ounces of blood withdrawn.

"His water was drawn off with a catheter, and was found to be very acid, as proved by reddening litmus.—The Julep. Ammon. was desired to be given at intervals.

"9th. Eight A.M. Has had no sleep during the night; complains of some pain and difficulty of motion in his arms, although he describes himself altogether as feeling better; has neither voided urine nor fæces since his admittance; his respiration is quick and difficult; pulse seventy-two, increased in power, and less labouring. His urine was drawn off, and was still found acid. The priapism still remains.—Ordered common enema stat.

"Two P.M. Continues much in the same state. The enema has not acted; ordered to be repeated. Still complains of sensation of coldness.

"Nine P.M. It has been necessary to administer a third enema, which at present has not had the desired effect. He is now much worse in every respect; the breathing quick, short, and irregular. The abdomen was more tympanitic. His urine was again drawn off; is still acid.

"10th. On this morning's report, it was found his bowels had been freely opened; of which he was perfectly unconscious. His breathing slower, but more difficult; the pulse full and soft. The surface of the body was now cold, and clammy to the touch; his countenance anxious, although he retained completely all his powers of mind, and seemed fully conscious of his approaching dissolution.

"At twelve M. an evident change had taken place since last report, and from this time he gradually sunk, and died at three P.M.

"About twenty hours after death the body was examined; and, on exposing the cervical vertebræ, a complete laceration of the intervertebral substance between the fifth and sixth was discovered, and without any fracture. The capsular ligament of the articulation between the two vertebræ on the left side was torn through.

"On removing several of the vertebræ with the spinal marrow, and then examining the spinal chord, a slight blush of inflammation was found on the inner surface of the dura mater, but no laceration or lesion of the medulla spinalis." (P. 46.)

The symptoms were not "precisely the same." When

the spinal chord is crushed, the urine is alkaline: in this case there was "no laceration or lesion of the medulla spinalis," and the urine was acid. Mr. Cooper says that the patient's urine "was found to be very acid, as proved by reddening litmus." Erase the *very:* the weakest acid reddens litmus.

Immediately after discussing fracture of the sternum, our author gives an interesting case which occurred in the practice of his great namesake and relation:

"It sometimes happens that inflammation extends into the anterior mediastinum, affecting the absorbent glands, or perhaps the remains of the thymus gland itself, which may go into a suppurative state, producing dyspnœa, from pressure upon the lungs; disease of the sternum, from its tendency to be evacuated externally; and presenting a pulsating tumour, from its contiguity with the heart.

"Such a case occurred in the practice of Sir Astley Cooper, in the person of a medical student, who believed himself, and had been led to believe by other medical men, that he was the subject of aneurism; under which conviction he had made up his mind to make a voyage to Bourdeaux, there, as he believed, to die. Before he left London, however, he thought he would consult Sir Astley Cooper, who told him at once the nature of his complaint, evacuated the matter, which had made its way through the sternum, and removed simultaneously both the appearance of aneurism and the fears of the patient." (P. 59.)

Under the head of "Fractures of the Short Bones," our author mentions a case of extensive fracture of the bones of the face, which appears to us worth extracting.

"Martha Ambrose, aged forty-eight, was admitted into Guy's Hospital, March 29th, 1829, for an injury which she had just received from being thrown down by a horse which had run away with a gig. Upon her admission, a more deplorable object could scarcely be conceived: all the soft parts on the right side of the face were detached from the bones, which were most extensively fractured; the lower jaw was fractured in two places; the superior maxillary and palate bones were broken through their palatine processes, so that the roof of the mouth fell upon the tongue, and a fissure extended through the body of the superior maxillary bone into the antrum, and upwards into the orbit; the malar bone was broken through, so that the zygomatic arch was flattened; the bones of the nose were driven in; and, in fact, it may be said that every bone upon that side of the face was fractured, and many comminuted.

"A short time after her admission, a person who had witnessed the accident brought the integuments which had been detached, so perfect, although thus separated, as still to preserve the perfect

likeness; a drawing of which was immediately taken, and the parts preserved in our museum. I ordered the wound to be carefully washed and cleansed from all extraneous substances, and the portions of comminuted bone to be removed; and, as my great object was to keep down the tendency to inflammation, I directed that cold water should be kept constantly falling over the face, which was covered with lint, with a view of maintaining an equitable and low degree of temperature; at the same time, by constitutional means, subduing arterial action. The treatment had a most salutary effect, and, without a single bad symptom supervening, she got perfectly well; the cure, however, being necessarily protracted from the numerous portions of bone which exfoliated." (P. 60.)

Mr. Lonsdale, a very ingenious young surgeon, has invented an apparatus for the treatment of fracture of the lower jaw, an accident of which no mention is made in this work, excepting in the above quotation.

Passing over the rest of our author's comments on fractures, which are replete with useful matter and illustrative cases, but not sufficiently novel to interest our readers, we proceed to his account of the Diseases of Joints.

In a case of abscess of the knee-joint amputation was determined upon; but, as the patient was very weak, and suffering from diarrhœa, Mr. Cooper delayed the operation, and prescribed the following medicines:

"℞. Ammoniæ Carbonatis, gr. v.
Sodæ sub. carb., gr. xij.
Tinct. Cinch., ʒj.
Liq. Opii Sedat., gtt. vj.
Decoct. Cinchonæ, ℥iss. M.
fiat haust. bis in die sumend." (P. 150.)

We quote this prescription in order to censure the common but erroneous method of giving ammonia in vegetable infusions and decoctions: the combination forms a nauseous mess ill calculated to restore the tone of a jaded stomach; it is far better to give the Spir. Ammon. Arom. in plain water, to which the Tr. Cinnam. may be added *ad libitum*.

In speaking of disease of the hip-joint, Mr. Cooper says, "From the slowness of the progress, from the degree of constitutional irritation, from the length of time matter continues to flow after the abscess has been opened, and from the unhealthy kind of pus which is secreted, frequently offensive and discoloured, I am induced to believe that the disease of the hip, which terminates in abscess, most frequently begins in the bones of this articulation; and that the cartilages are not primarily affected, as has been stated by some writers." (P. 159.)

These reasons are not very satisfactory, especially as it is easy to suppose that, from the cartilages being primarily affected, the symptoms are at first slight, and that the violent symptoms detailed in the above quotation belong to the second stage of the disease. Mr. Brodie indeed distinctly says, "In whatever period of the disease the examination is made, the cartilages are found in a state of ulceration, but the morbid affections of the soft parts and bones vary very much; nor are they much altered from their natural state, except in the most advanced stage of the malady." (*Observ. on Dis. of the Joints,* 2d edit., p. 134.) Those who read German will thank us for informing them that an excellent and minute description of this disease is to be found in Jörg's "Kinderkrankheiten." Our author says,

"Our mode of treating the numerous children who apply to us for relief at Guy's Hospital, is first by local bleeding to subdue inflammation, by continued counter-irritation to divert the inflammatory action, and then attempt to improve the constitution by alterative and tonic medicines: thus, I generally order two grains of Hydrarg. c. cret., two of rhubarb, and five of carbonate of soda every night, and the following drops twice a day:

℞. Tinct. Cinchonæ, ℥i.
Tinct. Rhei. ℥ss.
Hydrarg. Oxym., gr. i. M.
Capt. gtts. xxv. bis in die, ex cyatho Infus. Anthem." (P. 160.)

Giving corrosive sublimate in Inf. Anthem. is worse than giving ammonia in Decoct. Cinchon., for the salt will be decomposed.

The following case is an interesting one:

"Mr. C., aged twenty-eight, consulted me in consequence of having observed, for a fortnight previous, that in walking he experienced a difficulty in raising the left foot clearly from the ground, and that he had an involuntary tendency to bend his body forwards during progression: these symptoms were unattended by pain, although he sometimes felt slight uneasiness on the inner side of the knee-joint, and a sense of weariness of the whole limb. On my asking him if there was any local cause to which he could attribute these symptoms, he mentioned that, seven weeks before, while in the performance of some athletic exercise, he felt a sudden darting pain, attended with a sensation of snapping, just below Poupart's ligament, in the centre of the inguinal region; and since that time he thinks he has constantly thrown more weight upon the other limb. On asking him to walk across my room, I observed that the diseased leg was in advance of the other, that his body was bent forwards to that side, and that in progression he used a stick, which he constantly employed in receiving the weight of his

body, when the diseased limb should in its turn have borne it. On examining the pelvis, both in the anterior and posterior view, there was evident deformity: in front, the anterior and superior spinous process of the diseased side was seen depressed below that of the opposite; laterally, the trochanter major formed an obvious unnatural protuberance; and, behind, the gluteal region, from its projection, formed another diagnostic mark of the disease; the muscles of the thigh also were considerably wasted.

"Notwithstanding all these decided external signs of hip disease, still this gentleman was capable of following his usual avocations, although they called for the necessity of walking some distance daily. I explained to him the nature of his complaint, and with difficulty impressed upon his mind the necessity of his remaining for a length of time in a perfect state of rest; for I ascertained, by moving the joint, and striking the trochanter major so as to produce concussion of the head of the bone against the acetabulum, that there was not only inflammation of the synovial membrane, but that disease had commenced in the articular cartilage. His bowels were regular; pulse 100, and rather sharp; tongue white; and, like the pulse, indicating irritation. I requested him immediately he got home to be cupped to sixteen ounces on the hip, and afterwards to apply a full-sized blister over the joint, and to take the following medicines: ℞. Hydrarg. Submur., gr. iss.; Pulveris Opii, gr. ss. M. fiat pulv. omni nocte sumend. ℞. Iodinæ, gr. ss.; Potassæ Hydriod., ʒss.; Syr. Papav., ℥ss.; Inf. Gent. comp., ℥viij. M. capiat cochl. larg. ij. bis in die.

"The next day I found him in every respect worse; he complained of considerable pain in the hip-joint, extending down the inner side of the thigh to the knee, with inability to obtain ease from any position in which he could lie; I therefore increased his quantity of opium, ordered the blister to be kept open, and desired him to continue his mixture. In this state the patient remained, without any improvement, for nearly a month; during which period I affected his constitution by mercury, indicated by ptyalism, and gave him sarsaparilla, bark, and other tonic medicines, without however producing any beneficial effect. His pain was incessant; his constitution suffered materially, having some degree of hectic fever; and, as soon as he fell asleep, he experienced those sudden twitches of the muscles at the upper and inner part of the thigh,—the symptom, of all others, most indicative of the formation of matter: this result was further threatened by a tumour which was now evident in the inguinal region. These symptoms were, however, unattended by any distinct rigors. I ordered leeches to be applied to the tumour, and afterwards a belladonna plaster; and, as the bowels were at this period rather confined, attended with some disposition to nightly perspirations, prescribed the following medicine: ℞. Sulphatis Quininæ, gr. ij.; Magnes. Sulphat., ʒi.; Syrup. Aurantii, ʒi.; Liquoris Opii Sed., gtt. iv.; Infusi Rosæ comp., ʒx. M. fiat haus. bis in die sumend.

"I also passed a seton just below the trochanter major, including two inches of integument.

"From this period his symptoms were in some measure mitigated; his pain became less, his appetite improved, his nightly twitches diminished, and he was enabled to change the position of his limb with comparative ease to himself. From his mitigation of suffering he continued to improve in general health: he was able to sit upon the sofa, and, with crutches, even to walk about his room, so as to bear some slight weight upon the diseased limb, which gradually lost its apparent morbid length; the prominence of the gluteal region diminished; the muscles of the thigh regained their tone; and the patient may now be considered convalescent, after three months' illness.

"This case affords the interesting fact, either of all the symptoms of the formation of matter without the reality, or of the power of the restoration of the joint, even after matter has formed. The impression on my mind during the progress of the disease certainly was, that matter had formed: the circumscribed swelling, the nightly twitchings, the tendency to hectic fever, the intolerance of motion, and the general effect produced upon the constitution, when summed up, led to a most unfavourable prognosis; but continued rest, tonics, and generous diet restored his constitution, which in itself was sufficiently strong to undergo this severe ordeal. One peculiar symptom occurred in this case, that, when the patient first placed himself in the erect posture, he described a sensation in the hip-joint as if his capsular ligament was so filled with air as to prevent the head of the femur coming in contact with the acetabulum, communicating to him the sensation of the elasticity of an air-bag; nor did this morbid sensation cease for several weeks. This sensation must have occurred from some effusion: and, as I cannot believe it to be pus, from the sequel of the case, it may probably have been the effusion of synovia only which had produced it." (P. 161.)

Everyone knows that a dislocation of the humerus upon the dorsum of the scapula is one of the rarest accidents, and that the possibility of its occurrence has been denied by so great a surgeon as Boyer; we trust, therefore, that we shall not be considered as straying beyond the limits of a review in quoting at length the three cases of this anomaly which are given by our author.

"CASE. Mr. G., a gentleman from Surrey, a very stout man, in the act of violently pushing a person from him, injured his right shoulder-joint, which led him to consult a surgeon, who did not discover the nature of the accident, but recommended him leeches, and all the means usually employed for the restoration of a contused joint. As however the use of the limb continued impaired, so much so that he could not raise his arm to his head, he

came to town to consult Sir Astley Cooper, who not being at home, he applied to me. Upon examination, I found so much tumefaction, that I could not discover the nature of the injury, and desired him to call the next morning; when Sir Astley, raising the arm, for the purpose of examination, nearly perpendicular to the body, the head of the bone slipped forwards into the glenoid cavity, and thus the nature of the accident was made obvious only by the reduction of the dislocation.

"CASE. In a few days after it happened that a gentleman consulted Sir Astley Cooper, as a morning patient, who was the subject of a similar accident, and in whom the diagnostic marks were particularly clear. I at the moment was desired by Sir Astley to write down the principal features.

"The arm was directed inwards towards the side, giving it the appearance of fracture, and looking as if so carried for support. The roundness of the shoulder had lost its natural appearance, and the skin was gathered into folds in front of the acromion process, which was preternaturally prominent. On taking a posterior view of the shoulder, it was impossible to trace the spine of the scapula, in consequence of a fulness below and behind the acromion; and, upon raising the arm, the tumour in the fossa infraspinata moved obedient to the motions of the humerus, indicating the situation of the head of the bone; in tracing the long axis of which the eye was directed behind the glenoid cavity of the scapula. We then tried to reduce the dislocation by slight extension, drawing the arm outwards; but, failing in this attempt, Sir Astley Cooper raised the limb perpendicularly, and at the same time forcing it backwards behind the patient's head, the bone slipped into its place; being thus reduced precisely in a similar manner to the last-mentioned case. It was singular that two instances of so rare an accident should occur so closely together in the practice of one individual.

"These cases I was constantly in the habit of mentioning when lecturing on the subject of dislocation; and upon one occasion I received the following letter from an old pupil:

"CASE.

"My dear sir: Singularly enough, during your lecture of yesterday, while recapitulating the dislocations of the shoulder, and so fully describing the anatomy of the joint, I found, on my return home, that I had been sent for to an old woman, sixty years of age, living in Hen and Chicken court, Fleet street, who had fallen down in a fit. I immediately went to her, and found she had recovered from the fit, but complained dreadfully of pain in the shoulder, and of inability to move the arm. Upon a careful examination, which I was induced to make from its being so very different from what might have been expected from paralysis or neuralgic affection, I was soon led to infer that the articulatory surface of the humerus was thrown from the glenoid cavity of the

scapula. Upon viewing the two shoulders, for the purpose of discovering the deviation from symmetry, it gave an appearance on the affected side as if the glenoid cavity was thrown forwards, and rendered particularly prominent. The whole arm appeared shorter and was directed forwards, but separated from the body; the head of the bone could be distinctly felt upon the dorsum of the scapula, producing a considerable tumour, and forming the grand diagnostic mark of the nature of the injury. I raised the arm perpendicularly to the body, in the manner I had just heard recommended by yourself; but, not being successful in returning the head of the bone into its place, and the attempt in this manner causing such considerable pain, I desisted, and proceeded in the following manner: The scapula being fixed, I made extension from the wrist in the direction of the displaced bone, (without placing my foot in the axilla,) for two or three minutes, while my assistant was directing the head of the bone forwards from the dorsum of the scapula, and in this way it readily slipped into its place.

"The coincidence of this accident with your lecture is somewhat singular.

"I am, my dear sir, your's, &c.

"ROBERT DUNN.

"2, *Fore Gate, St. Clement's Inn.*"

(P. 206.)

In speaking of Dislocations of the Patella, Mr. Cooper advances some extraordinary doctrines. He says,

"The dislocation *outwards* is the most frequent; it is, however, scarcely ever complete, being usually thrown upon the articular face of the external condyle, and not upon its outer surface. This accident is generally produced by a blow on the inner edge of the patella when the foot is everted, or in some persons who are very in-kneed the displacement may be produced merely by the action of the extensor muscles of the leg, in whom also there is generally a relaxation of the ligamentum patellæ, rendering them particularly liable to this accident. Boyer speaks of the form of the external condyle of the femur as a predisposing cause to the displacement of the patella, and mentions the cases of three military conscripts who were the subjects of this malformation, and had consequent displacement of the patella from their birth. If the dislocation be complete, the anterior surface of the patella must be turned outwards, its articulatory or posterior surface inwards, its internal edge must be directed forwards, while its outer edge has the opposite direction; and the knee presents, on viewing it anteriorly, a deep depression, pointing out how completely the displacement of the patella deprives the joint of its wonted protection." (P. 244.)

Now the fact is, that in a dislocation of the patella upon the outer condyle, the anterior surface of the bone is turned forwards and inwards, while the external edge sticks out,

and is turned forwards and outwards; the inner edge rests upon the hollow behind the articular surface of the outer condyle.

This species of dislocation is produced by a blow upon the fore and inner part of the patella. The accident is not a frequent one. Its true nature, and the cause of the difficulty of reducing the dislocation in persons with large bones, as well as the way to get over this difficulty, were first explained by Mr. Mayo, in a letter printed in the "Medical Gazette" in 1827. When the bones are small, the dislocated patella is easily pushed back into its place; but when they are large, and deeply grooved, the edge of the patella is impacted in the groove of the outer condyle, and can be extricated from it only by bending the knee-joint to the utmost, when the ligamentum patellæ draws the bone out of the groove, and it snaps into its place. Mr. Bransby Cooper seems hardly aware of the difference between this kind of dislocation (the true dislocation from external violence,) and the one in which the bone lies with its articular surface flat upon the outer condyle. This latter species is common in children and young women, and the difficulty here is not in reducing the dislocation, but in preventing its eternal recurrence, or permanent continuance; so great is the facility with which the bone slips out and in.

In speaking of dislocation of the tibia backwards, Mr. Cooper remarks, that this accident "can hardly occur without being compound." (P. 247.) Rarely, we admit; yet an eminent surgeon of our acquaintance has seen the simple dislocation.

The last part of the "Surgical Essays" treats of wounds and injuries of the Abdomen, and is illustrated by some remarkable cases; as for example:

"About two years since, a man was brought into Guy's Hospital, in consequence of very severe injuries which he had received, while in the act of stealing lead from the top of a brewery, from which he fell. Upon examination, it was found that he had torn open an old scrotal hernia, and a considerable quantity of intestine protruded, and had remained exposed for nearly an hour; one of his thighs was also broken, and his left shoulder dislocated. The intestine was immediately returned into the cavity of the abdomen, and the edges of the wound brought together by the uninterrupted suture; the fractured thigh was placed in splints, and the dislocated shoulder reduced, which was accomplished with much more than usual facility, in consequence of the state of collapse of the patient from his abdominal injury. His pulse being feeble, the surface of his body cold, and his respiration difficult, julep ammon. was admi-

nistered, and bottles of hot water applied to his feet, for the purpose of producing re-action, which was no sooner effected than pain in the abdomen came on, for which leeches were applied, and calomel with opium given, for the purpose of allaying his pain: all the symptoms, however, rapidly increased in urgency, and in fifteen hours after his admission he died.

"Upon examination of his body, it was found that he had been the subject of severe peritonitis, demonstrable from the quantity of coagulable lymph which was poured out; the portion of intestine which had protruded had not been ruptured, nor were there any signs by which it could be known from the rest of the intestines, but from a slight degree of thickening, probably from its frequent descent into its old hernial sac. The diaphragm was found ruptured, and a considerable portion of the stomach protruded into the chest; a circumstance of which there was no suspicion from the symptoms during life." (P. 263.)

Our author has a few observations on the treatment of Strangulated Hernia, and agrees with Mr. Key in thinking that we do well, when we can, to return the contents of the hernial sac into the abdomen, without opening it. He says,

"As Mr. Key very properly asks, who would hesitate to return a strangulated hernia by the employment of the taxis, instead of cutting down upon the part, and first examining the intestine? unless indeed there were, as there might be, outward signs of sphacelus or rupture from some other cause. I must also say, that I believe it will frequently be found, from adhesions and other causes, that the contents of a hernial sac cannot be returned, unless the peritoneum be opened; but, however true this may be, and to whatever extent, still it does not diminish the value of the proposed step, where the performance of it is admissible.

"In the still further aggravation of injuries to the abdomen, it may happen not only that the parietes should be wounded, and its contents protrude, but the viscera themselves may also be injured; and there can scarcely be in surgery a greater difficulty than in this kind of accident; a difficulty which frequently presents itself in cases of strangulated hernia, when the intestine has given way either from sloughing or ulceration. What is the treatment to be pursued in these cases? Either is the intestine to be returned into the cavity of the abdomen, and the edges of its wound left as near as possible to the opening through the parietes, leaving it to nature alone to secure it there by the adhesive inflammation? or is the surgeon, by means of suture through the bowel itself, or the mesentery, to fix it there? From my own experience, founded upon dissection, as well as upon experiments on the lower animals, I am inclined to come to the following conclusion, and to recommend that the means to be employed should be regulated by the nature of the injury inflicted upon the intestine. If the wound of the in-

testine be through the whole of its calibre, extending to the mesentery, or, at any rate, implicating a large portion of the cylinder, I then should recommend suture: dangerous as it may seem to be, it is yet to be considered the only means left to secure the position of the intestine near to the outer wound; but if, on the contrary, when the wound extends only through a small portion of the calibre, the suture need not be used; for nature immediately, by the adhesive inflammation, not only unites the edges of the wound of the intestine and parietes together, but also by the same process provides a perfect barrier to the discharge of feculent matter into the cavity of the abdomen. It not unfrequently happens, where the opening into the bowel is small, that its calibre is immediately re-established by the union of its edges to the parietes of the abdomen, without communicating with the external wound; generally, however, the mode of reparation is more protracted, and an artificial anus is first produced, the obliteration of which becomes the subject of further treatment, and usually, by the judicious application of mechanical and constitutional means, it may be effected.

"I have made several experiments in the endeavour to draw some just inference as to the best mode of treatment in cases of protruding wounds of the intestine; but I fear, from the experiments being made upon lower animals, there is much danger in drawing too hasty deductions from any supposed analogy between the condition in which the human subject would be placed under the same circumstances with them; at any rate, I discovered that the difficulty in preventing the escape of fæces into the abdomen was exactly in proportion to the size of the opening in the intestine; and would recommend that where the opening was large, whether from accident or disease, as in cases of strangulated hernia, that sutures should be employed in such a manner as to prevent any portion of the wound opening into the cavity of the abdomen. I have never seen an accident of wounded parietes of the abdomen, with protrusion of injured intestine, except in cases of gun-shot wounds, which were removed from my care immediately, and have left no further impression upon my mind, than the recollection of the immediate prostration which follows such accidents. I shall, however, describe two or three cases of strangulated hernia, in which the intestine had been found either sphacelated or ulcerated; and leading, therefore, to the same surgical considerations as belong to this class of abdominal injury.

"CASE. James Crew, aged fifty-six, was admitted into Guy's Hospital, the subject of a strangulated scrotal hernia, from which he had suffered with insuperable constipation for nine days. The patient was immediately put in a warm bath, had a small quantity of blood taken from his arm, and the taxis employed without any benefit: the operation was therefore immediately proposed and consented to. Upon laying open the sac, a large portion of crispy,

dark-coloured omentum was exposed, covering a considerable knuckle of intestine, which adhered to the sac by recent depositions of lymph, but was readily separated from it. I then freely divided the stricture, and on examining the state of the strangulated bowel found it dark-coloured, but its physical qualities did not in my mind indicate sufficient loss of vital power as to induce me to leave it within the hernial sac; feeling then, as I now do, convinced, that if there be any chance of the restoration of the bowel, that chance is much increased by its return into its natural cavity, which I therefore effected, removing at the same time the protruded omentum, which, from its consolidation, would have probably acted as an extraneous body. The intestine was left as near as possible to the mouth of the sac, and the wound being dressed, the patient was put to bed, when he immediately began to describe a sensation of cold and shivering, his pulse was feeble, and his body bedewed with a cold clammy perspiration; bottles of hot water were applied to his feet, and brandy, with julep ammoniæ, given. From this treatment he rallied, and seemed to be easier; but in the middle of the night he was seized with a violent pain in the abdomen; collapse came on about five in the morning, when he died.

"Upon examination of the body after death, the pelvis was found nearly filled with fæculent matter; and upon searching for the opening in the intestine, through which it had escaped, a small ulcerated orifice was found, accounting at once for the sudden dissolution of the patient. The character of an opening in an intestine will always shew whether it has been the result of violence or of disease; if of violence, the opening presents a thickened protruded edge, produced by the eversion of the mucous membrane; while, on the contrary, if it be ulcerated, the opening presents a thin edge, terminating by peritoneum instead of mucous membrane, in consequence of the much greater rapidity with which ulceration goes on in the mucous, than the serous membranes.

"I have described this case, on account of its being instructive in pointing out the necessity of learning the external marks by which an intestine shews its degree of disorganization; words can hardly express what experience teaches, but the peculiar elasticity, thickness, natural colour, and degree of warmth, are the means by which this important point is to be ascertained. One of the most certain signs, perhaps, in cases of strangulated hernia, as to the degree of vitality of intestine, is its power of regaining its colour as soon as the stricture is divided, a circumstance which points out at once the propriety of returning such intestine into the abdomen." (P. 265.)

We have already given our opinion of Mr. Cooper's book, considered as a surgical work: it is sober and sensible, contains many interesting cases, and, in spite of some errors, will be very useful to beginners. But there is another point of view from which these essays may be contemplated, and which would compel us to use the language of unmixed cen-

sure. Their style is slovenly and ungrammatical to the last degree, and we should ill discharge the office of unbiassed censors if we suffered any consideration to shield their author from reproach. We promised, indeed, that in doubtful cases we should incline to mercy, rather than rigid equity; but here the case is too clear, and, when critical justice demands her victim, it shall never be said that we performed our duty with the reluctance of partiality. Sentences like the following ones abound in this book:

"We also find that persons who die a sudden death, and where life has been destroyed by a narcotic poison, that the pupils are contracted." (P. 19.)

"With so extensive an injury, no hopes could be entertained of recovery; but yet it may appear to some, after the principles which have been laid down for the treatment of bleeding from the lungs, and for emphysema, whether or not the lancet might have been used in this case," &c. (P. 53.)

"Of all the structures entering into the composition of joints, synovial membrane is the most frequently affected; and this tendency to inflammation has been attributed to the similarity, if not to the identity, between them and the serous membranes." (P. 140.)

"When ulceration has taken place, and the articular cartilage is removed by the process of absorption, the bone of the joint becomes diseased, which advances more rapidly than the cartilage," &c. (P. 145.)

"An accident to which the inferior extremities of the bones of the fore-arm are liable has lately been noticed by Sir Astley Cooper, and written on by a French surgeon of considerable eminence, in one of the Paris journals, is a fracture through the lower extremity of the radius, in the situation of the epiphysis in the adult, and through the epiphysis at earlier periods of life." (P. 219.)

"My colleague, Mr. Key, admitted a patient a few days since," &c. (P. 247.) A few days before what period? Surely this is a bit of raw, undigested note-book, and may be called a specimen of the *lienteric* style.

We had marked many more passages for public exposure, but we are tired of this ungracious task. After all, these blemishes do not detract from Mr. Cooper's surgical skill; and, though we certainly should not ask his advice had we broken Priscian's head, we should be too happy in his charitable aid had we broken our own.

Précis Elémentaire de Physiologie. Par F. MAGENDIE. Troisième Edition. Deux Tomes.—Paris, 1833. 8vo. pp. 1084.

THE work before us is so well known as to render any analysis of its general contents unnecessary; nor, were this otherwise, would it be an easy task to give an abstract of it, since, from the multiplicity of subjects it embraces, and the admirably clear and simple style in which it is written, it scarcely admits of condensation. We have, however, selected it as the subject of an article, because we gladly avail ourselves of an opportunity of discoursing on matters of so much interest; because several parts of this work leave room, perhaps, for further illustration; and because, notwithstanding its general excellence, it contains some doctrines which appear to us so dissonant from the spirit of sound philosophy, and so much calculated to retard the progress of science, that we should wish to guard the student of physiology against adopting them too implicitly. We proceed therefore to make some remarks on a few of the many subjects offered for our consideration.

Preliminary Views. In his introductory observations on the general doctrine of life, our author shews himself strongly opposed to the hypothesis of a vital principle; and, if he had merely maintained that we have no absolute proof of the existence of any such principle, and that it ought not, consequently, to be made the basis of any physiological reasoning, we should have been disposed to agree with him; but, when he takes upon him peremptorily to deny its existence, he exceeds the limits of just reasoning, which admits as little of an arbitrary negation as of an unfounded assertion; and when he would refer all the phenomena of life to the agency of chemical and mechanical causes, (an opinion which, if not broadly expressed, is plainly to be inferred from the general tenor of his work,) it is obvious that he lends himself to an hypothesis just as unsupported by any kind of evidence as that which he would have us discard. No hypothesis, however specious, ought to be allowed to dictate the conclusions of the physiologist; but, if we had to choose between these two, we should not hesitate for a moment which to prefer. The matter stands simply thus: The believer in a vital principle observes a vast and wonderful series of phenomena, which he cannot explain by the application of any of those powers or properties of matter with which he is acquainted; he therefore, naturally enough, refers them to some power or property with which he is unacquainted, and to which, as to many other unknown things, he gives a name. The supporter

of the opposite hypothesis, unwilling to admit the existence of anything which is not cognizable to his senses, has recourse to the laws of chemistry and mechanics to account for phenomena to whose solution they have hitherto, in every instance, been found utterly inadequate. We have no objection to see the hypothesis of a vital principle relinquished, because, though highly probable in itself, and highly useful and beautiful as a source of illustration, it ought never to have been maintained as a ground of reasoning; but we have a very great objection to see its place supplied by another hypothesis not at all better supported by facts, and, to our apprehension at least, infinitely less plausible. It is the excellent advice of M. Magendie to the student of medicine, early to accustom himself to say *I do not know:* now this is precisely what M. Magendie ought himself to have said with reference to vitality. A muscular fibre may contract when stimulated, owing to a peculiar power or property inherent in living matter; it may contract by means of chemical or mechanical adjustments, so intricate as to elude our present means of research; or, lastly, it may contract for no other reason than that it is the will of the Deity that it should contract. We are in a state of profound ignorance on the subject, nor is it very probable that we shall soon be much more enlightened. So powerfully, however, is the mind of M. Magendie possessed with his hypothesis, that he breaks forth, at the conclusion of the preface, into the following highly—*poetical* passage:

"Yet a few years, and physiology, intimately connected with the physical sciences, will not be able to make a step without their aid; she will acquire the rigour of their method, the precision of their language, and the certainty of their results; by thus raising herself, she will get above the reach of that ignorant and vain-glorious crowd, who always muster strong when the object is to oppose truth or imbibe error. Medicine, which is nothing but the physiology of the sick man, will speedily follow in the same path, and attain the same elevation; we shall thus witness the disappearance of those false explanations, the aliment of minds of the lowest order, which have so long disfigured her."

Truly, if this came to us under a less respectable name than that of Magendie, we should feel inclined to exclaim

"Parce puer stimulis, et fortius utere loris!"

We sincerely hope it may all come to pass, though we have our doubts; but of one thing we are very sure—that if these great results are to be attained, it must be by means of a philosophy more rigorous than the French professor has brought to his aid in the investigation of the vital powers.

We would not for a moment be supposed to undervalue the labours of the natural philosopher in behalf of the science of life; their importance must be universally felt and acknowledged; nor can we precisely understand our author's meaning when he says "the pernicious and absurd belief that physical laws have no influence on living bodies has no longer the same force." We really are not aware that any such opinion ever existed; we are certain that it does not exist at present. Our sole object in these remarks is to intreat physiologists not to travel too fast, lest they entail on their successors the irksome and thankless labour of unteaching all that they have taught; to remember that science, like ambition, may vault, and overleap itself; and not to lose sight of that short but most significant saying of the father of our art, ὴ τέχνη μακρή.

Sensation. That portion of the work which is devoted to sensation and the organs of sense has received some interesting additions: it is, however, to be regretted that the author has passed over in silence that *muscular sense*, which, although the name may be objected to by some, still unquestionably exists; nor is there any one sense on which the whole frame is more dependent for its preservation, or to which the other senses are more largely indebted for the correctness of their perceptions.

A moderate attention to the movements of our own bodies will be sufficient to convince us that we possess a power of estimating the degree and duration of muscular action, independently of the exercise of vision. Thus, when a man extends his arm while his eyes are shut, he is perfectly conscious of doing so, and knows whether the action is performed gently or forcibly, rapidly or slowly. This may indeed depend on a mere modification of touch, by which the muscular fibres are sensible of each other's pressure in the act of contraction; but it more probably arises from a distinct sense, peculiar to the voluntary muscles. We think it possible, also, that our estimate of the degree of muscular action may be partly formed, independently of this sense, from the consciousness of the intensity of volition necessary to produce a given effect upon the muscles.

Our knowledge of the position of the body, and the adjustment of muscles necessary to preserve its balance, and to effect its innumerable changes of posture and locality, all depend on the exercise of this sense, conjointly with that of vision: that the latter, however, acts the least important part in these functions is proved by the fact that blind persons have a very sufficient command over their muscles, and even

acquire, by practice, a more perfect control over some of their motions than is generally possessed by those who can see.

It is singular that this admirable sense should never have fairly attracted the attention of physiologists, till it was pointed out, and very ingeniously applied, by Dr. Thomas Brown, the late distinguished professor of moral philosophy in the university of Edinburgh; whose name, however, we have seldom seen mentioned in connexion with it. (*Lectures on the Philosophy of the Human Mind,* vol. i. p. 496.) This author shews that a number of those physical properties of bodies which are supposed to be ascertained merely by the touch, are, in fact, made known to us through our notions of *resistance*, and that our idea of resistance is derived entirely from the estimate of muscular action.

"By touch we are commonly said to be made acquainted with extension, magnitude, divisibility, figure, motion, solidity, liquidity, viscidity, hardness, softness, roughness, smoothness. These terms I readily allow are very convenient for expressing notions of certain forms or states of bodies that are easily distinguishable. But, though specifically distinguishable, they admit generically of very considerable reduction and simplification. Hardness and softness, for example, are expressive only of greater or less resistance; roughness is *irregularity* of resistance, when there are intervals between the points that resist, or when some of these points project beyond others; smoothness is complete uniformity of resistance; liquidity, viscidity, are expressive of certain degrees of yieldingness to our effort, which solidity excludes, unless when the effort employed is violent. All, in short, I repeat, are only different species or degrees of that which we term resistance, whatever it may be which impedes our continued effort, and impedes it variously, as the substances without are themselves various." (*Op. citat.* vol. i. p. 487.)

Our notion of *weight* is no doubt originally derived from the same source, being formed on an estimate of the resistance offered to muscular action by the tendency of bodies to descend; or, in other words, of the degree of muscular exertion necessary to sustain them.

This subject of the muscular sense admits also of a very interesting application to the theory of vision. In treating of this sense, M. Magendie has not made any direct allusion to the curious subject of erect vision from an inverted image on the retina; but he introduces the hypothesis on which the fact is now most frequently explained in the following words:

"By the effect of an admirable instinct, we know the direction of the light which penetrates the retina; it appears that we esta-

blish in principle that light moves in a right line, and that this line is the prolongation of that which the light followed before penetrating the cornea."

The opinion here advanced is nearly the same with that given by Sir D. Brewster; who, however, has expressed it more distinctly thus:

"We know nothing more than that the mind, residing as it were in every point of the retina, refers the impression made upon it at each point to a direction coinciding with the last portion of the ray which conveys the impression." (*Edinburgh Encyclopædia*, art. *Optics.*)

Now we think that, on close inspection, this solution will be found insufficient, and for the following reasons. The mind cannot perceive the direction of the ray of light, since it does not perceive the ray itself: a thing cannot be at once the means and the object of perception; and we learn from science, not from sensation, that there are any rays of light proceeding from the external object of vision to the eye. It is not, then, the ray which is perceived, but the impression made by that ray; and, to talk of the direction of an impression, would be to use words without a meaning. If, however, the sentence just quoted is intended merely to signify that the impression made on the lowest point of the retina is, somehow or other, known to be derived from the highest point of the object, and *vice versâ*, the whole is nothing more than a circuitous mode of stating the fact, that, though the image on the retina is inverted, the object is nevertheless seen in its real position; which is the very thing to be accounted for.

We advance this with great submission, being well aware of the weight of the authority from which we have ventured to dissent.

This theory, moreover, as well as some others less worthy of notice, rests on the assumption that the image depicted on the retina is the direct object of the mind's perception; of which we have no proof. It is therefore well remarked by Dr. Bostock, that there seems "no reason why the inversion of the image should lead to the conception of an inverted object, rather than the contrary; and hence the question that has been so frequently asked, why do we not see objects inverted? may be answered by asking, in return, why should we expect this to be the case?"

It appears to us that by far the happiest solution of this difficulty hitherto offered, is that which Sir C. Bell has framed, with much ingenuity, on the doctrine of the muscular

sense. "There is," says this accomplished physiologist, "an inseparable connexion between the exercise of the sense of vision and the exercise of the voluntary muscles of the eye. When an object is seen, we enjoy two senses: there is an impression upon the retina, but we also receive the idea of position or relation, which it is not the office of the retina to give. It is by the consciousness of the degree of effort put upon the voluntary muscles, that we know the relative position of an object to ourselves." (*Phil. Trans. for* 1823.) According to this theory, then, we are enabled to distinguish whether the entire object be above or below us, to the right hand or to the left, by a consciousness of the action of that particular muscle which directs the eye towards the object. In like manner, we are enabled to distinguish the top of an object from the bottom, by a consciousness of the action of the levator muscle when we regard the former, and of the depressor when we regard the latter. We have heard it ingeniously objected to this view of the subject, that it will not apply to objects so minute as to require no muscular action to enable the eye to apprehend them, but which are nevertheless seen in their true position as correctly as larger objects. This objection, however, is not valid, because, although no muscular action is required to enable the eye to traverse the surface of such objects, yet the smallest elevation of the eye banishes the object, and the point which disappears last is thus known to be the top: in like manner, the smallest depression of the eye also banishes the object, and the point which disappears last is known to be the bottom; or, in more general terms, we ascertain its position by an instantaneous act of comparison with the objects already known to be above or below it.

We may extend this view of the action of the muscles of the orbit to the explanation of our notion of *magnitude*. On this subject, our author remarks, that our judgment of the dimensions of bodies depends much more on intelligence and habit, than on the actual apparatus of vision; and that we acquire correct ideas on this head, from the size of the image formed on the retina; the intensity of the light which emanates from the object; the distance at which we believe it to be placed; and, above all, from the habit of comparing objects, when seen together. We think it must be at once apparent that these circumstances, although they have considerable influence, are not alone sufficient to account for our perception of the magnitude of bodies; but if we call to their aid the action of the muscles of the eye, our explanation becomes much more satisfactory. It is, we think, highly probable

that our estimate of the magnitude of bodies depends, in a great measure, on a consciousness of the extent and duration of muscular action requisite to carry the eye over their entire surface, in its several dimensions; and, with reference to objects of extreme minuteness, on the consciousness that no such action is required, and that the smallest movement of the eye diverts it entirely from the object. Our judgment is no doubt much aided by comparison, and by our estimate of the distance of the object, which we form from the necessary adaptation of the axes of the two eyes, the distinctness and colour of the object, the number of intervening objects, and perhaps some other considerations.

We trust we have said enough to show that the subject of the muscular sense ought not to be neglected.

Before quitting altogether the subject of the senses, we wish to advert to a point which, we believe, has not hitherto attracted the attention of physiologists, or, at least, not so much attention as it may perhaps deserve. We have been accustomed to consider the impressions made on the nerves of sense solely as a means of the mind's converse with the external world; but, is it not possible that they may also have a sympathetic influence, as stimuli, on the whole nervous system, and, consequently, on the whole frame; thus forming a part, though a very subordinate one, of the general impulse by which the vital actions are carried on?

Take for example the sense of sight. It is well known that a continued exposure to a strong glare of light will produce headach and dizziness; and the observations of M. Andral render it probable that the supposed influence of the moon on lunatics arises entirely from the excitement produced by her light. On the other hand, those accustomed to the treatment of nervous patients, must have frequently observed their sudden improvement on being transferred from a gloomy to a lighter apartment, and the disappearance of their daily symptoms of languor and oppression on the introduction of artificial light in the evening: perhaps, however, a cheerful influence on the mind may have much to do with these effects.

Again, with respect to the sense of hearing. The effect of continued noise on those whose nervous system is naturally irritable, is so great as to induce general discomfort, restlessness, headach, and even a degree of febrile excitement. Dr. Mead, who in his Essay on the Tarantula has some remarks on this subject, gives the following instance of the powerful effect of sound on a dog; not, however, on his own authority, though on that of an eye-witness. "A player on a fiddle, having frequently observed that a dog in the room was always so

affected by a particular note as to howl and show great uneasiness at it, one day, for experiment's sake, continued to strike the same note so long, till the sensible animal fell into convulsions, and died." (*Medical Works*, p. 77.)

With reference to the sense of smell, it is well known that many Roman women, and even men, will faint, or become hysterical, at the fragrance of a rose. Now, is it not probable, from these, and similar facts, of which a great number might be adduced, that, as inordinate impressions on the nerves of sense produce such strong effects on the entire system, the ordinary and moderate impressions to which they are continually subjected must also produce a certain degree of effect, and may perhaps form a part of the necessary stimuli of the nervous system, and, through it, of the healthful actions of life? We merely throw out the suggestion in a very crude form, apologizing for introducing it where it may appear to be irrelevant; but the prosecution of this subject might perhaps reward the labours of the physiologist, and also throw some light on the phenomena of disease.

Functions of the Brain. When we reflect that this subject has afforded constant occupation to philosophers of all ages and nations since the days of Aristotle, and that we know about as much of the matter now as was known to the Stagyrite, it is with no small degree of astonishment we learn from M. Magendie, that this study "is perhaps easier than that of most other functions." Let us hear what our author believes these functions to be.

"The most wonderful and sublime developments of human nature, intelligence, thought, instinct, the passions, and that admirable faculty by which we direct our movements and exercise speech, &c. are phenomena so dependent upon the brain, that many physiologists designate them by the appellation of *cerebral functions*. Other physiologists, sustained and inspired by religious faith, regard them as appertaining to the soul, a being of a divine essence, one of whose attributes is immortality."

M. Magendie remarks, with great propriety, that the physiologist need not involve himself in theological disputes, as the one subject has nothing to do with the other. Now, if we understand this passage aright, our author asserts that intelligence and thought depend upon the brain;—are functions of the brain; at least, that the only ground on which this doctrine can be questioned is that of religion.

We would, however, suggest a very different ground; simply, that there is not a single unequivocal fact in its favour, and that all reasoning is against it. It has indeed been adopted by many physiologists; but the whole history of sci-

ence does not present an example of a more gratuitous assumption. Observation has taught us that the brain is the general receptacle of all impressions made on the external senses, and the centre from which volition is communicated to the organs subservient to the will: we know no more. The facts so often appealed to by the materialist of the correspondence of the mental phenomena with the development of the brain in man and the higher animals, and of the derangement of those phenomena by disease of the brain, are really quite irrelevant, and prove nothing on one side or the other; because, supposing the brain to be merely the medium that conveys to the mind those impressions which all acknowledge to be its necessary food, and the foundation on which it builds all its operations, it follows, as a matter of course, that the more perfectly the brain is organized, the more perfect and numerous those impressions will be, the more ample the materials of thought, and the more complete the development of the mind. Again, when those impressions are rendered imperfect and confused by disease of the organ on which they depend, it follows, as a matter of course, that the mind cannot work properly on such insufficient materials.

M. Magendie may *conjecture* that the brain is the organ of thought; but, for our part, when we consider that thoughts are things which geometry cannot measure, which chemistry cannot analyse, which accumulate without filling space, and are incessantly active without motion; when, in short, we cannot trace in them the remotest analogy to any material product or result, our conjectures are strong against referring them to the action of any material organ whatsoever. Nevertheless, we freely disclaim all right to deny that it may be as M. Magendie says; but, in assuming that it is so, he substitutes opinion for fact. Truth obliges us to confess that we know no more about the matter than the dead brain whose structure we unravel, and on whose functions we speculate. The phrenologists will not be pleased with us for saying this, since they profess to bring forward *facts* relative to this matter; but, although the spirit of observation by which the votaries of that science are actuated cannot be too much commended, we fear that, till their method of observing be changed, phrenology can never prove or disprove any thing. It sets out on a most unfortunate maxim, δεῖ μὲν τὸν μανθάνοντα πιστέυειν: we must begin by admitting the truth of the system, since no one organ can be established without previously taking several others for granted.

Nervous System. The important views of our author on this branch of physiology must now be familiar to every one,

and they are for the most part too well established to leave room for any discussion. The part of the nervous system which most completely baffles the ingenuity of the physiologist is that called the ganglionic—the great sympathetic nerve—if indeed we have any right thus to designate it. From the frequent use made of the supposed functions of this nerve in framing pathological theories, we are apt to delude ourselves into a notion that we have actually some positive knowledge concerning it: the reverse, however, is the fact. On this subject M. Magendie has the following sensible note, slightly enlarged from the preceding edition.

"Is the great sympathetic a nerve? The ganglions and filaments which arise from it, or proceed to it, have no analogy with nerves properly so called: they differ entirely in colour, form, consistence, disposition, structure, properties of tissue, and chemical properties. Nor is there any greater analogy in their vital properties; a ganglion may be pricked, cut, or torn, without the animal appearing conscious of it, and without any contractions taking place in the muscles. I have often tried these experiments on the cervical ganglia of dogs and horses; similar operations, if performed on the sensible nerves of the brain, would have produced horrible torture; if on the insensible, or those of motion, powerful muscular contractions. Let all the cervical and the first thoracic ganglia be removed; we do not perceive any sensible and immediate derangement in the functions even of those parts to which their filaments are distributed. What reason then is there to consider the ganglionic system as forming part of the nervous? Would it not be wiser, and more conducive to the future progress of physiology, to admit that the use of the great sympathetic is at present entirely unknown? One is confirmed in this idea by the perusal of authors. One sees, for instance, the ganglions considered as nervous centres, as little brains, as nuclei of grey matter destined to nourish the nerves, &c. If the proofs are required on which these authors establish their doctrine, we are astonished to find that there are none, and that their assertion is nothing but a *jeu d'esprit.* After the unproductive inquiries which have been instituted up to the present day, it appears to me the most probable conjecture with respect to this singular organ, so intimately connected with the nerves, that its functions are of a peculiar order, to which physiologists have not yet obtained the clue, but which may reveal itself to him who knows how to interrogate nature by delicate and ingenious experiments."

Comparative anatomy is the source from which we are most likely to obtain information on this, and other organs whose functions are unknown. The system of animated nature is indeed one vast physiological museum, in which we see parts developed and displayed in the order in which their functions

are required; and curtailed, or removed, not by the knife of the anatomist, which extinguishes vitality while it exhibits structure, but by the working of a power which obliterates each part as its function becomes useless, still preserving uninjured the mechanism of life.

The chief obstacle in the way of applying this mode of investigation to the ganglionic system, consists in the difficulty of ascertaining at what point in the animal scale it actually commences; it being doubtful whether the ganglia which make their first appearance in the Mollusca, correspond with those of the spinal nerves, or those of the sympathetic, or are different from either. Further observation will, however, most probably clear this matter up.

After all, the apparently universal distribution of the sympathetic to all the organs of the body, and its connexion with every part of the nervous system, afford much reason for believing that it in some manner presides over and controls all the actions of organic life, and associates them with each other, and with the animal functions.

Animal Heat. As no new experiments have been made which can be considered as conclusive with regard to the source of animal heat, and as all the principal theories on the subject, with the experiments on which they rest, are no doubt abundantly familiar to our readers, we should not here have adverted to it, had we not wished to direct attention to a very singular pathological phenomenon, which we think goes far to overturn the chemical theory. M. Magendie professes himself a believer in this doctrine, more decidedly, perhaps, than the facts of the case warrant. It must, however, be allowed, that it is very strongly supported by numerous and striking experiments; by the fact, that much heat, however it may be disposed of, must unquestionably be generated by the chemical process continually going on in the lungs: and by the parallel which comparative anatomy enables us to draw between the perfection of the respiratory function, and the degree of animal temperature; it being pretty universally found, that the more the lungs, by their extent and organization, favour the chemical changes in the blood, the higher is the temperature of the animal in proportion to the medium in which it lives. Beautiful however as this theory is, and sorry as we should feel to be obliged to give it up, we cannot help remarking, that a phenomenon very difficult to be reconciled with it presented itself frequently in the course of the late extraordinary epidemic called the *cholera.* We have ourselves observed, not once, but repeatedly, and the observation has been made to us by others, that when this disease

was within a few minutes of its fatal termination, when the surface had for hours been cold, and the pulse entirely extinct, and when respiration was reduced to a feeble attempt to dilate the chest, made at long intervals, the heat of the surface has sometimes suddenly returned, so that at the moment of death, and for a short time after, it has been little, if at all, below the natural standard. Now in this case no heat can either be developed in the lungs, or become latent in the blood, by the process of arterialization, because that process does not take place, the blood being as black as pitch; nor can any heat be evolved on the surface of the body, by the change of arterial into venous blood, because the circulation through the minute vessels does not go on; and, if it did, there is no arterialized blood to be changed. To the fact here stated we can testify, on our own personal experience; indeed, it probably attracted general attention. All this throws no light on what *is* the source of animal heat; but it shows, we think, pretty clearly that respiration *is not;* at all events, that it is not the only, nor the principal source.

There are many other subjects in these interesting volumes on which we could willingly dilate; but, lest the reader should say *claudite jam rivos,* we will do it of our own accord.

Alphabet of Scientific Chemistry, for the Use of Beginners. By JAMES RENNIE, M.A., Professor of Zoology, King's College, London, &c.—London, 1833. 8vo.

THE merest novice in chemistry cannot but perceive, on examination, that the errors contained in this little work are almost as numerous as the lines in which it is comprised: had it therefore been written by any one but a professor of a college, we should have thrown it amongst our waste paper almost at the first glance, as a thing beneath criticism.

The volume before us opens with what is called *a plan of the work,* in which, after an attentive perusal, we find no plan given. This, however, is not without a precedent, since the last chapter of Rasselas is "a conclusion in which nothing is concluded." In this *plan* the author introduces himself to our notice as a chemist in the following strain:

"I well recollect the first chemical experiment I ever witnessed, which was performed by my distinguished instructor, Dr. Ure, in the Andersonian Institution, Glasgow, and went to prove that water is composed of two different sorts of air, or, as chemists term them, gases. I was delighted—I may rather say enraptured—with the clearness of the unquestionable and irresistible proofs, and lay awake the greater part of the following night, mentally repeating

and re-repeating the premises and the inferences therefrom, and wishing (vainly indeed, but I could not help it) that it had fallen to my lot to have made Cavendish's discovery of the extraordinary facts of the composition of water. My mind was roused into a train of thinking entirely new; and, as I pondered over the various circumstances, fresh combinations arose in numerous and delightful succession. I know not, indeed, that I ever experienced greater pleasure afterwards, even *when I had mastered the rudiments of the science,* and heard from another highly distinguished chemist, Dr. Thomson, whose pupil I also had the good fortune to be, the interesting doctrine of proportional combination, than I first felt from seeing the composition and decomposition of water."

We know the merits of Dr. Ure too well to believe that he ever attempted to prove anything so truly absurd as that water is composed of two gases. It is composed of oxygen and hydrogen, but not of oxygen and hydrogen *gases.* Almost any work on chemistry would have informed Professor Rennie that, when water is produced by the union of oxygen and hydrogen, the two gases disappear. If he does not know the difference between oxygen and oxygen gas, and the difference between any other gas and its base, he should not write for *beginners;* and that he does *not* know the difference, is further confirmed by his telling us that

"Chalk is composed of carbonic acid *gas* and lime."

"Peroxide of mercury is composed of oxygen *gas* and mercury, &c."

At page 3 the professor attempts to draw a distinction between chemistry and natural philosophy, or physics.

"In chemistry, we study changes that take place on a small or minute scale; and in physics, those on a great or extensive scale."

Accordingly, when we study the changes that take place in forming a few grains of any substance in a wineglass, we study chemistry; but if we study the same changes on a great or extensive scale, as in forming some tons of the same substance for the purposes of commerce, we then study physics. "A second Daniel come to judgment!" We find a very different distinction made by other writers between chemistry and natural philosophy; but the fact is, the professor has drawn no distinction at all, and therefore, instead of enlightening *beginners,* he is only leading them astray.

Page 20. "That the air has weight is known to every body who has felt the wind blow, or seen a ship sail."

Force is not weight. Were the wind to blow a professor out of his chair, it would no more prove that air has weight,

than lightning rending the sturdy oak proves, what never has been proved, namely, that electricity is a ponderable body.

Page 26. "Nitrogen gas constitutes the basis of nitre, the well known substance popularly termed saltpetre."

Now, potass is the basis of the salt in question. Nitrogen is one of the simple bodies; and Professor Rennie is another, not to know that no simple body has the power of uniting with an acid, so as to form the basis of a salt.

Page 33. "The bleaching properties of sea air evidently depend upon minute portions of sea water, derived from the spray, and carried about by the winds, and as this contains a considerable portion of the principal substance, chlorine, used in artificial bleaching, the cause of the effect becomes evident."

Not quite so evident; for the chlorine, being in a state of strict chemical combination, is devoid of the property of bleaching, which it possesses in a state of separation. If the sea air has the property of changing the colour of black and other dyes, in consequence of being impregnated with saline particles, this is not a bleaching property; for bleaching is a total destruction of colour.

At page 35 we are made acquainted with the art of drying water.

"To obtain common salt, it is only necessary to dry (if I may thus use the term) a great quantity of sea water, which is done by exposing it to heat sufficient to drive off, in vapour, all the common or fresh water, in which the salt is originally dissolved."

In more passages than the above, the professor dwells a great deal upon the common water contained in sea water, and of *drying* sea water. Water is water, consisting always of oxygen and hydrogen, and all waters merely differ from each other in respect to the salts they hold in solution. If the water be driven off from such salts by evaporation, we should think the process that of drying the salts, and not the water. Drying water is about as practicable as extracting sunbeams from cucumbers; an art practised only at Laputa.

At page 62 we are informed that

"Carbonic acid has been proved to be the only substance in the diamond, which is pure carbon."

The professor "remembers a mass of things, but nothing distinctly." The diamond is the purest carbon met with in nature. The well known substance called charcoal is also carbon, but mixed with impurities. The diamond and charcoal, though differing so widely in appearance, are proved to be identically the same, by their both uniting with oxygen

during combustion, and forming carbonic acid gas; for, as all lines drawn from the centre of a circle are equal to each other, so the same chemical compound must always consist of the same chemical constituents. The diamond, then, does not contain carbonic acid, but only forms it by combining with oxygen, precisely as charcoal does; and the reason that the two substances in question are so widely dissimilar in appearance is no doubt owing to their particles being in a different state of aggregation. The same may be said of chalk, limestone, marble, and the beautiful varieties of crystallized carbonate of lime; all of which, though differing in appearance, are identically the same in respect to their chemical constituents, which are in each case 22 parts of carbonic acid, and 28 parts of lime.

In describing the mode of procuring nitric acid from nitre by means of sulphuric acid, our author tells us (page 76) that

"The *sulphur* of the sulphuric acid leaves it, and lays hold of the *potass* in the nitre, while the *oxygen* and *nitrogen gases, thus set free,* unite and pass into the *adopter* in the form of red or orange fumes, which will condense and mix with the water in the bottle. The red or orange fumes which come over, and which become colourless as the process advances, but redden again towards the close, consist of the nitric acid, which is itself transparent, and what is termed *nitric gas,* (technically deutoxide of nitrogen; by Sir H. Davy, nitric oxide,) which is also transparent; but, when it meets with common air, or oxygen, it becomes coloured red, by forming nitrous acid with oxygen."

It is not necessary to take up our readers' time by giving the true and very simple theory of the separation of nitric acid from nitre, because it will be found in almost any respectable treatise on chemistry. Neither is it necessary to say any thing respecting the absurdity of *mixing* the nitric acid with water as it distils over, when the object is always to have it as free from that liquid as possible. This strange account is accompanied with a woodcut of the apparatus usually represented in chemical works, under the directions for making nitric acid on a small scale; and, both in the text above quoted, and the description of the said woodcut, our author clearly shews that he does not know the difference between an *adopter,* which is to fit two portions of apparatus together, and a *recciver,* which is to receive any liquid distilled.

Page 85. "Orpiment is a compound of sulphuric acid and arsenic."

Here is a discovery of a new salt, for we know not what else to call it; but, as orpiment happens to be composed of sulphur and arsenic, and as no acid is known to combine with arsenic, because as yet no true oxide of that metal is known; and, as acids only combine with the oxides of metals, and not with metals themselves, in all probability this new salt of the professor's, like several other of his compounds, has been formed at the writing-desk by means of scissors and paste.

"We are told in most books, that the *nature* of light or heat is unknown, meaning plainly by *nature* the fanciful nothing, otherwise termed substance or essence; for the properties of light and heat are as well known as those of water or iron. The same fanciful dreams have given rise to the impertinent discussions whether light, heat, &c. be material; that is, whether they have a frame-work of the long, broad, thick, impenetrable, and fanciful nothing, which nobody ever saw or felt, called *matter;* or whether they be mere motions, existing of course, without any thing being moved, and like no other motion. The impertinence and folly is carried further by those who argue for light, heat, &c. being supported on this fanciful frame-work, as they hesitate not to call them fluids, though they cannot be shown to possess one property in which they in the least resemble water or other fluids. It is surely high time that all such visionary stuff were banished from sciences pretending to be supported on rational proofs; yet I scarcely know a single scientific work that is not more or less contaminated therewith."

In the above passage our author boldly asserts what he almost immediately flatly contradicts: he states, that "*the properties of light and heat are as well known as those of water;*" and then, in the very next sentence, he tells us that "*they cannot be shown to possess one property in which they in the least resemble water, or other fluids.*" What Mr. Rennie may intend beginners to understand by this mode of reasoning, we shall not trouble ourselves to inquire; but all philosophers are agreed, that the properties of the imponderable bodies, light, heat, &c., are not precisely known, although we may in some measure be acquainted with the effects of such bodies on ponderable materials. That they are fluids there cannot be the least doubt; and it is remarkable, that the Hebrew word AUR, *light*, is derived from AR, *to flow*. Whatever has the power of flowing is designated by the term *fluid*, which every body knows is derived from the Latin verb *fluo*, to flow; and that light flows from the sun, caloric flows from a hot to a cold body, electricity flows from the clouds to the earth, &c., no one except Professor Rennie would attempt to deny. But the fact is, that he is not aware

of the difference between a fluid and a liquid; for, at page 24, we find him speaking of "*liquid* quicksilver." Instead of finding fault with the terms employed by the best authors, he would do well first to make himself acquainted with their real meaning, of which, in many instances, he has not the faintest notion, although he has sometimes attempted to give their derivation. What can he possibly know of derivations, when he tells us that the Greek *a privative* signifies *against?*

At page 99, we are informed that

"If a small bit of the new metal potassium be placed on ice or snow, it will combine with the oxygen therein contained, *and at the same time force out its heat in form of a very brilliant flame*, proving that the ice or the snow contains a great deal of heat."

We shall not trouble our readers by repeating the well-understood theory of the decomposition of water or ice by potassium, because it is presumed they are well acquainted with it; but we beg to remind them, that our author is the first to speak of *heat burning with a brilliant flame.*

Mr. Rennie has a strong aversion to all terms used by scientific writers. For instance, *chemical attraction*, or *affinity*, he calls chemical *preference;* and, in his "Laws of Chemical Combinations," (which, by-the-bye, differ from those laid down by all other authors, ancient and modern), he gives the following tirade respecting *chemical preference:*

"Some chemical substances show a very marked preference of each other, and no less a marked antipathy to some other substances, as much as a brood of chickens will keep close to their mother, and will scuttle away for fear of a kite. The chemical preferences in question are observable between substances the same or similar, and between substances that are dissimilar."

We think the generality of tyros are sufficiently advanced to inform this learned purveyor of knowledge that there is no such thing as chemical affinity—or, if he likes, *preference*, —between substances the *same* or *similar;* for, that all chemical compounds are composed of *dissimilar* bodies, is one of the very first chemical axioms that a pupil becomes acquainted with. We will therefore leave our author, and his *preferences* between substances the same or similar, and pass on to *preferences between dissimilar subjects*, at page 129, where he says:

"I have already stated that an alkali will turn a vegetable blue colour to green, and an acid will turn it red; but when an alkali and an acid, having a mutual preference, combine and form a salt, this salt will not change the blue colour either to red or green, and will not taste either acid or alkaline."

Poor Professor Rennie! He is born to err, as the sparks fly upwards. Now if, instead of puzzling his brains to invent new terms, which will be read only to be forgotten, he had examined the carbonates of potash and soda, he would have found that they not only turn a vegetable blue to green, but also have a strong alkaline taste; and, had he pursued his inquiries still further, he would have discovered that nitrate of lead, and other salts, will turn a vegetable blue red, although the bases of such salts,* and their acids, have a mutual preference, as he calls it; but "there are more things in heaven and earth than are dreamt of in his philosophy."

At page 137, we find him stultifying the minds of beginners, by informing them that

"The *doctrine of proportional combinations* is technically *the atomic theory*."

But perhaps he may hereafter learn that the atomic theory is merely based upon the doctrine of proportional combinations, and that, should the theory in question be hereafter disproved, still the truth of the doctrine of proportional combinations cannot be injured thereby. We would advise the professor to read authors more attentively before he borrows from them: he ought at least to understand what he copies. But he appears to go on the plan of "here a little, and there a little," until his numerous shreds and patches are made to occupy the space of a book.

Our author has attempted to say something respecting "the language of chemistry;" but here again he only proves that he knows just as much of the meaning of the names as he does of the bodies to which they belong.

"Oxygen forms oxides, acids, and water."

"Hydrogen forms *hydrates*, *hydracids*, and *hydrogurets*." (P. 147.)

Hydrogen, like oxygen, can form nothing of itself in the shape of a chemical compound; but, with a few bases, it forms *hydrurets* or *hydrogurets*, these terms being synonymous. It never forms compounds called *hydrates;* for these are the results of these combinations in which water becomes an ingredient in its combining proportion, or a multiple of that proportion; or, in other words, becomes chemically combined.

"Nitrogen along with oxygen forms *nitrates* and *nitrites*." (P. 147.)

* The oxides of the ordinary metals, in combining with acids to form salts, play the part of the alkalies alluded to above; and, were such oxides soluble, they would no doubt have an alkaline reaction on vegetable blues and yellows.

Nitrogen, along with oxygen, forms five compounds, not one of which is either a *nitrate* or a *nitrite;* as Mr. Rennie might have learned, had he paid proper attention to his instructors, Drs. Ure and Thomson, instead of leaving Glasgow prematurely, under the whimsical supposition that he "*had mastered the rudiments of the science.*"

"Chlorine forms *chlorides* and *chlorurets*, and along with oxygen forms *chlorates.*" (P. 147.)

Chlorides are chlorurets, and chlorurets are chlorides, the two terms being strictly synonymous. Oxygen and chlorine combine to form four compounds, not one of which is called a *chlorate.* It were tedious to proceed further in the investigation of our author's nomenclature, or we might adduce a very great number of other instances in which errors similar to the above are advanced to smooth the path of chemistry to *beginners.* That Mr. Rennie never saw any of the compounds he speaks of is but too evident; for he tells us that *Protochloride of mercury*" (or calomel, which every old woman knows to be a white substance,) is "popularly *cinnabar* or *vermilion;*" and that "*perchloride of mercury*" (corrosive sublimate) is "popularly calomel." (P. 151.)

We might have noticed a curious error of our author, who asserts, at page 105, that the blood is "carried to the heart, by whose motion or beating it is thrown into a large vein, and carried to the lungs;" but we are tired of the painful task of correcting perpetual blunders. Indeed, we fear that some of our readers will blame us for wasting so much space on so short and trifling a work, while others will charge us with uncalled-for severity towards an industrious and well-meaning man; but we must answer both classes of objectors, by observing, that the errors which would be inconsequential if proceeding from plain Mr. Rennie, are dangerous when sanctioned by the authority of a professor of King's College; and, moreover, we thought it the duty of honest reviewers to interpose some check to the unbounded itch for writing, which is advantageous to no one but the printer, which makes talent ridiculous, and industry useless.

Surgical Observations on the Restoration of the Nose; and on the Removal of Polypi and other Tumours from the Nostrils. From the German of Dr. Dieffenbach, *of Berlin. With the History and Physiology of Rhinoplastic Operations, Notes, and additional Cases.* By John Stevenson Bushnan, f.l.s., m.r.c.s.e., &c.—8vo. pp. 159. London, 1833.

A review of the first volume of Dr. Dieffenbach's work, in the Edinburgh Medical and Surgical Journal, induced Mr. Bushnan to undertake the translation of the portion relating to the removal of tumours from the nose, and its restoration, when destroyed or dilapidated. Although the mode of performing these operations is tolerably well understood, they are not so felicitously executed as to make it supererogatory to attempt to improve them. Such attempts have been more fortunate in the hands of continental than of English surgeons; and this it may be presumed was the translator's inducement, as it is certainly his warrant. Many cases of Rhinoplastic operations are before the profession, yet our information is necessarily incomplete without reference to the practice of foreign practitioners. There are perhaps few subjects of equal importance which have engaged the attention of so small a portion of the profession. Even the title is generally misunderstood, and surgeons have actually published cases in which the operations were described as Taliacotian; ignorant of the fact that the process of Tagliacozzi was essentially different from the operations they had performed themselves, and most potently believing that he was the discoverer of an operation that there is abundant proof was not unknown to Galen, Paul of Ægina, Fabricius ab Aquapendente, Celsus, and others. Nor do they for a moment distrust the statement of the witty immortality that Butler has conferred upon Tagliacozzi, by asserting that the Italian cut supplemental noses from the anonymous extremities of compatriot porters; ignorant that the operation now adopted throughout Europe, Asia, and America, is the invention of the Brahmins of India.

The date of the operation is unknown, for it has been performed in India from time immemorial. Mr. Bushnan conjectures that the first public account appeared in the Gentleman's Magazine for 1794. One of the maxims of political economy (to some paradoxical) is here oddly enough illustrated; namely, "that the demand creates the supply." Throughout the East, where despotism in all its modes holds dominion, one of the favourite caprices of cruelty is mutilation. As the following example is only one of many, it is

easy to conceive that the demand for noses would be to an extent to encourage their production; and as monopolies are not peculiar to periods, but have extended through all time since men discovered that to plunder is easier than to work, and that wholesale robbery is better than stealing in detail it naturally followed that the manufacture of noses and lips became the privilege of a caste of Hindoos called Koomas.

"We may form some idea of the horrible extent to which the amputation of noses and lips was formerly carried in India, and the frequency and urgency therefore of the calls upon human ingenuity to repair the loss so sustained, by the following narrative related by Father Guiseppe, of a fact which occurred no longer ago than the year 1769 or 1770. 'The city of Kirtipoor, in Nepaul, being besieged by the Ghoorka army, was betrayed by one of its nobles. The inhabitants might still have stood on their defence; but, on the promise of amnesty, they surrendered themselves prisoners. Two days afterwards, Pritwinarayan, the king of Ghoorka, their conqueror, ordered the principal persons of the town to be put to death, and the lips and noses of every one, even the infants who were not found in their mother's arms, to be cut off; directing at the same time that the lips and noses should be preserved, that he might ascertain the number of souls, and that the name of the town should be changed into *Nascatapoor*, which signifies (such relationships have the languages,) *Nose-cut-town.* The order was carried into execution with every mark of horror and cruelty, none escaping but those who could play upon wind instruments. Many of them, in despair, put an end to their lives; others came to us, in great bodies, in search of medicines; and it was most shocking to see so many living people with their teeth and noses resembling the skulls of the dead." (P. 30.)

The first chapter is occupied with the history of the operation, and abounds with references to authorities, not without interest, although of questionable utility to any but the curious, who delectate in leisure denied to the labouring practitioner. Mr. Bushnan's physiology in relation to the operation (and in this he revels,) is sufficiently orthodox, and always ingenious, and contains a view, which, although neither new nor peculiar to himself, is striking, and will have the interest of novelty to some who have been embarrassed by the circumstance of parts of adoption taking on the function and properties of the structure to which they were before aliens. If we keep in mind the processes always in antagonism, yet in health always in equilibrium, absorption, and reparation, we shall do justice to the following satisfactory solution.

"With respect to the process by which mucous membranes, when brought to the surface of the body, take on the character of

common integuments, and the latter, when made to line canals or cavities, assume that of mucous membranes, very little can be said, so long as we continue in almost total ignorance of the nature of absorption and secretion, and of the other molecular actions of the living body. It is a singular circumstance that, in the process of healing by the first intention, whatever be the character of the tissues to be united, no difference whatever can be perceived in that of the lymph which is to become the medium of this reunion, and which is ultimately to take on the character of the tissues in question; and it is not improbable that the lymph which is deposited in the nidus of even the morbid tissues, such as a tubercle or a scirrhus, is of precisely the same character as that which is instrumental in renewing mucous or dermoid membranes. The character of the tissue which the lymph, in any case, ultimately assumes, seems to depend upon the specific action of the vessels by which it is organized; which specific action is the result partly of the peculiar kind of irritability with which the capillary vessels of every individual organ of the body appear to be endowed, and partly by the peculiar kind of stimuli to which these capillary vessels are everywhere exposed; and if it is these causes which determine the character of any tissue as formed *de novo*, it must be to similar causes that we should look for an explanation of the changes in character which any tissue is liable subsequently to undergo. So long as the irritability of any two secreting vessels, and the stimuli by which this irritability is excited are the same, the secretions from each, it much be presumed, will be identical; but, if either of these conditions be different, the secreted matters will differ in proportion. It is in this way alone that we can explain why the capillary vessels of the secreting surfaces of the uterus, the mammæ, the kidneys, and so on, acting upon precisely the same kind of blood, in their natural state, should form from it respectively perfectly distinctive fluids; and why those of the mucous, dermoid, serous, and other tissues, should, in their natural state, deposit each its own peculiar tissue, and no other. But it is abundantly well known that, under peculiar circumstances, each of the former sets of vessels is capable of secreting fluids not naturally its own, but more or less allied to the natural secretions of others. Thus, numerous cases are on record in which the menstrual fluid, or something very like it, has been discharged from the nostrils, eyes, ears, mouth, lungs, stomach, anus, mammæ, navel, skin, and other organs; others, in which the milk, or a similar fluid, has been passed from the eyes, mouth, urinary bladder, vagina, and navel; and others, in which the urine, or at least many of its characteristic principles, have been voided by the nostrils, eyes, ears, stomach, mammæ, navel, and skin.* Now, the continued renewal of the

* Schenck, Bartholin, Schulrig, Mollenbroech, Percival; Edinburgh Med. Commentaries. Halford; Med. Trans., 1820. Coindet; Inaug. Dissert., 1820. Dumas and Prevost, Annales de Chemie, 1823. Mayer; Zeitschrift fur Phys., 1827. Arnold; American Journ. of Med., 1827, &c.

particles of each of the solid tissues from the blood, in proportion as they are removed by absorption, is by a process of secretion precisely similar to that by which the several fluids are deposited: and if vessels naturally engaged in secreting, for example, mucilage alone, can, under peculiar circumstances, secrete the menstrual fluid, milk, or urine, it ought not to surprise us that vessels, the natural office of which is to deposit particles of mucous membranes, should, in certain cases, deposit particles of common integument, or *vice versâ;* particularly when we consider that there is infinitely less dissimilarity in the structure of these two tissues than in the character of many of the fluids which are occasionally vicarious of each other. If, then, the mucous surface of a portion of lip, reflected, as in the operation introduced by Mr. Liston for forming a new columna nasi; or a portion of the lining membrane of the mouth, drawn from this cavity and laid over the cheek, as in an operation of Dieffenbach for relieving a contracted mouth, soon acquires all the properties of the dermoid tissue, on the one hand; and if, on the other, the dermoid surface of the lip, as in the operation for forming the columna, or of a strip of the integuments of the perineum, as in Mr. Earle's introduced method of removing a gap in the urethra; or lastly, of the prepuce, reflected inwards, and kept thus in contact with the glans penis, as in another operation of Dieffenbach, sooner or later degenerates into a perfect mucous membrane; it is not calculated, I conceive, to excite surprise, or more than we may reasonably attribute to the very different circumstances in which the respective tissues are now placed, and the very different stimuli to which their capillary vessels are now exposed. In proportion as the particles of the original tissue are absorbed, particles of a tissue somewhat different will be deposited; and what was originally a thin, semi-transparent, spongy membrane, with mucous follicles on one surface, and a viscid fluid on the other, will gradually pass into a thick, opaque, dense substance, with sebaceous follicles below and cuticle above, or *vice versâ.* It is by this admirable provision that nature has enabled us to meet so many emergencies, against which the art of man would otherwise have contended in vain; by placing within each organ a power, not only of repairing itself *en masse*, when divided or otherwise injured, but of adapting itself, particle by particle, to the innumerable varieties and circumstances to which it is liable to be exposed, and under which, if destitute of this power, it must necessarily have been speedily destroyed." (P. 44.)

The difference between the Indian operation (for so we shall continue to speak of it,) and that of Tagliacozzi, principally consists in the *source* from whence the exotic organ is derived; the superior advantage of inosculating from a neighbouring region rather than a remote one, is so obvious, that the marvel is that the Italian process should have been thought of without immediate rejection. Compare the con-

venience of transplanting the portion of structure required to supply the deficiency from the immediate vicinity of the ruin, with the painful and irksome discipline of securing for many days the arm to the head, while the alien integument was becoming a denizen of the face. However, after conceding the palm to the Oriental practice in this particular, Dr. Dieffenbach takes some grave, and not unfounded exceptions: he contends, that one result is, often, unenviable deformity in the part of the face or forehead furnishing the graft; another, the inferior beauty of the new edifice to the one which can be raised by the modification of the Brahminical operation recommended by himself. He describes his method of restoring "depressed noses, as the simplest, most natural, and the easiest of accomplishment, of any yet proposed." These are his words:

"*Operation.* The method I follow in operating for restoring depressed noses, is unquestionably the simplest, the most natural, and the easiest of accomplishment of any yet proposed. It simply consists in dividing into portions the remains of the old and now sunken organ, raising them from the cavity in which they lie, securing them by appropriate fastenings, and maintaining them during the process of healing, by proper means of support, in the position they formerly occupied. To explain this more fully, I shall enter into a detailed description of the operation. The patient being seated on a chair, behind which an assistant holds the head firmly against his breast, the operator thrusts a small-pointed scalpel into the left side of the cavity before the sunken point of the nose, and, by an incision proceeding obliquely upwards, cuts through the soft parts as far as the nasal process of the frontal bone. A similar incision is then made on the right side. The strip of integuments between these incisions, which consists of the point and dorsum of the old nose, is twice as broad below as above, where it is attached to the skin of the forehead. At the lower end it is connected with the upper lip only by the shrunken cutaneous portion of the septum. If this be destroyed, and in order to gain room, the flap may at once be raised and reflected. The inverted tip of the nose, which forms the extreme point of the flap, is next to be pressed outwards, and the shortened septum is to be elongated by an incision made on each side of it in the upper lip.

"The next step is the formation of the sides of the nose. The first incision is most conveniently made on the right side of the face: the knife is inserted down to the bone, a few lines below the termination of the incision by which the dorsum of the nose was raised; it is then to be carried slowly through the soft parts, obliquely downwards on a line where the base of the nose passes into the integuments of the cheek; a small addition from the latter being advantageous. A similar incision is then to be made on the left side.

"Lastly, two semicircular incisions are to be made through the soft parts, along the natural (though in the present instance entirely obliterated) place of insertion of the alæ nasi. Both the left and right of these incisions pass round the lower part of the sunken alæ, outwards and upwards, meeting the incisions at the sides of the nose. The lower edges of these flaps are now partially free; they are to be laid hold of with the forceps, and cautiously separated from the bones, and then with their alæ, situated at their lower part, are to be drawn out of the cavity, and reflected upwards. The flaps extend to the skin of the forehead, as they approach which they become narrower.

"The subsequent step of the operation, and a very necessary one, is the separation of the margins of the incisions in the integuments of the cheeks, bordering on the large cavities in the face, to the distance of a fourth or a third of an inch. It is by means of this separation that a firm attachment is procured for the skin forming the sides of the new nose, with the facial bones at its base, and consequently the nose is prevented from again sinking down by a sort of slipping outwards of its sides, especially at the upper portion. This mutual approximation of the sides, which will be again spoken of, is principally accomplished by means of two long needles, which are passed through the edges of the integuments of the face, under the base of the nose, and fixed, in a way to be afterwards described, to a long splint of stiff leather placed on each side of the nose, so as to squeeze it outwards by pressing on its base, and thus to push it prominently forward.

"Now begins the re-construction of the nose. If the surgeon were to bring the flaps in contact with the surface of the incised wounds, the nose certainly would not again sink, but it would be very flat. Their edges must therefore be cut in such a manner as to promote the upright position of the nose. For this purpose the inner part of the two edges of the dorsal flap is to be removed with a pair of sharp scissors, without comprehending in the incision any of the cuticle of its outer surface; so that the long thin strip thus cut away is of a triangular form. The reason for this is obvious. The dorsum of the nose acquires, in consequence, the properties of the key-stone of an arch, that is, it is between, and rests on, the edges of the external flaps. In order to prevent the strong inclination of the lateral flaps and alæ nasi inwards, and to raise them up like walls, their external edges too must be cut, not, however, on the inner angle of the edge, as in the instance of the dorsal flap, but on the outer or epidermal angle, from which about a straw's breadth is to be removed. On the straight lateral edges this is done with a pair of straight scissors, on the edges of the alæ with a pair of scissors curved on their surface.

"We now proceed to the most agreeable part of the operation, the union of the flaps with one another, and with the skin of the cheeks. In the first place, the edges of the dorsal flap, after the careful removal of the blood, are united with the upper or inner

edges of the lateral flaps. The best mode of accomplishing this is by the twisted suture. Three needles are sufficient for each of the upper seams, and they must be placed at proper distances from each other; the two lowest should be at the sides of the tip of the nose. The union is more complete when another needle is introduced into the outermost edge of each ala. Finally, a ligature is to be passed through the edges of that part of the upper lip from which the septum was taken. This ligature therefore lies behind the septum; and, while it brings the edges of the breach in the lip closely together, it contributes to push the strip of integuments forward, and to prevent it from sinking back into its former cavity. All the needles, after being properly furnished with ligatures, should be cut off close to the thread. If the columna is altogether wanting, it is to be formed at a later period, after the parts are fully healed, by cutting a small strip of skin out of the upper lip, and bringing it in contact with the tip of the nose, where a raw surface is previously to be made for its reception.*

"One can scarcely imagine what firmness the nose has now acquired, although it still remains unattached at its lower part. The union of the nose with each of the basement edges of the cheek is effected by four simple knotted sutures, which are introduced by fine semicircular sharp needles. The two uppermost serve to fasten the lateral surfaces; the two lower to fix the alæ to the upper lip. The last and only remaining painful part of the operation which the patient has to undergo, is the insertion of two long needles under the nose, and through the detached edges of the integuments of the cheek, as has already been alluded to. The best method of effecting this, and the most convenient to the operator, is to thrust them from the left towards the right side; the distance from the point at which the pin enters to that at which it comes out, is upon an average about one inch. Before they are introduced a strip of stiff leather, from a third to half an inch in breadth, and from one and a half to two inches long, is laid on each side of the nose, forming two splints, which press the two sides of the nose together, keeping them in their proper situation. Each of these compressing pieces of leather has two small holes through which the needles are to be passed, on the left side before, but on the right side after, they have transfixed the nose. The heads of the needles on the left side

* "This method of renewing the columna nasi, when it alone is deficient, giving rise to a sinking of the tip and alæ of the nostrils, and not unfrequently to an exposure of the cavity, almost as hideous as that which results from the loss of the whole nose, was had recourse to for the first time in Britain in 1830, by Mr. Liston. It is remarkable, in such cases, that the mucous surface of the reflected portion of the lip very soon acquires all the properties of the dermoid tissue; while the dermoid surface degenerates into a kind of mucous membrane; the hairs even, previously constituting, if the subject be an adult male, a part of the beard, acquiring the character of those natural to the interior of the nostrils. Similar attempts to form a new columna had previously been made by Dupuytren of Paris, and Gersoul of Lyons; but both failed, probably from their having employed only the integuments of the lip, and not the whole substance of that organ." See *Introduction*, p. 44.—TRANSLATOR.

prevent them from slipping through the leather; which is also prevented on the right side and at the base of the nose, which at the same time is squeezed inwards to the requisite degree, by twisting the projecting points of the needles spirally with a pair of pliers.

"In conclusion, the nose, especially its cavities, must be carefully cleaned by injections of tepid water; and quills wrapped round with oiled charpie, are to be introduced into the nostrils.

"It is surely unnecessary to enter more fully into the details of this operation. Should the surgeon find my description not sufficiently circumstantial, and be unable to supply any thing from his own knowledge of general principles, that he may find wanting, he had better altogether abstain from operating." (P. 55.)

In the after-treatment, cold should never be employed as a means of reducing inordinate inflammation. Warm fomentations are to be employed soon after the operation, and continued until the inflammatory process be set up: when this process is established, a weak solution of the acetate of lead may be substituted. On the third day some of the needles may be removed, and a cautious attempt be made to withdraw the quills from the nostrils, which are to be gently cleansed by injections, and other quills substituted for those removed; these being wrapped in oiled lint previous to insertion, and changed daily. When the *septum* is destroyed, one large quill is to be used. The two long needles thrust through the base of the nose are to be removed on the eighth day, and two others introduced in different places, and left for eight days more. This may be again repeated. The splints are to be reapplied each time. The restoration being complete, the protection of the stranger is still a matter of interest and difficulty; for the adopted is in great peril of perishing from sheer kindness; and the warmth essential to the induction of the nose may after a time lead to its dispersion; just as Captain Ross was driven from his lodgings by the excess of temperature of this present November.

"In the after-treatment of the newly-formed nose, cold, in a greater or less degree, is preferable to all other applications. Observation has convinced me that the decay and death of the flap generally proceed from its being gorged with blood, which flowing in copiously, and unable to find egress, or to be returned by the veins, causes great distension, and subsequent mortification. In forming the bridge, care must be taken to destroy any artery that may present itself, and thus, as much as possible, to prevent any considerable quantity of blood being thrown into the flap. When this is done, for some time after the operation the new nose appears pale and withered; whereas, when it is omitted, it almost invariably becomes highly coloured, swells violently, and generally perishes from repletion. When such an accumulation of blood takes place,

we must encourage a gentle flow from the lower edges of the flap. In no case should we tie a bleeding artery: if too much blood be lost, pressure must be employed, as then we are able to renew the bleeding as circumstances may require." (P. 151.)

The reader is referred to Gräfe's work on Rhinoplastics, for a more detailed account of the after-treatment.

To facilitate the removal of tumours from the nose, Dr. Dieffenbach directs to be done what is not less useful that it is rather oddly expressed: "I split up the alæ, and am thus easily enabled to get at the tumour." The doctor is not aware that this practice has been adopted by any one but himself in modern times; but he admits that it is spoken of by Hippocrates. "Should both nostrils be affected, I not only divide the alæ, but also the columna and septum, and turn back the nose during the operation. The wounds are readily united by the twisted suture, and generally heal in a few days."

The profession is greatly indebted to the author and translator: the book will be interesting to all, and useful to many; and the aforesaid obligation would be increased if the price of the volume were less. Of the plates we may truly say, with Goldsmith, that the picture would have been better if the painter had taken more pains.

Observations on Obstetric Auscultation, with an Analysis of the Evidences of Pregnancy, and an Inquiry into the Proofs of the Life and Death of the Fœtus in Utero. By EVORY KENNEDY, M.D., Licentiate of the King and Queen's College of Physicians in Ireland, Lecturer on Midwifery, &c. *With an Appendix, containing Legal Notes,* by JOHN SMITH, Esq., Barrister at Law.—Dublin, 1833. 12mo. pp. 288.

WE have perused this very interesting volume with great satisfaction, and shall introduce it to the notice of our readers in the author's own language.

"If we for a moment consider the responsible task the medical adviser is occasionally called upon to perform, when desired to pronounce on the existence or absence of pregnancy; that peace of mind, domestic happiness, character, property, nay even life itself, may be sacrificed by inaccuracy in his diagnosis; we shall find ample reason to question, whether there be, in the broad field of medical science, any subject which more calls for the attention of the practitioner, as well from its importance as from the difficulty so frequently attending its investigation.

"Every medical man, at all conversant with midwifery practice, knows how often he is required to give an opinion in cases of doubtful pregnancy, by his ordinary patients, who are naturally

anxious to be acquainted with their real situation; and he also well knows what dissatisfaction and want of confidence his refusal to give a decided answer on this subject frequently engenders. How much is his embarrassment increased, when he is called on to decide in those cases where private character or public justice is at stake, and in which, from their very nature, must be expected nought but concealment and misrepresentation!

"It is a matter very easily proved, that difficulties in this respect do, and by no means very unfrequently, meet us in our practice. It shall be our endeavour to explain upon what these depend, to canvass the means at present relied upon for meeting them, and to offer some in addition, which may guide and assist us in overcoming them." (P. 1.)

The truth of the above must be known to all who practise midwifery; and any effort to clear away those difficulties should be regarded with attention, and, if successful, acknowledged with gratitude. Dr. Kennedy's work is replete with valuable information, and its value is greatly enhanced by the plain and unassuming, yet forcible language, in which it is conveyed. It is impossible to read any portion of the book without feeling convinced that the doctor is describing what he has himself seen and *heard;* that he has, in fact, written from his own experience, and not from that of others.

Our author prefers dividing his subject after the French plan, and considers pregnancy under the three following heads: Simple, Compound, and Complicated. It is termed Simple Pregnancy when there exists but one fœtus; Compound, when there is more than one; and Complicated, when disease is complicated with the pregnant condition. The evidences of pregnancy are divided into two classes: first, into those ascertained through the representation of the female supposed pregnant; and, secondly, into those sensible to the medical attendant.

"Our second division will embrace a class of signs, which, from their being cognizable to the scrutiny of the examiner, and not depending upon hearsay testimony, must approach nearer to what we may term demonstrative proofs. This we shall see more distinctly when we come to examine them in detail, when we shall find them not depending, as was generally observed in the former case, upon sympathies more or less remote, but most frequently being essentially and physically caused or produced by that which we wish to detect, namely, the fœtus itself.

"To facilitate as much as possible the investigation of these symptoms, which are actually cognizable by the medical attendant, they may be divided into three classes; the tangible, or those which come within the range of a manual examination; the visible, or those which are exposed immediately to our view; and the audible,

or those more recently discovered, and to detect which we are obliged to have recourse to auscultation." (P. 28.)

Passing over the common diagnostic marks of pregnancy, we shall consider those only which are derived from auscultation, begging our readers' attentive consideration of the facts related by Dr. K.

Before a stethoscopic examination be had recourse to, the female should be placed in bed, and the abdomen covered with a sheet only, as we have been frequently baffled in our attempts to discover the motion of the fœtal heart whilst the patient has been dressed, and in the erect position. Dr. K. prefers mediate to immediate auscultation, and states that,

"As the first indication of pregnancy afforded by auscultation is the *souffle*, we shall commence with the consideration of that phenomenon.

"If we examine, either with the naked ear or the stethoscope, the abdomen of the pregnant woman, we shall (provided the pregnancy be sufficiently advanced) observe a peculiar blowing or hissing sound. This sound is to be met with in almost every case, and is observed at different parts of the uterine tumour. It does not always exhibit exactly the same characters; yet these are sufficiently striking to render it cognizable in almost every case. It assumes the different varieties which Laennec describes under the term *bellows' sound*, namely, the bellows' sound, properly so called, likened by that author to the continuous murmur, similar to that of the sea, familiarly exemplified by the application of a large shell to the ear; the rasping or sawing sound, which is occasionally found so exactly imitated as to lead the listener to imagine an artisan at work quite close to him; and the musical or hissing sound, so well described by the same author. A sound, resembling the cooing of a dove, is sometimes observable, but this is comparatively rare. A more frequent peculiarity to be noticed, is, a strange drone resembling that of a bagpipe accompanying the sound, but yet without interfering with it. The most constant form we meet with, however, is a combination of the bellows or sawing with the hissing sound, commencing with one of the former, and terminating with the latter; and this is in general so protracted, that the last souffle is audible when the subsequent one commences." (P. 64.)

There are two sounds to be distinguished in examining the abdomen of pregnant women: one is termed the *souffle*, which is produced by the rush of the maternal blood into the uterus; and, as there is a greater determination to the part at which the placenta is attached, it will generally be heard in that situation, although it may sometimes be at the lateral part of the womb, "where the distribution of vessels so resembles that in the placental part of this organ."

"It is always heard either in that part of the uterus to which the placenta is or has been attached, or, as already mentioned, in the lateral parts of the uterus, where the distribution of vessels so resembles that in the placental part of this organ. These facts we have repeatedly proved by manual examination, when it has become necessary to introduce the hand into the uterus to remove the placenta, as well as by ocular demonstration after death.

"The resemblance which exists between the vascular structure in the uterus, above described, and that observed in aneurism by anastomosis, where a similar phenomenon occurs, as well as the circumstance of this sound's existing in the cow, an animal whose utero-placental structure, as we have already seen, approaches near to that of man, go a considerable length in proof of its dependence on the above cause." (P. 70.)

It is easily distinguished from the beating of the fœtal heart, by its peculiar *bellows' sound*, and by its being synchronous with the pulsation of the arterial system of the mother.

"It is necessary to mention to those unacquainted with stethoscopic phenomena, that, in their examination for the souffle, they might, without sufficient attention, be led astray by other sounds, either from the resemblance they bear to this, or the effect they have in concealing it. The respiratory murmur is sometimes conducted from the lungs across the thoracic to the abdominal parietes, and may embarrass, but can scarcely deceive us, if we be acquainted with, or prepared to expect it. The sonorous rale resembles somewhat the placental sound, and is occasionally conducted over the abdomen in the same way as the respiratory murmur. We can invariably distinguish this by its corresponding in frequency with the respiration as calculated by the heaving of the chest, whilst the souffle is synchronous with the pulse at the wrist, or, in other words, we ought, generally speaking, to count three placental sounds for one respiratory or sonorous rale. By attending to this rule, unless the respiration be very rapid indeed, it can scarcely lead us astray: but, independent of the difference of the sound which those conversant with it can at once detect, if any doubt exist, tracing it along the abdomen will in these cases set the point at rest, as, when it depends upon respiration, it becomes more and more distinct as we approach the chest, and on arriving there, its respiratory character is quite apparent." (P. 76.)

The placental *souffle* cannot be detected until after the second month, but is easily recognised at the tenth, eleventh, or twelfth week. Dr. K. relates several cases in which, although great difficulty existed in forming a diagnosis by the ordinary means, the existence of pregnancy was clearly ascertained by the stethoscope. His remarks on this branch

of the subject are followed by the following very judicious advice.

"Having so far dwelt upon the placental souffle as a test of pregnancy, it must be evident that it is not intended to attach more weight to it, as such, than experience should warrant; as, although fully convinced of the benefits to be derived from it, in a diagnostic point of view, yet we are well aware, that, like all other diagnostic means, even those most relied upon, there are some difficulties to be encountered in its universal application. We find by every day's experience, that reputed discoveries demanding the attention of the public carry conviction with them, and gain permanent character, exactly in an inverse ratio to the degree of confidence and unqualified terms of recommendation, whether mistaken or exaggerated, with which they have been set forth. The object, therefore, of every man who wishes not only the advancement of science generally, but also the adoption of the views or improvements (if they really be such) which he more particularly recommends, should be to keep strictly within the bounds of moderation, stating nothing he does not know on the subject, and everything he does; and, while he clearly distinguishes in his statements between facts and opinions, to abstain from obtruding on the public views insufficiently matured, and unsupported by proof and experience." (P. 86.)

The pulsations of the fœtus can usually be distinguished at the lower part of the mother's abdomen, by applying the stethoscope midway between the anterior superior spinous process of the ilium and the umbilicus; and, as the beats are frequently more than double in number, when compared with those at the wrist of the mother, no difficulty can possibly be felt in discriminating between the two. Where these distinct evidences of fœtal circulation are to be heard, then of course all doubts regarding the existence of pregnancy are at an end; but, as there are occasional difficulties in the way, we would strongly recommend our readers carefully to peruse the whole work for a satisfactory method of overcoming them; and we would also advise those especially who are commencing the study of auscultation, and whose ears are on that account not so capable of discriminating the different sounds, to be careful that their patients are not encumbered with too much clothing; we ourselves having been repeatedly foiled when the female has had her usual dress about her.

The sound of the fœtal heart cannot, in general, be detected before the expiration of the fourth month; and even then "it is sometimes so delicate and feeble, as to render it necessary for the individual exploring to have an ear well trained to stethoscopic sounds."

The reader will find some excellent remarks on certain disordered conditions liable to be mistaken for pregnancy, where auscultation has been satisfactorily employed for the solution of the difficulty.

Dr. Kennedy, with great justice, censures the absurdity of attempting to settle questions of doubtful pregnancy by the verdict of a jury of matrons; and he gives the following remarkable instance, in which a female, convicted of a capital offence, was declared by a dozen foolish women not to be quick with child, while the contrary opinion, maintained by three surgeons, saved the child, gave the prisoner a temporary respite, and was verified by the event.

"The case was one in which a woman, named Mary Wright, was indicted before Baron Bolland, at the Norwich Assizes, March 3d, 1833, for poisoning her husband. She was clearly found guilty of the crime, although an unavailing effort to prove her insane at the time of committing it, was attempted. The prisoner's counsel put in a plea of pregnancy in bar of execution, which the judge directed the sheriff to summon a jury of matrons to investigate. Twelve married women were found; and, after being sworn, were directed to try whether the prisoner was pregnant with a quick child. After an hour's investigation, they returned a verdict that she was not quick with child. The woman was, of course, ordered for execution on the Monday following. Under these circumstances, Surgeons Scott, Crosse, and Johnson, fully alive to the absurd, although legal method, adopted to ascertain an extremely difficult point of diagnosis, and one involving the life of an individual in its accuracy, voluntarily waited upon the convict in the jail on the morning following, and having, to use the words of my friend Mr. Scott, the eminent partner of the late celebrated Dr. Rigby, 'completely stultified the verdict of the twelve discreet matrons,' and satisfied themselves that she was not only pregnant, but quick with child, they forwarded immediately to the judge of assize the following document, duly attested, and with their respective signatures appended.

"*Norwich County Jail;*
Saturday, quarter before nine, A.M., *March* 23, 1833.

"To the Hon. Sir William Bolland, Knt., Baron of the Exchequer, the following representation respectfully sheweth:

"'That we, the undersigned, are surgeons and accoucheurs of considerable experience in the practice of midwifery, and have repeatedly examined females in different stages of pregnancy.

"'That we have this morning strictly examined Mary Wright, a prisoner, sentenced to be executed on Monday next, for the murder of her husband; and found her between five and six months gone in pregnancy.

"'That in an apparently vigorous and healthy woman like the

prisoner, and where the size of the body has regularly increased during pregnancy, we should feel ourselves bound to believe the fœtus living, unless we found some signs of its being dead.

"'That in the prisoner, Mary Wright, we find no signs of a dead fœtus; but, on the contrary, have positive evidence of its being at this time living.

"'That we do verily believe the said prisoner is above five months advanced in pregnancy, and carries in utero a living fœtus.

"'That in a case of such a nature, we desire, without delay, to submit our statement to your lordship; and if the verdict of the jury of matrons, yesterday given, that the prisoner, Mary Wright, was not quick with child, deprive the said prisoner of a reprieve until delivery *ex necessitate legis*, we humbly entreat your lordship to respite the execution of the said Mary Wright until she be delivered.'

"Of course Baron Bolland paid the attention to this document it merited, and the woman was reprieved until after her delivery." (P. 298.)

Medico-Chirurgical Transactions, published by the Medical and Chirurgical Society of London. Vol. XVIII. Part I.—London, 1833. 8vo. pp. 300.

It has always been a subject of regret with the philosophic physician, that, from the smallness of the sphere of observation allotted to each individual practitioner, many interesting objects of inquiry can hardly be investigated with advantage by any single observer; and we are compelled, therefore, to collect into one focus the scattered rays of light transmitted from various places, and through a long series of years. Yet this method of instruction has its obvious disadvantages: these foreign theories and antique cases seldom strike the mind with the same force as the registered observations of our contemporaries and countrymen: indeed, the unreasonable scepticism of many has risen to so high a pitch, that to them it is as if the hard-working physicians of the sixteenth and seventeenth centuries had never existed; and the remarkable cases recorded by the doctors of the olden time are mentioned only to be doubted. Nothing can be more unphilosophic than this exaggerated scepticism; the honesty of those venerable teachers of physic is sufficiently shown by many similar cases which have occurred in our own days; and, to expect Nature to renew *all* her pathological prodigies for our instruction, is to imitate the absurdity of the French *Marquise*, who, having arrived too late at the observatory, hoped that the astronomer would have sufficient politeness to repeat the eclipse for her entertainment.

It is to palliate these incurable evils, and concentrate as it were in one moment the experience of an age, that medical societies have been formed; but it is to be lamented that their researches have rarely been directed to elucidate any *single* point, so that the advantage derived from these combinations of talent and learning has been that of discussing a subject rather than simultaneously investigating it. In the volume, however, which is at present before us, it happens, rather, we should think, by accident than design, that there are three papers on the same subject, namely, on fatty discharges from the bowels. The first, which is by Dr. BRIGHT, is entitled "*Cases and Observations connected with Disease of the Pancreas and Duodenum.*" We will give the commencement of the first case in the words of Dr. Benjamin Babington, who tells it exceedingly well.

"James Barnes, aged forty-nine, clerk in a waggon office, a man of sober and regular habits, began to complain, in March 1827, of immoderate thirst and appetite, with a constant pain in his loins. He made water very frequently, and his urine was of a pale colour. These symptoms, accompanied by emaciation, increasing upon him, he applied for advice successively to several medical men. It was not, however, until the middle of August following that his disorder was pronounced to be diabetes mellitus. In the beginning of September he first became affected with jaundice, but his change of colour was not preceded by any painful sensations. Under different dispensaries and practitioners he was subjected to various medical treatment, until the 4th of December, the period at which I first saw him. He was then reduced to a state of great debility, although still by no means a thin man. His thirst and appetite were constant, his pulse was eighty and soft, his skin deeply tinged with bile. His urine, of which he made about nine pints in twenty-four hours, was deep coloured, and left a yellow stain on linen; it was very sweet, and had a specific gravity of 1039. His evacuations by the bowels were copious and light coloured. The liver was at this time but obscurely felt through the integuments, as these were still filled out with adipose matter. My directions were, that the patient should live upon animal food, with a moderate portion of greens or lettuces, and that he should eat as little bread as possible, and avoid all kinds of roots, fruits, and such articles of diet as contain sugar or meal; that he should drink tea without sugar, and at his dinner stale porter, or port-wine and water. With his diet thus regulated, a bitter aromatic mixture, with subcarbonate of soda, was prescribed." (P. 3.)

The diabetes now gradually disappeared, and, with a view of removing the bilious obstruction, the extract of taraxacum was prescribed, first with, and afterwards without, blue pill.

The diabetes indeed was now cured, but a new, and perhaps even more alarming, disease took its place.

"On Friday the 28th, without any notable change of symptoms, the patient began to pass a quantity of yellowish fatty matter, much resembling butter that had been melted and had become again solid. This matter followed the fæces, and, as it was evacuated in a melting state, it was perceived on the surface of the dejection. We could not trace the origin of this change to any thing that had been eaten; for he had been upon a rigid system of diet from the time that he had been under my care, and had taken nothing of a fatty nature since that period. Meat, indeed, he had used in abundance, but his wife had constantly and carefully removed the fatty parts. For the subcarbonate of soda in the tonic mixture, liquor potassæ, in the proportion of fifteen minims to the dose, was substituted to meet more effectually this symptom." (P. 6.)

The liquor potassa did away the oiliness of the motions for a few days; but the patient continued to sink, and in another week the stools again contained fatty matter. As slight diarrhœa existed, a chalk mixture was ordered, with aromatic confection and tincture of opium. The diarrhœa was checked, but the patient became progressively worse, and died on the 1st of March. The following were the post-mortem appearances:

"*Sectio Cadaveris.* The limbs were remarkably flaccid; the whole skin was of a dark yellow colour; there was great general emaciation, and the legs were slightly œdematous.

"Both the pleura costalis and pulmonalis were tinged with bile. The lungs were healthy in structure throughout, except the lower lobe on the left side, where very acute pleuritis had recently occurred, throwing out a thick coating of gelatinous fibrin, which broke down readily when the lungs were drawn forwards. This was partly deposited on the lower surface against the diaphragm, and partly on the posterior part of the ribs near their angle, and it was highly tinged with bile. The lung itself was implicated, and a small abscess, of the size of an olive, was formed near the edge, where it rests upon the diaphragm. The pericardium was deeply stained with bile, and the large vessels near the heart were quite yellow, this colour pervading their whole thickness. The heart was rather small and contracted, but retained its natural proportions, and the valves were healthy. The abdomen contained rather more than a gallon of dark olive-coloured fluid. The gall-bladder, distended with very dark bile, was seen with its fundus projecting when the parietes were first removed. The liver was of a dark olive colour, from the bile with which it was pervaded. The ducts were greatly enlarged. The common duct was large enough to admit the little finger freely when passed from above

downwards, and its internal surface presented a honeycomb or reticulated appearance, and terminated by a cul de sac in the diseased substance of the pancreas, and at its shut end a rough white deposit had taken place, probably either of fibrin or cholesterine.

"The *head of the pancreas* formed, with some of the surrounding glands, a hard globular mass, round which the duodenum turned, and to which both it and the pylorus were firmly joined; and in two parts, where the pancreas and duodenum were welded together by the disease, ulcers of a hard and schirrous character had taken place, penetrating the whole thickness of the intestine; one of them of the size of a shilling, and the other not larger than a silver penny-piece. The pancreas was hard and cartilaginous to the touch, and of a bright yellow colour.

"A section of the liver looked like a fine-grained dark greenstone porphyry, or very dark Aberdeen granite; the ducts, which were throughout enlarged, being completely filled with bile which flowed from the incision. In different parts of the liver a few irregular masses occurred, of a firm hard consistence, but shaded off into the substance of the liver, and not bearing the appearance of circumscribed tubera. The stomach was slightly vascular. The spleen natural in structure, but its external surface mottled with cartilaginous deposit. The intestines were tolerably natural, but somewhat opake, and the internal lining rather pale. The kidneys were to external appearance perfectly healthy; but the tubular parts shewed themselves more plainly than usual, when the kidney was torn open, and in some of the tubes were white specks from a deposit either of fibrin or of calculous matter. The pelvis of the kidney was not vascular, but was tinged with bile. The lining membrane of the bladder was remarkably healthy, and free from all vascularity; but its netlike appearance bespoke more than usual action in the muscular coat. The aorta and common iliacs were in many patches diseased with bony deposits surrounded by dark spots, where the internal surface had been destroyed by ulceration or absorption." (P. 10.)

The subject of the second case, a woman aged fifty, was admitted into Guy's Hospital, under Dr. Bright's care, November 19th, 1828. She was then suffering from jaundice and occasionally violent pain in the lower part of the abdomen; a few days afterwards greasy matter was observed in her alvine evacuations: it was at first taken to be undigested castor oil, but was found to remain when the supposed cause was discontinued. This patient soon quitted the hospital, and returned to Gravesend, her usual place of residence, where she died on the 16th of February. Dr. Bright predicted that the post-mortem appearances would be similar to those observed in the case of Barnes, and the following extract will show that he was not mistaken:

"*Sectio Cadaveris, Feb.* 18, 1829. Skin generally of a deep yellow colour, varying in parts to greenish brown, not very unlike the dark colour of the Creole. General emaciation, but by no means to the extent sometimes seen: indeed, on the abdomen there was a considerable portion of fat of a deep yellow colour.

"The lungs were in a very healthy state, except that they were both bound firmly at the posterior part by very strong adhesive bands, and the whole surface was tinged moderately with bile. Heart healthy, but small, and not firm.

"On opening the abdomen, the omentum rather loaded with fat. No peritoneal disease or adhesion, except on the superior surface of the liver, which was attached in several parts by long adhesions to the diaphragm.

"The cause of pressure on the bile-ducts was immediately obvious; for, on placing the hand near the pylorus, a hard lump, of the size of a common egg, was easily felt, and was soon discovered to be the head of the pancreas itself, and not the glands surrounding that part, forming a yellow mass like the boiled udder of a cow, almost cartilaginous. Its texture was uniformly hard and unyielding, and the whole pancreas partook of the same, but in a less degree. The head of the pancreas was firmly and inseparably glued to the duodenum, and the hardness very nearly surrounded that viscus. Laying open the duodenum, its internal surface was uneven and ulcerated, the ulcer having eroded the whole of the coats; and in the portion lying on the head of the pancreas it was of a soft consistence and light yellow colour, communicating with the substance of the tumour, here irregularly softened or suppurating to the extent of a small chesnut. In the midst of the ulcer a little nipple-like body was seen projecting on its surface, which proved to be the orifice of the common duct of the gall bladder. This was still pervious, as the thick bile could be squeezed out of the gall bladder through it. But it was obvious that this had either lately become pervious by the ulceration of its orifice, or the ulceration of the hard mass in which it was imbedded, or that its situation in the contracted duodenum had acted as a compressing cause; for the gall bladder was distended, containing at least four ounces of thick dark green bile, which stained the lining membrane of the deepest colour. The gall bladder, though thus loaded, was not tense, and conveyed the idea of a somewhat flaccid bag, so that I should have pronounced it to have been more distended lately than at the present moment. The disease of the mucous coat of the intestines occupied the outside of the ridge forming the pylorus, which was strongly marked, but was not schirrous; yet, on passing the finger before the pylorus was cut open, the hardened neighbouring structure produced all the effect of a stricture.

"The liver was of its natural size, containing several round tubera sprinkled through various parts, from the size of a grain of rice to that of a nutmeg. These were not very numerous, but

five or six were seen on the superior surface, where they were perfectly circular, and a little depressed in the centre. They were decidedly harder than the surrounding liver, but did not separate freely from it; on the contrary, generally seemed to be shaded off into the surrounding parts, and the texture of the liver was discernible in them. The larger tubera were soft and yellow in the centre. The general structure of the liver was healthy, rather soft, and of a dark olive-green colour. The biliary ducts were enormously distended; their branches near the margins of the liver were visible on the surface, and they were filled with a fluid watery bile.

"The mucous membrane of the stomach was rather spongy, of a reddish tint, and it contained half a pint of brown grumous matter, apparently secreted from its surface. We examined several portions of the mucous membrane, both of the small and large intestines, but they presented nothing peculiar except a rather spongy texture, and on some parts a grey colour. The spleen was healthy, but soft. The kidneys large and flaccid, tinged with bile throughout, particularly their lining membrane. The large vessels appeared healthy, and the lumbar and other glands were not diseased. The bladder contained some yellow urine. The uterus was rather thick and round in its form, the cavity large, and the glands at the mouth of that organ put on the appearance of vesicles at first sight. They were distended with glairy, almost gelatinous mucus, of a yellow colour, which could with some force be squeezed from their orifices." (P. 17.)

In the third case, the patient, a young woman of twenty-one, entered Guy's Hospital, labouring under jaundice and anasarca. The fatty excretion, though well marked, was far less abundant than in the previous cases, as it amounted only to a pellicle on the surface of the evacuations. The patient died in six days; and the following was the result of the anatomical examination.

"*Sectio Cadaveris.* The whole body was decidedly tinged with bile; some yellow serum escaped from the abdomen when it was opened. The liver was immediately seen considerably enlarged from distension, and of a dark olive-green colour. The fundus of the gall bladder projected; it was distended with bile of a dark-green colour. The quantity which it contained could not have been less than four ounces, and the ducts were as large as the little finger till they entered the duodenum, where the orifice was very small, and it required considerable force to make the bile pass into the intestines. The whole of the intestines were somewhat distended, and in several places, when viewed externally, their puckered and discoloured appearance plainly indicated that mischief had been going on within; and, at one part of the small intestines, an actual perforation, large enough to admit the point of the little finger, had taken place, but a slight adhesion, which

gave way in the examination, prevented the feculent matter from being effused.

"The whole course of the intestines was now laid open, and fungoid excrescences and ulcerations were found distributed at irregular intervals, from their commencement at the pylorus to the termination at the colon. Whether any existed in the rectum, I am not quite certain. These ulcers might be traced throughout their whole progress. They began by small elevations, generally upon the edges of the convolutions, of a light yellow or white substance; and those which had arrived at the size of a pea generally had a depression in the centre, as if from partial ulceration. The depressed part was softer than the surrounding edge, and, if the tumour was squeezed, a whitish puriform or cerebriform matter issued from pores upon its surface. This, however, was better seen when the whole disc had increased to the size of a sixpence. About this time, or sometimes sooner, the surface lost its light and clean appearance, and became covered, sometimes with a sloughy mass, but more frequently with a dark grumous coat, apparently from blood which had exuded, and become changed on its surface. The mass was now elevated nearly half an inch, the edges inverted or cup-shaped, and the centre either raised with the loose fungoid slough and blood, or, if this had come away, was deeply excavated, going on in its progress to perforate the substance. In two instances these fungoid ulcerations communicated immediately with large fungoid excrescences, probably glands situate externally to the intestine. One of these was close to the ileo-colic valve, where the external ulcer was black with grumous exudation, and formed the mouth of a cavity which would admit the finger into a mass involving the glands of the mesocolon. Another of the same kind, but less completely opening into the external diseased mass, occurred in a portion of the duodenum.

"The mesenteric glands were involved in this disease; and the renal capsules, but more particularly the left, had suffered from the same affection.

"The kidneys were healthy. The uterus was also healthy, but its appendages had suffered great irritation. One of the fimbriated extremities was completely bound down, and the orifice obliterated; and the ovaries were corrugated, and contained vesicles in different states of disease.

"In the liver no fungoid disease shewed itself, but its texture was natural, though gorged with bile.

"The pancreas was most deeply involved in the disease. It formed a hard mass near its head, and then, a more healthy portion intervening, another hardened mass was seen near to the spleen, when another small portion remained healthy at its termination; so that it might be said to be occupied by two fungoid tubercles, which involved two thirds of its whole structure. The limits of these diseased masses were not distinctly defined, but they

were of a more yellow colour than the rest of the organ, and destroyed the lobular structure of the gland.

"The spleen was unusually small.

"In the chest, the same disease was found affecting the bronchial glands, and, in the form of one round fungoid tubercle of the size of a moderate plum, in the apex of one of the lungs: this was imbedded completely in the substance, and was of a yellow white colour." (P. 22.)

In all these cases, as Dr. Bright observes, there was chronic disease terminating in jaundice, which again was followed by fatty dejections. "In the result of examination after death, we have likewise some circumstances which exactly coincide in all: *obstructed biliary ducts; the liver gorged with bile; fungoid disease attacking the head of the pancreas; and malignant ulceration on the surface of the duodenum.*" (P. 26.) Our author was inclined to attribute these singular evacuations to the disease of the pancreas; and accordingly, when consulted in two cases in which pancreatic disease was suspected, but in which the stools were not fatty, he withheld his assent from the diagnosis. In the first of these consultations the patient was a coachman, who was wasting away under obscure organic disease, "and a hardness was perceptible at the pit of the stomach before he died. On examination after death, tumours of a schirrous character were found in the liver, in Glisson's capsule, and at the small curvature of the stomach; but the pancreas was perfectly healthy." (P. 29.)

Our author's negative diagnosis was equally fortunate in the other instance.

"The second case was that of a man, aged fifty, who had suffered deep-seated pain at the scrobiculus cordis for several months, together with occasional palpitation of the heart, and abdominal pulsation. He wasted much, and lost his colour, but no tumour nor aneurismal enlargement could be felt. It was evident that the heart was diseased. No direct proof could be obtained of abdominal disease; and, as nothing of the peculiar fatty appearance could be discovered in the alvine evacuations, I refused to assent to the opinion which had been entertained of the existence of pancreatic obstruction. About a month after I saw this man he gradually sunk, becoming slightly jaundiced a day or two before his death, having also had cough, with mucous expectoration.

"*Sectio Cadaveris.* Very general and old adhesions were found between the pleura costalis and the pleura pulmonalis; some parts of the lung were hepatized from old disease, while other parts were emphysematous, and some recent irritation was observable in the bronchial membrane. The heart adhered very closely to every part of the pericardium, and was enlarged in its substance univer-

sally. The mitral valves, and the semilunar valves of the aorta, were slightly diseased.

"The liver contained a good deal of blood, which was distributed irregularly between the acini, so as to give a mottled or nutmeg appearance. The acini were light coloured, a little tinged with bile, the gall bladder was full of bile, but not distended beyond its natural size. The ducts were pervious; but it was with some difficulty we could make the bile pass from the gall bladder to the duodenum, apparently owing to its tenacious condition. The pancreas was perfectly healthy, nor was there any material derangement in the other abdominal viscera." (P. 29.)

We are then presented with three cases in which these oleaginous stools did not exist, although the pancreas was diseased; and again, Dr. Bright mentions instances in which fatty stools existed without any evidence of diseased pancreas, the patient not sinking under the disease. Hence this obscure and interesting subject is still open to further investigation. Dr. Bright concludes his paper with the following judicious remarks:

"There is but one further observation which I would make in connexion with the cases which have been related. All of those in which the oily evacuation has been observed, have been cases of decided malignant, and (as far as the pancreas is concerned) we might perhaps say, schirrous disease. Now, it is a fact which I have observed in several cases, that the bile is very apt to undergo that change which leads to the deposit of concretions of adipocire in the gallbladder, in patients labouring under schirrus, (as females with schirrous mammæ, for instance,) where the disease either has or has not attacked internal organs; and I think it arises as a fair question, therefore, whether the peculiar appearances of the alimentary discharges may not depend on the same disposition, be it what it may, which leads to this unnatural deposit in the gall bladder; and, should this prove to be the case, the symptom would be diagnostic of the nature of the diseased action rather than of its seat." (P. 56.)

The next paper is entitled "*Cases of Jaundice, with Discharge of Fatty Matter from the Bowels, and a Contracted State of the Duodenum.*" Mr. LLOYD narrates the case of a patient who expired after an illness of ten months, during the last two of which he frequently passed fatty matter by stool. The stomach was found to be enormously enlarged, and its coats thickened. We extract an account of some of the other appearances, in the words of our author.

"Immediately beneath the pylorus a hard tumour was discovered, which proved to be principally made up of a portion of the

duodenum, the head of the pancreas, some absorbent glands, and condensed cellular substance. The duodenum, towards its middle, including that part into which the ductus communis choledochus enters, was so contracted, that its cavity was in great part obliterated; so much so, that, till separated from its adhesions, it would very little more than admit the larger end of a small blowpipe to pass through it. The greater disease was at the posterior part of the intestine, the part connected with the head of the pancreas. In no other portion of the alimentary canal was any appearance of disease detected. The pancreas was healthy, except at that part more immediately connected with the duodenum, where it had undergone some slight degree of induration, as if it had been inflamed. Its duct, at the termination in the duodenum, was completely obstructed: in the rest of its course it was not only pervious, but it was larger than natural, and contained a brownish fluid, of rather a yellowish tint, resembling in some respect the fatty matter in the state that it was when it passed from the intestine." (P. 64.)

Fluctuation had been felt during life when the liver was pressed upon, which was accounted for by the following morbid alterations:

"An incision being made in the liver, several ounces of dark thick bile instantly gushed out, as if a bag of bile had been cut into. But, on examination, it proved that the bile had been contained in enlarged pori biliarii, some of which were so large that they readily admitted the forefinger. They existed in an enlarged size, more or less, in every part of the liver, proceeding from near its surface, and directly passing to the hepatic duct; so that there was the freest communication between the bile in them and the contents of the gall bladder." (P. 65.)

There was no malignant disease in any part of the body.

Dr. ELLIOTSON is the last, but not the least writer on this subject; for his essay is distinguished by his usual vivacity and learning. Our author prefaces the account of the cases which he offers to the society with an historical sketch of some of those already recorded.

"I need not remind the society, that ambergris, or properly grey amber, is a fatty substance, consisting chiefly of something called ambreine, and analogous to cholesterine; or that it is supposed to be produced by disease in the alimentary canal of the spermaceti whale (*Physeter macrocephalus*,) from which it is frequently discharged, and is found either floating near the coast or lying on the shore of India, Africa, and Brazil, though sometimes discovered in the animal after death, occasioned by its accumulation, or the state which gives rise to it. Some declare that it is

never seen higher than six or seven feet from the anus; and a mass amounting to 182 pounds has been found in the animal.*

"Fatty matters, which have an external origin, are occasionally discharged from the human alimentary canal. Castor oil is frequently seen liquid in the evacuations. Riverius states that he saw fatty substances passed from the intestines in one case, after a large quantity of fat had been eaten, or had been taken in broths; and in another after a large quantity of oil had been swallowed. Other instances of fatty discharges from the stomach or intestines, liquid or in lumps of various sizes, some unquestionably, and others possibly, derived from external sources, are related in the German Ephemerides.

"Some suppose that olive-oil may concrete with mucus when taken into the alimentary canal, and thus explain certain cases of this description.

"Old authors, however, detail instances of fatty discharges from the intestines that do not appear to have originated externally; and, of every variety of those old cases, I can adduce a modern and indisputable example.

"In some instances the fat was discharged solid.

"1. Mœllenbroccus relates that a man, at Halle, where he practised, discharged from the bowels, for two years, a large quantity of fatty substance, (*materiem pinguem*,) not unlike the fat of beef, grew thin and weak, and died tympanitic.

"2. Mœbius mentions a similar daily discharge of a substance exactly like human fat, (*materiem humanæ pinguedini plane similem*,) from a woman, who wasted away.

"3. 'A pious and virtuous matron,' about fifty years of age, and residing at Duisbourg, suffered some years from a pain at the stomach, that was relieved by nothing, and at length became much worse; when one day the pain extended all over the abdomen with extreme severity, and she discharged above three pounds of fat. From that moment she speedily and perfectly recovered. The fat was white, very pure, and in detached pieces, surrounded with pellicles. It was not mixed with the fæces, had no smell, and was preserved by the woman for many years. Fabricius Hildanus paid a visit, he says, on the 6th of August, 1612, to Dr. Daniel Daniel, the most eminent physician of Duisbourg, who was well acquainted with the matron, and had seen the fat. Daniel gave Hildanus a feast worthy of Lucullus, (*necnon Lucullico convivio ab ipso exceptus essem*,) and completed his hospitality by sending for the woman to tell her own story: *ut et ego matronam ipsam viderem, et quæ acciderant, ex proprio ore exciperem, annotaremve.*" (P. 67.)

After several similar instances, Dr. Elliotson gives one

* Phil. Trans. 1783.

from Tulpius, in which the fat was discharged in a liquid state.

"'Alithea Epicornia, a slender delicate woman, who had been frequently indisposed, either from tertian ague or obstruction of the spleen, discharged, at length *every day*, for above fourteen months, a large quantity of *yellow fat*, which *lay upon* the fæces, like melted butter; and sufficient, had it been collected, to have filled a number of vessels, (*plurimum flavescentis adipis; incumbentis stercori, instar butyri liquefacti. Sed eâ plerumque copiâ, ut potuisset, modò quis illum collegisset, replere aliquot vascula.*) When thrown into the fire, *it burnt with a bright flame;* and, after the fæces on which it lay had cooled, *it concreted to the consistence of rather solid fat.* But, what was very remarkable, there were neither tormina, emaciation, nor even colliquative fever.' Sixteen years afterwards she was in excellent health." (P. 74.)

In a case treated by Dr. Elliotson himself, the patient laboured under phthisis, diabetes mellitus, diarrhœa, and violent pain in the abdomen, and in the dorsal portion of the spine. A quantity of yellow substance, like a concrete oil, was observed in his stools: when put into the fire, it burnt with a large flame, and Drs. Prout and Faraday were satisfied of its oily nature. "On examination after death, all the intestines looked yellow and greasy, as though they had been soaked in oil. Numerous black points were seen in some parts of their mucous membrane, the same that are frequently noticed after fever and chronic diarrhœa; but no other morbid appearance existed in the alimentary canal. The liver was healthy, and the gall bladder full of thick dark bile. The pancreatic duct, and the larger lateral branches, were crammed with white calculi. The kidneys were sound. The lungs were tuberculated and ulcerated." (P. 78.)

In another case, under the care of Mr. Pearson, of Clapham, both fat and oil were passed. In another patient, again, attended by Dr. Prout, fat was voided from the intestines, but mixed with blood and other things. "After death, the cæcum was found much thickened, and its mucous membrane, as well as a considerable portion of the mucous membrane of the colon, ulcerated. All the other abdominal viscera were perfectly healthy." (P. 79.)

Tulpius, however, goes beyond this:

"'But what do we say of Margaret Appelmania, an innkeeper, who, in her seventieth year, discharged precisely similar fat from both the intestines and the bladder, and likewise without fever, emaciation, or colliquative excretion.' 'Towards the close of the disease, however, she did become feverish, and in consequence so emaciated, that death found her little else than a juiceless, dried-

up corpse: *cujus æstu, anile hocce corpusculum adeo emarcuit, ut mors in ipsa, vix quicquam repererit, præter exsuccum, ac aridum cadaver.*'"

Even this pathological portent has occurred again; the patient, who was seventy-nine years old, was attended by Mr. Pearson. No post-mortem examination was allowed.

We will conclude our extracts from these interesting papers with Dr. Elliotson's brief notice of the treatment of these cases:

"In regard to treatment, the lady mentioned by Dr. Babington was always relieved almost at once by a few ounces of olive oil, and Dr. Simpson appears to have cured two cases by the exhibition of an immense dose of it. In imitation of this practice, I gave my patient two ounces of olive oil for two successive days, and four ounces on the third, which, however, he made two doses of, with the effect of vomiting and purging; and he certainly from that time discharged much less of the oily matter, and suffered much less pain in the abdomen and back. But the disease, I fear, lies as open to enquiry, both in its pathology and its treatment, as the analogous disease of diabetes." (P. 84.)

It would be superfluous to offer any comment on these very remarkable cases. Though the number is small, the post-mortem appearances have been so various as to baffle all attempt at referring the symptoms to any one structural alteration; and the treatment has been so unsuccessful, that, should another such case arise, we have neither practice nor theory to guide us.

We now turn to another subject. Mr. ARNOTT has enriched the "Transactions" with a clear and well-written account of a case in which he performed the operation of Œsophagotomy. The gullet of the patient, who was only two and a quarter years old, was obstructed by a fragment of bone, which ultimately "proved to be the spinous process of one of the dorsal vertebræ of a sheep." After many ineffectual attempts to remove the bone, the operation was performed, "almost four weeks after the accident," says Mr. Arnott; but, in fact, five weeks and a day, if his dates are correct. The operation seems to have been very skilfully performed, but, though anatomically perfect, it was therapeutically useless, as the child died fifty-six hours afterwards. "The right lung, with the exception of its upper part, was hepatized, and portions of it, thrown into water, sunk. Sections of it presented a mottled gray appearance and granulated texture, with here and there a drop of yellow matter from the extremity of the bronchial tube. In a less degree,

and more partially, hepatization was observed in the left lung." (P. 92.) Mr. Arnott thinks that œsophagotomy is not so very formidable an operation as it is generally supposed to be, and mentions two instances in which it has lately been performed with success in France.

Mr. CÆSAR HAWKINS has contributed an interesting paper on "*Cases of Sloughing Abscess connected with the Liver, with some Remarks on Encysted Tumours of that Organ.*" It would be impossible to give even an analysis of this essay, as it is exceedingly long, and somewhat discursive; we shall therefore content ourselves with referring our readers to it, assuring them that it will well repay the trouble of perusal.

We next come to a similar subject, namely, a case of *Aqueous Encysted Tumour of the Kidney;* for which also we are indebted to Mr. HAWKINS: this paper may be considered in the light of an appendix to the former one. Mr. MACILWAIN gives an account of two cases of *Deep-seated Nævi, successfully treated by the introduction of Setons;* and Dr. ELLIOTSON has furnished some additional facts respecting *Glanders in the Human Subject.*

Mr. KEY's essay *on the Ulcerative Process in Joints* is sensible and judicious, but contains nothing particularly worthy of being extracted.

Mr. LANGSTAFF gives a "*History of a Case of Medullary Sarcoma, which affected several important Viscera.*" One fact is very singular. "About twelve hours prior to the patient's dissolution, uterine hemorrhage commenced, which was succeeded by the expulsion of a fœtus, of the third or fourth month of utero-gestation, and which was in a putrid condition: the placenta was not expelled." Dissection shewed that the natural structure of the ovaria had entirely disappeared; and it may therefore very naturally be asked, how could impregnation be effected? Mr. Langstaff answers this by supposing that the perfect disorganization of the ovaries may not have taken place until after the impregnation.

The following case is so remarkable that we make no apology for extracting the whole:

"A young man in his eighteenth year fell from the top of a loaded cart upon his right hip, the injury of which was attended by the following symptoms. He was wholly unable to move the limb, and suffered severe pain when it was moved by another person. The thigh was bent to a right angle with the pelvis, and could not by any means be extended. Abduction of the thigh was difficult. The limb was everted, at first slightly, afterwards in a greater degree. The soft parts around the hip joint were considerably

swollen. There was no shortening of the limb, but rather the appearance of a lengthening of it in the erect posture, probably from the obliquity in the position of the pelvis. No crepitus could be felt in any movement of the limb.

"The foregoing symptoms were not considered to indicate conclusively the existence either of dislocation or fracture. The age of the patient was unfavorable to the occurrence of a fracture of the neck of the thigh bone, the general opinion therefore of the several surgeons to whose judgment the case was submitted favouring the belief of a dislocation into the foramen ovale, forcible extension of the limbs was made by means of the pulleys, and the thigh then moved in several directions, by which the head of the bone might be replaced in its socket.

"About two months after the accident, the patient was received into St. Bartholomew's Hospital. His health was now found to be much deranged. His pulse was frequent and hard. He complained of pain in the head, also in the injured hip, and down the opposite thigh. This illness was considered to be the effect of cold, but it did not yield to the treatment which was adopted. He remained nearly in the same state for about a month, and during this period, on account of the derangement of the health, no examination was made of the injured hip. At length, eruptions appeared generally over his body, which were considered to be small-pox, and in two days afterwards he died.

"In the examination of the body, no other morbid appearances were discovered besides those of the injured hip joint. The capsule of the joint was entire, but a little thickened. The ligamentum teres was uninjured. A line of fracture extended obliquely through the neck of the femur, and entirely within the capsule. The neck of the bone was shortened, and its head, in consequence, approximated to the trochanter major. The fractured surfaces were in the closest apposition, and finally united nearly in their whole extent by bone. There was an irregular deposition of bone upon the neck of the femur, beneath its synovial and periosteal covering along the line of the fracture.

"The foregoing case is remarkable from the occurrence of a fracture of the neck of the femur within the capsule at an early age, and it is, I believe, the only example of it on record. In the memoirs of the Academy of Surgery, Sabatier has related the case of a boy aged fifteen, in whom, after a fall upon the hip, lameness ensued, and sometime afterwards, a shortening of the limb to the extent of three inches, with a projection of the trochanter major, and an inclination of the whole limb inwards. The patient recovered sufficiently well to be able to walk, but with a considerable restraint in the movements of the thigh. Here it may be presumed a fracture had occurred, but it is certain that the seat of it could not have been within the capsule of the hip joint from the great extent of the shortening of the limb.

"It will be remarked that in the instance now recorded, notwith-

standing the free and repeated examinations of the limb, and the forcible extension of it by the pulleys; in short, with every circumstance, except the age of the patient, unfavorable for a bony union of the fracture, this had been nearly completed. If this case had occurred at an advanced period of life, we may be certain that there would have been but a very imperfect union of the fracture, and it shews satisfactorily, that in the ordinary cases of fracture of the neck of the femur within the capsule, the age of the patient, and consequent deficiency of vascular action, especially in the separated head of the bone, is the most influential of the causes to which the failure of a bony union has been in general ascribed." (P. 256.)

Mr. STANLEY, the contributor of this case, has also given an *Essay on Irritation of the Spinal Cord and its Nerves, in connexion with Disease in the Kidneys.* He narrates several cases in which the patients exhibited the usual symptoms of spinal disease, but, on post-mortem examination, not the spine, but the kidneys were diseased. It is remarkable, however, that he does not mention whether the urine was alkaline in any one of these patients.

This portion of the "Transactions" concludes with a paper by Dr. SIMS on *Malignant Tumours, connected with the Heart and Lungs,* of which he has seen several instances.

It is impossible to terminate our notice of this volume without expressing our admiration of the professional knowledge displayed in it: yet we cannot but wish that in some of the longer papers the authors had favoured us with a *resumé* of the principles which it was their intention to defend or illustrate. Such an enunciation of medical theorems is useful, not only as a guide to the reader, but a check to the writer; it is not merely the cynosure of students' eyes, but the star by whose propitious aid the adventurous author steers clearly over the unfathomable ocean of cases, treatments, and dissections.

Clinical Observations on the Constitutional Origin of the various Forms of Porrigo. By GEORGE MACILWAIN, Surgeon to the Finsbury Dispensary.—London, 1833. 8vo. pp. 83.

EVERYONE who is acquainted with the minute anatomy of our profession must be aware that there is nothing by which young beginners are more harassed than by the unceasing importunities of their friends to write a book. It is in vain they plead that they know nothing, and have nothing to say. "Is there anything in Dr. Z.'s book on Indigestion?" reply their friendly tormentors, "and yet it brought him a host of patients; and have not the 'Catheterical Studies' of Mr. X.

though copied verbatim from Cooper's "Surgical Dictionary," procured him half the urethral practice of Wapping?" These counsels are the exciting causes of the birth of heaps of queer unread little books, whose appearance every publishing season is a subject of astonishment to the ignorant; and we confess that, had we not been informed by an advertisement that Mr. Macilwain is already the father of a book, we should have attributed the breaking-out of this work to some such irritating applications. As the matter stands, we cannot conceive the motive for publishing these "Clinical Observations;" for not only any physician or surgeon, but any intelligent attorney, surveyor, or engineer, might have informed our author that there is nothing in them: anyone accustomed to read and write would have told Mr. Macilwain that the frog emulating the ox was not in a more desperate condition than the author, who, with matter scarcely sufficient for a letter to a periodical, has determined to blow-out a book of eighty-three pages.

The first chapter, which contains the introduction, has a very mysterious title: "The history of cutaneous affections shews them, for the most part, to be tractable in nearly the same proportion as they are unconstitutionally treated;" and the chapter itself is a very tough morsel. In order to enable our readers to judge of this matter, we will first translate the chapter out of Macilwainish into our own plain English, and then give it in the original tongue.*

Mr. Macilwain, then, declares that the more violent a cutaneous disease is, the more certainly and quickly it yields to medical treatment: a doctor is frightened by a scarlet fever, and drives it away in a prodigious hurry, but takes a porrigo very coolly, and, contented with anointing his patient's pustules, forgets that he has a stomach. Now we have always thought that the brief duration of the exanthemata did not depend on professional "anxiety, which renders us absolutely regardless of circumstances of minor import," but was a law of nature. A grandmother-nurse, rich in the accumulated absurdities of half a century, stifling her patients with blankets, and inflaming them with cordials, might prevent recovery or protract convalescence, but could never (so at least we thought,) produce a chronic scarlatina. Or, to take the other extreme in the scale of intellect, a Sydenham was satisfied with watching the course of a disease which no medi-

* At the end of this pamphlet there is a notice of Mr. Macilwain's first book, extracted from the *Foreign* Quarterly Review, promising to review it in their next number: meaning, you see, gentle reader, that it was not written in English.

cine could cut short, and has left us the caution, which every one recollects, against the *nimia medici diligentia*. But, lest we should be accused of breaking a butterfly upon a wheel, we will quote, without farther preface, the peccant chapter itself.

"In considering the probable progress of practice in so large a class of diseases as those affecting the skin, we should certainly *a priori* be disposed to anticipate that those diseases would be most intractable which were attended by the greatest constitutional disturbance, or which threatened inflammation or structural alteration of vital organs, and that, in proportion as a disease became ushered in or accompanied by little general disorder, so would it become amenable to the influence of treatment.

"The state of the fact, however, with regard to cutaneous diseases, is widely different; the facility with which the various forms yield to our art, being, with few exceptions, in a tolerably accurate proportion to the serious, extensive or complicated general disturbance by which they are characterised. This result, apparently so contrary to all rational anticipation, appears to me to admit of the following explanation. In some diseases the formidable nature of the general disturbance not only compels us to direct our attention to it, but often with an anxiety which renders us absolutely regardless of circumstances of minor import; as happens in acute forms of the exanthemata. Other diseases are too manifestly accompanied by a bad state of health to allow of their connexion with it to be overlooked or mistaken; a third set are so obstinate, so pertinaciously annoying, and are attended with so little local alteration, that this disproportion alone suggests the possible influence of a cause not to be discovered in the seat of its local manifestation. These circumstances (and as it appears to me, very much in the way here represented,) have led physicians and surgeons already to treat the majority of cutaneous diseases by means directed to the improvement of the general health.

"There are however still cutaneous affections in which the disturbance is neither formidable, alarming, nor very plainly developed, and in which its very existence, because often unattended by any very obvious indication, is overlooked and merged in the contemplation of the more prominently troublesome and disgusting peculiarities of their local characters, and wherein the treatment has been confined to the removal of these, regardless of the constitutional disturbance on which they depend. This is strongly exemplified in the treatment usually pursued in the various forms of Porrigo, and the result is just what sounder views of disease must lead us to expect; viz. that with the exception of specific malignant diseases, they are the most obstinate of all cutaneous affections.

"This appears to me to be a brief but true account of the state of the practice with regard to Porrigo; and I can only say, that if it be in any sense an overdrawn picture, it has not been occasioned

by supineness on my part in endeavouring to ascertain the real state of the case. I have availed myself of every opportunity which has presented itself of inquiring into the practice of others, and at the same time freely communicated the nature and results of my own. I cannot add more on this head without subjecting myself to misconstruction, or, what would be worse, saying that which might not be agreeable to others. I shall therefore only hope, that the reader will give the treatment a fair trial, and assure him of my confidence that the result will not disappoint his expectations." (P. 5.)

The rest of the book may be comprised in two lines: Feed porriginous patients on vegetable diet; keep their bowels open; use the Ung. Hydr. Nitr., "variously diluted."

We are afraid that Finsbury critics have very sour tempers; for Mr. Macilwain, as we have seen, was obliged to put an untimely end to chapter i., lest he should subject himself to misconstruction, and say "that which might not be agreeable to others." Again, at page 51, after telling us that too much medicine is as bad as too much food, he says, "The observation may possibly subject me to some unpleasant criticism; but I cannot but think that some rules of a very elementary character are too frequently disregarded in medical treatment." And at page 24 he observes, "As I should scarcely be excused for publishing distinct cases of porrigo, I will now state the general results of the treatment of this disease in the Finsbury Dispensary," &c. The objectors to the publication of "distinct cases of porrigo" must be very crabbed mortals indeed; but, to shew Mr. Macilwain that we are not so cross-grained, we will part from him with the following advice. We do not think porrigo a bad subject for a book, but he has not hit the method of writing upon it. As he cures the disease quicker than other people, and has cases by wholesale, let him in future keep a register of them; let him print, in a tabular form, the names of the patients, their residences, ages, state when first seen, treatment employed, and result; and he will make more converts than by putting forth a dozen vague and verbose pamphlets, and calling them "Clinical Observations."

Lectures on the Diseases of the Urinary Organs. By B. C. Brodie, F.R.S., Serjeant Surgeon to the King, and Surgeon to St. George's Hospital.—8vo. pp. 306. London, 1833.

Mr. Brodie's appearance in print is less frequent than we might be justified in expecting from his known zeal and opportunities. He has never written without adding to his reputation; and he has certainly increased those stores which none more than English surgeons have contributed to enrich. The next best act to devoting his attention to the subject of these lectures, is recalling them from their fugitive form, and investing them with additional matter in a comely octavo. In his advertisement he well describes the distinguishing feature of all his writings: "I have endeavoured to record what I have seen, with accuracy and fidelity, making it my especial object to explain and illustrate those circumstances which were to myself a source of doubt and difficulty in the earlier part of my practice."

Incessant devotion to a harassing occupation leaves but few opportunities for cultivating the graces of composition: indeed, it is too often to be regretted that excellent works suffer an abatement of their value from the uninviting character of their style. Mr. Brodie's writing, if it challenge not our admiration for its eloquence, is never tedious, and certainly is not deficient in the perspicuity essential to the description of subjects for the most part practical.

In the long catalogue of human ills, there is not a more interesting and important class than that which forms the subject of these lectures. Very few will dissent from our opinion, that the present volume is the best on the subject; not that it contains much information unknown to practitioners familiar with this branch of surgery, but that it comprehends and condenses nearly *all* that is known, thus making the knowledge more available by rendering it easy of access. It were unmerited praise, unmeaning flattery—Mr. Brodie can well afford to dispense with both,—to commend this work for its originality. In these days so closely does one competitor tread on the kibes of another, that we rarely see the possessors of activity and intelligence greatly distancing each other, and then only in pursuits which are more abstract than practical; and certainly this cannot be predicated of the treatment of urethral, prostatic, and vesical diseases.

The following observations are clear, judicious, and instructive:

"The treatment of fistulæ in perineo, or of those fistulæ which open externally on the scrotum, or nates, or elsewhere, communicating with the urethra behind the stricture, is in most instances very simple. You are not to be misled, by the resemblance in the name, into the belief that these fistulæ require any treatment corresponding to that which is required for fistulæ in ano. The latter are formed among muscular structures, and for the most part in the substance of the sphincter muscle. A fistula in ano requires to be freely laid open, because it is the action of the muscular fibres over it and under it that prevents it healing. The division of the muscular fibres sets them at liberty, and places the fistula under the same circumstances with an ordinary sore. But a fistula in perineo is prevented from healing, not by the action of muscles, but by the urine flowing through it. You will put your patient to unnecessary pain by laying it open. The urine will flow through it still, and, in fact, in more abundant quantity. The wound will heal to a certain point, and then the patient will be in the same state as he was in before. Dilate the stricture, let the urethra be restored to its natural diameter, and as soon as the urine passes freely through the natural passage it will cease to flow through the artificial one; and this being accomplished, the fistula will immediately heal. Sometimes it will heal before the dilatation of the stricture is completed, when the cure of it is only half performed. In other cases the healing of the fistula will be gradual, and it will be necessary to persevere in the occasional use of the bougie for many months before it is completely closed. If the fistula should not heal under this negative treatment, you may resort to other methods. Let the patient remain for three weeks in bed, with the gum catheter constantly retained in the urethra and bladder. This will sometimes succeed, but it will at other times fail. It may fail, 1st, when the opening by which the fistula communicates with the urethra is unusually large; 2dly, where the urine, instead of passing through the catheter, flows by the side of it; and, 3dly, where the instrument brings on an abundant suppuration of the urethra; in which case the purulent discharge finds its way into the fistula, and prevents its healing as much as it would be prevented by the contact of the urine. When then this method fails, or when your patient finds it impossible to make that sacrifice of time, and submit to that degree of confinement, which it requires, you may instruct him in the use of the catheter, and advise him, for some time to come, never to void his urine by his own efforts, but to draw it off by the catheter. You may also stimulate the bottom of the sinus by the occasional introduction of a small piece of the nitrate of silver: at the same time that you retard the healing of the orifice of the sinus, by lightly touching it once in a week or fortnight with the caustic potass. The reason for applying the caustic potass is as follows: the external orifice of the fistula is always more inclined to heal than the bottom of it towards the urethra. If you stimulate the

whole of the fistula with the nitrate of silver, the orifice of it is likely to close prematurely, that is, before it is healed at the bottom. The necessary consequence of this is another abscess and another discharge of matter. By applying the caustic potass to the external orifice you prevent this from healing, while the application of the nitrate of silver promotes the growth of granulations within, and the cicatrisation of the more deep-seated part of the fistula." (P. 63.)

Mr. Brodie has before especially directed the attention of his brethren to some of the Protean forms of hysteria simulating local diseases.

"The paralytic affection of the bladder, which occurs in hysterical females, is of a peculiar kind, and deserves a separate consideration. It appears to me that the symptoms are to be traced to a still higher source than in ordinary cases of paralysis; that, in the first instance, it is not that the nerves are rendered incapable of conveying the stimulus of volition, but that the effort of volition is itself wanting; and this corresponds with what is observed in cases of loss of voice, and in many other diseases connected with hysteria. As the distension of the bladder increases, the patient begins to be uneasy, and at last suffers actual pain; and as soon as this happens, the volition is exercised as usual, and the bladder begins to expel its contents.

"Thus, if the bladder be not relieved artificially, by the introduction of the catheter, the hysterical retention of urine is usually of short duration. If, however, the catheter be had recourse to, the natural cure is prevented, and the existence of the disease may be prolonged for an indefinite period of time, for weeks, or even for months. The general rule to be observed in the treatment of these cases is to interfere but little. You may administer an active aperient, or an assafœtida enema, or you may give assafœtida by the mouth, but you should avoid using the catheter. This general rule, however, is not without its exceptions. In a few of these cases, where the bladder has been very much distended, in consequence of this over-distension it loses its power of contraction, and, even though the patient strains to make water, no urine flows. Under these circumstances, it is evident that artificial relief is necessary; and if it be not afforded, more than simple inconvenience may be the result. A young woman was admitted into St. George's Hospital, in November, 1814, labouring under a train of symptoms which I believe to have been connected with the same condition of the nervous system as that which produces the phenomena of hysteria. I should be wandering from my subject, if I were to relate to you all the circumstances of this interesting and important case. It is sufficient for our present purpose that you should be informed that one of the symptoms was a retention of urine, which had been long neglected, and which existed to such an extent that forty ounces of urine were drawn off by the catheter; and that the patient ultimately died. In my notes, I find the following account

of the appearances which the bladder presented in the post-mortem examination: 'It was of a very large size, as if it had been for a long time unusually dilated. It was throughout of a dark colour, almost black. There were only some slight vestiges of its natural structure left; the muscular fibres being very much wasted, and the internal membrane presenting the appearance of a very thin film, which was readily separated from the parts below. The dark colour of the bladder did not seem to arise from mortification, since there was neither fœtor, nor any other mark of putrefaction.' The state of the bladder was indeed very peculiar, not resembling any thing which has fallen under my observation either before or since." (P. 78.)

When the opinions of those who enjoy ample opportunities of judging are at variance with principles generally received, and as extensively justified, it is incumbent on the propounders of a new doctrine to give some good account of the reasons of their dissent from the old. This, Mr. B. has not done when he denies the general inexpediency of bloodletting in inflammation of the bladder, and alleges debility as the prohibitory cause. This is a stronger objection to *general* bloodletting than to local depletion, which, we believe, is defensible by the success of the majority of the profession.

For general utility, because the knowledge is most frequently needed, the remarks on Sand in the Urine are incontestibly the best in the book. Uric acid, first well described by Scheele, and now oftener called lithic acid, was supposed to be held pure in solution by the urine. It is, however, nearly insoluble when pure, but very soluble when in combination with ammonia: it forms lithate of ammonia, which, though nominally a neutral salt, still reddens litmus paper. This is the common deposit of the urine of dyspeptics. If to healthy urine be added any matter for which ammonia has a stronger affinity than for lithic acid, the lithate of ammonia is no longer precipitated, but in its place pure lithic acid. When this decomposition happens in the body, by the presence of another acid, (which Dr. Prout believes to be frequently the muriatic,) the consequence is a deposit of red sand. To the deposition of this sand nothing contributes more than errors in diet, intemperance, and indolence. The red sand of urine, which is composed of the crystals of lithic acid, in combination with soda, constitutes the chalk-stones with which the bursæ and cellular membrane of gouty patients are afflicted. The formation of red sand may be prevented by the administration of potass, soda, lime-water, ammonia, and magnesia, according to circumstances.

"If the lithic acid is deposited in small quantity, and the bowels are too much relaxed, (which, however, rarely happens in these cases,) lime-water may be useful. In persons of weak bodily powers, who may be supposed to require cordial and stimulating remedies, you may exhibit ammonia. Dr. Prout recommends the carbonate of potash in preference to the carbonate of soda, for the following reason; that the soda, under certain circumstances, will enter into combination with the lithic acid, forming an insoluble salt, as bad as the lithic acid itself, whereas the lithate of potash is perfectly soluble; and if this combination takes place, it will pass off dissolved in the urine. On the whole, magnesia, as recommended by Professor Brande, is preferable to the rest. Being in itself insoluble, it cannot enter the circulation except it has first become combined with acid in the stomach or intestine; and hence it does not pass out of the system so soon as the alkalies. The dose of all these remedies must vary according to the circumstances. You may give of the pure magnesia from ten grains to two scruples daily, and of the others in proportion.

"I have mentioned the carbonates of potash, soda, and ammonia, as these agree better with the stomach, and therefore are more proper to be employed than the pure alkalies. The carbonic acid does not interfere with their medicinal effects. There is a remarkable difference in the effects produced on these disorders by the salts which contain a mineral, and those which contain a vegetable acid. The sulphates, muriates, nitrates, are of no avail; but the tartrate of potash, the tartarized soda, the common saline draught composed of citric acid and potash, all produce the same effect as the pure alkalies, or as the alkalies combined with carbonic acid. This remarkable circumstance was first noticed by Sir Gilbert Blane. Sir Gilbert has also recommended a very efficient method of exhibiting the carbonate of potash in these cases, by giving it in a saline draught with an excess of alkali.

"I have said that different doses of the alkaline remedies will be required in different instances. Indeed, a good deal of care is generally necessary to adjust the dose to the peculiar circumstances of the individual case. If you give too little of the alkali, the result is not obtained, and the lithic acid is still deposited, although in smaller quantity. If you give too much, you not only prevent the formation of the red sand, but you render the urine alkaline, and a white sand (the triple phosphate of ammonia and magnesia) is deposited in its place. If magnesia is taken in a larger quantity than is necessary to neutralise the acid generated in the stomach, the patient is liable to the formation of magnesian calculi in the intestines. These last are composed of the magnesia mechanically blended with the fæces and intestinal mucus. They are not uncommon in these times, when so many individuals are in the habit of taking magnesia in a careless and profuse manner. I have in several instances known a person to suffer a good deal of distress from such a calculus being lodged in the rectum. But cases have

occurred, in which the accumulation of magnesia in the intestine has taken place to a very great extent. Mr. Wilson examined the body of a patient, in whom, if I recollect rightly, many pounds of magnesia were found collected in the colon above a contracted part of the rectum.

"In the exhibition of alkaline remedies, then, you must make each case the subject of a distinct experiment; and that the experiment may be more properly conducted, you must, if possible, make the patient enter into your views, that he may assist your practice by his own observations. You should be provided with paper, coloured blue by an infusion of litmus; and also with the same paper, slightly reddened by immersion in a very weak acid. Healthy urine ought to turn the blue litmus paper a little red, and you ought not to give alkaline remedies in such a dose as to destroy this property altogether; still less ought you to render the urine alkaline. If the urine turns the red paper blue, the patient is in danger of suffering from a deposition of the phosphates, and the alkalies must be given in smaller quantity.

"It is to be further observed, that the time when the urine is most acid, and when the alkalies are most required, is after the principal meal, that is, after dinner. The alkalies are not indeed to be given immediately after dinner, for then they are likely to interfere with digestion, but three or four hours afterwards. In some cases it is better for the patient to defer taking his medicine until he wakes accidentally in the middle of the night. In many instances, a single dose of magnesia daily, and that at bed-time, is all that is required; while, in others, it should be exhibited in the middle of the day also.

"But it may truly be observed that this is not striking at the root of the disorder. Alkalies prevent the formation of red sand while they are being taken, but they do not prevent it being formed again as soon as they are left off. The patient cannot well take them for ever; and something further, therefore, is required. When he suffers from costiveness, purgatives must be exhibited; and even in those cases in which the bowels are not particularly torpid, purgatives are useful. The mercurial purgatives are, on the whole, to be preferred. A blue pill may be administered every night, with a draught of infusion of senna and tartrate of potash every fourth morning; or a calomel pill may be given once or twice in a week, at bed-time, and the senna draught on the following morning. When the disease is connected with gout, the patient may take the colchicum with great advantage. In the first instance, twenty drops of the vinum colchici may be administered twice or three times daily; afterwards, a draught of infusion of senna, with a saline purgative, and forty or forty-five drops of the vinum colchici, may be given occasionally in the morning.

"But more, after all, is to be effected by attention to diet and mode of living, than by medicine. Is the patient a great eater, pampering his appetite by a variety of dishes, and thus exciting

himself to swallow more food than his stomach can readily digest? let him make his dinner on a single dish, and eat of that in moderate quantity. Let him also incline to a diet of vegetable rather than one of animal food; avoiding, however, undressed vegetables, and especially those which are acid or acescent, as salad, oranges, and apples. Does he commit excesses in drinking? let him leave off fermented liquors altogether, or take them only in small quantity; and in particular let him avoid such fermented liquors as, from the sugar which remains unfermented in them, are liable to become acid in the stomach, or which are acid already. The French white wines are injurious in these cases, especially champagne; but none of them are worse than our own English liquor called punch." (P. 152.)

Mr. Brodie believes that one of the most frequent causes of death after lithotomy is the too free division of the prostate gland, extending into the loose cellular tissue. To us, and to others, it does not appear that this opinion is entitled to, or will receive, general assent. The infiltration, abscesses, and sloughing, which follow this operation too frequently, are obviously enough the cause of death; but whether these evils are the commonest results of the too free division of the prostate gland, is more than doubtful. Many eminent authorities, backed by the largest experience of its benefits, recommend a very free incision in this part, of which Mr. B. advises a more niggard division.

The patrons (though few they be) of the gorget may perhaps find, in the views of our author, something like a reason for retaining it, and a probable explanation of its remarkable success in the hands of some operators. We shall be pardoned for extracting Mr. Brodie's picture of the symptoms following too free an incision of the prostate.

"The symptoms which arise in these cases are not well marked in the first instance. There is some heat of skin, and generally an absence of perspiration; there is usually an abundant flow of urine through the wound; the pulse, as to frequency, is somewhat above the natural standard; and the patient, although free from suffering, has no disposition to sleep. This state of things continues for twenty-four, or even for forty-eight hours after the operation; then the more characteristic and alarming symptoms shew themselves; the pulse becomes more frequent, rising to ninety, one hundred, and at last to 140 in a minute; the heat of skin becomes still greater; the tongue dry; the countenance anxious. Afterwards, as you count the pulse, you find every now and then a beat weaker than the rest; and then there are complete intermissions. At first the intermissions are not more than one or two in a minute; by degrees they become more frequent, until they occur every third or fourth beat. There is an occasional hiccough; the patient complains of

some degree of tenderness in the lower part of the abdomen, especially in the left groin; the belly becomes tympanitic, that is, the stomach and intestines are filled with air; the distension of the belly increases; the hiccoughs are more frequent; the pulse continuing to intermit, becomes weak and fluttering. In some instances the patient retains his understanding even to the last; while in others he falls into a state of low delirium previous to death. Occasionally, in the progress of such a case, the patient has a severe rigor, and sometimes he complains of a pain in the loins. Where these symptoms begin at an early period, he may die within forty-eight hours from the time of the operation; but in other cases, death may not take place for four or five days, or even for a week. On dissection, you find the cellular membrane round the neck of the bladder, and between the prostate and the rectum, bearing marks of inflammation, infiltrated with lymph and serum, and to a greater or less extent converted into a slough. If death has taken place at an early period, the intestines are found distended with air, and there is a very slight effusion of serum in that part of the peritoneum which descends into the pelvis. But if the patient has laboured under these symptoms for many days before he dies, the peritoneum, where it is reflected from the bladder to the rectum, is seen of a darker colour than natural, and encrusted with lymph; and at a still later period there is the appearance of inflammation, to a greater or less extent, throughout the peritoneum generally. But the peritoneal inflammation is evidently not the primary disease: it is the inflammation and sloughing of the cellular membrane of the pelvis which has induced inflammation of the adjoining portion of that membrane. Something also is to be attributed to the tympanitic distension of the intestines, which, if continued for a considerable time, is always liable to be attended with tenderness of the abdomen, and some degree of peritoneal inflammation.

"It is important that you should not fall into the error of regarding such cases as I have just described as cases of simple peritoneal inflammation, for the remedies which would be useful in the latter case are injurious here. The abstraction of blood, even the operation of an active purgative, will cause the patient to sink more rapidly, tending only to hasten his death. The proper system to be pursued is the opposite to that of depletion. The patient should take such nutriment as his stomach is capable of digesting. The bowels may be kept open by injections, or by the exhibition of some very gentle purgative, and ammonia, wine, and brandy, are to be administered, when the state of the general system indicates that stimulants are necessary.

"Under this kind of treatment I have certainly known two children to recover, who were affected in the manner which I have described. In one of the cases to which I allude, an abscess formed in the neighbourhood of the neck of the bladder, which burst into the wound, and then the symptoms subsided. In the other a slough separated into the rectum, and a fistulous communication remained

afterwards between that bowel and the neck of the bladder; but it was of a small size, and productive of no serious inconvenience. In adults the chance of recovery is, at any rate, much smaller than in children. Can anything be done for their assistance in the way of local treatment? Let us consider how it is that the dangerous symptoms arise. There is suppuration and sloughing of the cellular membrane round the neck of the bladder, and the constitution is disturbed, as it is in a case of carbuncle; or, what is still more analogous, as it is in those cases in which there is sloughing of the cellular membrane of the scrotum, in consequence of the effusion of urine arising from the rupture of the urethra behind a stricture. And, in these cases, what is the practice recommended? Do we not divide the soft parts freely over the sloughing cellular membrane: and is not this operation productive of the most signal benefit? Is it possible to resort to any practice corresponding to this, in the cases now under our consideration? There is only one way in which this can be accomplished, namely, by laying the sloughing abscess open into the rectum. I made this experiment in one instance, and I will tell you the result. In September, 1825, I operated on a patient, a man between fifty and sixty years of age, labouring under stone in the bladder, in St. George's Hospital. The stone was extracted without the smallest difficulty: but I performed the operation with what is called Mr. Blizard's lithotomy-knife. This is a long, narrow, straight, probe-pointed bistoury; and you must cut with it laterally, in order that you may divide the prostate, so that it is difficult to determine the exact extent of the incision. Immediately after the operation I had some misgivings, and was led to fear that I had made the incision to such an extent as to penetrate beyond the boundaries of the prostate. At first, indeed, the patient seemed to be going on as well as possible; but, in about forty-eight hours from the time of the operation, some unfavourable symptoms began to shew themselves. On the third day after the operation the countenance was anxious, the skin hot, and the pulse occasionally intermitted. On the following day (the fourth) the pulse intermitted once in fifteen beats; the skin was hot and dry, and the abdomen began to be tense and swollen. I could not doubt that those symptoms existed which I had known to be the precursors of death in some other cases. Under these circumstances, with the concurrence of my colleagues, I performed the operation which I am about to describe. I introduced the forefinger of the left hand into the rectum. I then passed a probe-pointed curved bistoury into the wound, and quite to its farthest extremity on the left side of the neck of the bladder. The probe point having been felt through the tunics of the rectum, I pushed it carefully through them, and, drawing it downwards, divided the lower part of the rectum, sphincter and all. Thus the wound and the rectum were laid into each other. Little or no hemorrhage followed. The relief was immediate. In five minutes after the operation the intermissions of the pulse had diminished from one

in fifteen to one in fifty beats. In an hour it did not intermit at all. During the two following days the patient appeared quite well; the pulse was regular, between seventy and eighty in a minute. On the next day there was a slight recurrence of the intermissions of the pulse, but it subsided on the exhibition of some brandy and ammonia. After this there was a progressive amendment; the pulse, however, continuing to beat between eighty and ninety in a minute for the two or three following weeks. After about a month the wound in the rectum began to contract, and the urine to flow by the natural passage; and in another fortnight the patient went into the country, nearly the whole of the urine at this time flowing by the urethra." (P. 271.)

It may reasonably be doubted whether there are not equally important, and more frequently occurring, causes of failure after lithotomy than the "too free incision;" *e. g.* the unavoidable violence essential to the removal of large stones; also that inaptitude of the system to suffer with impunity a disturbing cause of such magnitude as this formidable operation. It must further be observed, that the "too free divisions" of the prostate can hardly help taking place in a much larger number of cases than those in which death occurs. On a review of these considerations, a doubt will present itself whether the too free division be more than a sufficient cause, but of unfrequent occurrence. The occasion of the fatal event of many lithotomic operations has not yet been explained, because not well understood; and assuredly the point can never be determined by the experience of a single individual. Something like a distrust of the soundness of his own reasons is contained in Mr. Brodie's mention of the recto-vesical operation, which he justly prefers to the high operation.

"Here the parts which afford the chief resistance to the extraction of a large stone are divided; and, although the incision of the neck of the bladder extends beyond the boundaries of the prostate, the ill consequences arising from the escape of urine into the cellular membrane are likely to be in great measure obviated, in consequence of the free opening which has been made into the rectum." (P. 293.)

We agree in the opinion of many eminent surgeons, that the blame fixed upon a free internal incision in the lateral operation, may be fairly affiliated on the narrow limits of the external wound; and this with more justice, because it is absurd to suppose that, even when we do not exceed the limits prescribed by the author, we escape the possibility, or the chance of infiltration of urine, and its consequences. Some there are who would without scruple accuse Mr. Brodie of heresy for his approbation of the blunt gorget, and the pre-

ference he gives to "splitting" the portion of the prostate left undivided by the knife. On some cardinal points of this operation there exists considerable difference, both in the opinions and the experience of men of equal ability; and we believe the discordance cannot be reconciled by resorting to any one of the grounds of dissent, but only by a reference to the whole.

Of the lithontriptic operation, if he does not speak to its prejudice, his praises are certainly lukewarm: its successful application in appropriate cases will warrant a more animated eulogium than our author's.

Our estimate of the value of these lectures may be inferred from our copious quotations. It would be a comparatively feeble encomium to say that they ought to be in the hands of every professional man; we must go much farther, and declare that they are worthy of the European reputation of Mr. Brodie.

Hunterian Reminiscences; being the Substance of a Course of Lectures on the Principles and Practice of Surgery, delivered by the late MR. JOHN HUNTER, *in the Year* 1785: *taken in Shorthand, and afterwards fairly transcribed, by the late* MR. JAMES PARKINSON, Author of "Organic Remains of a Former World." *Edited by his Son,* J. W. K. PARKINSON, M.R.C.S.L., *by whom are appended Illustrative Notes.*—London, 1833. 4to. pp. 176.

VOLUMES have been written on the genius of Hunter, orations have been spoken in his praise; but one glance round the gallery of his museum is worth them all. That was indeed a mind of no ordinary vigour and extent which could thus shadow forth, in one vast series, the universe of life. The imaginative grandeur of the conception was worthy of Milton; the labour of the work could have been surmounted by few men but John Hunter. Feeling towards his memory as all genuine lovers of science must feel, we have derived very high gratification from the perusal of these Reminiscences. It is no small pleasure to be able to place him as it were in his own person before us, delivering to his pupils those invaluable precepts which have since enabled many of them to labour so successfully in the same ample field: nor will we deny that even the peculiar and ungraceful style which pervades these, in common with all his writings, however objectionable in itself, still exerts a pleasing influence on our mind, as bearing the strong impress of his individual hand, and as the medium through which, troubled though it be, the most valuable doctrines of modern surgery have been

transmitted to us. In some parts of these lectures, however, the language is much pleasanter, from being more familiar, than that which Mr. Hunter generally used; so that there is reason to regret that he has not always adopted a more colloquial manner of expression; for it is not to be denied that many have flung aside his works in disgust at the repulsiveness of their style.

Independently of its interest as a *relic*, this volume affords a valuable compendium of Hunter's principal doctrines both in physiology and pathology; the rather, that several of his opinions are here expressed more simply and intelligibly than in his other works. The following passage, for example, is worthy of particular attention, as completely vindicating its author from a charge to which, it must be confessed, his own extraordinary phraseology has very frequently exposed him,—the charge of absurdity in believing, like Van Helmont and Stahl, that the vital principle was a distinct being, and actually endowed with consciousness and intelligence.* We here find, however, that, so far from investing it with these imaginary attributes, he does not even assert its independent existence, but admits that it may depend on some arrangement of the particles of living matter, different from that which obtains in common matter. Now he tells us distinctly, in another place, (page 11,) that he regards the mind, and sensation, as the result of an arrangement in the brain and nerves, different from that which produces life: he cannot therefore mean to ascribe consciousness and intelligence, which imply mind and sensation, to the principle of simple life. His opinions respecting the mind we do not here intend to enter into. They evince, in common, we are sorry to add, with those of many other physiologists, a very

* Van Helmont believed that plants and minerals, as well as animals, had their intelligent living principle. There exists in all of them, it seems, a certain *aura*. "Quæ aura, licet in aliquibus luculentior sit: in vegetabilibus tamen succi specie comprimitur, ut et in metallis densissima homogeneitate inspissatur: singulis tamen hoc donum obtigit, quod Archeus vocatur, generationum et seminum fœcunditatem continens, tanquam causa efficiens interna. Ille inquam faber, generati imaginem habet, ad cujus initium, destinationes rerum agendarum componit. Constat Archeus verò ex connexione vitalis auræ, velut materiæ, cum imagine seminali, quæ est interior nucleus spiritualis, fœcunditatem seminis continens; est autem semen visibile hujus tantum siliqua. Imago hæc Archei, ex predecessoris idea defluens, vel eandem è condo externorum accipiens, non est demortuum quoddam simulacrum. sed plena insignitum scientia, potestatibusque necessariis, rerum, in sua destinatione agendarum ornatum; adeoque est vitæ, et sensationis primarium organum." (*Ortus Medicinæ*, ed. Amstelodami, 1652, p. 33.)

Those of our readers who are fond of the by-paths of medical literature will derive much amusement from the writings of this ingenious, but fanatical and conceited old Belgian.

imperfect acquaintance with the subject; which is the more to be lamented, since the force and ingenuity of some of his ideas on such themes shew how powerful a metaphysician he would have made, had his mind been properly trained to this kind of thinking. The basis, then, of Hunter's doctrine of vitality, is simply that living matter is subject to laws which do not influence common matter; an opinion which, we must say, in the midst of acknowledged uncertainty, appears to us to have common sense on its side.

"*Life.* Animal matter, then, is the result of a peculiar combination of other matter; and this combination or modification of common matter may be endowed with the living principle or not, the living principle not depending on that modification of matter which renders it animal matter; for this modification, which is peculiar to animal matter, and which constitutes it, may remain when the living principle is gone. Life is therefore something superadded to matter thus modified; or it is such an arrangement of the most minute particles of this modification as life may arise out of it, which arrangement may be the principle of life; and, if this arrangement be destroyed, the principle of life is also destroyed, and the part becomes dead animal matter; and, though it has suffered this alteration in its arrangement, and the loss of this principle, yet its modification, as far as our senses can discover, remains the same. This idea of life is hard to be illustrated; but magnetism perhaps affords the best illustration of it, for iron not magnetized may be considered as animal matter not endowed with life, and, when possessing the magnetic power, may be compared to animal matter possessing the vital principle: now, in neither of these can we discover by our senses, even when aided by art, any alteration in their modification when possessing or when without this principle. Light may, by its effects on bodies, yield us another illustration of this idea. This principle of life is the preserving principle of the animal, from its being the first cause of those actions whereby it is supported and continued. It is not sufficient that animal matter should be endowed with a principle of preservation; it must have action within itself; and the same arrangement which constitutes the principle of life does also constitute the principle of action: the *power of action* is indeed a step further. The most minute form possessing this necessary arrangement which our eyes can trace is the simple living fibre, whence is formed muscular fibres, muscles, organs, &c. There is this principle of action everywhere where there is life, for action is not confined to the muscles. Life I believe to exist in every part of an animal body, and to render it susceptible of impressions which excite action. This principle of action has been compared to the spring of a watch; but this comparison will not suit, since in a watch the spring alone possesses the principle of action, and is the immediate cause of action, and the action of all

the other parts is entirely dependent on the impulses they receive from it; but, in the animal machine, every one will see that the principle of action resides in every part; so that, although action may be created through the whole animal by impulses from one part to the other, yet the principle of action is inherent in each of these parts, and independent of that of the others.

"The first and most simple idea of life is, its being a principle of self-preservation; the second is, its being a principle of action. The first of these may be conceived to exist without the other; it is not necessary that there should be action where we suppose the other principle to be. A fresh egg has no action, but is as much alive as a muscle: as a proof of which let us observe, that, when an egg is nearly hatched, the yolk is entirely sweet, as well as the albumen, notwithstanding the long heat it had been exposed to; but, if it does not hatch, it becomes putrid. And further:

"*Exp.* 1. A fresh egg was frozen, thawed again, and then exposed to the same degree of temperature (about the freezing-point,) with an entire fresh egg; and this latter, which had not been previously frozen and thawed, was six or seven minutes later in freezing than the former. This is to be accounted for by supposing that the former, having been deprived of its vital principle by the previous freezing, froze soon after its exposure to a degree of heat sufficiently low; but that the other egg, possessing the vital principle, resisted freezing until deprived of that principle.

"*Exp.* 2. An egg likewise which had been frozen, and then thawed, was frozen again in much less time than at first.

"*Exp.* 3. A fresh egg, and the egg which had been frozen, were put into a freezing mixture, at 15°, and a thermometer was placed in each: the heat of the dead egg came regularly down to 32°, where it directly froze; whereas the live egg came down to 29½°, where it remained fluid, and then rose again to 32°, where it directly froze. This is to be observed, that freezing may be prevented by many circumstances, and in this case by the presence of the living principle; and, where this happens, the fluid will contain heat some degrees below the freezing-point, and remain fluid until those particular circumstances no longer act, when it directly freezes, which happens in the present case until the living principle is destroyed. With respect to the principle of action, it is necessary that action should continue in some parts for the preservation even of the principle of action; but in other parts it is only necessary that the principle and power of action should remain, action itself not being in those parts constantly necessary. The living principle, we have before observed, is the principle of self-preservation in the animal, preserving it from putrefaction, which state soon comes on when life ceases, but much sooner in some instances than in others, appearing sometimes even before the departure of life: this last, we may suppose, is the consequence of a morbid or depraved action of the living principle, by which a putrefactive action takes place before death; but it is not certain whether in putrid fever, and even in the other instances, whether

this alteration is not owing to some defect in the modification of the parts of the blood, and not a real putrefaction of the blood, which immediately before possessed their natural modification: at least, this process is different from the putrefactive process which takes place after death: nay, this very putrefaction being a part of the disease, the result of a morbid action, this process ceases when the actions of the animal are put a stop to by death, and then putrefaction, or the resolution of animal matter to common matter, begins to take place; so that we may say, that there are two kinds of putrefaction which may take place in animal matter; and it is observed that the latter putrefaction, after the death of such animals as have had this former process begun in them, has not proceeded faster on that account. I may here state, that I have seen two or three cases where this process had taken place before death, the cellular membrane being emphysematous with air thereby extricated; nor did the succeeding process of putrefaction appear to be so much quickened thereby as might have been expected. In the case of a man who had suffered the operation for aneurism of the popliteal artery, the leg, from about the middle of the calf downwards, became entirely cold, pale, and insensible, and was in every respect really dead, not being mortified, which is the consequence of a morbid action, but had as it were really died a natural death from having no blood sent into it. A few days after this man complained of being unwell, and in a few hours there were evident appearances of a resolution, or, if you please, a putrefaction through the whole living system, emphysema, opening of the cicatrix of the artery, &c.; but the leg, from the calf, suffered little or no alteration, and, after the man's death, it was put into the same degree of heat with the other leg."

We may here digress for a moment, to remark the extreme simplicity and beauty of Hunter's experiments, and the entire appositeness of his observations. It appears to us, that much of that power of discovering truth, for which he was so distinguished, resided in an extraordinary facility of invention, by which he saw, almost at a glance, the very experiment which would bring his notions to a satisfactory test. Placed as it were at the concourse of many ways, he would, as by a happy intuition, immediately plant his foot in that which led direct to the knowledge he wanted. Accordingly, we find a striking difference between his experiments and those of most other physiologists. The greater part of physiological experiments, however specious at first sight, have been found, after all, to prove nothing, or, if they prove anything, it is not the thing required; but each of Hunter's experiments was usually an *experimentum crucis*, and finally settled the point concerning which it was instituted: hence the greater part of those doctrines which he

derived directly from experiment stand fast to the present day, and probably will do so to the end of time.

It was to this sagacity in eliciting facts by experiment, conjoined with an unwearied vigilance of mind, which converted even the apparently trifling occurrences of every-day life into the materials of thought, and the means of investigation, that Mr. Hunter appears to have owed his superiority, rather than to the extent or accuracy of his general powers as a reasoner. We may indeed observe a remarkable inequality in the operations of his mind. Where he can keep pretty close to the facts, his reasoning is generally correct and powerful; but where the subject is one which calls for lengthened deduction, it is often so much the reverse, that we can scarcely believe we are listening to the same man. And why was this? It was because he had never learned to reason. His natural endowments were of the very highest order, but they had never been regularly cultivated. It is often supposed that every man of great intellectual powers must necessarily be a good reasoner: this, however, is an error. Reasoning, like all other arts, has its fixed principles, without a knowledge and observance of which the most powerful mind on earth cannot practise it successfully in all its extent. It was the want of this knowledge in Mr. Hunter which has rendered some passages in his writings unintelligible; a defect which, we think, has been erroneously ascribed to insufficient command of language. The truth seems to be, that the reader cannot understand his meaning, because he did not understand it distinctly himself; the great activity and subtlety of his mind frequently leading him into abstract subjects which the defective discipline of his reasoning faculties did not enable him to grapple with. This source of obscurity in style is not peculiar to John Hunter; whenever a man's ideas are clearly defined to his own mind he can almost always render them intelligible to others:

"Verbaque provisam rem non invita sequentur."

He may express himself circuitously, clumsily, nay ungrammatically, yet he will be understood; when it is otherwise, the obscurity is in the thoughts rather than in the style. Accordingly, we find that Hunter himself, though his phraseology be generally cramped, and somewhat hard to make out, is still perfectly intelligible, except when his ideas get into a labyrinth. Of this misfortune the present work affords several examples, such as the observations on *diseased actions* and *altered actions*, some parts of which are altogether incomprehensible. It might be supposed that the transcriber

had not been able accurately to catch the lecturer's meaning in such passages; but the fact is, all Mr. Hunter's works abound with similar instances.

We may here perhaps venture to suggest the importance of the study of dialectics to the student and practitioner of medicine. When we consider that the attention of the physician is continually occupied with the most abstruse and difficult questions, and that he is continually brought in contact, not only with the physical but with the moral and intellectual phenomena of man, is it not obvious that an accurate acquaintance with the principles of reasoning is essential to fit him for his office? And how is this to be attained without a familiarity with the nature and operations of the powers of the mind itself? Yet, as far as we have been able to observe, there is no class of educated men among whom these subjects are generally more neglected than the medical profession. In inculcating the necessity of this kind of knowledge, we cannot appeal to a stronger fact than that the want of it made such a man as John Hunter write many passages which nothing but respect for his name can rescue from the designation of nonsense!

Had Hunter been early trained in habits of severe reasoning, his would have been perhaps the most majestic intellect that ever shed its light over the field of science: even as it was, how great were the results of his untutored genius!

These lectures are not to be considered strictly as a course of surgery; they are rather an application of general physiological and pathological views to surgical subjects: for Mr. Hunter well knew that he could occupy the time of his pupils much more profitably than by the details of those mechanical parts of the art, which they could learn for themselves much better in the dissecting-room than any lecturer could teach them.

Before entering on the surgical portion of the work, we cannot refrain from transcribing the following highly interesting observations on Delirium.

"It will be very difficult to prove whether delirium is a disease of the brain or nerves. From the connexion between dreams and delirium, it will be necessary to consider sleep and dreams. Perfect sleep is a cessation of the susceptibility of sensation, a cessation of the consciousness of existence, and a cessation of the relationship which our bodies bear with other bodies; but whether this cessation of susceptibility arises from the brain not having the power of receiving, or the nerves not having the power of conveying, is yet to be determined. Dreams proceed from an action of the mind in sleep, and therefore may be independent of impression, and are

without a consciousness of the relationship between the mind and body, and the body and other bodies; therefore, in dreams, we lose that power of distinguishing between real sensation and thought, which constitutes wakefulness. In a delirium, as in sleep, we find the susceptibility of external impression is lessened. Whilst sensation is continued sleep is kept off: delirium likewise may be lessened, by arousing the mind from that particular state by external impressions; so far delirium appears similar to dreams, but it widely differs in other respects. In natural sleep, the more the brain puts on that peculiar state, the *less* we have of dreaming; but the more the other state is put on, the *greater* the delirium. Dreams often do arise from sensations of the body being conveyed to the brain, it being an imperfect sleep; but the consciousness of the connexion between our own body and our own mind being cut off by the state of sleep, the sensation may, or may not, be referred to our own body; it may be referred to some other body. In some cases it is not referred to the part of the body whence the impression is received: the same thing happens in delirium, when the connexion is cut off; then, not distinguishing between real sensation and thought, what the mind thinks about appears to be real. But even where the mind is in full possession of the consciousness of its connexion and relationship with the body, we have in some cases this delusion, as the appearance of the turning round of the objects around us, whilst they are really fixed, and that in consequence of our having turned round quickly; giddiness from going to a height; from riding backwards in a coach: delusion is also an effect of intoxication and disease. Whilst awake, and in health, impressions produce sensations which are conveyed to the brain, and from these the mind reasons; but, suppose the mind to have lost, or as it were forgot its former connexion with our body, then the above false reference takes place.

"CASE 1. A gentleman came into this country in 17—; his memory was imperfect, and a particular kind of delirium began whenever he was going to sleep, but afterwards continued whilst wide awake, and for a week before his death he was not quiet from this delirium a moment, but whilst impressions were forced on him by external objects. His delirium was of this kind: he was continually talking of former circumstances of his life, but referring them to the present moment, and to some other person. There was a revival of past ideas in his mind; but, from want of connexion between his mind and body, he was not enabled, by his present impressions, to infer how little relationship they bore to the present time, or to those persons to whom he referred them; at the same time it really appeared more a want of connexion between the mind and body than the mind itself being hurt, for he determined rightly what should be done in those circumstances which he supposed present, and would express his sentiments in really elegant language. That it depended more on a want of connexion than on disease of the body, appeared from his being sensible of impressions, and re-

ferring them to the part where they took place, but supposing that to be in any other body but his own; thus he would tell his nurse and the bystanders that they were hungry, or thirsty; but upon offering food or drink it appeared plainly, by his eagerness, that the idea had arisen from a sensation of hunger in his own stomach. He would shew great signs of distress and anxiety, which, he would say, was because his nurse wanted to go to the close-stool, but was restrained by his presence, and this from his own sensations also; he had a violent cough, which he would sympathise with some bystander in, proceeding in his story after the cough, no otherwise disturbed than by sympathizing with the person whom he thought so unfortunate in having it. The objects about him were more to him than his own sensations.

"CASE II. A gentleman, who was fond of his bottle, as he became intoxicated, referred all his own weaknesses and feelings to those around him, supposing that every one but himself was drunk; and upon his going home would insist upon undressing all his family, and putting them to bed, declaring that they were too drunk to do it themselves; and this happened not once only, but whenever he was intoxicated. I myself once experienced what I have since thought must have proceeded from this want of connexion between the mind and body. I was reading a remarkable case, and reasoning with myself upon it, when I found the letters and words made an impression on the retina, but that I was incapable of affixing a meaning to them; this, I thought, might proceed from want of sleep, but that was not the case. I tried repeatedly, but without effect; and at last went to bed, from which I did not move for three weeks, a violent complaint in the head succeeding this extraordinary circumstance. It may not be amiss to say, that the case I was reading was that of the late Mr. Foote, who was not able to command his attention to more than one circumstance or action at a time; thus, if he took his snuff-box out of his pocket, and held it in his hand, it was very well, until he attempted another action, such as taking a pinch of snuff out of it, and then the box immediately fell out of his hand: in fact, he was going back into a state of childhood; for a child is not capable of commanding his attention to more than one circumstance or action at a time: give him first a stick to hold, and call his attention to another object, the stick will be dropped; for it is by habit we become capable of attending to several actions at a time. Turning round, or passing quickly by different objects, it appears as if they were in rapid motion; and if the motion of the body is stopped, the delusion will continue for some time. If a person is blindfolded, and put into a coach, he will think he is moving forwards, though he is really riding backwards. An impression from any part, either healthy or diseased, may be conveyed, the mind having full possession of the impression, and a perfect idea of it, but having nothing to direct it right in its reference of it. It must refer it somewhere, and is more likely to refer to another than to itself."

"CASE III. A gentleman (a medical man) dreamed he had given to a patient too strong an injection, for a gonorrhœa, and that it had produced a total stoppage of urine: he awoke, and found an erection of the corpus cavernosum of his own penis, and that he could not void a drop of urine. Here was impression without the consciousness, and hence he referred his own feelings to another person.

"CASE IV. A gentleman upwards of ninety years of age suddenly lost his senses, and, in consequence of this, was a reference of all the ails which he might be supposed to feel to his wife, who had been dead some time, but whom he now thought alive, and ordering the utmost silence to be observed, lest by noise her illness should be increased. The new-born child has probably sensation without this consciousness. The contrary takes place where a person refers the sensation of others to themselves, or where the idea of sensation is supposed to be sensation itself, as happens to those who are affected by animal magnetism. I was asked to go to be magnetized, but at first refused, because the spasm on my vital parts was very likely to be brought on by a state of mind anxious about any event. Thus, at my country-box, I have bees, which I am very fond of, and I once was anxious about their swarming, lest it should not happen before I set off for town; this brought it on. The cats tease me very much, by destroying my tame pheasants, partridges, &c., and rooting up my plants. I saw a large cat sitting at the root of a tree, and was going into the house for a gun, when I became anxious lest she should get away before my return; this likewise brought on the spasm: other states, where my mind is much more affected, will not bring it on. Now I feared lest my anxiety for the event should bring on my spasm, and that should be imputed to animal magnetism; but, considering that if any person was affected by it, it must be by the imagination being worked up by attention to the part expected to be affected, and thinking I could counteract this, I went: and, accordingly, when I arrived at the place, I was convinced, by the apparatus, that everything was calculated to affect the imagination. When the magnetizer began his operations, and informed me that I should feel it first at the roots of the nails of that hand nearest the apparatus, I fixed my attention on my great toe, where I was wishing to have a fit of the gout; and I am confident that I can fix my attention to any part, until I feel a sensation in that part. Whenever I found myself attending to his tricks, I fell to work with my great toe, working it about, &c. by which means I prevented its having any effect on me."

The concluding anecdote is very characteristic of Mr. Hunter, and we recommend it to the especial attention of the magnetists of the day; for whose further edification we may relate a curious circumstance which occurred to us some months ago. On our applying the stethoscope to the chest of a poor and very ignorant patient, she suddenly gave a deep groan, and fell back in a state approaching to syncope: on being asked

what was the matter, she said that the instrument *drew* her too strongly. She had supposed that it was to act as a remedial agent, probably by drawing the disease out of her; and she hence referred an imaginary feeling to the place of its application, or possibly exaggerated the slight uneasiness occasioned by its pressure into an overwhelming sensation. Now, had the stethoscope been a magnetical apparatus, and we professors of the art, this might have been set down as a striking case. It is by "facts" such as this that the pseudo-sciences delude their votaries.

The remarks on *Inflammation* afford a very useful summary of the author's great work on that subject; but, as we hope that its contents are engraved on the memory of every British surgeon, we shall not dwell upon them here. Among the miscellaneous subjects afterwards treated of, the following observations on *Hemorrhage* will be read with interest:

"Discharge of blood may be natural, or it may arise from disease or accident. Of the first kind is the menstrual discharge; of the second, are discharges of blood from the nose, lungs, intestines, piles, excessive menstruation, &c. These may be local or constitutional; but the local are more to our present purpose: the causes may be either a peculiar irritation, or a species of relaxation in the vessels of the part. With respect to bleeding from the first cause, that is not a very unfrequent circumstance, the vessels of the part being affected by some particular irritation: bleeding from this cause I have frequently seen upon the action of a new stimulus; thus, I have noticed, after many operations, when the bleeding had stopped by the natural contraction of the arteries, that they have opened again upon the application of the actual cautery in their neighbourhood. A discharge of blood from this cause will sometimes happen from surfaces, which otherwise might have been expected to discharge pus. In these cases, instead of the application of styptics, as they are called, sedatives should be applied: the best of these are perhaps opium, and the different preparations of lead. I was called to a sore, which was discharging great quantities of blood; but this was stopped by a poultice of poppy-heads. The loss of no fluid has such effects on the system as that of blood, producing faintings, coldness, cold sweats, &c. Where the loss has been considerable, the absence of the pulse, and extreme coldness, shew the patient to be near the last extremity, and death indeed would most probably be the consequence of any farther loss of blood; but it generally happens that these alarming symptoms immediately following the bleeding are succeeded by a feverish heat, with a quick strong pulse; and here it has been considered whether bleeding is not necessary to prevent a return of the disease: but it is my opinion, that this rising of the pulse and return of heat are in consequence of a struggle of nature from the loss she has sus-

tained, as if calling up every power. Secondly, hæmorrhages, from relaxation, or want of disposition to contract, may happen from external force applied, or from disease. The mouths of the vessels may be stopped; first, by the natural muscular contraction of the cut edges of the vessel, the stimulus from the accident producing this contraction, so that, in this case, the cure arises out of the accident. I do not think if the arteries below the knee were divided by amputation, that the patient would be killed before the natural contraction of the arteries took place. The bleeding was stopped by the natural contraction of the artery in a boar whose thigh was amputated; and in an ass who had bled to the death from these arteries, the artery was, after death, found closely contracted; but I believe the arteries of quadrupeds to be more contractile than ours. This contraction is the consequence of the stimulus from exposure and division. Leeches make wounds, for their size, the most difficult to stop of any: this has been said to have been from their taking a piece out of the side of the vessel: if this were all, the contraction of the vessel would be sufficient to stop the bleeding; but I am more inclined to think that the leech poisons the vessel, in consequence of which its contractility is destroyed. Oil of turpentine is perhaps one of the best styptics: it should be applied to the wound, the wound being first wiped clean, and the bleeding checked by pressure, that it may be fairly applied. I have given it often with great success internally, when other things had failed. A gentleman who had had repeated bleedings at his nose, until he appeared like a corpse, sent for me upon a return of his bleeding. I ordered him a draught every two or three hours, with ten drops of oil of turpentine made up with yolk of egg: this stopped the bleeding, and he has continued well ever since; for, whenever there is the least disposition to a return of the bleeding, he takes a draught, which he says prevents it. Another mode by which bleeding is stopped is, by pressure of the coagulated blood round the mouth of the vessel; this is chiefly effectual where the orifice is very large; acting by pressure, it is aided by spongy substances being applied, as lint, agaric, &c. The lateral wounds of arteries are commonly, though improperly, termed false aneurisms; and this has probably originated from a pulsation being felt in them, it having been supposed that only the external coat of the artery had been wounded, and that the internal had given way at this place, having lost the support of its external coat: but the fact is, that the blood escapes into the cellular membrane, and, assisting the external pressure, may retard the bleeding; and where speedy dressings are applied, the bleeding may for the present be stopped; nay, the external wound may be healed by the first intention; but, by the constant and increasing pressure, the surrounding cellular membrane that contains the extravasated blood by degrees gives way, and forms a perfect cyst. These may be divided into two stages: first, whilst the case is yet recent; secondly, where the cyst is formed. The artery should be taken up before the cyst is formed.

"CASE. A young man wounded himself in the thigh; both the crural vein and artery were obliged to be taken up. I would in cases of wounded artery, in bleeding, give a chance to the artery of healing, by speedy dressing, pressure, &c. I made a small puncture in the crural artery of a dog, which healed, and no aneurism was formed."

The subject of *Traumatic Tetanus* is one on which we are still so much benighted, that the sentiments of all intelligent men are worthy of an attentive hearing; we therefore give at full length those of Mr. Hunter, whose military practice must have afforded him considerable opportunities of witnessing the disease, and whose accurate observation and deep reflection render all his opinions on practical points so valuable. Unfortunately, all experience up to the present time does but confirm, with respect to this, the judgment which Hippocrates gave on all convulsive affections supervening on wounds: Επὶ τρώματι σπασμὸς ἐπιγενόμενος θανάσιμον, (*Aphorism.* lib. iv. sect. v. 2.); a maxim, to the general truth of which all experienced surgeons can testify.

Locked Jaw. "This may be considered as a partial effect of tetanus, and generally the beginning. When the muscles on the fore part of the trunk are affected, it is termed emprosthotonos; when on the back part, opisthotonos. They may be classed with the unnatural or involuntary contractions. Of these is formed a genus, of which tetanus and locked jaw is a species, and of which the subsultus tendinum, spasmus cygnicus, wry-neck, &c. are lower species. Horses, cows, deer, monkeys, and other animals, are liable to this disease. A stag I had died of it. Some parts are more disposed to these affections than others are, as the muscles of the lower jaw; the order of muscles next disposed to it are those which are nearest. The disease spreads, by sympathy, I suppose, through the different muscles. Its cause and nature have not hitherto been sufficiently attended to. Having followed wounds very frequently, it has been supposed a consequence of irritation from those wounds; but these wounds do not comprise the whole of the cause, for irritation merely, such as tends to produce inflammation, will not produce it. A slight irritation may be the exciting cause; but, as a predisposing cause, there must, I think, exist a weak and irritable habit. We seldom find it in a good consitution, or accompanying inflammation. Where there is inflammation, it is always previous to the spasm, the latter coming on generally when the inflammation goes off. This disease often happens from very trifling exciting causes; yet we are not to confine ourselves to these, but likewise attend to the predisposing cause, or the disposition in the habit for such actions. It is not the consequence of irritation increasing the action of the living principle, as in inflammation, but an irritation of the nervous

principle; or, in other words, the disposition consists in irritability of the nervous system, such as is possessed by those who have a proneness to nervous complaints, not an irritability disposing to inflammatory symptoms. In such a disposition it is my idea that the irritation of a trifling wound (and perhaps from some peculiarity in the irritation,) may be the immediate cause, even though the irritation may not amount to the height of pain; and this irritation may have more effect than a greater degree of pain: thus, tickling may have a greater effect on the nerves than a violent blow on the part. An injury will have a greater effect on the minds of those of weak constitutions than on the strong. Weakened constitutions, we know, are always prone to what are called nervous symptoms. In a woman with child the nervous principle is weakened, though the living principle may be very strong, and exhibits an instance of this kind of constitution.

"CASE. I once threw a stone at a deer with so considerable an exertion as to produce an extravasation of blood in the arm; the muscles were so affected, that a loss of motion in the arm immediately followed. I felt myself exceedingly weak, and was very pale; after a little time cramp came on in my leg, but at last this and the other symptoms went gradually off: if the irritation had continued, a locked jaw might have come on. Now here, from the irritation arising from the injury done to the arm, a spasmodic affection was produced in a person immediately before in perfect health.

"This complaint is most frequent in warm climates, and is even very rarely found in cold ones. Preceding inflammation may be sometimes a predisposing cause, by rendering the nervous system more irritable. Wounds of tendons, ligaments, &c. are likely to be the immediate cause, from their possessing so very slight a power of healing, and thereby keeping up a more constant irritation on the nervous system. How much a wound in such a part weakens, may be deduced from observing that the limb wastes when such a wound has existed any considerable time.

"The wounds producing this disease may be supposed either considerable or slight: the first seems to act as a predisposing cause as well as immediate; the latter, as immediate only. In the first case, the patient is not attacked with the locked jaw until the inflammation is nearly gone off; in general, not until a good suppuration has come on; nay, in some I have seen the healing of the wound so far advanced as to be completed before the jaw unlocked: whereas, in those from slight causes, the locked jaw comes on before the wound begins to heal; and in these cases the disposition may be supposed to be already subsisting. It much oftener appears as the consequence of a slight wound than of a considerable one. It may arise in consequence of other weakening causes, as fever, flux, &c. The period at which it becomes dangerous, by attacking vital parts, seems to be before the constitution has become habituated to it; this is generally within a fortnight: if it

does not kill within the first fortnight, the patient generally recovers, and that even though the symptoms continue violent some time afterwards. It kills by the disposition increasing, and the effects extending until they reach some vital part, and which it affects with spasm: in this manner also I think the gout kills.

"The cure has hitherto been attempted by everything which can be termed antispasmodic, but with very little success: the one which has kept its ground longest is opium, though this, in my opinion, has not done the good that was supposed: the cases would, most probably, have done well without it. It may lessen the effects, but cannot remove the cause; it may prevent the simple sensation of pain in the mind, and may do good so far by preventing the pain from weakening still further the patient. Electricity seems to relax the spasm at the moment, but it soon comes on again. Actual cold seems to be the most efficacious remedy, and may be applied to the whole body, or topically to the part. If I were to have a locked jaw, I would be put in an icehouse; the patient would do well therefore to remove to a colder climate.

"Internal medicines I know of none. Forcing the mouth open seems sometimes to do good, but I was told it once killed a patient. In one case, where bleeding was performed about the tenth day of the disease, the patient fainted away, became immediately worse, and died soon after. In another case there seemed to be but little connexion between the wound and the locked jaw; the wound healed, and a considerable time before the jaw unlocked. Opium and musk were both tried in this case, without any effect. In another case, two grains of opium were given every half hour, and increased to three grains every quarter of an hour, with no good effect. Volatile medicines were also given freely in this case. The spasm continued even a short time after death. In another case, the patient, who was quite bent backwards, was put into the cold bath, and was relieved a little whilst in the bath, but was as bad as ever when taken out: it was twice repeated with the same relief; but the moving him put him to so much pain, that he would not allow it to be again repeated. Another patient was so much relieved, when the trunk and jaw was quite stiff, as to be found the next day sitting on the side of the bed. Being obliged to embark for Portugal, I left the patient in this state with the surgeon."

The opinions of surgeons in the present day generally coincide with that of Mr. Hunter as to the nervous character of tetanus: there exists, however, one exception, to which it is of great importance to attend. All the symptoms of tetanus occasionally supervene on inflammation of the spinal chord, (*Abercrombie*, in *Edin. Med. and Surg. Journal*, vol. xiv.; *Ollivier, Traité de la Moelle épinière*, p. 705, *et alibi*,) in which case the stimulant treatment most generally adopted, and perhaps most likely to be serviceable, where the disease arises primarily from nervous irritation, would be

in the highest degree injurious; and the only chance of removing the tetanic symptoms is by resolving the inflammatory affection on which they depend.

The following remarks on *Fungated Sores* are highly interesting, as they render it probable that the disease now familiarly known to surgeons under the name of Fungus Hæmatodes, and believed to have been first accurately described by Dr. J. Burns under that of Spongoid Inflammation, had not escaped the ever-watchful observation of Mr. Hunter.

"I mean now to speak of what I call fungated sores, and which are often taken for cancers; but they agree with cancer, I believe, in nothing but in being incurable. There is one very striking difference between these diseases,—the cancer appears to eat the parts away, whilst in this new parts are added. This disease appears to me a specific one, and a well-marked disease. It seems to be common to every part of the body, while I believe cancer is not. The beginning of this disease is, I think, generally in the form of a tumour, either solid or encysted. As soon as the skin gives way, fungi arise, of a very dark colour: this rises so fast, that I believe we have no escharotic which can keep pace with it. It yields a plentiful discharge of matter, but which does not appear to be a poison, as I never saw the lymphatics affected by it. This is the foot of a patient I had in St. George's Hospital. You see from the sole of the foot what a considerable quantity of this dark fungus arises. In this case there was no disease of the lymphatics proceeding from the foot, but, about a fortnight after the amputation, the stump swelled amazingly: that however went off, and the patient mended very fast. Here you may observe the same kind of fungus arising from the testicle: here was no alteration in the spermatic chord. I stuck into the substance of this fungus troches of arsenic and wheat-flour, but these did not seem to produce any effect on it. It is this disease also which is the cause of that excessive enlargement of the penis that is generally supposed to be cancerous: this is generally harder than the common fungus of fungated ulcer. The surface of this fungus is in general tolerably smooth, and, when cut into, it seems to have somewhat both of a striated and radiated appearance in its substance.

"As there are no means yet discovered by which it can be made to take on a healing disposition, there is nothing left for us but a strict extirpation, so as to leave no part behind; if, in the extremity, amputation is most proper. It is worthy of notice, that this disease kills with much less visible cause of mischief than cancer. The first case I saw of this, arising from accident, was ~~in~~ an ostler at the Dun Horse, in the Borough, who had received a kick from a horse on his fore-arm. This broke into an ulcer of this fungated kind, and his arm was amputated."

It is possible that more than one disease may be here delineated; but the description of a tumour which at last ulcerates, and sends forth a fungus of large size and rapid growth, the circumstance of its attacking all parts of the body, and the universal fatality of the disease, can hardly be made to apply to any other affection than fungus hæmatodes.

While on this subject, we may remark, in passing, that common fungous ulcers are generally treated much too lightly in surgical works. Fungous granulations are frequently spoken of as a very simple matter, to be got rid of by a little sulphate of copper, and no doubt they often are so; but, in cases of old ulcers, which had never hitherto presented any malignant character, we have seen what at first appeared to be nothing but exuberant granulations from their surface gradually increase in size, in spite of pressure and escharotic applications, till at last they have formed a large tumour, of a soft texture and exceedingly rapid growth, scarcely distinguishable, in any of its features, from fungus hæmatodes, and which ultimately destroyed the patient by its effects on the constitution.

In concluding our extracts, we have to return our best thanks to Mr. Parkinson for the pleasure his publication has afforded us. He has acquitted himself creditably in his capacity of editor, by a well-written preface, and some ingenious notes; and we strongly recommend these Reminiscences to the attention of the profession, to whom, we are sure, they will not be the less acceptable because taken down by the hand of the late learned author of the "Organic Remains," who has conferred such large obligations on the scientific literature of his country.

Transactions of the Medical and Physical Society of Calcutta. Volume the Sixth.—Calcutta, 1833. 8vo. pp. 509.

In tracing the progress of civilization through the pages of history, we are continually reminded of the maxim of Bacon, that knowledge is power: we see the countless hosts of Gaul or Thrace yielding to a few disciplined legions; and, in after ages, the humble embassies of distant nations confessing that their only hope was in submission, for that force is rendered irresistible by science. Yet the course of modern events is more gratifying still: they shew us that intellect is not only the parent of power, but the sister of benevolence; and, if the victorious arms of Europe have commenced by destroying, they have ended by renovating. It is thus satisfactory

to see the light of science reflected upon those shores whence originally it emanated; to see medicine, the first and greatest of the arts, restored to that antique and hallowed birthplace whence the Father of Physic himself drew his inspirations; so that, if the Western sceptre has sometimes sorely bruised its dusky subjects, yet, like the fabled arrows of the old mythology, it can cure the wounds which it inflicts. These reflections have naturally passed through our minds in perusing the present volume, where we find a native of Madagascar relieved of a fearful disease by the instruments of Civiale, and the bronchocele of Nipâl disappearing before the brilliant discovery of a French chemist.

The following are some of the more interesting and most practical points contained in these "Transactions."

Mr. RALEIGH has a paper on a *Modification of the Oriental Operation of Couching*. He thus details the manner in which the native operators set to work:

"It will be remembered that the instruments employed are a blunt lancet, guarded by thread wound round the blade, and a brass depressing instrument, about four inches long, the extremity of which to be introduced into the eye, forms a solid triangle, having three flat sides, and being about the size of the quill of a common fowl; a puncture being made by the former, through the tunics, the depressor is introduced, for about an inch, behind the lens, the handle of the instrument is then allowed to hang down, and in this position acts as a lever, the lower edge of the puncture forming the fulcrum, whilst the point of the instrument presses against the delicate retina, at the roof of the eye. After remaining a short time in this situation, whilst some invocation is going through, the attempt is made to carry the instrument over the upper edge of the lens, but, from its bulk, instead of accomplishing this object, it frequently happens that the lens is protruded against the iris, and as the shape of the instrument does not admit of fixing the lens, no command over, or power of directing its course, is maintained by the operator; the consequence is, that in the act of depressing, the lens continues to be pushed forward against the iris, from the posterior surface of which the uvea is scraped, and rolling beneath the flat surface of the instrument, its upper edge, and indeed sometimes the whole lens, is forced through the pupil into the anterior chamber. In endeavouring to prosecute the operation, under such unfortunate circumstances, I have on more than one occasion seen the iris torn to pieces, and the chambers filled with blood. The violence which must evidently be inflicted on the retina, ciliary processes, iris, &c. even where the operation is as neatly performed as the clumsy native instruments admit of, is quite sufficient explanation of the fact, of more acute inflammation following this, than the operation as performed by European surgeons." (P. 138.)

To us, accustomed as we are to the delicate touches of European oculists, this would seem more like the first attempt of a butcher to couch with a skewer, than the work of a master in surgery; yet this rude method succeeds so often, that the late Dr. Breton estimated the failures at only ten per cent.: Mr. Raleigh, however, thinks that forty or fifty per cent. is nearer the mark. Moreover, when our Hindoo brethren *do* succeed, they succeed to admiration; and, though they may fail in two points of the triad of medical perfection, they certainly hit the third: if they do not cure *tutò* and *jucundè*, at least they do so *celeriter*,—their operation requires no repetition.

"The reason of this is obvious. By the native instrument, the capsule is separated from its attachments, and carried down entire, together with the enclosed lens, whilst, in performing the operation in the European way, with Hey's, Scarpa's, or other needle, in cases of hard lenticular cataract, it frequently happens, that instead of carrying down the capsule entire, the lens is wrested through it, leaving numerous obtruding shreds, for the removal of which one or more subsequent applications of the instrument are necessary: but more especially in those cases where the cataract is fluid, soft, or only of moderate consistence, the needle ruptures the bag, allows the fluid to escape, or breaks up the substance, without directly removing the opaque body from the axis of vision, and nature is depended on to accomplish the cure by solution, thus in time effecting what may perhaps be considered (as where extraction is resorted to) the most perfect result of the operations for cataract,—the complete removal of the diseased substance from the eye. But to the impatient, and particularly to the natives of India, who anticipate immediate benefit, the repetition of operations, and consequent delay, is by no means satisfactory, nor indeed could it under any circumstances be considered advisable, were we in possession of means for accomplishing the object at once with safety." (P. 140.)

Influenced by these considerations, Mr. Raleigh uses an instrument partly modelled on the native one, and in the following manner:

"In the construction of the instrument, I have endeavoured, as much as possible, to avoid any increase of bulk, beyond that of the common couching-needle, whilst a main object has been, to make it of such form, as to enable the operator to command, and direct the movements of the lens, during the act of depressing. The blade of the instrument (fixed into a handle similar to that of a couching-needle) is about an inch in length; for two thirds of an inch from the handle, the shaft is round, but from the commencement of the extreme third, the blade is gradually dilated into a long oval shape; the solid centre of which portion being cut out, it forms an oval ring, and as the instrument in approaching the extremity makes a

gentle curve, and the inner edges of the ring are sloped away, it may be said to form a shallow spoon-shaped blade; at this, which is the widest portion, it measures about the tenth of an inch, but as the thickness does not exceed that of a couching-needle, it passes through the eye in an equally small space.

"It must ever be considered indispensable that the oculist should be competent to perform all the different operations for cataract, and that he should in each case pursue that course which holds out the greatest prospect of benefit to the patient; for in diseases of the eye, as well as in every other branch of surgery or medicine, no one method is applicable to every condition. In order, therefore, that it may not be misunderstood, that I consider the modified native operation worthy of superseding, in all cases, the European mode, I will briefly remark, that it is only in cases where from the appearance of the cataract we may be led to the supposition that the capsule contains fluid, that the lens is too soft to be depressed by the European needle, or that the capsule is too tough to be carried down entire with the lens, that the method now under consideration may be practised with advantage, over the usual European style of operating. The only form of cataract, however, to which the modified native operation is inapplicable, is capsular; in this instance, I conclude, it would be worse than useless to have recourse to it. The manner of performing the operation is as follows. With a lancet-shaped or Beer's knife, a puncture, the eighth of an inch in length, is made through the coats of the eye, about three lines posterior to the junction of the cornea and sclerotic, and sufficiently low down to avoid the central artery; any trifling effusion of blood, &c. being wiped away, the depressor is introduced (its flat surfaces directed anteriorly and posteriorly) behind the lens, and carried as high as its upper edge, when the instrument is turned with its thin edges to face before and behind, and its concave surface downwards, and cautiously insinuated over the margin of the crystalline, which being received within the concavity of the blade of the instrument, is to be gently and gradually depressed; the instrument being at the commencement of this action slightly inclined forwards towards the iris, so as to tilt up the under edge of the lens, which having been carried below the pupil, and so far back as to insure complete separation from its attachments, the handle of the instrument may be rolled between the finger and thumb, to free it from the lens, and withdrawn.

"The principal point of difference between the European and native operation, is, the position chosen for applying the instrument to act on the lens; in the former, the needle passed before the crystalline is applied to the upper and fore part of its body, not on its upper circumference, hence the frequent rupture of the capsule, and wrenching of the lens through it, in the act of depressing. In the latter, the instrument is made to surmount the capsule and lens, and carries them down together without rupturing the former." (P. 141.)

Mr. Bramley gives some account of the *Bronchocele of Nipâl.* In three villages, from which he has returns, one third of the inhabitants are affected with this disease. He divides bronchocele into three kinds,—the cellular, the pulsating, and the glandular or lymphatic. He finds *pressure* so useful, that it has sometimes been sufficient alone to accomplish a cure.

Case i. Bhurrsurie, æt. twenty-six, affected with a pulsating enlargement of the whole of the thyroid gland, was cured in twenty-seven days by wearing a large neckcloth, and rubbing the diseased part with lard.

Case ii. Churù, æt. thirty, was nearly cured by the same treatment.

Four other cases, in which this plan was employed with little advantage, were cured by the iodine ointment. In one case narrated by our author, the use of the Tr. Iodines reduced the testes to one third of their proper size, annihilating at the same time the passion which depends upon them. By discontinuing the remedy, however, these mortifying defects began to abate; but the patient absented himself, and Mr. Bramley could not learn the result.

Our author treated on the whole 116 cases; of these there were

57 perfectly cured,
14 nearly cured,
34 much relieved,
6 slightly relieved,
5 not benefited.

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Mr. Bramley's tincture is weaker than that generally used in Europe, as it consists only of ten grains of iodine to an ounce of spirit. The dose was from ten to thirty drops once a day. Our author's ointment was at first composed of two scruples of iodine to an ounce of simple ointment, but the quantity was subsequently doubled. Mr. Bramley's success is no doubt partly attributable to the medicine having always been administered, and the ointment used, in his presence.

Mr. Steart cures *Cholera* with *Liquor Ammoniæ;* the dose being thirty drops in three and a half drachms of distilled water, to be repeated every five, ten, or fifteen minutes. He also bleeds; and he gives a mild purgative on the morning following the reaction produced by the ammonia. If we understand the abstract given at page 381, it would appear that Mr. Steart lost only one patient out of 124; a degree of success beyond all precedent.

This paper is backed by an appendix written by Mr. LUDLOW, the superintending surgeon of the western division, who "came to the conclusion that his practice was unusually successful," and who thinks it his duty "to suggest such practice, and to order a supply of the liquor ammoniæ puræ to all the stations of the division, out of the twenty pounds which has just reached the depôt."

Mr. TWINING, in a short and well-written paper, has a few observations *on some of the Effects of Iodine.* It produced pain of the right side in five out of twenty-three cases in which he administered it; and Mr. Twining therefore considers it a dangerous remedy in hepatic affections. He observes also, that Christison refers to two cases in which hepatitis was produced by large doses of iodine.

Mr. PRESTON writes *on Ligature of the Carotid Arteries in Epilepsy, and some other Diseases.*

CASE I. Francis Fullinfan, a robust man, æt. twenty-four, suffering from constant headach and partial paralysis, was admitted into the hospital August 10th, 1831. The right common carotid was tied on the 2d of September, and the left on the 10th of October. "He was discharged on the 11th of November. Vision continued imperfect, but in every other respect he had entirely recovered his health." (P. 396.)

In the next case, which was a combination of epilepsy and hemiplegia, both carotids were likewise tied; but, though the patient was relieved, he was very far from cured.

We cannot commend Mr. Preston for his readiness in performing so very serious an operation when not compelled by absolute necessity; and moreover it has been justly observed by a writer in the "Archives Générales," that we should be in danger of tying the carotids when the epilepsy depends on organic disease of the brain.

A case of *Traumatic Tetanus*, narrated by Dr. MURRAY, which was cured by dividing the posterior tibial nerve, is so interesting, that we shall present our readers with a large portion of it.

"The following case of traumatic tetanus occurred on board the ship *James Patterson*, in which I was a passenger from England to Calcutta, and may be deemed worthy the notice of the Medical and Physical Society. The patient, Mr. W. Pyle, a midshipman, aged fifteen, trod on a rusty nail, and received a punctured wound of the left foot between the metatarsal bones of the great toe and adjoining one, on the evening of the 14th August, 1832, at nine P.M. This officer kept his watch during the night, which was rainy

and cold, and he suffered much pain in the wound. Thirteen hours after the infliction of the wound I was consulted on this case by Mr. Leslie, the surgeon of the ship, and learned from him that when he first saw the patient, at eight A. M., he complained of a stiffness about his jaws and throat, which had increased very much since that time. His countenance was anxious, and his lips appeared swollen and rather livid. A poultice to the wound was all the treatment that had been employed. On consultation, the following draught was agreed to be given: R. Pulv. Camp. ʒss. Tinct. Opii, minim. lxx. Syrupi Simp. ℥j misce, statim sumend. As the jaws were nearly closed, and great difficulty found to get them opened to the extent of a quarter of an inch, a piece of wood of that thickness was inserted between the teeth.

"Half an hour after taking the draught he was visited again; but no beneficial effect had resulted from the opiate. The tetanic symptoms were rather increased, the spasms had partially extended to the muscles of the neck, and the piece of wood was deeply indented by the teeth. The countenance was extremely anxious, and covered with a cold perspiration. The limb was cold, and he said 'it was dead, and that he had little power of moving it.' His pulse was 120, and what may be called irritable, and his situation altogether seemed to be one of great danger. He was ordered to be carried to one of the best cabins, and, after considering all the different modes of treatment that have been usually employed and recommended in tetanus, and finding how indecidedly they were all spoken of, as to affording hopes of cure, I proposed to Mr. Leslie the division of the posterior tibial nerve, (by which the injured part was supplied,) as a remedy that held out a good prospect of success, from its effectually cutting off the communication between the source of irritation and the brain, at the same time that it was an operation easily performed, and unattended with danger or deformity. I proposed also that the original wound should be dilated and cauterized. My proposals being agreed to, so soon as the necessary preparations could be made, the operation was performed. A straight incision, an inch and half in length, was made through the integuments and the aponeurotic fascia, about an inch posteriorly to the malleolus internus, which laid bare the sheath of the vessels; and on dissecting deeper, I easily found the nerve in its usual position. By an aneurism needle, I separated and raised it, so that I might divide it with greater facility and expedition. When thus brought into view, it appeared to us so remarkably large, (being nearly twice the usual size,) though of the natural colour, that a doubt was expressed by Mr. L. about its really being the nerve. To satisfy him on this point, I requested the patient to extend his foot, which he did with difficulty, and in an imperfect manner, as he said he had lost the power of moving it; but he did it sufficiently to shew the difference between the nerve and a tendon, as it did not become tense in this action. The nerve was then rapidly divided by a single cut of the scalpel, which gave great pain, and

although he could not articulate distinctly before, on account of the closed state of his jaws, *he immediately opened his mouth with an exclamation.* On looking at his countenance, I was astonished at the striking change in it for the better. I asked him how he felt, and he said 'he was already much better, and that his leg had come to life again,' and expressed at the same time a great inclination to go to stool. There was scarcely any hemorrhage from the wound, which was then simply dressed by bringing the edges of it together by adhesive plaster, with lint and a bandage over it. We then dilated the original wound made by the rusty nail, which also (rather unexpectedly) gave acute pain; but we did not cauterize it, as proposed, the symptoms having already yielded. A poultice, sprinkled with laudanum, was applied over it. His bowels were copiously moved, and, on being placed in bed, he fell into a sound sleep, (without any additional opiate,) which continued without interruption for four hours, and awoke very much relieved from all his former disagreeable sensations. His jaws still, however, felt rather stiff, but, on strong exertion, he could open them nearly to the full extent. The excessive pain in the original wound, of which he had complained previously to the operation, had entirely ceased, and the motion of the limb was now quite restored. It was found, on examination, that the heel and sole of the foot were quite benumbed, but the sense of feeling in the upper part was not affected. At night he got the following powder: Pulv. Opii, gr. ij.; Pulv. Camphoræ, ℈j." (P. 410.)

A bleeding of twelve ounces, which produced syncope, and a number of opiates, completed the cure, which was perfect in every respect, excepting that an entire want of sensation in the little toe and heel remained even after the lapse of six months.

Two cases in which *Lithotrity* was successfully employed are detailed by Dr. Casanova, who is probably the first that has performed this operation in Bengal; and numerous cases of *Lithotomy* are communicated by other surgeons; their chief interest consisting in being practical contradictions of a theory which long bore sway on very slender evidence, namely, that calculus is almost unknown in India.

Mr. Twining has a short paper on *the Comparative Strength of a dark and light coloured Variety of Croton Oil.* The former was the most powerful, "in the ratio of eleven to six; the average purgative effects of seventeen doses of the former being to produce eleven stools, and in that number nine patients were griped, ten complained of a disagreeable sensation of heat in the belly, and two vomited. The average effects of eighteen doses of the light-coloured oil (No. 2,) was [sic] to produce six stools; and, in those pa-

tients, seven complained of a sensation of heat in the belly, nine were griped, and one vomited." In two cases, one minim of the stronger oil produced twenty-four stools.

We have thus given an abstract of the more interesting papers in this volume; selecting those which, like the rich fabrics of the Indian loom, lose nothing by carriage; and leaving untouched, but by no means contemning, others that, like the produce of an Eastern garden, to be relished, must be tasted on the spot.

The London Practice of Midwifery; including the most important Diseases of Women and Children. Chiefly designed for the Use of Students and Early Practitioners. The Sixth Edition, with Alterations, additional Practical Remarks, and new Sections. By GEO. JEWEL, M.D. &c.—London, 1833. 12mo. pp. 407.

THIS work has been so long known to the profession, and has attained so great a degree of popularity, that it is scarcely necessary for us to do more than announce to our readers that another edition has just been published, under the superintendence of Dr. Jewel. New sections of considerable length, on the subjects of Leucorrhœa, Spontaneous Evolution, Puerperal Mania, and Puerperal Fever, have been introduced, and many short but useful practical remarks have been inserted throughout the volume.

Publications on midwifery have wonderfully increased of late: we do not, however, object to their multiplication, believing most firmly that great advantage must necessarily be derived from them; for, while the general outline is pretty much the same, there is an endless variety in the details; one author selecting particular subjects upon which he dwells at length, while the attention of another will be directed to different though equally important points. A man, therefore, who wishes for complete information on any given subject ought to peruse almost every work connected with it, and not to suppose that, because their titles are the same, the contained matter must necessarily be the same also.

It is well known that Dr. Jewel has paid considerable attention to leucorrhœa, and has published a very practical essay on the subject. So common is this discharge, that it may be said with truth that few women are free from it: it arises from very different, and even opposite causes, and therefore requires great discrimination in its treatment. We perfectly agree with the author, that the *seat* of the disease is various: he states,

"The discharge most commonly arises from the upper part of the vagina and cervix uteri, but in some cases it may be traced to a high degree of irritation, if not inflammation of the subacute kind in the cervix, a state of the complaint which is often mistaken for carcinoma uteri in its incipient stage, and consequently no remedies are prescribed, or a very inefficient mode of practice is adopted; and, although the local symptoms may not be dissimilar, yet, in this complaint, the os uteri will not be found opened to the same extent as in carcinoma, nor will its margin present the same cartilaginous hardness to the touch. It should be borne in mind that profuse leucorrhœa occurring at the period of life when the uterus is about to cease in the performance of its natural function, is oftentimes indicative of structural disease, and hence the necessity of a careful examination. The predisposing and exciting causes of this complaint are various. Among the most prominent may be mentioned a scrophulous diathesis, frequent child-bearings or abortions, a disordered state of the menstrual function, &c. Ascarides in the lower part of the intestinal tube will give rise to a vaginal discharge. It has also been thought to arise from the state of the spinal cord, which furnishes the nerves of the uterus." (P. 45.)

Where the discharge proceeds from the mucous follicles around the os uteri, it presents a peculiar dense and creamy appearance, by which it is easily distinguished, and will then commonly be found to depend upon inflammation, either acute or chronic, of those glands, and will consequently require for its cure a certain extent of antiphlogistic remedies. We believe that Sir Charles Clarke was the first to describe this characteristic symptom. The common forms of leucorrhœa are, however, vaginal affections, consisting of an increase in quantity, and an alteration in the quality, of the natural secretion; and, although unquestionably they are frequently the result of debility in the secerning vessels, and hence in these cases the term "weakness" may be justifiably employed, yet they will sometimes be the result of inflammatory action; and on the existence of either of these states depends the proper method of treatment. Dr. Jewel's directions are the following:

"In the treatment of leucorrhœa, attention should be paid to the state of the circulation and general health; for, upon the existing condition of the system must depend very materially the adoption of means likely to effect a removal of the local disease. If a female labours under a vaginal discharge with a full, quick pulse, a coated tongue, thirst, and probably a determination to the cerebral vessels, the abstraction of blood from the arm, together with active purgation and a vegetable diet, would, in all probability, remove the complaint, without the employment of local remedies. It is not often necessary, under the ordinary circumstances of vaginal dis-

charge, to take blood from the arm. Even when apparently admissible, local bleeding, either by the application of leeches or cupping-glasses to the loins, is to be preferred. From the sympathy which exists between the uterine system and the stomach, the functions of this organ soon become imperfectly performed. There will be a sinking at the pit of the stomach, with occasional fulness and palpitation. The general treatment of the patient is now carefully to be attended to, and a rigid system of dietetics will be necessary. Almost the first important step in the cure of leucorrhœa, is a free evacuation of the alimentary canal; and in the use of aperients, we should be governed by the peculiar features of the case. If the digestive functions are impaired, medicines of the purgative kind should be mild in their operation. With regard to local applications, it must be observed, that the various astringents usually employed are very uncertain in their effects. Those commonly in use are a solution of alum, of the sulphate of zinc, of copper, the decoction of oak bark, &c. The editor has introduced into practice a local remedy, which he feels confident will prove more efficient than any other hitherto employed, provided it be judiciously used, namely, the nitrate of silver; and he conceives it has this great advantage, namely, in producing a new action in the part from which the secretion has its origin. It may be applied direct to the part affected by means of the speculum or dilator, or used in the form of injection, commencing with the solution in the proportion of about three grains to the ounce of distilled water, gradually increasing the strength. To prevent the decomposition which takes place when the pewter syringe is employed, the curved bone syringe may be used, which the editor has invented. The patient should place herself in the recumbent posture, and should remain in that position several minutes after the syringe has been withdrawn. The nitrate of silver gives neither pain nor irritation, at least no more than is occasionally produced by the injection of any common astringent." (P. 46.)

An increased flow from the vagina is sometimes produced simply by constipation, and is at once cured by any common aperient, without the employment of local means. The secale cornutum has of late been given, and in many cases with apparent success: our own experience, however, is insufficient to enable us to give any decided opinion regarding its merits. In cases unconnected with an inflammatory condition of parts, and not depending upon organic change or malposition of the uterus, we have usually succeeded with astringent injections, combined with the internal administration of the tinct. ferri muriatis, which we consider a very valuable remedy in these affections. The propriety of bleeding from the arm, under any circumstances, is questionable, but leeches to the pudendum are occasionally useful.

When treating of Puerperal Fever, Dr. Jewel has fallen into the common error of describing several diseases under the same name. We believe that the symptoms of this frightful disease are so distinct from those of peritonitis, that no attentive observer can mistake them: they are more of the genuine "typhus gravior," accompanied by abdominal affection. The cerebral symptoms, however, are at first decidedly predominant, and the important point is to determine, at the commencement of the disease, whether it be malignant puerperal fever or simple acute peritonitis; the latter disease requiring the prompt and repeated use of the lancet; while, in the former, depletion, if used at all, must be employed with the utmost circumspection. This is a question which we cannot afford space to discuss, and therefore must rather abruptly dismiss the subject.

The section on Puerperal Mania contains much useful matter. The symptoms of this distressing malady are thus detailed:

"The first indications of its approach are, an increased irritability of temper, disturbed sleep, and a disposition to talk. One peculiar characteristic of the disease is, that in the course of this unusual volubility, the unfortunate patient, however morally or religiously disposed when in health, uses the most improper, and oftentimes indelicate language. In some cases she is obstinately silent. The countenance becomes pallid and anxious, the eye is restless, the tongue is coated, and the pulse is generally accelerated. The editor has known the disease to be ushered in by a pulse beating 120 in a minute, which continued, without any deviation, for a period of four days before the maniacal symptoms became developed. The bowels are almost invariably constipated. The secretion of milk usually continues uninterrupted. This disease may be excited by a very trifling cause, particularly if the patient has had an attack on a previous ocasion, or if there be a tendency to hereditary insanity. In such cases, every thing which may excite the patient after her labour should be most carefully avoided. The state of the bowels should be attended to, the general comfort of the patient studied, and her mind kept constantly and agreeably amused. Uterine hæmorrhage, or any circumstance tending to depress the bodily and mental powers, seriously predisposes to the disease." (P. 340.)

The editor states that the average mortality in this disease is about one in fifteen, but we think this an over-statement. In our own practice we have never had a fatal case where it has been simple puerperal mania. If the affection be combined with phrenitis, then there will be great danger.

In the treatment of this disease our experience coincides

with the editor's, and teaches us that active depletion is rarely necessary, and caution is required in the use of purgatives; gentle laxatives being much more serviceable than those of a more active kind. We well recollect attending a lady whose symptoms were several times aggravated in consequence of our being obliged to have recourse to powerful aperients, when milder ones had failed. Opiates are in general decidedly hurtful, although in some cases, where there is great nervous irritability, they may be employed with advantage. We would caution our readers against applying a blister "over the back of the head:" in this situation it will sometimes aggravate the symptoms; the nape of the neck is the more proper place for it. When the patient begins to recover, the most powerful tonics are indicated.

Dr. Jewel's additions are clear in style, and useful in substance. As to the original work, it needs no eulogium of ours: we will merely observe, that the beginner may learn from it not only the practice of midwifery, but also the valuable lesson, that to be instructive it is not necessary to be dull.

The Edinburgh Medical and Surgical Journal, No. CXVII. October, 1833.

OUR excellent contemporary is so rich in original communications, that it has all the interest of a volume of good medical essays, which it would be unpardonable to pass over in silence; and we shall therefore, from time to time, gratify our readers with a short abstract of the more prominent points contained in it, occasionally indulging in a word or two of comment, approval, or dissent.

Mr. SANDWITH has contributed some remarks on *Scarlatina*, with an account of the disease as it appeared epidemically at Bridlington, in 1831. He insists very strongly on the advantage to be derived from bleeding.

Mr. WISHART has a case of *Extirpation of the Eyeball*, in which the patient, a girl of thirteen, did well. The eye itself was sound, but was pushed out of its orbit by an adhering tumour.

There is a very interesting paper by Dr. OGSTON, entitled *Phenomena of the more advanced Stages of Intoxication, with Cases and Dissections.* The materials were chiefly derived from cases treated at the police-office in Edinburgh, and the following is an abstract of some of their principal points:

"*Tabular View of the Phenomena of the more advanced Stages of Intoxication.*

Case.	Age.	Sex.	States of the Pupil.	Pulse.	Sensorium.	Extrem.	Face.	Breathing.	Termination.
1	18	Male.	Dilated.	Impercept.	Prof. coma.	Cold.	Sl. flushed.	Slow.	Stupor, coldness.
2	40	do.	Str. do.	do.	do. do.	do.	Pale.	Laborious.	Fatal in 3-4 hour.
3	60	Fem.	do.	do.	do.	do.	Flushed.	Slow.	Rigors, immediate recovery.
4	40	do.	do.	do.	Prof. do.	do.	Pale.	do.	Immediate recov.
5	28	do.	Str. do.	do.	do. do.	Very do.	Swol.livid.	Laborious.	Fatal.
6	30	Male.	do. do.	do.	do.	do.	Pale.	Slow.	Return of pulse & sensation, pupil contracting.
7	60	Fem.	do.	do.	Prd. do.	Very do.	Flushed.	do.	Stupor, coldness.
8	22	Male.	Str. do.	do.	do. do.	do. do.	Pale.	Laborious.	Fatal.
9	38	Fem.	do. do.	do.	do. do.	do.	Sl. livid.	Slow.	Coldness, rigors.
10	30	Male.	do. do.	Feeb.slow.	do.	do.	Natural.	Laborious.	Delirium, succeed. by stupor.
11	35	do.	do. do.	68, soft.	do.	Nat.warm.	Very pale.	Slow.	Coma for 8 ho.
12	50	do.	do.	Soft, freq.	do.	do. do.	Flushed.	Rapid.	Convulsions.
13	36	do.	Mod. do.	Feeble.	do.	Cold.	Pale.	Slow.	Stupor.
14	27	Fem.	Str. do.	Full, slow, feeble.	Prd. do.	Very do.	Flushed.	Very do.	Convulsions, hys. and stupor.
15	15	Male.	do.	Do. soft.	do.	Coldish.	do.	Calm.	Noisy delirium, ending in stupor.
16	13	do.	Str. do.	Feeble.	Stupor.	Cold.	do.	Slow.	Immediate recov.
17	19	Fem.	do. do.	Full, slow.	Coma.	do.	do.	do.	Noisy delirium.
18	30	do.	do.	72, feeble.	Prd. do.	Coldish.	Pale.	do.	Stupor, nausea.
19	25	do.	Str. do.	Soft, full.	do. do.	Nat. warm	do.	Calm.	Immediate recov.
20	27	do.	do.	84, feeble.	do.	Cold.	Flushed.	Slow.	Stupor, pulse rising to 104.
21	28	Male.	Contrac.	Full.	Stupor.	Nat. warm.	Pale.	Stertorous.	Stupor.
22	70	do.	Much do.	Slow.	Prd. coma.	do. do.	do.	do.	Coma and stertor for 8 hours.
23	28	Fem.	do. do.	Do. indist.	do. do.	Cold.	do.	do.	Do. do. for 16 h.
24	32	Male.	do.	108, soft.	do. do.	Nat. warm.	Pale and flush.alter.	Do. and puffing.	Symptoms cont. 18 hours, fatal.
25	19	Fem.	Much do.	79, rather firm.	do. do.	Warm.	Pale.	Stertorous.	Coma for 6 ho.
26	27	do.	do. do.	84, feeble.	do.	Nat. warm.	do.	do.	Stupor for 6 ho. pulse 100, pupil dilated.

Bleeding is injurious. One of the best internal remedies is ammonia, but, if there is unmanageable delirium, tartar emetic should be given in nauseating doses. Cold affusion is to be used "where the temperature of the head is steadily high, and that of the surface generally not too much reduced."

Dr. MAUNSELL has given *a Report of the Obstetric Practice of the Wellesley Female Institution.* In the year 1832 the number of cases attended was 442. "Of these, nineteen were abortions, leaving a balance of 423 actual labours. From these were produced 431 children, there having been eight cases of twins, or one in $52\frac{7}{8}$." It is remarkable that, of these, the number of females was 220, and of males 211; and a still more remarkable statement is given in a note, on

the authority of Dr. Rutty, by which it would appear that from 1757 to 1770, the female births in Dublin were considerably more numerous than the male ones. We suspect some error in this. Dr. Merriman informs us that 97,057 were delivered in the Dublin Lying-in Hospital, from 1757 to 1820, and that about twelve males were born to eleven females. (*A Synopsis, &c.*, 4th edit., p. 342.)

Among the Wellesley Institution cases there were four arm-presentations, in two of which spontaneous evolution took place.

Dr. Maunsell says that, "among forty-eight healthy women, taken indiscriminately, mostly in the eighth or ninth month of pregnancy, the pulse was, in thirty-two of them, above 100, in many 120, and in one 144." Now it is commonly stated, by writers on obstetric auscultation, that the pulsations of the fœtal heart are about twice as numerous as those of the mother's. If therefore it were common for a pregnant woman to have a pulse of 120, the fœtal pulsations would be too numerous to be counted. Dr. Maunsell's objections, of course, depend on this supposition, which, we will confess, is quite contrary to the result of our experience.

Dr. Dymock, while pursuing his anatomical studies in the year 1830, met with a case of *supernumerary cervical ribs.* He refers to several instances of the same anomaly recorded in the annals of medicine, but does not quote Soemmering, who says, "*Hunauld, Memoir. de l'Acad. Royale des Sciences*, 1741, parum similem costam supernumerariam costæ primæ veræ, *Leveling Obs. Anat. Rariores, Ingolst.* 1786, magis similem describunt, in mea collectione costa supernumeraria costæ primæ veræ omnium maxime similis asservatur, attamen costa supernumeraria ad manus est, minor, quam in Hunauld observatione, costæ primæ similis, ultima enim colli vertebra multum longa, contracta, divisa sistitur." (*S. Th. Soemmering, de Corporis Humani Fabricâ*, tom. i., p. 250.) Dr. Dymock mentions Hunauld's case, but says it appeared in the Memoirs for 1740.

Mr. Syme, in his Clinical Report, gives two additional cases, in which excision of the elbow-joint was successfully performed.

Dr. Coldstream has furnished a good account of the *Topography and Climate of Torquay, in Devonshire.* Those who know what delicate thermometers plants are, will require no other commendation of the mildness of a Torquay winter than a list of the plants which it fosters.

"The following plants are considered, in the gardens around

Torquay as hardy exotics, and usually are allowed to remain in the open border during winter:

Azalea Indica,
Aster Capensis,
Agave Americana,
Bignonia Pandoræ,
Cactus speciosus,
Calceolaria plantaginea,
——— corymbosa,
Cassia Capensis,
Citrus medicus,
Coronilla glauca,
Dracocephalum Canariense,
Fuchsia coccinea,
Magnolia conspicua,
Mespilus Japonica,
Myrtus communis,
Laurus camphora,
Metrosideros floribunda,
Pœonia arborea,
Punica granatum,
Salvia purpurea,
Verbena malendris,
Yucca aloifolia,
——— gloriosa."

(P. 353.)

Invalids labouring under chronic bronchitis, or rheumatism, are especially benefited by the climate of this place.

Mr. KEITH, of Aberdeen, gives an account of two cases in which he successfully performed the operation of Lithotrity. The first patient, aged seventy-two, was suffering from the presence of a calculus an inch and a half in diameter. The first sitting took place April 23d, 1833.

"The catheter being withdrawn, the percussor was introduced, and a stone of the dimensions stated readily seized. The instrument secured in the fixed point, or moveable vice of Baron Heurteloup's bed, on which the patient reclined, the hammer was applied, and the stone shattered to pieces. A large fragment was again seized and crushed. A third seizure was effected, but a fold of the mucous membrane of the bladder was felt between the teeth of the percussor and the fragment; and the latter was accordingly dropped.

"The time prescribed (fifteen minutes) having expired, nothing farther was attempted. In a few minutes Mr. F. made water freely, and discharged a quantity of small sand and gravel, composed of lithic acid; and several fragments followed in the course of the night. The urine was tinged with blood, but no hemorrhage whatever followed. His only complaint was of slight heat and scalding along the urethra. He passed a tolerable night, and was out next morning before seven o'clock at his usual walk." (P. 480.)

After several other sittings at various intervals, on the 20th of July the bladder was found to be clear. The collected fragments of the stone weighed an ounce. Among others who witnessed these operations was Mr. Liston, of Edinburgh.

In the second case the symptoms were much more violent, and the patient (sixty years of age,) was evidently suffering from cystitis. He applied to Mr. Keith on the 5th of May,

1833, but the first sitting did not take place till July the 30th, after the inflammation of the bladder had been subdued, or nearly so, by antiphlogistic treatment.

"Having placed him on the rectangular bed, the bladder was injected with warm water to seven ounces, and the percussor introduced. The stone was readily seized and crushed, as were three large fragments subsequently. The bladder was afterwards washed out by a few ounces of water, and the operation finished in fourteen minutes. A tea-spoonful of fragments came away, and a quantity of detritus. He complained only of slight scalding along the urethra, and a feeling as if the neck of the bladder had been rather forcibly dilated that night. Next day the stone symptoms had almost departed; and on the night of August the 1st, he slept from eight P. M. to eight next morning, which he had not done for years. Fragments came away for two or three days.

"On the 3d of August, as the bladder was quiet, and all irritation arising from the former operation gone, he was again operated on, and four fragments crushed. On the 13th, five fragments were comminuted; on the 22d, seven fragments seized and broken, the operation in whole occupying six minutes.

"Injecting the bladder being now rendered unnecessary, from his being able with comfort to retain his urine for five hours prior to the operation, on the 28th, seven small fragments were destroyed. Each of these operations was followed by the discharge of a quantity of debris. On the 3d of this month, September, the bladder was carefully explored, and two fragments, measuring a quarter of an inch in diameter, discovered, picked up, and destroyed; the sand came away, and the bladder was clear. Yesterday morning, at six A. M. he went to his work, perfectly well." (P. 482.)

Mr. Keith disapproves of the anodyne clyster, on account of the parching thirst which it occasions.

Mr. LISTON has also performed this operation in two cases, and with perfect success. He says:

"Notwithstanding my disapproval of "the hammering of stones in the bladder," expressed in my Elements of Surgery, I have deemed it incumbent on me to give the practice a fair trial, the improved instruments appearing both simple and efficient.

"I have, accordingly, employed the *percuteur* in two cases. The result has proved so far beyond my expectation, that I send you the following short statement for publication, hoping that it may induce others to make trial of the apparatus. For it is only from the accumulated experience of the regular surgeons, that we can hope for certain advancement in lithotrity.

"The first patient on whom I employed the percuteur thus describes his case.

"*Edinburgh; 9th September,* 1833.

"Sir: After being afflicted for upwards of two years with what I supposed a complaint in my bladder, I waited upon you for advice.

Upon sounding, you discovered there were several stones in my bladder, and immediately extracted (by Weiss's forceps) one much larger than I conceived possible to come through the urethra. At my second and third visits, eight or ten smaller stones were extracted; and by using sweet spirits of nitre, and drinking largely of barley-water, as you advised, I passed, in the course of a few weeks, from sixty to seventy pieces of stone, varying from the size of a small white pea, to that of a small horse-bean.

"At my fourth and fifth visits, you ground down with an instrument, which I suppose of French invention, (Civiale's improved three-branched instrument,) a stone supposed nearly an inch in span, and another about the size of a Spanish nut. By again using spirit of nitre, and drinking barley-water, many small fragments were passed.

"After a lapse of several months, I again waited upon you, when you ground down with a new instrument (the percuteur) a small stone; and, in fourteen days thereafter, when I again waited upon you, you ground down two stones, one of them of considerable size. Agreeably to your instructions, on both these occasions I used sweet spirit of nitre, and drank a good deal of barley-water, which caused a great number of fragments of stone to come away, and stuff like slaked lime.

"The pain and uneasiness caused by the new instrument was infinitely less than what was caused by the other.

"When I waited upon you, on Sunday the 26th ult., fourteen days after the last operation, you sounded me two or three times, without discovering any thing in the bladder. You then injected some warm water, and sounded again, with the same result.

"Since the last operation with the new instrument, I have been entirely free from pain, and now make water with as much freedom and ease as ever I did in my life. Thus, you have cured me of a most distressing complaint, for which I can never be sufficiently thankful and grateful to you. I am, sir, &c.

"J. M."

"The working of Civiale's apparatus in this case produced considerable pain and irritation, whereas the percuteur caused almost no pain whatever, the patient merely complaining of the annoying sensation which accompanies a strong desire to make water. There was also no admixture of blood with the urine that escaped during the operation, showing that no injury had been done to the coats of the bladder." (P. 483.)

In the second case, in which the patient was a labourer, aged fifty-four, Mr. Liston again employed the *percuteur.* At the date of his communication there had been five sittings, and Mr. Liston says, "perhaps one other sitting, certainly not more, may yet be necessary."

In concluding this notice, we cannot refrain from again

expressing our admiration of this well-conducted Journal, which is not merely the herald of medical discoveries, but contributes to the progress which it records.

The Origin and Progress of the Malignant Cholera in Manchester, considered chiefly in their Bearing on the Contagiousness and the Secondary Causes of the Disease. To which are added, some Remarks on the Treatment. With an Illustrative Chart. By HENRY GAULTER, M.D.—London, 1833. 8vo. pp. 206.

PREVIOUSLY to the publication of Dr. Gaulter's work, no account of the first visitation of the cholera at "the capital of the manufacturing districts" had made its appearance. That a place of such importance should remain unnoticed in the annals of cholera, while each petty village in the kingdom which has suffered from the disease can furnish its chronicles on the subject, was more than our author could endure; and he writes, therefore, for the future historian, of the most extraordinary epidemic that has happened for many generations.

At the commencement of a work which has for its subject the consideration of topics which have been the cause of much controversy, it would not be unreasonable to expect some observations respecting the many causes which tend to lead us into error. Dr. Gaulter says that

"The poor are habitually inexact: they omit, from stupidity, the most essential point of an inquiry, unless led to it by a direct question; or they answer as they suppose you wish them to answer; or else they wilfully deceive; nor is it difficult to imagine many powerful motives for concealment or falsehood in such an investigation. It is often, in short, only by a separate examination and cross-examination of the patient relations, and neighbours, managed with all the astuteness of a lawyer, and that too after the first alarm has passed away, and the tranquillity of the house or neighbourhood has been restored, that the true particulars of the origin of any individual case can be correctly learned. Nor are the poor the only deceivers. The inquirer is himself, from an unconscious bias, not seldom in pursuit less of the truth, whatever it may be, and wherever it may lead, than of some preconceived opinion or exclusive system. He is a contagionist, and puts but one kind of question, or hears but one class of answers: he is an adversary to contagion, and interrogates only on localities and miasm." (P. 3.)

Now, although there is nothing in the above statement to which our readers would refuse their assent, we are strongly inclined to believe that they would more readily admit these

truths in their study than apply them in their practice. Most of the vague theories and strange doctrines which abound in the history of medicine owe their origin to the overlooking such plain and simple truths; and, although the winnowing-fan of time has to a great extent separated the good from the bad, we cannot but look with astonishment at the mass of rubbish which in its day has been dignified with the title of a medical theory. There is much more required of a medical man than the qualifications for which he offers his certificates on entering his profession, if he would use that profession as a means to benefit others, and give pleasure to himself: his study must be directed to the mind as well as to the body, or he will soon have cause to repent his ignorance.

Theory-building has been beautifully described in the "Novum Organum," under the section "Of the False Images, or Idols, of the Mind."—"When the mind is once pleased with certain things, it draws all others to consent, and goes along with them; and, though the power and number of instances that make for the contrary are greater, yet it either attends not to them or despises them, or else removes and rejects them by a distinction, with a strong and pernicious prejudice to maintain the authority of its first choice unviolated. And, though the mind were free from this delight and vanity, yet it has the peculiar and constant error of being more moved and excited by affirmatives than by negatives; whereas it should duly and equally yield to both." And farther on: "The light of the understanding is not a dry or pure light, but drenched in the will and affections, and the intellect forms the sciences accordingly; for, what men desire should be true, they are most inclined to believe."

An attentive perusal of Dr. Gaulter's work will convince the reader that the doctor has not so far confined himself to the affirmatives as to reject the evidences having a contrary tendency: his is not a one-sided view of the question of contagion; and, should that question still continue to divide physicians into two opposing parties, it will not be the fault of Dr. G. that the parties do not join issue, but rather the fault of the word, or of the persons using it in a variety of meanings. It is this fallacy which has been the cause of violent controversies, not confined indeed to the medical profession. A word! what can appear more trifling, and yet, in its application, what can there be of greater importance? "Words," says the great writer whom we have just quoted, "are generally imposed according to vulgar conceptions, and divide things by lines that are most apparent to the understandings of the multitude; and, when a more acute under-

standing, or a more useful understanding, would remove these lines, to place them according to nature, words cry out, and forbid it. And hence it happens that great and serious disputes of learned men frequently terminate in controversies about words and terms, which it were better to begin with, according to the prudent method of the mathematicians, and reduce them to order by definitions."

Two months before the outbreak of the disease, an inspection of the town of Manchester was conducted under the orders of a well-organized board of health, and "disclosed in the quarters of the poor such scenes of filth, and crowding, and dilapidation—such habits of intemperance and low sensuality—and, in some districts, such unmitigated want and wretchedness, that the picture of the moral and physical state of the poor, which an active member of the board subsequently drew, deriving some of his darkest colours from the inspection, seemed to the minds of many among the more easy of the inhabitants as little less than a malicious libel on the town." (P. 2.) Fortunately, however, the disease was comparatively mild, although it was presumed, from the above statement, that the whole working population would have been swept away by the disease.

The first subject which our author considers is the "Origin of the Epidemic." The prevalence of cholera in the spring of 1832, and the extraordinary intercourse between Manchester and many great towns in the north of England and Scotland, where the disease was then prevailing, were regarded as sufficient reasons for the hourly expected outbreak of the disease at Manchester. The means taken to prevent its arrival are ludicrous enough.

"Two inspectors were set to watch the canal boats; a feeble array against an enemy that had the credit of having overmatched the armed cordons of Austria and Russia. At the same time the tramper was allowed to walk into the town unmolested; and the coaches, of which at least a hundred arrive daily, and the railroad, which at that time was pouring in weekly a tide of several thousand passengers, were left at perfect liberty to import what and whom they pleased." (P. 6.)

Such were the measures taken to prevent the introduction of the disease, and such the various means by which it might be introduced; and it is not to be regretted that more shackles were not placed on the commerce of the country. Our author compares the means taken to exclude the disease to the plan adopted by the country gentleman described by Addison, who thought to keep out the crows by nailing up his park-gate.

Dr. Gaulter is of opinion that all the precautionary measures which might have been adopted would have been followed by the same result: that the disease came not to Manchester by coach; that it neither sailed nor glided suddenly in; that it was not propelled by the force of steam. On the contrary, he says "it arose upon the spot." We will give the first case in his own words:

"On Thursday, the 17th of May, James Palfreyman, aged twenty-nine, a coach-painter, who lived in Somerset street, Dolefield, began to complain of nausea and pain of the bowels. He was seized at midnight, on Friday, with the characteristic symptoms of cholera, of which a clear and minute description, made from notes taken at each visit, was forwarded to the board of health by Mr. Stephens, the surgeon, for whose advice he applied. He died on Saturday afternoon, the 19th of May, at half-past two, in Coronation street, Salford, having been unthinkingly removed there by his family, who were changing their residence. No symptom during life, and no appearance after death, was wanting to mark this for a genuine case of malignant cholera. Palfreyman was a fine, stout, well-proportioned man; his house was not crowded; he was earning comfortable wages; the street where he lived was, in comparison with others, moderately clean and open. On the other hand, there was nearly opposite to his house a large dunghill attached to some extensive stables, (Wright's,) and Palfreyman had often complained of the fœtor which issued from the base of the wall behind which it was placed. Though his health was in general good, he had had repeated attacks of painter's colic; was subject to severe diarrhœa on taking weak acids; was an occasional drunkard; had been drunk the Tuesday night preceding the attack, and had eaten on Wednesday at dinner heartily of lamb's head, and what are called here the appurtenances, the liver, heart, &c. He had never been well after this meal. It was established, by the most diligent inquiry, that Palfreyman had had no communication, direct or indirect, with any infected person or thing." (P. 6.)

In this case the causes predisposing to cholera are sufficiently evident: whether the fœtor arising from the dunghill was sufficient of itself to produce the disease we will not venture to decide.

In Oldham the disease had likewise a doubtful origin; and in Bury, where only two cases occurred, the first was in a tramper, who did not communicate the disease, and the second in a respectable inhabitant, who had neither been exposed to contagion from the tramper, nor to any other source. Dr. Black, of Bolton, says that no case of the disease could be traced to importation into that town, nor had the first patients the least intercourse with any infected person or places. Dr.

Gaulter remarks, that, while "it is undoubtedly communicable from man to man, its dissemination over so large a portion of the habitable globe has been, on the whole, effected without contagion, by the successive springing up, sometimes in distant, but more commonly in adjacent places, of the poison, whatever this may be, that causes the disease. The more rigorously the evidence is examined, the more will the mind be confirmed in this conclusion, until it finally shakes off the idea of the contagious itineration of the disease; an idea founded, it must be admitted, on the most specious appearances, and strengthened by being associated with every term currently employed to express its progress." (P. 8.)

To the fallacy respecting the origin of the epidemic which our author has just mentioned, he adds a second, which has been the cause of much error, viz. the confident assumption of the importation of the disease, from the mere circumstance of its breaking out being coincident with the arrival of persons from an infected district; to this he adds a third source of fallacy, which he asserts has been more prolific of misrepresentation than either of the two already noticed: that is, the inference of contagious importation, from the occurrence of first cases either among the shipping of a seaport, or the parts of a town with which the shipping is in contact, or generally in places situated on the banks of a navigable river, although that inference has been drawn either without the prosecution of any inquiry into the history of those first cases, or in direct contradiction to the results of this inquiry. Dr. Gaulter has bestowed much labour in investigating the history of the disease as it has shown itself in various parts of the world. We must refer our readers to his work, if they desire to be acquainted with the arguments which he adduces in refutation of the opinions which we believe have been adopted by the majority with respect to the spreading of the epidemic. We will give the summary of his arguments in his own words:

"That the conclusion however is one of the utmost practical moment, cannot be denied. It is on the mode in which the disease originates, and not on that in which after its commencement it is subsequently propagated, that the important question of quarantine depends. The disease, after it has established itself in a given place, may be more or less contagious; but if the fact turns out to be that it arises in ninety-nine cases out of a hundred without importation —that imported cases of cholera, like imported cases of ague, prove barren—and that the disease spreads only after the appearance of spontaneous cases, quarantine is useless, and the injury it inflicts on the commercial relations and maritime intercourse of the

country that adopts it is an absolute and uncompensated evil. So satisfied I am of the truth of this conclusion from an extended examination of the history of first cases, that I durst almost venture to assert of cholera what Dr. Vetch boldly but truly asserted of yellow fever, (which in its causes differs chiefly from cholera in this, that a high atmospheric temperature is indispensably necessary for the existence of the former, while it only favours that of the latter,) that if the government were to offer a premium for the introduction of cholera into any town selected for that purpose, it could not be introduced. Springing up upon the spot, on the one hand no amount of intercourse can certainly convey the poison so as to give rise to a genuine eruption of the disease, and on the other hand no human artifices of exclusion can, in the very nature of things, shut it out." (P. 33.)

The second division of the work is headed "Extension of the Disease by Spontaneous Cases." Our author says, that

"If the first cases in Manchester were spontaneous, the presumption undoubtedly is that other cases, in the progress of the epidemic, would bear the same character; and accordingly, by a reference to the tables, it will be seen that, of the 200 edited cases, there are 117 where, after the most searching and jealous inquiry, no communication could be traced; and, of the 100 unedited, there are 62 more." (P. 34.)

We think we shall have discharged our duty to our readers by referring them to the chain of evidence which Dr. Gaulter has adduced: to bring forward any individual case would be a means of throwing but little light on the question.

The like observations will apply to what our author has essayed under the head of "Extension of the Disease by Contagious Cases." We have only to remark, that the question of contagion and non-contagion is handled by Dr. G. in a very able manner: he has not given up his mind to affirmatives without duly weighing the negatives; and, should his train of reasoning fail to carry conviction to the reader, his arguments will at least afford much pleasure, from the skill and ability with which they are conducted.

"On the Causes of the Disease, and chiefly its Secondary Causes," our author remarks, "There is therefore, at all events, nothing contradictory to the hypothesis, which, the more I reflect upon it, appears to me to be the more probable, that the miasm which produces the spontaneous attacks of cholera is precisely the same matter as the poison which, in contagion, transmits the disease." (P. 94.) This hypothesis he supports by a series of arguments, which are too long to admit of being extracted.

A large share of the exemption from cholera which the

working classes at Manchester enjoyed during the epidemic, Dr. Gaulter is disposed to ascribe to the cotton-factories in which they work. "Out of the 200 tabular cases, only 23 worked in factories, and of these, 12 were out of work, or accidentally remaining at home." (P. 120.) A like exemption of the factory people in actual employment was observed at Warrington, Stockport, and other manufacturing towns. How far the employment of the mind may have tended to produce this exemption from the disease we have not sufficient data to assert; at all events, we have the authority of Dr. Gaulter for stating that the men thought themselves safe from the disease in the factories, and spent no more of their time at home than was absolutely necessary.

Passing over the "Generating, Predisposing, and Exciting Causes," respecting which we may suppose our readers fully acquainted, and just hinting that they will find some useful information "on the best General Arrangements for meeting the Disease," we arrive at the "Treatment of the Disease." Our author remarks, "It happens not unfrequently in medicine that the pathology and treatment of a disease do not keep pace with each other. Of this, cholera is unhappily an example." After making some sensible remarks on the pathology of the disease, he says, "The saline remedies of Dr. Stevens were not confided in, having been found inefficient in the stage of collapse, and inferior to the ordinary practice in the incipient stage." (P. 148.) The cold-water plan of Dr. Shute was adopted in two or three cases, but without success; and venous injection was tried in eight cases, all of which terminated fatally. The tartar-emetic treatment, as described in a letter from Mr. Langford to Dr. Gaulter, appears to have been the one most in use at Manchester.

"The antimonial plan is as follows: Dissolve ten grains of tartarized antimony in seven and a half ounces of distilled water, with half an ounce of rectified spirit, of which give half an ounce every two hours, until the biliary and urinary secretions are properly restored; then gradually diminish its frequency. Allow toast and water, or whey, *ad libitum;* prohibit all heat and frictions, and give no other remedy. In all the pulseless cases, and when the pulse became feeble, I applied externally cloths dipped in warm spirit of turpentine, in preference to mustard poultices, as often as six times in twenty-four hours, over the thorax and abdomen, producing considerable cuticular excitement without vesication." (P. 152.)

The success which attended this plan of treatment was not so great as that which was obtained by the administration of calomel, as recommended by Dr. Ayre; in 80 cases there

were 53 recoveries, and 27 deaths. The consecutive symptoms were treated much after the usual manner. We subjoin a list of the cases as they occurred in Manchester and the adjoining townships.

Cholera in the Township of Manchester. Population, 142,026.
Attacked, 1325. Died, 674. Recovered, 624. Unreported, 27.

Cholera in Salford. Population, 40,786.
— 700. — 216. — 474.

Cholera in Chorlton upon Medlock. Population, 20,569.
— 88. — 34. — 52.

Cholera in Stockport. Population, 25,469.
— 72. — 32. — 38. Unreported, 2.

The epidemic cholera, which arose in Manchester a little earlier than the common cholera, sprang to its climax by a sudden and very remarkable leap in the month of August, in which, according to Dr. Dalton's journal, more rain fell than in any month during the whole year. An extract from the parish register of Stockport "shews the singular, and I believe unique fact, that the mortality of the months included was considerably greater in that town during the year preceding that of the cholera, than during the cholera year itself." (P. 159.) If our author had consulted the registers of the different parishes in and about London, we think he would have found the fact above mentioned not so "singular and unique" as he imagines.

This laborious work contains an account of the first two hundred cases of cholera which appeared at Manchester, a part which will be consulted with advantage; but the value of the book would have been doubled had our author informed us where he obtained the materials for it. There is no preface; and we are left to guess how a physician, practising at Chorlton-upon-Medlock, could be acquainted with the minutest details of cases occurring at Manchester.

Introduction to the Study and Practice of Midwifery, and the Diseases of Women and Children. By WILLIAM CAMPBELL, M.D.—Edinburgh, 1833. 8vo. pp. 714; and 3 plates.

FROM the earliest ages to the present time the diseases of women have been discussed with a minuteness, and commented on with a felicity, which it would be in vain to seek in any other department of medicine. This may be attributed in part to the interest naturally excited by the suffer-

ings of the more agreeable half of the human species, and in part to the reflex operation on the medical profession of the same sentiment existing in the breasts of the public; for, from Chamberlayne to Gooch, the golden showers of public patronage have ever descended in the freest streams on the professors of midwifery. The encouragement given to this branch of physic is, of course, extended by the profession to the works which elucidate it; and hence the enormous number of Systems, Manuals, and Elements of Midwifery, which, to critics less good-humoured than ourselves, might sometimes seem to exceed all reasonable bounds. Yet still it cannot be expected that any one treatise should comprehend all that the student desires to know; and we therefore commend him who, while turning over Denman, "nocturnâ et diurnâ manu," does not shut his eyes to the light which more recent authors have thrown upon the darker passages of this high-priest of Lucina. It is almost unnecessary to observe, that Denman's excellent work is deficient in the physiology of generation, in the etiology and pathology of some important puerperal diseases, the diseases of children, and the peculiarities of infant life. Admirable as the works of Burns and Hamilton confessedly are, they leave much undone, which is the more to be deplored, seeing that what they have achieved is done surpassingly well. Where is the work on uterine hemorrhage comparable to Rigby's? But, half a century has elapsed without any notable addition to his instructions! Without Hey, Armstrong, Gooch, and Marshall Hall, we should be still—as before their valuable contributions—in the Slough of Despond whenever cursed with puerperal epidemics. An essay might be made on the subject, but enough has been said to convince the modest inquirer that his search will be sleeveless, for an entire and perfect chrysolite, in the shape of a system of obstetric medicine. It must not be thought we are ignorant of, or insensible to, the value of the labours of foreign practitioners, but it cannot be contended that they have supplied the defect.

The deficiency has been so long known to all—teachers especially,—that we are unable to say anything excusatory for Dr. Campbell's failing to supply it. Misconceive us not: there is no desire on our part to depreciate his merit, but to ourselves and readers we owe it to declare that many points of great interest are superficially, and not always correctly, dealt with. If his book were as perfect as his index is copious, there would be nothing left to desire. To justify this assertion, prior to a more detailed analysis, let us take a case. The pathology, symptoms, and treatment of "Suppression of

Urine, Retention of Urine, Incontinence of Urine, Diabetes, Swelling of the Breasts, Leucorrhœa, Phimosis, Paraphimosis, Hydrocele, Rachitis, Scrofula, and Continued Fever," are all disposed of in eleven pages! Brevity may be the soul of wit, but surely not also of physic. Observe, that he is thus laconic when treating of the most neglected and least understood of subjects,—the diseases of children; a neglect principally of those who undertake the self-imposed and responsible duty of instructing their successors.

The author's account of conception, generation, and the gravid uterus, is vague and unsatisfactory: he too seldom refers to, and still less often avails himself of, the works of those French and German physiologists to whose researches we owe much previous, and nearly all subsequent illumination, from the days of Hunter.

Recent as is Dr. Campbell's system, he repeats the exploded error that the *decidua* is a membrane peculiar to the uterus, instead of being proper to the ovum. The engraving of the fœtal circulation is very inaccurate. The left kidney is indicated as the right one. The arch of the aorta is apparently omitted, and for it we have what is pointed out as the ductus arteriosus. He insists that the areola of the nipple is an infallible sign of pregnancy: perhaps no case was ever known where it was absent;—it is universal; but there are disturbances of the uterine system simulating some of the characters of pregnancy, and we and others have seen the areola without gravidity. He states, from a limited experience, that the development of the uterus from distention by hydatids is inconsiderable; but cases are recorded, and we have seen one, in which the volume of hydatids and fluid amounted to three gallons.

In Dr. Campbell's opinion of the secale cornutum we concur, aye, even go further. The apocryphal virtues of this medicine have been advocated with a zeal almost amounting to bigotry; and, if the friends of the drug had been inquisitors, some of the doubters would have been persecuted. In the favourable testimony there is no want of integrity, but a sad lack of philosophy; and the *number* of converts is not even a presumptive evidence to us, who are not of the faithful.

The instructions for using the forceps are loose and incomplete, especially the long forceps. These instruments, in their ordinary form, are always difficult of application, and often unsafe to both mother and child; yet he directs, in one position, "the blade of the forceps to be inserted between the pubes and the head;" a proceeding that no testimony

could convince us is practicable in the supposed case, *i. e.* when the fœtal head is above the brim of the pelvis, but which, if practicable, would be perilous in the highest degree. Dr. Campbell does not mention the long forceps with blades of unequal length, which modification obviates some of the difficulty of their application, and the danger of their use; nor does he appear to recognize the advantage often gained by having the short forceps with a short blade for occasional use. Substituting a shorter for one of the ordinary blades of this instrument, is frequently of the greatest advantage. It has sometimes happened that a case not manageable by the vectis was denied the benefit of the forceps, because the second blade could not be applied. This difficulty suggested the shorter blade, which gave all the assistance sought, and with increased facility of introduction. We have seen cases thus rescued from the perforator, and in practice have ourselves experienced the advantage of this important improvement.

Although the treatment directed for flooding in the advanced months of pregnancy is generally judicious, he takes some unfounded exceptions to a measure always useful, and sometimes indispensable, namely, plugging the vagina; alleging as his objection that the *internal* hemorrhage may destroy the patient. This is so remotely possible as not to deserve being made an element in the calculation; but, if such apprehension existed, the evil might be averted by external pressure.

There is great want of energy in his instructions for arresting hemorrhage after delivery; and we think the delay he recommends in extracting the placenta, would, if often permitted, lead to disastrous results.

Dr. Campbell enjoys an enviable satisfaction in his own knowledge of puerperal fever, and the success of his treatment; but we are sorry to see him indulge in some less than kind allusions to Dr. Abercrombie, a man who may indeed hold cheap any animadversions of Dr. C. He does not even acknowledge, and perhaps knows not, the value of Dr. Gooch's excellent assistance in the pathology and treatment of the disease. Dr. Armstrong's name is only mentioned, and that for the opportunity it affords of saying something uncivil of Dr. Abercrombie. Mr. Hey is alike neglected. Is this worthy a philosopher? The whole section on puerperal fever is rambling, desultory, and unsatisfying.

Scarcely can we say more for that on puerperal mania, on which subject he forgets to quote Dr. Gooch, who might fairly claim the paternity of the best portion of the section.

"In regard to the proximate cause, we can advance little beyond conjecture. It is a very general opinion that the brain is the seat of disease when it appears under the sthenic form, but no dependence can be placed on any appearance exhibited by this organ, nor on the accounts afforded us by some of the most celebrated anatomists; since, on the one hand, maniacal patients have been known to expire under the most violent disturbance, apparently of the brain, without the slightest lesion of this organ being discovered on dissection; and since, on the other, the cerebral system has been seen universally diseased without any mental derangement. We may take an illustration from the other sex, and inst nce the extraordinary case of Mr. Kay, No. 226. Lond. Phil. Transac., in whose cheek a cancerous ulcer commenced, destroyed his eye, penetrated the os frontis and dura mater, and continued so long, that gradually the whole brain was consumed, and when he died there was nothing found in the cranium but black putrid matter; yet he lost no sense, nor the motion of any organ, nor had he any convulsion or spasm. In other instances the cranium, on examination, has been found almost completely deprived of its contents; and in some animals it has been filled with ossific matter; yet the functions thought to depend on its integrity were not impaired. From the occurrence of such cases, there is some excuse for those who have assigned the seat of the soul to the stomach, plexus solaris, and other organs; but we may take it for granted, however, that the brain and its emanations are the parts most intimately connected with the intellect, and that some morbid change of these exist in every instance of insanity, though generally so attenuate as to elude our search, in parts whose organization is so delicate and complex. But the brain and nerves are not the only organs, since many others have been found to participate, as the liver frequently in the male, and the uterus in the female sex." (P. 376.)

Can Dr. Campbell seriously believe in the correctness of Mr. Kay's case?

We regret exceedingly that, for pupils, the information contained in this work is inadequate; and it could only be useful to a practitioner of very moderate pretensions. There are numerous examples of eccentric orthography: for some of them perhaps the printer may be responsible, but who will stand sponsor for "mezentary?" Its Greek derivation does not sanction this.

The following is a good specimen of one of Dr. Campbell's happier passages:

"When the child escapes through the oreach in utero, into the abdomen, three modes of practice are recommended; first, to draw the fœtus back into the uterus, and thereafter extract it per vaginam; secondly, to leave matters to nature; and thirdly, to accomplish the delivery by gastrotomy. In regard to the first method,

its success has been such, that the practice should not now be sanctioned, since every patient in whom it has been resorted to, whether late or early, fell a victim to it. We need not be much surprised at this, since the uterus, very shortly after it has been injured, must contract to such an extent as to preclude the possibility of its receiving the hand without the employment of force, which will assuredly be followed by an extension of the rent. Doubtless there are examples related, where we are informed the fœtus has been brought back into the uterus, and thence extracted per vaginam, after having been many hours, or several days even, lodged among the intestines; but the author is disposed to believe that, in these instances, the injury was not in the body, but in the cervix uteri, and upper part of the vagina, points which are far less contractile, and of which a laceration is not by any means so formidable, as of the upper parts of the organ.

"In support of the second method, cases have been published where the child, after its escape from the uterus into the abdominal cavity, was permitted to remain therein for years without inconvenience to the parent, who, at some ulterior period, got rid of it by the suppurative process, or who indeed conceived again during its retention, and who, after all, had a complete recovery. Admitting that some individuals have recovered under such extraordinary circumstances, what does this prove? merely that nature is occasionally capable of making efforts for the support of our frame, which could never have been contemplated; and that although, in some rare instances, women have survived such complicated tortures, yet, that we are not justified in trusting such cases to the powers of the system, since it is well known that a large majority of them have sunk under the most painful and protracted sufferings. As to those examples in which we are informed that the sex conceived during the retention of the extra-uterine fœtus, it must be acknowledged that they are rather too marvellous for belief.

"The third method, though very formidable, from its near resemblance to the Cæsarean section, would seem, however, to have been attended with most success. In the Journal de Medicine, vol. iii. for 1768, the first well authenticated case of recovery will be found. The child was still-born. A second successful instance, in which a woman had been twice operated on, is detailed in the Pathol. Chirurg. vol. ii. The second time this expedient was resorted to, the child continued to live half an hour after its extraction. A third successful operation of this nature is related in the Quarterly Journal of Foreign Medicine, vol. ii. The patient had not been operated on for twelve hours after the occurrence of the accident. The fourth successful instance, in which both the mother and child were saved, is detailed in the Edin. Jour. Med. Sci. vol. i. From these cases, the author considers himself, on every occasion in which the extraction of the fœtus has not been attempted almost immediately after the accident, to recommend the section of the abdominal parietes, in preference to either of the other methods. The

same practice should also be pursued when the womb has been injured, and the fœtus has escaped among the intestines, before the uterine aperture has either become dilatable, or has been expanded to a sufficient extent to receive the hand, with a view to turning. Where an effusion of liquor amnii or of blood has taken place into the peritoneal sac, this is a further inducement for performing gastrotomy. Lastly, where, after the removal of the fœtus by the natural passage, a portion of intestine protrudes the breach in the uterus, and where this organ has contracted to such extent that the hand could not be received to reduce the protruded viscus, Pigrai, the friend and pupil of Ambrose Paré, recommended the section of the abdominal parietes, which, though the event in the case recorded by Dr. M'Keever was successful, seems unavoidable.

"Finally, as in some females, who survived rupture of the uterus, the same accident has been known to happen to them in their succeeding labours, it has been proposed, in 1709, by Dr. Douglas, of London, as stated in a former place, to extract the fœtus by the feet, in women who had once been thus unfortunate; and the proposition is one which has frequently since been acted on with success." (P. 318.)

Dr. Campbell's estimate of the nitrate of silver injection is neither candid nor correct. "Of late years much has been said of the nitrate of silver in solution for the cure of leucorrhœa, but it does not appear to be possessed of greater virtues than many other remedies better known to the profession."

We now come to a graver matter. Treating of Hydrocephalus Acutus, he says, "Of late years, Professor Monro, in the university of Edinburgh, has, with his wonted talent, written a work on this subject, wherein he contends for debility as the principal cause; *but the very rare occurrence of effusion into the brain, after extreme prostration in consequence of disease, is a sufficient refutation of this doctrine.*" Is the doctor dreaming? Can he be ignorant of the fact with which the cultivators of morbid anatomy are so familiar, that in children chronic disease rarely, if ever, terminates fatally without first producing effusion within the cavities of the brain? How much do we owe to Drs. Marshall Hall, and Gooch, for insisting so strongly on the fact, that nothing tends more to cerebral effusion than debilitating disease, or excessive depletion! Can Dr. Campbell be aware of these circumstances, now established to demonstration?

For the same purpose that beacons are raised do we quote the following passage, premising that it contains advice so mischievous, that we cannot persuade ourselves the author was serious when he wrote it: "But it would seem most prudent in every case that exhibits great cerebral excitement,

to treat it as one of inflammation of the brain, since, though not actually so at the onset, it might, by inefficient treatment, ultimately terminate in this way." Our only commentary shall be, to ask Dr. Campbell if he doubts that an accelerated circulation through an exhausted sensorium will produce "cerebral excitement?" and whether, as this is the most common condition in the latter stages of adynamic diseases, he would treat them as cases of inflammation of the brain?

A New Method of making Anatomical Preparations; particularly those relating to the Nervous System. By JOSEPH SWAN. *Third Edition, considerably Enlarged.*—London, 1833. 8vo. pp. 111.

THERE are books to which the mere name of the author is a sufficient passport, and such is the one which is now before us. A work on anatomical preparations from Mr. Swan is so much honey from Hybla; an excellent thing, from the best possible source. The advantage to the learner of preserving the result of his dissections for future reference is so great, especially if he intends to practise in the country, that it is needless to say much upon the subject; and we shall therefore content ourselves with recommending every student of anatomy to make preparations, and every one who makes preparations to buy Mr. Swan's book.

Some superficial persons may think the subject dry, but to us there is a great deal of spirit in our author's manner of treating it. The following extract will give our readers some notion of the laudable minuteness of this excellent manual.

"*On Preparations of the Minute Nerves.* It is supposed by many that young children are better subjects for dissections of the nerves than those of more advanced age, but this is a great mistake. In a child the nerves are certainly larger in proportion to the other parts than in the adult, and the larger nerves may be conveniently enough dissected in them, but it is not so with the more minute branches.

"Even in a very thin child so much fat is always found in different parts as to make the dissection very tedious, besides, the nerves have not appeared so strong as in the adult, so that much disappointment has been occasioned by their frequent breaking.

"The minute nerves of the face and neck are generally the largest and most distinct in the male, and one should be chosen who has been originally strong and well-made, between twenty and fifty years old, and as free from fat as possible. The nerves are almost invariably found more delicate in the female than in the male, and in very advanced age so much so as to be totally unfit for dissection.

"Although it may not be in the power of the anatomist to choose such a subject as he desires, yet for a dissection of the sympathetic nerve and par vagum, one emaciated, but not destroyed by a disease of the lungs, is to be preferred; for it generally happens in cases of this sort, that, besides the disease of these viscera, all the absorbent glands and vessels of the neck and thorax are so much enlarged, and there is frequently such a thickening of the parts at the bottom of the neck, as to create a degree of confusion, which renders the dissection of the sympathetic nerve and par vagum sometimes unsatisfactory.

"What has been said about the choice of human subjects, as far as respects the age, does not apply in the same manner to animals, for in many of these, and especially the larger ones, the nerves in general are never so conveniently dissected as they are within a week or two after birth, because at that age they are generally more free from fat in every part than at any later period, as it is so difficult to procure such as have been in a diseased state long enough for all the fat to have been absorbed.

"It is better to separate most of the nerves from the fat before attempts are made to remove much of it, but in hot weather it becomes very soft, so that much of it may be absorbed by blotting paper, and then the remaining membrane that inclosed it can be separated without much difficulty, or the risk of destroying the minute branches of skin on the tip of the nose and margin of the lips.

"In dissecting the nerves of the neck, and indeed those that are minute in every other part of the body, the scalpel must be very little used, except for removing the skin; for, when the nervous branches are very numerous, it is next to impossible to separate them from the surrounding parts with an instrument of this kind, let the care and knowledge of the anatomist be ever so great. In a general way, the most convenient instrument will be one similar to a separate blade of a pair of scissors, made to cut like a knife, which may be procured at Mr. Laundy's, St. Thomas's street, Southwark.

"The student is not to cut straight forward when he is following a nerve, but he must take hold of the trunk, and separate it from the surrounding parts rather by poking and tearing away these than by cutting, although he may frequently use the cutting edge advantageously when he can see that he shall do no mischief. The instrument should generally be used by keeping the back of it to the subject, and directing the point to enter the part obliquely downwards, so that in cutting forwards he will only divide the parts lying over the nerve; these divisions should be made by frequent short cuts, for as a nerve or a branch keeps dividing into others, if a long cut be made, either some of the branches will be divided, or others communicating with them. If he attempt to follow the nerves with the cutting edge towards the subject, he will very often

be disappointed by dividing the nerves and blood-vessels; but his own experience will soon convince him of the best method of using his instruments.

"If the part is to be dried, every portion of fat must be removed, for if it be not, it will sooner or later show itself in the preparation by its transudation, which softens any varnish that may have been applied, and not only renders the preparation unpleasant by its sticking to the fingers whenever it is taken hold of, but also causes it to attract every portion of dust, so as in point of fact to take very much both from its appearance and utility.

"It is farther necessary to remove every portion of cellular membrane from the nerves, that they may be as distinct as possible, otherwise, where there are many minute branches in a small space, they will have such a confused appearance as to defeat the main purposes for which the preparations are made.

"Whilst prosecuting the dissection, it is desirable that the part should be kept in spirits, if it be probable that it will be long before it can be finished; but at all events the minute nerves should be moistened from time to time with spirit of wine, or water, as otherwise, if suffered to get very dry, they will be very liable to break.

"For making a preparation of the minute nerves, and for illustration, the sympathetic should be chosen. The integuments should be removed, and such other portions as are not required; the muscles, arteries, nerves, &c., are then to be carefully and partially separated, and the subject immersed in cold water for twenty-four hours; the nerves thus become larger, stronger, and more distinct. The dissection must then be proceeded with for some days, when the parts are to be immersed in alcohol, or salt may be used first, according to some preceding directions; for if a subject be kept in water too long, the nerves become enlarged, and the cellular membrane attached to them swollen out, but, by putting it into alcohol, they are contracted again to their natural dimensions. On taking the subject out of the alcohol, the nerves dry so fast and contract so much, as to make it absolutely necessary to have the parts not under dissection covered with a wet cloth, and the subject placed in cold water for a few hours once in every four or five days. It is thus, by alternating the use of the water and alcohol, that the subject is kept in the most proper state for dissection. When the dissection is finished, about two thirds of alcohol and one of water best preserve the natural size of the nerves." (P. 29.)

The Hand, its Mechanism and Vital Endowments, as evincing Design. By Sir CHARLES BELL, K.G.H., &c.—London, 1833. 8vo. pp. 314.

IF some whimsical nobleman, dissatisfied with "Hamlet" or "Paradise Lost," were to propose their themes to be once more sung by the poets of the day, as we are certain that nothing would be produced to rival the ancient masterpieces, so we are sure that Southey or Wordsworth would honour their patron's choice by many splendid verses; and thus, though the strange bequest of the Earl of Bridgewater, were it decupled, could not call forth another "Natural Theology," still it has been the exciting cause of several excellent treatises—and this is one of them.

We shall not attempt an analysis of the work, as it is extremely discursive, and consists of a number of essays on different points in comparative anatomy; but we shall content ourselves with presenting to our readers several extracts from various parts of the book. In the introductory chapter our author has the following beautiful observations:

"The passiveness which is natural in infancy, and the want of reflection as to the sources of enjoyment which is excusable in youth, become insensibility and ingratitude in riper years. In the early stages of life, before our minds have the full power of comprehension, the objects around us serve but to excite and exercise the outward senses. But, in the maturity of reason, philosophy should present these things to us anew, with this difference, that the mind may contemplate them: that mind which is now strengthened by experience to comprehend them, and to entertain a grateful sense of them.

"It is this sense of gratitude which distinguishes man. In brutes, the attachment to offspring for a limited period is as strong as in him, but it ceases with the necessity for it. In man, on the contrary, the affections continue, become the sources of all the endearing relations of life, and the very bonds by which society is connected.

"If the child upon the parent's knee is unconsciously incurring a debt, and strong affections grow up so naturally that nothing is more universally condemned than filial ingratitude, we have but to change the object of affection, to find the natural source of religion itself. We must shew that the care of the most tender parent is in nothing to be compared with those provisions for our enjoyment and safety, which it is not only beyond the ingenuity of man to provide, but which he can hardly comprehend while he profits by them.

"If man, of all living creatures, be alone capable of gratitude, and through this sense be capable also of religion, the transition is

natural; since the gratitude due to parents is abundantly more owing to Him 'who saw him in his blood, and said Live.'" (P. 8.)

In the second chapter, in which Sir Charles treats of the adaptation of the skeleton to the mode of life for which the animal is designed, he notices a curious error of Buffon and others, who threw away their mistaken compassion on some animals whose tardy motion they supposed to arise from a defective organization.

"Modern travellers express their pity for these animals. Whilst other quadrupeds, they say, range in boundless wilds, the sloth hangs suspended by his strong arms, a poor ill-formed creature, deficient as well as deformed, his hind legs too short, and his hair like withered grass; his looks, motions, and cries conspire to excite pity; and, as if this were not enough, they say that his moaning makes the tiger relent and turn away. This is not a true picture: the sloth cannot walk like quadrupeds, but he stretches out his long arms, and if he can hook on his claws to the inequalities of the ground, he drags himself along. This is the condition which authorizes such an expression as "the bungled and faulty composition of the sloth." But when he reaches the branch or the rough bark of a tree, his progress is rapid; he climbs hand over head along the branches till they touch, and thus from bough to bough, and from tree to tree; he is most alive in the storm, and when the wind blows, and the trees stoop, and the branches wave and meet, he is then upon the march." (P. 27.)

The third chapter, on the Comparative Anatomy of the Hand, is a very good one. After some account of the shoulder, and then of the scapula in general, we come to a few interesting observations on the situation of this bone in the horse.

"Some interest is attached to the position of the scapula, in the horse. In him, and in other quadrupeds, with the exceptions which I have made, there is no clavicle, and the connexion between the extremity and the trunk is solely through muscles. That muscle called serratus magnus, which is a large one in man, is particularly powerful in the horse; for the weight of the trunk hangs upon this muscle. In the horse, as in most quadrupeds, the speed results from the strength of the loins and hinder extremities; for it is the muscles there which propel the animal. But were the anterior extremities joined to the trunk firmly, and by bone, they could not withstand the shock from the descent of the whole weight thrown forwards; even though they were as powerful as the posterior extremities, they would suffer fracture or dislocation. We cannot but admire, therefore, the provision in all quadrupeds whose speed is great, and whose spring is extensive, that, from the structure of their bones, they have an elastic resistance, by which the shock of resistance is diminished.

"If we observe the bones of the anterior extremity of the horse, we shall see that the scapula is oblique to the chest; the humerus oblique to the scapula; and the bones of the fore-arm at an angle with the humerus. Were these bones connected together in straight lines, end to end, the shock of alighting would be conveyed through a solid column, and the bones of the foot, or the joints, would suffer from the concussion. When the rider is thrown forwards on his hands, and more certainly when he is pitched on his shoulder, the collar-bone is broken, because in man this bone forms a link of connexion between the shoulder and the trunk, so as to receive the whole shock; and the same would happen in the horse, the stag, and all quadrupeds of great strength and swiftness, were not the scapulæ sustained by muscles, and not by bone, and did not the bones recoil and fold up.

"The horse-jockey runs his hand down the horse's neck, in a knowing way, and says, 'this horse has got a heavy shoulder, he is a slow horse!' He is right, but he does not understand the matter; it is not possible that the shoulder can be too much loaded with muscle, for muscle is the source of motion, and bestows power. What the jockey feels, and forms his judgment on, is the abrupt transition from the neck to the shoulder, which, in a horse for the turf, ought to be a smooth undulating surface. This abruptness, or prominence of the shoulder, is a consequence of the upright position of the scapula; the sloping and light shoulder results from its obliquity. An upright shoulder is the mark of a stumbling horse: it does not revolve easily, to throw forward the foot." (P. 52.)

In the same chapter we find a curious zoological anecdote.

"I have alluded to the observation of President Jefferson on the Megalonix. Having found a bone, which, by its articulating surface and general form, he recognised to be one of the bones of the phalanx of an animal of great size, he thought he could discover that it had carried a claw; and from this circumstance he naturally enough concluded (according to the adage—ex ungue leonem,) that it must have belonged to a carnivorous animal. He next set about calculating the length of this claw, and estimating the size of the animal. He satisfied himself that in this bone, a relic of the ancient world, he had obtained a proof of the existence, during these old times, of a lion of the height of the largest ox, and an opponent fit to cope with the mastodon. But when this bone came under the scrutiny of Baron Cuvier, his perfect knowledge of anatomy enabled him to draw a different conclusion.

"He first observed that there was a spine in the middle of the articulating surface of the last bone; which in this respect was unlike the form of the same bone in the feline tribe. He found no provision, in this specimen of an extinct animal, from the lateral attachment of the bone; which we have just shown to be necessary for its retraction. Then observing what portion of a circle this bone formed, he prolonged the line, and showed the claw belonging to

it must have been of such great length, that it could never have been retracted to the effect of guarding an acute and sharp point. The point, therefore, could not have been raised vertically, so as to have permitted the animal to put the foot to the ground without blunting the instrument! Pursuing such a comparison, he rejected the idea of the bone belonging to an animal of the feline tribe at all. His attention was directed to another order, the paresseux or sloths, which have great toes and long nails. (P. 26.) Their nails are folded up in a different fashion; they just enable the animal to walk, but slowly and awkwardly, something in the same manner as if we were to fold our fingers on the palm of the hand, and bear upon our knuckles. On instituting a more just comparison between these bones of the ancient animal and the corresponding bones of the paresseux, he has satisfied us that the lion of the American President was an animal which scratched the ground and fed on roots.

One experiences something like relief to find that there never was such an enormous carnivorous animal as this denominated megalonix." (P. 97.)

Perhaps the finest chapter in the book—the best among the good—is the seventh, *Of Sensibility and Touch.* We can indulge ourselves only with a short extract from it.

"A nerve, possessed of a quality totally different from that of the optic nerve, extends over all the exterior surfaces of the eye, and gives to those surfaces their delicate sensibility. Now it sometimes happens that this nerve is injured and its function lost, the consequences of which are very curious; smoke and offensive particles, which are afloat in the atmosphere, rest upon the eye; flies and dust lodge under the eyelids, without producing sensation, and without exciting either the hydraulic or the mechanical apparatus to act for the purpose of expelling them. But, although they do not give pain, they nevertheless stimulate the surfaces so as to produce inflammation, and that causes opacity in the fine transparent membranes of the eye; and the organ is lost, although the proper nerve of vision remains entire. I have seen many instances of the eye being thus destroyed for want of sensibility to touch,* and it has been curious to remark, on these occasions, that when the hand was waved, or a feather brought near the eye, the person winked; yet he did not shut his eye on rubbing the finger across the eyeball, or when blood was removed by the lancet from the inflamed vessels. In those cases, when vision gave notice of danger to the organ, the patient winked to avoid it, but when the point touched the eye or eyelids, the sense of touch gave no alarm, and was followed by no action for the protection of the organ.

"I shall present another instance of the peculiar nature of the sensibility which protects the eye. The oculist has observed that

* "They are stated at length in my papers in the Philosophical Transactions, and in the Appendix of my work on the Nervous System."

by the touch of a thing as light as a feather, the muscles of the eye will be thrown into uncontrollable actions and spasms; but if the point of the finger be pressed somewhat rudely between the eyelids, and directly on the eye itself, he can by such means hold the eye steady for his intended operation, producing hardly any sensation, certainly no pain! This is one of the little secrets of the art: the oculist turns out the eyelids, and fingers the eye, in a manner which appears, at once, rude and masterly; and still the wonder grows that he can do such things with so much dexterity as to inflict no pain, when by daily experience we know that even a grain of sand in the eye will torture us. The explanation is this: the eye and eyelids are possessed of a sensibility which is adjusted to excite the action of its protecting parts against such small particles as might lodge and inflame its fine membranes. But the apparatus is not capable of protecting the surface of the eye against the intrusion of a stick or a stone; from such injuries it could not be defended by a delicate sensibility and involuntary action, but only by the effort of the will." (P. 163.)

In the following exquisite sentences, which we take from the "concluding remarks," one of the evils attending the progress of refinement is beautifully depicted: instead of feeling, we analyze;—a rose becomes a thing to be studied in a lecture-room, and the moon is to be seen—nicely mapped out in the Penny Magazine!

"We may consider man, before the lights of modern philosophy had their influence on his thoughts, as in a state more natural; inasmuch as he yielded unresistingly to those sentiments which directly flow from the objects and phenomena around him. But when that period of society arrived in which man made natural phenomena the subjects of experiment or of philosophical inquiry, then was there some danger of a change of opinion, not always beneficial to his state of mind. This danger does not touch the philosopher so much as the scholar. He who has strength of mind and ingenuity to make investigations into nature will not be satisfied with the discovery of secondary causes; his mind will be enlarged, and the objects of his thoughts and aspirations become more elevated. But it is otherwise with those not themselves habituated to investigation, and who learn at second-hand the result of those inquiries. If such a one sees the fire of heaven brought down into a phial, and materials compounded to produce an explosion louder than the thunder, and ten times more destructive, the storm will no longer speak an impressive language to him. When, in watching the booming waves of a tempestuous sea, along the coast, he marks the line at which the utmost violence of the ocean is stemmed, and by an unseen influence thrown back, he is more disposed to feel the providence extended to man, than when the theory of the moon's action is as it were interposed between the scene which he contemplates and the sentiments natu-

ally arising in his breast. Those influences on the mind which are natural, and just, and beneficently provided, and have served to develope the sentiments of millions before him, are dismissed as things vulgar and to be despised. With all the pride of newly-acquired knowledge, his conceptions embarrass, if they do not mislead him; in short, he has not had that intellectual discipline which should precede and accompany the acquisition of knowledge." (P. 229.)

We must close our extracts, though reluctantly, with our author's observations on the Sus Ethiopicus; they are in the additional illustrations.

"When we look upon the boar's head, we comprehend something of his habits, and see what must be the direction of his strength. He feeds by digging up roots, and the instruments by which he does this are also those of his defence. The position of the tusk defends the eye in rushing through the underwood; and the formation of the skull and of the spine, and the mass of muscle in the neck, all shew the intention that he shall drive onward with his whole strength, so that he may rend with his tusks. Accordingly, we may see that the back part of the skull rises in remarkable spines or ridges for the attachment of muscles, and that, corresponding with these, the spinous processes of the vertebræ of the neck and back are of extraordinary length and strength. These processes distinctly indicate the power of the muscles which pass from the neck to the head. We now understand the reason of the shortness and inflexibility of the neck; because the power of the shoulders is directed to the head, and, we may say, to these large tusks. An elongated and flexible neck would have rendered these provisions useless. The characteristic form of the wild boar, then, consists in the height of the back, the shortness and thickness of the neck, the wedge shape of the head, the projection of the tusk, and the shortness of the fore legs, which must always be in proportion to the neck." (P. 257.)

These copious quotations will enable our readers to form some conception of the grace and suavity which breathe through this excellent treatise. Nor are the illustrations inferior to the text. Our author's skill and taste as an artist enable him to illustrate his works with unusual elegance. The figures in the present volume are drawn with Sir Charles Bell's wonted felicity; and, in many instances, the *chiaro oscuro* has been made out with a richness and effect which until lately were thought to be the exclusive and enviable privilege of copper-plate engravings. Yet there are one or two cases in which the neatness of the drawing must not prevent our noticing the incorrectness of the fact which it is intended to represent.

At page 103 there is a sketch of the head, chest, and

anterior member of a dolphin. The scapula is here represented in a false position, its base being made vertical to the spine, instead of nearly parallel to it. If the scapula of the dolphin were really placed in the supposed position, the fin which it supports would strike downwards exclusively, instead of backwards, and, instead of aiding the progression of the animal, would serve only to assist its rise towards the surface. We conjecture that our author was misled in this instance by considering the direction of the tail in the cetaceous mammalia.

At page 57 a figure is introduced of the scapula and fore leg of an elephant, which are contrasted with those of the camel; and while, in the latter, the ordinary flexion of the shoulder-joint and elbow of a quadruped is preserved, in the former the elbow is represented in a straight position, the direction given to the arm-bone is vertical, and the scapula is disposed vertically upon it. Sir Charles Bell supposes that the greater weight of the elephant renders this position of the bones necessary, in order that the muscles may be spared, as much as possible, the fatigue of supporting so enormous a mass. The fact however is, that the direction of the shoulder-blade, humerus, and fore-arm, are the same in the elephant and in the camel; and the frame, in both instances, is equally balanced upon muscular springs. The skeleton of Chuny, now preserved in the museum of the College of Surgeons, must not be cited against us, for its articulation is erroneous. The bones of Chuny were set up by a Manchester shoemaker, who saw that in this mercantile age he might interpose himself with advantage as middleman between the menagerist and the philosopher.

We now take leave, but we trust only for a short time, of Sir Charles Bell; a man in whom the utmost facility in acquiring knowledge is almost surpassed by the ardent zeal with which he imparts it.

The History of a Case in which Animals were found in Blood drawn from the Veins of a Boy; with Remarks. By J. STEVENSON BUSHNAN, F.L.S., Surgeon to the Dumfries Dispensary.—London, 1833. 8vo. pp. 74.

ON the 4th of June, 1833, Mr. Bushnan bled a boy suffering under influenza, who was said to have worms in his blood. "I took," says our author, "about six ounces of blood from his left arm, in which I could not at first discover anything preternatural, but which I carefully covered with a bason, placing it in such a manner that it could not be disturbed

without my knowledge. On returning, one hour afterwards, I found five animals swimming in the serum of the blood, all most vigorous and lively." (P. 6.) Mr. Rhind, of Edinburgh, to whom some of these worms were sent, says that they exactly correspond in structure and colour, and size, to the larvæ of the *Tipula oleracea*, which, in summer, are so abundantly found in ditch and river water." (P. 8.)

Our readers will easily see that there is a possibility of the worms having been supposititious. Mr. Bushnan, however, thinks this highly improbable, and proceeds to give similar cases from medical authors; which are followed by some ingenious conjectures as to the origin of the proper entozoa of the human body. Our author is of opinion, with Rudolphi and Bremser, "that the entozoa in general are generated primarily, not from ova at all, but spontaneously in each organ in which they are found." (P. 44.) He observes that this is not exactly the doctrine of equivocal generation, by which is meant the production of life in matter previously existing. According to the theory of Rudolphi and Bremser, the living matter is secreted by the various organs of the human body, that is, smaller living beings are formed by the separation of certain living particles from larger ones. The conjecture which appears to us the most natural is, that the ova of the parasitic animals are received into the body with the air or food. On this point Mr. Bushnan says,

"One of the last and most ingenious attempts to trace a real parasite of the human body to the ingesta, was made by Dr. Chisholm, with respect to the Filaria Medinensis, or skin-worm; and in this view of the matter he is borne out, not only by the authority of Bremser, Bruce, Chardin, Dampier, Dubois, and numerous other writers, but by some very forcible arguments derived from his own observation.* If, however, this fact were quite established, it would follow, not that such was the case with the entozoa in general, but only that the worm in question is not really one of these, but belongs, in fact, to the second class of animals, with which, as I have already shown, the various organs of the human body are so frequently infested." (P. 47.)

To us it appears that Dr. Chisholm's investigations are a severe blow to the Rudolphian theory, and that a few more Chisholms would knock it on the head altogether; for an exception is hard to be borne by a rule built on conjecture, and contrary to analogy.

Mr. Bushnan supposes that, in the case of his patient, the worms sprung from ova introduced from without, and there-

* "Chisholm; Ed. Med. and Surg. Journal, 1815."

fore are not to be numbered among the genuine parasites of the human body.

This little work is creditable to the talents of Mr. Bushnan; but would have been better calculated for an article in a journal than a substantive book.

The Cyclopædia of Practical Medicine. Edited by JOHN FORBES, M.D., ALEXANDER TWEEDIE, M.D., and JOHN CONOLLY, M.D. Parts XVIII. and XIX.—London, 1833. 8vo. pp. 256.*

THE first of the present parts begins with the conclusion of Dr. MONTGOMERY's article on *the Signs of Pregnancy and Delivery.* The author insists very strongly on the areola as a diagnostic mark, agreeing with the writers (Smellie and Hunter, for instance,) who regard it as the consequence of utero-gestation alone; and he gives a curious case in which this sign led him to detect a concealed pregnancy. Dr. M. says, "In the centre of this circle the nipple is observed partaking of the altered colour of the part, and appearing turgid and prominent; and the part of the areola more immediately around the base of the nipple has its surface rendered unequal by the prominence of the glandular follicles, which, varying in number from twelve to twenty, project from the sixteenth to the eighth of an inch; and, lastly, the integument covering the part is observed to be softer and more moist than that which surrounds it, and the breasts themselves are at the same time observed to be full and firm, at least more so than was natural to the person previously. Such we believe to be the essential characters of the true areola, the result of pregnancy, and that, when found possessing these marks, it ought to be looked on as the result of that condition alone, no other cause being capable of producing it."

The whole article is elaborate and instructive, but we can afford to give only one more short extract. The author is speaking of the sudden subsidence of an enlarged abdomen, which is often unjustly taken to be a proof of delivery:

"The writer very lately saw such an instance in the case of a woman separated from her husband, who became affected with what was considered ovarian dropsy, and which enlarged the abdomen to the size of six months' pregnancy, some of the other symptoms of which state were also present. After an attack of inflammation, during which it is to be presumed the parietes of the tumour formed

* We have likewise been favoured with copies of the article on the Signs of Pregnancy and Delivery, by Dr. Montgomery, and the one on Pseudo-morbid Appearances, by Dr. Todd.—EDITOR.

an adhesion with the upper part of the vagina, there took place suddenly a discharge of gelatinous fluid from that cavity, and the abdomen completely subsided in the course of a day, and the previously entertained suspicion appeared to be confirmed beyond a doubt; but on examination the woman had not about her one of the signs of delivery; yet, had not the case been at once investigated, loss of reputation at the least would have inevitably, though most undeservedly, followed." (P. 502.)

Dr. BEATTY has an article on *Rape*, in which very judicious observations in some passages are intermingled with others betraying a want of common sense, and written as a monk or a child might write. For instance:

"It is not impossible, nay, it has sometimes happened, that a woman who has freely consented to surrender her virtue will afterwards turn round on her paramour, and denounce him as her ravisher. This becomes a case of the greatest intricacy, from the fact of the principal feature (that of the venereal congress having taken place,) being true. It now passes out of the hands of the medical jurist, and becomes a question with the jury whether they believe the deposition of the woman as to consent or not. This, it must be confessed, is a most difficult question to solve, and it requires all the ingenuity of the bar to sift to the bottom all external circumstances which may contribute to prove the negative. Cases of a mixed kind are also sometimes met with; as when a woman will at first resist the advances of a suitor, and even continue her resistance for a time, but afterwards, from the excitement of passion or some other cause, yields to his desire. This is a case, if possible, more puzzling than the former, because marks of violence on the limbs of the female, from her previous struggling, may be evident, which would naturally lead to the supposition that the act had been accomplished by force. We confess that we should be inclined to deal harshly with a man under such circumstances, from the difficulty of understanding what constitutes consent. The act is committed in secret; there are no witnesses; the woman is bruised on the limbs and body; and her person is violated: it is not likely that a formal question of 'Will you consent?' has been put, followed by an answer of yea or nay; and yet, after the employment of so much force, the man defends himself by saying the woman consented, which she denies. The jury alone can determine which is to be credited; but, as we have already said, appearances are strongly in favour of the woman, and a struggle of such violence and duration, followed by coition, amounts, in our opinion, if not to a legal, at least to a moral rape." (P. 583.)

It is not impossible, forsooth! Why, the thing happens every day—in all the cases in which juries acquit, in ninety-nine out of a hundred in which they condemn, and in myriads of cases that never come before a jury at all. And then,

after all this stuff, addressed, we should think, not to physiologists, or men of the world, or any one indeed, but petty, very petty jurymen, we have the opinions of Farr, and the Medical Faculty of Leipsic, point-blank the other way, stating the plain truth, namely, that rape is very seldom indeed a possible crime; on which Dr. Beatty gravely says, "It is necessary therefore to be extremely cautious in admitting the truth of accusations, unless the bodily power of the man far exceeds that of the complainant. At the same time, however, we should not entirely agree with the positive opinions just quoted; for we think it possible that, by long-continued violence, intimidation, or other circumstances, the man may ultimately prevail." (P. 590.) So that what was very possible and usual at the beginning of the article becomes almost impossible after half a dozen pages!

It is pleasant to turn from these murderous absurdities to an article by FODÉRÉ on the same subject. He says, "Il est à craindre que la législation ancienne mal interprétée et trop peu précisé, n'ait conduit à l'échafaud beaucoup de victimes innocentes, et qu'en admettant légèrement de semblables accusations comme cela eut lieu jusque vers le milieu du siècle dernier, il n'y ait toujours eu des femmes et des filles assez perverses pour oser dire dans leur courroux contre un ingrat, qu'on les evait prises de force lorsqu'elles s'étaient rendues volontairement. Il y a apparence que ces vengeances par trop cruelles, furent particulièrement communes dans l'Italie méridionale, car nous devons à la législation napolitaine d'avoir la première donné l'éveil sur un abus aussi révoltant, et d'avoir défendu a tous juges de recevoir aucune plainte de viol, à moins qu'il ne fût évident et réal. Il s'établit dès lors comme une règle même dans les tribunaux français, que l'accusation de ce crime ne devait être admise qu'autant qu'elle était appuyée des quatre faits suivans: 1°. qu'il y avait une inégalité évidente de forces, entre la personne violée et celle de l'accusé; 2°. qu'à presque égalité de forces, il y avait eu une résistance constante et toujours égale de la part de la plaignante; 3°. qu'il était resté sur elle quelques traces de la violence qui lui aurait été faite; 4°, que la crime ayant été commis dans un lieu non solitaire, il était constant qu'elle avait poussée des cris." (*Dict. des Sciences Médicales*, tom. 58, art. *Viol.*)

Dr. Beattie, as we have seen, is too willing to listen to the complaints of those girls who, (to use the words of Fodéré,) in their anger against an ingrate, declare that they were overcome by force, when in fact they surrendered voluntarily; but he gives at length what we may call the evidence for the

prisoner in another common class of cases, those in which a false accusation is preferred because a young child has a purulent discharge from the vagina, which is taken for a gonorrhœa. "I can assure you, a multitude of persons have been hanged for such a mistake," says Sir Astley Cooper; and we can assure Dr. Beattie that myriads of persons have been hanged through the mistaken opinions which he cherishes.

Dr. TODD's paper on *Pseudo-morbid Appearances* is useful and interesting; and Dr. GREGORY, physician to the Small-pox Hospital, has given a good account of the disease which he has had such large opportunities of studying.

Many other articles will well repay a diligent perusal; but, far from being able to give a detailed analysis of them, we must content ourselves with mentioning that there is a paper on *the Pulse* by Dr. BOSTOCK, and on *Puerperal Diseases*, by Dr. M. HALL.

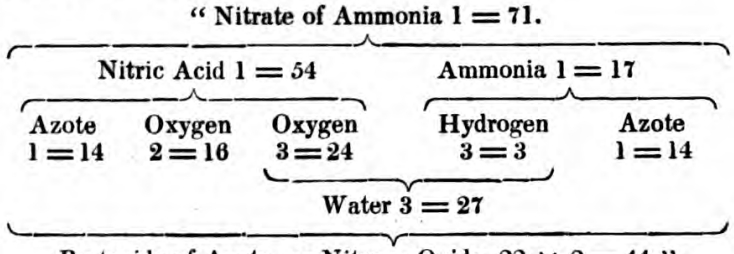
Chemical Diagrams, &c. By ALEXANDER LEE, A.M., Surgeon, Editor and Translator of Celsus.—London, 1833. 12mo. pp. 182.

MR. LEE says very gravely, in the preface, "Let it not be supposed that it is intended to supersede the valuable works of Drs. Henry and Turner; such an idea was never entertained by me. Its proper use is, first, in the lecture-room, to enable the pupil more readily to understand the changes which the lecturer is describing, either verbally or by diagram." Mr. Lee might have saved himself the trouble of warning his readers not to mistake his intentions; for no person can fall into so grievous an error as to prefer his book to either Henry or Turner. Our opinion in respect to "its use in the lecture-room" is very different to that of the author; for, as all the lectures on chemistry that we have heard are furnished with much clearer diagrams than those produced by Mr. Lee, and, as we presume, this is also the case with those whom we have not heard lecture, the work will rarely be put to its first use.

The following passage is not correct:

"30. Nitrate of ammonia. The salt here employed is compounded of nitric acid and ammonia, and is destitute of water; nitric acid is compounded of 5 of oxygen and 1 of azote; ammonia is compounded of 3 hydrogen and 1 azote; both the nitric acid and the ammonia suffer complete decomposition, 3 atoms of hydrogen combine with 3 of oxygen to form 3 of water, the remaining 2 of oxygen then combine with 2 of azote resulting from the decomposition of both acid and base, to form nitrous oxide, which may be collected

in its gaseous state; water and nitrous oxide gas are therefore the sole products of the decomposition of this salt.



If Mr. Lee had read either Turner or Henry with sufficient attention, (to say nothing of examining the salt himself,) he would not surely have stated that crystallized nitrate of ammonia contains no water. Any pupil who will take the trouble to refer to Turner, will find a much clearer account of the decomposition of this salt in procuring nitrous oxide than Mr. Lee has given; for protoxide of azote, which is formed and given off in a gaseous state, is placed at the bottom of Mr. Lee's diagram, while the nitrate of ammonia, which undergoes decomposition, and gives rise to the new compound, is placed at the top: this is certainly reversing the order of diagram-making, but it is by no means a solitary instance of Mr. Lee's perverting the order of things.

The work is principally a compilation from those books which are, or ought to be, in the hands of all medical and chemical students; and therefore we leave it to them to judge how far they may profit by it. Some of the tables, however, are certainly useful, and the form, as well as the price of the book, will make them accessible.

Syllabus of a Course of Lectures on the Principles and Practice of Surgery. By FREDERICK TYRRELL, Esq., Surgeon to St. Thomas's Hospital, and to the London Ophthalmic Infirmary. —London, 1833. 8vo. pp. 116.

THIS is a very good syllabus, clear, complete, and well-arranged; and, though a syllabus can only be considered as a skeleton, yet, as in other skeletons, its symmetry is a witness of the perfection of the body to which it belongs. A simile is not expected to be complete in all its parts, and we trust therefore that it may be long before Mr. Tyrrell's lectures are defunct. Many persons who have not the advantage of profiting by the author's oral instructions, might, we think, advantageously use this abstract of them, as a guide to their surgical studies.

Facts establishing the Deleterious Properties of Rice used as an Article of Food. By ROBERT TYTLER, M.D.—London, 1833. 8vo. pp. 60.

"BAD rice is a very bad thing," says Dr. Tytler; and we agree with him: "but," cries the great Anti-Oryzeus, "bad rice is the cause of the cholera;" and here, we, in common with all the sane and sober, dissent. The importations of spoiled rice, cankered enough to offer on the altar of Rubigo herself, began long before 1831, when the Asiatic cholera first appeared in these kingdoms. But enough of this. We love novelty, and are therefore delighted with the honours which Dr. Tytler has accumulated on his title-page. The letters which modern authors usually append to their names are expensive luxuries; for, to buy a life-interest in these symbols costs, on an average, 10*l.* 9*s.* 9¼*d.* per letter, as we are informed by Mr. Babbage. Now the Tytlerian titles cost nothing, but, on the contrary, are the evidence of many a rupee which has descended into our author's pockets. Here they are: "Surgeon in the Honourable East India Company's service; formerly assistant-surgeon of his Majesty's 81st regiment of foot, chief surgeon of Fort Marlborough and its dependencies; acting superintending surgeon of the south-eastern division of the Bengal army, during the campaign in Arracan, in 1825; acting superintending surgeon of the Dinapore division of the Bengal army; and senior surgeon in the field during the recent campaigns of 1832, 1833, against the Coles and Choars, in Chota Nagpore, and the Jungle Mehals." And we have ventured to differ from a man who has faced the Coles and Choars in Chota Nagpore, and the Jungle Mehals! We tremble at our temerity.

Illustrations of the Effects of Poisons. By GEORGE LEITH ROUPELL, M.D. *The Plates from original Drawings by* ANDREW MELVILLE M'WHINNIE, M.R.C.S. Part I.—London, 1833.

Two of the plates represent the effects produced by large doses of arsenic on the stomachs of a woman, and of a dog; the other two shew the ravages caused in the same way by nitric acid. These plates are of remarkable beauty; and we would point out, as worthy of especial commendation, the true pulpy look given to the mucous membrane of the stomach, in plate ii.

A Dictionary of Practical Medicine. By JAMES COPLAND, M.D. Parts I. and II.—London, 1833. 8vo. pp. 640 and xxxii.

A COMPILER who has not only taste enough to select the best fragments of a thousand works, but spirit enough to connect them into one harmonious whole, and thus to breathe Promethean fire into those lifeless particles, is one of the rarest phenomena of the literary world; yet such a compiler is Dr. Copland. The parts now before us comprise about eighty articles, from Abdomen to Encysted Dropsy, and not only contain the essence of whole libraries, but are replete with observations which could come from none but a practical physician. We do not think it necessary to give any extracts in this place, as the reader will find several in our Collectanea.

Principles and Illustrations of Morbid Anatomy. By J. HOPE, M.D., F.R.S., Physician to the St. Mary-le-bone Infirmary. Part VII.—London, 1833. 8vo.

THE subject of the present part is Ulceration of the Alimentary Canal, of which a very fair account is given. In this, as in many other instances, we quote only a small part of the title of the book, as Dr. Hope, following many modern but bad examples, squeezes a whole preface into a title-page. The plates, four in number, are remarkably well executed.

A Rational Exposition of the Physical Signs of the Diseases of the Lungs and Pleura, illustrating their Pathology, and facilitating their Diagnosis. By CHARLES J. B. WILLIAMS, M.D. *Second Edition.*—London, 1833. 8vo. pp. 201; and 2 plates.

THE theory of the stethoscope is perhaps the most splendid medical discovery of this century; and, did the practice but keep pace with it, the physician would no longer, in thoracic diseases at least, be compelled to repeat the lamentation of the Coan sage, and confess that "diagnosis is difficult." Unfortunately, however, there are few instances in which practice has followed theory with so limping a step as in the use of this ingenious instrument; so that, among the crowds who use the stethoscope, it would be difficult to point out a single tolerable stethoscopist,—that is, one who is able to determine with something like certainty the nature of the disease, when the ordinary symptoms are doubtful. Yet we would not have the medical philosopher despair; for he will perhaps find, before the lapse of many years, that a number of great hospital physicians will gradually be educated to the stethoscope, and will publish the results of their prac-

tice, exhibiting a host of cases in which the ordinary symptoms left them in doubt, but the stethoscopic indications enabled them to cure their patients. Moreover, we can assure the student that the habit of attention taught by the use of the stethoscope is in itself a great gain; so that, if he does not find the treasure he is seeking, at any rate, like the young husbandman in the old story, he will have fertilized the soil in which he is labouring.

Dr. Williams's work is a clear exposition of the theory of the art, and will be useful to beginners.

Why are there two pages 21, and two pages 22, in this little book?

On the Study of Medicine: being an Introductory Address delivered at the Opening of the Medical School of the University of London, October the 1st, 1833. By ROBERT E. GRANT, M.D.—London, 1833. 8vo. pp. 20.

A GOOD common-place lecture, in which the author generally keeps on the safe side of everything.

" Serpit humi tutus nimium, timidusque procellæ." Like other people, the doctor has his oddities; instead however of finding fault with them, and exposing them, one by one, to the public gaze, we will extract a sentence which deserves to be printed in letters of gold; but, as we cannot do that, we will content ourselves with italics. " *There is no language which the student of medicine is more apt to neglect, or requires more, than his own, which he has constant occasion to use in the various writings and correspondence of an active professional life.*"

Thoughts on Medical Reform. By A RETIRED PRACTITIONER. London, 1833. 8vo. pp. 33.

THIS is a temperate, sensible, well-timed pamphlet. Two points are discussed in it. The first is the necessity and justice of unbounded toleration in medicine, that is, of allowing every one to practise physic who can procure patients; and the second is, the expediency of establishing some new grades in the profession. To attempt to put down the unlicensed practitioner by the law, is to convert a quack into a martyr, and is a scheme worthy only of those who would endeavour to make the world happy by acts of parliament, and are quite

sure that they could force the millennium by an unlimited supply of policemen and gallows. "Some members of the profession," says our author, "appear to consider the sick as their exclusive property, and to regard irregular practitioners as so many poachers or interlopers on their manor." To be sure they do; and they would establish a whole army of Johnsons and Byerses, by way of gamekeepers, to take care that the sick were made game of by none but a certificated person. But we are certain that the good sense as well as the dogged spirit of liberty existing in the English nation, will prevent these monstrous phantasms from being realized.

Our author is of opinion that there should be three grades of medical practitioners: 1st, Physicians and surgeons; 2dly, general practitioners; and 3dly, druggists. As the Scotch universities have reduced the value of an M.D. degree nearly to 0, he proposes that the members of the first class should be called Fellows of the Royal College of Medicine. He does not seem to see that no one of the first two classes ought to practise pharmacy; and he makes no mention of the host of nominal surgeons with which the London College has overspread the land, to the infinite detriment of the public, who continually mistake the man who has passed the college for a real surgeon, or, in other words, confound the legal and the medical surgeon.

A Series of Anatomical Plates, in Lithography; with References and Physiological Comments, illustrating the Structure of the different Parts of the Human Body. Edited by JONES QUAIN, M.D., Professor of Anatomy and Physiology in the University of London.—1833. Fasciculi I—IV.

THIS work is to consist of 125 fasciculi, two of which are to make their appearance every month, and therefore, supposing the thing to go on with the most scrupulous exactitude, the book will be complete in five years, two months, and a fortnight. To give an opinion of a work with only $\frac{4}{125}$ of it before us, would be as rash as to pass judgment on a dinner, after having swallowed nothing but ℥ss. of soup; yet we may say that the eight plates in the fasciculi before us are good and cheap; and, should the remaining 242 be as well executed, we shall recommend our readers to buy the book.

The Gardener's Dictionary. By PHILIP MILLER, F.R.S.—London, 1833. Part I. 8vo. pp. 48; and 2 plates.

THIS is a still minuter fraction of a book, being only $\frac{1}{50}$. The fifty numbers are to be published within a twelvemonth; so that a stiff arithmetician would be ready to suppose that a number must come out every week—no such thing—the prospectus has the most profound contempt for such old-fashioned calculations; the numbers "will appear uninterruptedly on the 1st of every month, or oftener."

A little half-crown manual, giving a list of books in numbers which have never been completed at all, or not within the proposed time, or not for the proposed price, would be a very useful thing. We recommend some one of our youngest readers who is not yet "occupied with a multiplicity of engagements" (to use the medical phrase,) to undertake the compilation of this literary mentor; and we will pledge ourselves to buy a copy, *provided it does not come out in parts.*

ORIGINAL COMMUNICATIONS.

Cases extracted, by permission, from the Note-books of HENRY DAVIES, M.D., Physician-Accoucheur to the Brownlow-street Lying-in Hospital, &c.

NO. II.

CASE I. Sept. 24th, 1832. Caroline Tiller, æt. twenty-four, reports that, two years ago, she had a slow recovery after a tedious labour, in which the child was still-born. Since this period she has had violent pain in the pubic region extending to the loins. She also complains of nervous head-ach, relaxed bowels, and a frequent desire of making water. The catamenia appear at irregular intervals, but oftener and in greater quantity than when she is in health: at these periods she suffers considerable pain. The catheter was passed, and the following medicines prescribed: ℞. Mist. Camph. lb ss.; Tr. Hyoscyami, Sodæ Carb. *aa* ʒj. M. sumat coch. iij. majora t. d. ℞. Pil. Saponis c̄ Opio, gr. ijss.; Hydr. Subm. gr. i. M. ut fiat pil. o. n. sum.

Sept. 28th. The diarrhœa is unabated, but she makes water less frequently, and the pain is less violent.—℞. Opii, gr. ss.; Hydr. Subm. gr. i. M. ut fiat pil. o. n. sum. Rept. mistura. The catheter was again passed.

Oct. 1. Is improving.

Oct. 5. Improvement continues. The catheter was again passed. She expects the catamenia to appear on the 15th.

Oct. 12th. ℞. Extr. Stramonii, Hydr. Subm. *aa* gr. i. M. ut fiat pil. o. n. per tres vices sumenda. Applicentur hirud. vj. regioni inguin.

℞. Pulv. Ipecac. c., gr. xx.; Extr. Stram. gr. i.; Extr. Hyoscyami, gr. xx. fiat pil. xij. sumat ij. quartis horis, si dolor perstiterit fluentibus catameniis. Semicupium.

Oct. 21st. The catamenia have appeared, and she has suffered less pain; she makes water seldomer, and is better altogether.

Oct. 26th. Is still improving.—℞. Inf. Cascar. ℥viij.; Sodæ Carb. ϑi.; Tr. Gran. Parad.* ʒss. M. sumat quartam partem bis in die. ℞. Pil. Rhei c.,† Extr. Hyoscyami *aa* ϑss. M. fiat pil. vj. sumat i. o. n.

* The Tr. Granorum Paradisi, used at the Welbeck-street Dispensary as a cheap and pungent substitute for the tincture of cardamoms.

† A formula of the Edinburgh Pharmacopœia.—ED. *Med. Quart. Review.*

She continued to get better, and was discharged cured on the 12th of November.

Case II. July 24th, 1820. Margaret Richardson, æt. forty-five, and the mother of two children, gives the following account of her complaints. Three years ago she had an attack of erysipelas, affecting her head and throat; it was attended with delirium, and followed by violent menorrhagia, which lasted several weeks. Since this time she has been subject to a vaginal discharge. The catamenia appear every second or third week, and continue from seven to ten days. The abdomen is enlarged as from ascites, the legs anasarcous, the countenance cadaverous. Her bowels are costive, her tongue and lips pale, and the eyes of a pearly white colour.—℞. Pil. Galbani c., Pil. Aloes c̄ Myrrhâ, *aa* gr. v. M. ut fiant pil. ij. o. n. sumendæ. ℞. Tr. Ferri Muriatis, ʒiss.; Acid. Nitr. dil., ʒviss. M. sumat coch. i. min. ex Inf. Zingib. bis in die.

She was ordered to use nutritious diet, and moderate exercise; to employ friction of the legs, and to bathe them in salt and water.

August 15th. Is improving.—℞. Hydr. Subm. gr. i.; Elaterii, gr. ¼; Aloes pulv., Cambog. pulv. *aa* gr. i.; Syrupi q. s. M. ut fiat pil. bis in septimanâ sumenda.

September 4th. Is much better, the abdomen being nearly of the natural size. The catamenial flow lasted only five days, and was not so violent as usual.

September 11th. The patient complains of violent pain in her right hip, but is better in other respects: her legs are of their natural size.

September 20th. Still improving.—Sumat Cinch. pulv. ʒss. bis in die, et Tr. Lyttæ, gtt. xxx. bis etiam in die. Pil. purg. p. r. n.

October 18th. Has been gradually mending till yesterday, when she had an attack of diarrhœa and menorrhagia.—Sumat statim Haust. Rhei cum Tr. Opii. ℞. P. Ipecac. c., Rhei pulv. *aa* gr. v. M. ut fiat pulv. h. s.s.

October 30th. The diarrhœa has been relieved, but she is much debilitated. She was ordered to take Infusion of Calumba, and the powder last prescribed was repeated.

November 20th. Discharged relieved.

This woman enjoyed tolerable health for a short time; but the cold of winter, and indifferent diet, overwhelmed her shattered constitution, and compelled her to apply again for relief in February, 1821. She was then suffering from ana-

sarca, and, as her health required a nurse, which her circumstances could not afford, she was presented with a ticket for the Middlesex Hospital.

Two Cases of Vascular Thickening of the Orifice of the Urethra.

Case i. August 2d, 1820. Sarah Wise, aged thirty-seven, the mother of three children, who menstruates regularly, but suffers from leucorrhœa, complains of something which impedes the flow of urine. This obstruction is attended with occasional rigors, throbbing, bearing down, and a sensation as if a bladder of water were in the passage. She says that she has been treated for stone at one hospital, and for cancer at another. The action of the bowels is irregular, and the urine turbid; she sleeps ill, and suffers from sympathetic affection of the stomach. On examination, the vagina was found to be healthy, and there was no procidentia uteri; and, though the uterus was somewhat enlarged, it was not sufficiently so to constitute disease. There was a vascular thickening and enlargement of the orifice of the urethra, which was exquisitely sensible to the touch.

The diseased point was touched with the sulphate of copper, and a large bougie was passed; the patient was likewise ordered to touch the part, before she made water, with the Ung. Opii, and the following medicines were prescribed: Sumat Haust. Sennæ statim. ℞. Sodæ Carb. ℈i.; Glycyrrhizæ pulv. ℈ss. M. ut fiat pulvis bis in die sum. ℞. Hydr. Subm. gr. i.: Extr. Hyoscyami, gr. iij. M. ut fiat pil. o. n. sum.

September. Her general health is considerably improved, and she makes water much less frequently. She suffers a good deal from the application of the caustic, but is always better for a day or two afterwards.

October 12th. The patient is extremely grateful for the amendment of her health, and observes, that she is not so well if the bougie is not passed. She was therefore ordered to continue its use, as well as that of the Cupri Sulph., the Ung. Opii, and an occasional aperient.

November 6th. She feels much better, and the vascularity has almost disappeared.

November 20th. Nearly well.

December 4th. The bougie and the sulphate of copper are now used once a week only. The vascularity has entirely disappeared.

January 4th, 1821. The patient is scarcely sensible of any ailment, but continues the occasional use of the bougie.

February 25th. She continues free from complaint.

Case ii. May 4th, 1821. Elizabeth Leaver, æt. forty-three, has generally had good health, but has never borne children. She complains of a vaginal discharge, for which she has been under treatment by two surgeons for several months: since its appearance she has not cohabited with her husband. On examination, the os externum was found to be much contracted, so that the insertion of the finger caused great pain; the uterus and vagina were healthy; but there was an enlargement at the commencement of the urethra, the orifices of the mucous ducts being ulcerated, and the contiguous parts inflamed.—Applicetur Cupri Sulph. orificio urethræ ter in septimanâ. Laventur partes dolentes aquâ frigidâ bis in die. Sumat Pil. aperientes, iij. p. r. n.

May 30th. The ulcers are healing, and the vascularity of the orifice of the urethra is diminishing. A large bougie was passed, with the intention of diminishing the extreme sensibility of the part, and allowed to remain ten minutes.—Continueter usus Cupri Sulph.

June 30th. The patient says that she can make water with ease, and that the irritability of the parts has ceased; but the os externum is still too much contracted to permit cohabition. She was ordered to inject tepid water into the vagina from a large syringe three times a day.

August. The patient (who had returned to her husband's bed,) was discharged cured.

This woman was seen some months afterwards (November 10th,) in the enjoyment of perfect health.

Heads of Clinical Observations on Mistakes and Oversights in the Treatment of Strangulated Hernia. By Herbert Mayo, f.r.s., Surgeon to the Middlesex Hospital.

In strangulated hernia, the first object of the surgeon is to relieve his patient without the pain and risk attendant on an operation. He looks therefore anxiously for the abatement of one or other of the symptoms, during the preliminary treatment, by bleeding, the warm bath, injections, and the taxis. But some of the symptoms are liable to be *delusively* ameliorated, while the patient in reality is either stationary or growing worse. For instance, *diminution in tenseness and volume of the tumour, or, under certain circumstances, its absolute disappearance,* may possibly take place, while the stricture and the obstruction of the bowels remain unremoved.

I have repeatedly seen inguinal hernial tumours become less in volume, and less tense, without the urgency of the more important symptoms being suspended, through the water of the hernial sac being forced by the pressure used into the

abdominal cavity. When the operation has been subsequently performed, the serum, which has been forced into the abdomen, has poured out through the neck of the sac, upon the division of the stricture.

I recollect seeing the body of a female examined who had died of crural hernia. She was not my patient; but the surgeon, under whose care she had fallen several hours after the invasion of symptoms of strangulation, had resorted to the taxis; he had compressed the tumour till it had disappeared, and in his opinion had been reduced. A small segment of the circumference of the bowel, however, had remained nipped in the sac, and caused death. Whether the diminution and supposed return of the tumour in this case was the emptying of its serum into the belly, or the actual reduction of a part of the protruding bowel, I had no means of ascertaining.

The following case I did not witness, but I was assured it happened as I shall describe. A patient laboured under strangulated inguinal hernia: the symptoms not being very urgent, and the tumour not very tender, considerable pressure was used, and at length the greater part of the tumour disappeared. The patient, however, was not much better; became worse, and died. Upon examination, it was found that the bowel had indeed been pushed back, *but that the sac had also been pushed back with it;* the neck of the sac, formed of thickened peritoneum, had been sufficient to keep up the strangulation.

A patient (a recent case in the Middlesex Hospital,) had all the symptoms of strangulated hernia: there was a small tumour, feeling like an omental hernia, at the crural arch. The patient had a swollen and tender belly, and stercoraceous vomiting. Repeated attempts had been made to reduce the rupture, which the patient said was considerably larger before these attempts had been used. The bowels had acted twice with enemata. I did not attempt to return the tumour, but operated immediately, when I found an empty sac: I divided the neck of the sac. The patient died in thirty hours. On opening the abdomen, the upper part of the small intestine was found distended, swollen, and inflamed. A segment of a portion of the ileum, which had been down, was deeply discoloured, and retained the impression of the close grip of the neck of the sac. It had been forced back into the belly before the performance of the operation, by the taxis, too much injured for recovery, through the length of time it had been strangulated. The tumour upon which I operated was the sac, with a thick band of adipose substance partially urrounding it.

Another symptom in strangulated hernia, which occasionally but very rarely occurs, and is the more likely to prove delusive, is *the action of the bowels either not being suspended, or returning:* this circumstance is not incompatible with total obstruction.

A patient was admitted into the Middlesex Hospital, with stercoraceous vomiting, and with frequent purging. His belly was swollen, and tense, and tender; and there was a large swelling of the right side of the scrotum and groin. The lower part of the swelling was distinctly a hydrocele; but the upper part, though to all appearance it was continuous with the tumour, I thought, must be an inguinal hernia: it had little tension and tenderness, and hardly any impulse was communicated to it on coughing. The *purging continued,* and the stercoraceous vomiting, and the patient grew worse. On the second day I operated: it was too late, there was a portion of intestine strangulated. The patient died of the peritonitis which it had occasioned.

The preceding facts suggest obvious but important rules, as to the period in strangulated hernia during which the taxis may be employed, and the degree of pressure which may be safely exerted, and strongly exemplify the danger of delay in operating, when only a seeming good is being attained by the other measures put in practice. It is very certain that more cases are lost by the delay of the operation than are endangered by its unnecessary performance.

The cases in which I have either seen the operation unnecessarily performed, or have had reason to be satisfied that I opposed the wish for an immediate operation, have been cases of omental hernia.

There are two reasons for operating in omental hernia: first, although a surgeon is sure to know by the touch when a hernial sac contains omentum, he cannot tell that it does not contain intestine besides; secondly, a patient may die of strangulated omental hernia alone. I operated in the Middlesex Hospital upon an old man with strangulated omental hernia; there was vomiting, hiccup, and tenderness of the belly: he sank, and died of peritoneal inflammation, which had made progress before the operation was performed.

When the strangulated hernia is merely omental, the patient has not so much pain and distress about the belly and the tumour, as in intestinal hernia; the symptoms are slower in their progress; the bowels are easily unloaded by enemata; the patient is then sensibly relieved; and opening medicines administered by the mouth complete the recovery.

The operation for strangulated hernia is the most difficult

and the nicest in the compass of surgery: so possible is it in unusual cases (and no two cases in hernia are alike,) to go too far, or not to go far enough; *to injure the intestine, or not to open the sac, or not to divide the stricture.*

If the integument and subcutaneous layers of fascia are unusually thin, and the intestine in the sac is distended with flatus, it may be cut into in the first incision. I have seen this accident happen. It is not attended with any danger to the patient, who may almost be viewed in a state of greater security, through the temporary and immediate relief of the distension of the bowels through the wound. If the wound is a puncture merely, it may be secured with a knot of fine silk, the ends cut close off. When larger, I have seen the intestine returned all but the cut part, which is to be fastened by a suture to the integuments. The artificial anus closes in from six to eight weeks.

If the sac contains no water, either because none has been formed, or that it has been pressed into the abdomen, and the surface of the bowel has lost its polish from slight effusion of lymph, the surgeon may be in doubt whether he has yet reached the sac, when he has already divided it. I have seen the peritoneal coat of the intestine punctured in these circumstances, in the expectation that it would prove the sac.

I met with, in the dissecting-room, an old hernia, which appeared to have no sac. On the opposite side there was an ordinary hernia. A model of the appearance presented is in the museum of King's College. It appeared to me that there had been a hernial sac, the identity of which was lost, through its having become uniformly adherent to the intestine which it contained. If such a case occurred in practice, the surgeon would be almost excusable if he opened the intestine without suspecting it.

The cases are more various in which a surgeon may be nearly betrayed into not opening the hernial sac, or be led to think that he has done so, when he is yet without it.

It happens occasionally in the chapter of accidents, that an old hernial sac lies contiguous to that which contains the recent and strangulated hernia. An appearance similar to this is sometimes produced through condensation of the filamentous tissue of the groin by pressure. Layers of membrane closely resembling peritoneum are liable to be thus formed: I have, however, seen this appearance in crural hernia alone.

I recollect a case, in which a sac of this kind was supposed to be the hernial sac, which it contained; and the ligament of Gimbernat was divided, before the mistake was discovered. This mistake is the more easily made, that in such a case the

finger introduced within the factitious sac passes under the crural arch, and seems to be contained in the narrow neck of a true sac.

A circumstance, which, when it occurs, contributes to strengthen this deception, is, that the serous cyst occasionally contains *liquid, the absence of which could otherwise strongly excite the suspicions of the surgeon that he had not yet opened the sac.* It has not happened to me to meet with an instance where the whole hernial sac has been contained in such a false sac; but I have known a false sac, attached to the outside of a hernial sac, convey the idea that a hernia of the head of the colon, with the characteristic partial sac, presented.

There is a complication of these serous sacs with condensed adipose tissue, which at first completely deceived me. In the first case which I witnessed of this description, the hernia was a crural hernia, and extremely small. After dividing several layers of fascia, I exposed a membrane resembling a hernial sac: upon opening it, I came upon what I conceived to be a nodule of omentum. This I cut through, in the expectation of finding intestine contained within it; instead of this, I came upon the true hernial sac, of remarkably small dimensions, and which I had not before reached. There was strangulated bowel within it.

It is my opinion, that, in the operation for strangulated hernia, *there is no safety for the patient, unless the hernial sac is opened.* In the first place, it is impossible, without this precaution, to tell with accuracy the condition of the bowel. The surgeon who has not inspected the strangulated intestine is in danger of returning it either mortified, or along with it some unsuspected accidental cause of stricture which was within the sac.

Secondly, although that part of the intestine which is loose in the sac may be in a state fit to be returned, yet that part may not be so, which is immediately compressed by the stricture. It is in general a prudent precaution to draw down the portion of intestine which has been nipped by the stricture, and to examine it, before returning the hernia. I have seen a patient die in consequence of this precaution being omitted. In the case I refer to all the bowel was sound, except the line actually constricted, which had mortified.

Thirdly, the stricture is very commonly either the neck of the sac itself, or so incorporated with it that it cannot be divided unless the serous membrane be divided too.

But it is possible that the hernial sac may be properly opened, and yet the neck of the sac escape division.

It is difficult to conceive how the following accident should arise, but I have seen a case in which it had actually happened. The case was strangulated crural hernia in a man. The surgeon laid open the sac: the gut was already mortified: there was a question of returning it; but it was necessary to divide the stricture, in order to allow of the free escape of the contents of the bowel at the wound. The surgeon divided what he supposed to be the stricture. The following day nothing had escaped through the wound, and when the finger was passed towards the belly from the cavity of the mortified intestine, it was found that there was no passage; the stricture still existed. Upon carefully examining the wound, it was found that the division of Gimbernat's and Poupart's ligament had been made external to the sac. Upon then dividing the true neck of the sac, the finger could be passed into the sound intestine within.

The case is more likely to happen, although it is an extremely rare case, in which the surgeon may have to operate upon a strangulated hernia which has already been *half forced back, sac and all,* within the abdominal parietes. In this case, it is obvious that, upon opening the hernial sac, and passing the finger towards its neck, the surgeon will feel the narrow ring in the abdominal walls at which the protrusion took place: this he will probably be satisfied with enlarging by a slight division; and, unless he is singularly circumspect, and has been quite alive to all the previous circumstances of the case, he may leave within the abdominal parietes an *undivided peritoneal stricture.*

One of the finest questions which occur in the operation for strangulated hernia, regards the degree of discolouration of the intestine at which it is unsafe to return it into the belly. But, in truth, it is not the colour of the intestine alone by which the surgeon ought, on this occasion, to be guided: he must likewise take into consideration the *quantity* of discoloured intestine; the *age* of the patient; the condition of the bowels within the abdomen; the length of time the strangulation has existed. I have seen patients die at different periods, from two to seven days, after the operation for strangulated hernia, in whom, upon a *post-mortem* examination, the intestine that had been returned has been found either to have mortified subsequently to its replacement, or not to have recovered its colour from the dark and suspicious hue it presented in the operation. These patients have died of peritonitis; and, although several would in all probability have died if the unhealthy intestine had not been returned into the belly, I am convinced that others would have lived, if,

instead of the whole, the healthiest part only of the protruded bowel had been reduced, and the most discoloured part opened, and retained in the sac. In a small proportion of these serious cases the scale is probably turned against the patient by the bowel being called upon, and being unable, at once, to recover its healthy state, and to continue its functions. Relieve it by a direct outlet of its contents, and the chance of its self-recovery ought to be, and, I think I have found it so practically, is considerably increased. The artificial anus is of no consequence: it will close in a few weeks. This important question, which has seldom to be discussed except in hospital practice, applies only to cases which have become aggravated through delay and neglect before a surgeon is consulted.

A Case of Peritonitis, with Fœcal Abscess, in which the Patient recovered; with Remarks. By JOHN BURNE, M.D.

THOMAS TUBMAN, aged thirty-five, a tailor, lusty, rather bloated, and in the habit of drinking ale freely, was seized, in November, 1832, after breakfast, with sharp griping pain in the umbilical region, which in the afternoon had become so severe as to require medical aid. Advice was accordingly procured, and medicine administered, which was immediately rejected, as was everything he took. The case being regarded as one of colic, calomel, opium, castor oil, and aromatic confections, were administered, but without avail.

On the third day, as he was now a patient of the Dispensary, I visited him, and found the disease to be a well-marked peritonitis. He was lying on his back in bed, quite still, with the knees drawn up, complaining of constant pain in the middle of the abdomen, of urgent vomiting, and constipation. The abdomen was full, had a solid doughy feel, and was preternaturally hot; the pain was aggravated by slight pressure; there was no tumour in the usual situations of hernia; the respiration was rather frequent; the pulse contracted; the tongue thickly furred and of a dingy white; with a general febrile heat on the surface of the body. Anxiety was depicted on the countenance; he spoke of being very low, and muscular tremor was noticed while feeling the pulse.

Sanguis e brachio ad ℥x. detrahatur. ℞. Hydr. Submur. gr. xxiv.; Opii, gr. iv., fiant pilul. xij. sumat unam secundâ quâque horâ. Empl. Cantharidis amplum abdomini imponatur.

These measures were followed on the next (the fourth)

day by some abatement in the urgency of the symptoms; but, as the bowels had not been acted upon, he was directed to take the following medicines: ℞. Sodæ Tartarizatæ, ʒi.; Sodæ Carb. ϑi.; Acidi Tartar. gr. xv. M. fiat pulv. tertiâ quâque horâ ex aquâ in impetu ipso effervescentiæ bibendus donec alvus satis soluta fuerit.

The aperient had the desired effect of producing plentiful evacuations, and the gums had now (the fifth day) become sore from the mercury. The violence of the symptoms was considerably subdued, yet the stomach remained irritable, the abdomen tender and painful, the patient low, and the strength much exhausted. Here the amendment, which had been progressive and satisfactory, ceased in a great degree, and the next five or six days were passed in a state of apprehension, the local symptoms persisting, the organic functions continuing to be disturbed, and his strength to decline seriously for want of support, which the foul tongue and irritable stomach refused.

Although, from the tenth to the twentieth day, some improvement had taken place, the state of the patient was nevertheless still precarious. About this period there was discovered a circumscribed tumour of considerable size below and about the navel: it was deep seated, being manifestly in the abdominal cavity; the other part of the belly having become soft and natural. The patient now experienced a severe rigor, and the tumour day after day increased, approached the surface, and presently gave evidence of an obscure fluctuation. As the abdominal symptoms were concentrated more and more in the tumour, so the sympathetic disturbance of the constitution diminished, and the patient, being able to take nourishment, his powers began to return. The integuments soon became inflamed, fluctuation was distinct, and an incision being made into the abscess, there issued a large quantity of thin, dark, fœtid matter, and sulphuretted hydrogen gas.

The operation was followed by great relief: the general health improved daily, the tumour diminished, the discharge lost its offensive character by degrees, and at the last was merely a thin serous fluid. The abscess healed in the course of a fortnight, and the patient recovered perfectly.

The first point of interest in this case is the character of the pain at the onset, which caused the disease to be regarded as colic. The character of the pain was exacerbating, and was described by the patient himself as griping; and so far it was certainly more allied to the pain of colic than of peritonitis; but the error in diagnosis arose from

allowing the judgment to be formed by the pain alone, whereas, had an opinion been drawn from the symptoms collectively, no doubt of the disease being inflammation could have existed. The still position of the patient on the back; the tenderness and solid fulness of the abdomen, in addition to the pain; the sympathy of the stomach; the frequent pulse, and general febrile movement, stamped the inflammatory character of the disease beyond all question, and formed a striking contrast to the constant change of position, the quiet pulse, and the absence of febrile movement, in colic.

The second point of interest is the continuance of the abdominal symptoms, and of the general disturbance of the system, after the period when, in cases of idiopathic peritonitis, they usually subside; and this in despite of the remedial measures, and of the influence of mercury, which had been pushed to salivation. The reason, however, is explained by the eventual formation of the fœcal abscess.

The leading facts of the case, taken collectively, go far to prove that it was a peritonitis excited by an ulcerative perforation of some part of the small intestine, and the consequent escape of the contents of the bowel through the perforation into the peritoneal cavity. The circumscribed character of the tumour and of the abscess shew that the peritonitis was circumscribed also; that the effused fœcal matter had been walled-in by the inflammation, and eventually eliminated by the natural method of an abscess.

The same facts shew that the perforation of the intestine was very minute, and that the quantity of matter which escaped from the bowel was not considerable; for, had the perforation been extensive, and the quantity of matter effused large, the peritonitis would have been diffuse as well as vehement, and, as in all such cases, quickly fatal.

Peritonitis, arising from ulcerative perforation of some part of the alimentary canal, is not unfrequent. So long as an ulcer is confined to the mucous and submucous tissues, it is not productive of serious consequences; but, when it has destroyed the muscular tunic, the corresponding part of the peritoneal tunic soon dies and sloughs; the perforation is then completed, the contents of the alimentary canal escape into the peritoneal cavity, and excite an immediate inflammation, manifested by the sudden and rapid development of all the signs peculiar to peritonitis.

In order that these cases may be treated successfully, (provided they are such as admit of recovery,) it is of the utmost consequence that their true nature should be at once discovered; the principle of treatment applicable to them differing

widely from that which is applicable to an idiopathic peritonitis.

An idiopathic peritonitis is to be treated on the simple principle of subduing inflammation; inflammation being the sum and substance of the disease. But, in peritonitis symptomatic of ulcerative perforation of the intestine, the cause of the inflammation, the effused matter, continues in operation, and can only be removed by the tedious formation of an abscess. The principle, then, on which such a symptomatic inflammation should be treated must be consistent with the process which nature has to accomplish. The indication of cure is to moderate and control the violence of the inflammation, and at the same time to husband the powers of the system, in order that it may be enabled to endure the formation of an abscess, which is required for the elimination of the offending matter. Had the patient in question been subjected to great depletion, he would have sunk long before the natural process of cure could have been accomplished.

A Case of Lithotomy by the High Operation; with Remarks. By C. A. KEY, Esq., Senior Surgeon to Guy's Hospital.*

THIS case is interesting, from the circumstance of the high operation not having been frequently performed in this country, and from the cases in which it has been done not having been generally successful. During the last twenty years an operation of this kind has not been attempted in Guy's Hospital: in the male subject the lateral operation has been so successful, that no motive existed for changing the mode of operating; and, in the female, dilatation of the meatus has been resorted to with such satisfactory results, that the knife is but rarely employed. The following case is invested with an additional degree of interest, in consequence of the danger attending the operation being increased by the attack of scarlatina, on the fourth day after the operation.

Ann Gibbons, æt. eight and a half years, was admitted into Guy's Hospital, June 26th, 1833, under the care of Mr. Key. She complained of symptoms of stone in the bladder, viz. sharp cutting pains before making water, which she was obliged to do every three or four hours; after which the pain continued for some minutes, and then ceased. These symptoms first made their appearance when she was about four

* The case is drawn up by Mr. EDDIE, the dresser at the hospital: the subjoined remarks are by Mr. KEY.—EDITOR.

years old, since which time they gradually increased, and, when admitted, she was labouring under some degree of constitutional excitement; her pulse was quick, tongue furred, and skin dry. On sounding her, soon after her admission, a calculus could be easily felt, which appeared rather large. The meatus urinarius was ordered to be gradually dilated by means of bougies, with the intention of making a more accurate examination of the stone.

After the meatus had been sufficiently dilated, and the general health improved by strict attention to her bowels and moderate diet, a small pair of forceps was introduced into the bladder, and, by means of this, the calculus was found to be so large that it would be almost impossible to remove it by the urethra. Soon after this, an attempt was made to crush the stone; but this was unsuccessful, from the difficulty of keeping the bladder distended.

Mr. Key now determined upon the high operation; but it was not performed, on account of her having a slight attack of fever, until the 25th September, at which time she was much better in health than she had been since her admission, although her pulse was still quick, and the tongue rather furred; her bowels, however, were regular. The operation was performed in the following manner:

The little patient was placed on her back on the operating table, with her shoulders raised, and her legs hanging over the end, with the feet resting on a chair. About six ounces of tepid water were injected into the bladder, to prevent the return of which, the fore finger of an assistant was passed into the vagina, in order to compress the meatus against the symphysis pubis. An incision was then made in the median line, to the extent of two inches, immediately above the symphysis pubis: this was continued carefully between the fibres of the pyramidales muscles, until a quantity of adipose membrane covering the anterior surface of the bladder was visible. A sharp-pointed bistoury was now plunged into the bladder, and the operator, having introduced the fore finger of the left hand into the opening thus made, was enabled in some measure to raise the bladder, and thus extend the incision downwards. The situation of the stone having been ascertained by the finger in the bladder, the forceps were introduced, and the stone extracted without much difficulty. After the operation the patient was placed on her back in bed, with her knees raised by a pillow; a piece of dry lint was applied over the wound, the edges of which were approximated in some measure by means of adhesive plaster.

Two P.M. (two hours after the operation.) The patient whose pulse was 130, complained of a sharp pain in the

bladder. As she had not passed any urine, the catheter was introduced, and about four ounces of thick bloody urine came away.—Sumat Mist. Amygdalæ cum Nitro quartis horis.

Ten P.M. Was much relieved by the introduction of the catheter. Has been quite easy, and slept a little in the evening. The urine continued to flow by the urethra involuntarily until about an hour ago, when it stopped, and has now begun to trickle through the wound: to prevent this, a metallic catheter was introduced into the bladder, and a few drachms of very thick bloody urine came away; and this instrument being soon choked by coagulum, was removed, and an elastic one, with larger apertures, was introduced in its stead: through this the urine trickled guttatim, at first bloody, but afterwards clear. This at first created much uneasiness, which was soon relieved by the administration of two drachms of Syr. Papav., and she enjoyed a good night.

September 26th. Eight A.M. The catheter creates no uneasiness, and a considerable quantity of water has passed by it in the night; pulse 130; tongue furred, but not dry; and skin moist. On pressing the abdomen, there is no general tenderness, but only some pain in the wound; she has, however, had some little vomiting.—Ordered to leave off her mixture, and to take Mist. Effervesc. quartis horis.

27th, A.M. Appears to be going on well: the water has continued to flow by the catheter, and she has slept several hours during the night; pulse 120; skin cool and moist. As her bowels have not been moved since the operation, the following mixture was prescribed: ℞. Mist. Magnesiæ cum Magnes. Sulph. f℥i. sumat secundis horis ad alvi solutionem.

28th, A.M. The medicine ordered yesterday operated three times during the day, and once in the night. Part of the dressing having become loose, was removed, and the rest which was adherent being very hard, was covered with a bread poultice. The catheter was removed in the middle of the day, to see whether the urine would pass by the urethra; but, as it had begun in the evening to make its appearance in the wound, the instrument was re-introduced. The patient has slept pretty well during the night; her pulse is 120; tongue furred, but moist; skin hot. She complains of thirst, has no appetite, and cannot be prevailed on to take anything. The wound is now left open, to heal by granulations, and some simple dressing is applied to it. She has resumed the effervescing mixture.

29th. She was rather better this morning: pulse 120, skin cooler and moist, tongue cleaner; but towards evening was not so well. Pulse 130; tongue dry and coated; complains of thirst, and can take no food; the effervescing mixture is

immediately vomited, and barley-water is the only thing she can take. She complains of no pain or tenderness of the abdomen, excepting in the wound; the urine continues to pass by the catheter.

30th. The eruption of scarlatina has made its appearance, and the patient is rather better than last night: tongue moist, furred in the centre, and red round the edges; pulse 125.*

October 1st. Going on well: tongue very red, moist and not furred; rash increased; pulse 128; complains of no pain; skin hot, and rather dry. Bowels have been twice moved; the urine passes freely by the catheter. She has hitherto lain on her back, which has become irritated by the urine; she is therefore ordered to lie on her side.—℞. Hydr. Subm. gr. i.; Pulv. Antimon. gr. ij.; Pulv. Tragacanth. comp. gr. iij. h. s. s.

2d. Has passed a very restless night: the powder was rejected soon after it was taken; the pulse still quick, but weak and compressible; tongue moist, skin cool, and bowels open. There is very little suppuration from the wound, which has a sloughy appearance; the rash is dying away.—Ordered beef-tea; a piece of lint, wet with Lotio Chlor. Sodæ, to be kept in the wound under the simple dressing. Adde sing. dos. Misturæ Tinct. Calumbæ, ʒss.

3d. Much better. The beef-tea and medicine have staid on her stomach, and she took last night, in addition, a tea-cupful of sago with a little wine in it; and she passed a good night. Pulse 125, and somewhat stronger than yesterday.—Pergat.

4th. Much the same as yesterday; passed a good night; bowels are open; and the wound begins to secrete healthy pus, some of which passes by the catheter.—Pergat.

5th. Much the same.—℞. Decoct. Cinchonæ, ʒvijss.; Acidi Sulph. dil. m. vi.; Tinct. Aurant. ʒss. M. ut fiat haust. sextis horis sumendus.

12th. Has gone on pretty well since last report; sleeps well, appetite good, tongue moist, bowels open: her back, which has been much irritated, is somewhat better. The wound is closing by granulations, but the water has passed by it for several days. The catheter, becoming choked with mucus, was ordered to be withdrawn. The patient, having had some cough since yesterday, was ordered to omit the mixture, and take the Mist. Mucil.

14th. The mucilaginous mixture makes her sick, and her skin is somewhat dry.—℞. Potassæ Nit. gr. v. cum Tinct. Hyoscyami, m. v., et Mist. Salin. ter die.

* The treatment of the scarlatina was under Dr. Cholmeley.

18th. Going on pretty well; pulse 110; appetite good, and she begins to take a little meat. The bowels are open, but the tongue is rather furred; the skin dry and harsh. The wound produces healthy granulations, though the urine has continued to flow through it almost entirely since the catheter was withdrawn.—Thermæ. Pergat in aliis.

21st. Continues to improve; eats and sleeps well; pulse 100, skin soft and moist, tongue clean, bowels open. The wound is closing, and she has passed a little urine by the urethra, though the greater part still flows through the wound.—Ordered to sit up a short time every day. Pergat.

25th. Going on well. The wound is closing; she is not able to sit up long, but the erect position causes the water to pass more readily by the urethra: still, however, some passes by the wound.—Pergat.

29th. Continues to improve; the urine passes almost wholly by the natural passage, though involuntarily, and there is some catarrhal affection of the bladder. She is now able to sit up the greater part of the afternoon.—Sumat Balsami Copaibæ, m. v. ter die.

November 8th. Improving fast in all respects. The wound is nearly healed, except a very small aperture, from which a minute quantity of pus is discharged, but no urine. She is now able to walk a little in the ward. The catarrhal affection of the bladder is relieved, but there is still some incontinence of urine.—Sumat Decoct. Uva Ursi, ℥i. ter die.

After this she improved rapidly, and left off the medicine in a week, the incontinence of urine being relieved.

November 26th. The wound had healed, and she left the hospital apparently quite well in every respect, being able to retain her urine as before the operation, and not requiring to void it oftener than three or four times in the course of the day.

My first intention, when this little girl came under my care, was, if possible, to remove the calculus by dilating the canal; this, however, I determined to do with some limitation, as I had witnessed, in more than one case, incontinence of urine follow the operation of dilatation, when the calculus was large in proportion to the size and age of the patient. The first examination at once convinced me that it could not be removed entire without risking the consequence of that worst of evils to a female, incontinence of urine; and this led me to consider the possibility of breaking it in the bladder, and removing it piecemeal. But the difficulty of preventing the escape of the water during the operation, and the extreme sensibility of the surface of the bladder after a trial, rendered this operation in

my view objectionable. The lateral operation in the female is one of great simplicity, and requires but little skill or anatomical knowledge for its performance; but it so often leaves the patient with an imperfect control over the sphincter vesicæ, that I judged it more prudent even to incur the risk of a somewhat hazardous operation, than to doom her probably to the condition of being loathsome to herself, and a nuisance in society.

Desirous therefore of making everything connected with the operation subservient to the object of preserving the power over the neck of the bladder, after some consideration I resolved upon performing the operation above the pubis, and thus leaving the neck of the bladder entire. I had never performed the operation, nor had I ever seen it performed by other surgeons; and the results of the few cases in this country that had come to my knowledge rendered me cautious in the steps to be pursued. There are two sources of danger in the operation; and upon the avoiding these will mainly depend its success. These are the risk of wounding the peritoneum in the operation, and of urinary infiltration after it.

The danger of wounding the peritoneum in opening the bladder, will not, I think, be very great, if the condition of that viscus be such as to enable the operator to distend it well with water, and thus to carry the peritoneal investment, as the bladder rises above the pelvis, away from the point of incision. In the young subject the fundus of the bladder receives so small a covering from the peritoneum, that very moderate distention will carry the peritoneum beyond the reach of a careful operator; in the adult, a much larger quantity of fluid must be injected to effect this purpose; and in cases when the state of the bladder will not allow of very complete distention, I should much question the propriety of attempting the operation. The first incision through the integuments and linea alba requires merely common dissection, and should be as free as the size of the patient will allow; it should not, however, at first be carried to the full extent, as the bladder, when laid bare, will point out to the operator whether he has made his incision as high as it can be carried without endangering the peritoneum. At first, therefore, the linea alba should be just sufficiently divided to enable the finger to feel the distended bladder.

The extent of space between the tendon and the bladder will enable the operator to judge pretty clearly what part of the bladder he has exposed; whether he is in contact with the fundus where the peritoneum is reflected from it, or with the free muscular coat nearer the neck of the viscus. This will be understood when it is remembered that the anterior

part of a distended bladder is not parallel to the linea alba, but that it forms an angle with it; the apex being at the upper part where the peritoneum covers it, the hypothenuse at the lower part towards the neck; and thus, the greater the space between the tendon and the bladder, the greater will be the assurance that the peritoneum is out of danger. The place for puncture being selected, a sharp-pointed bistoury is plunged into the bladder, and carried downward toward the pubes, so as to make an opening sufficient to admit the finger. This plunge of the knife, and the introduction of the finger, must be the work of an instant, as the water immediately escapes, and the opening in the bladder recedes from that in the integument. The bladder, thus hooked upon the finger, can then be more freely opened by carrying the bistoury down toward the cervix. The site and form of the stone being ascertained, the remaining part of the operation consists in seizing it with the forceps, and extracting it. This step is not so readily effected as might at first view be supposed, owing to the firm contraction of the pyramidales muscles. In the present case the resistance was not great; but I can readily imagine a case in which these muscles, in the adult, would embarrass the operation, and a partial division of one or both might be required to liberate the stone.

It will be observed, that a catheter was not introduced immediately after the operation. It appeared probable that the coagula in the bladder would choke it up, and prevent the water flowing through it; and the presence of a catheter might add to the risk of inflammation. I therefore directed Mr. Eddie to introduce the catheter as soon as she began to experience any desire to empty the bladder, which I apprehended would soon be felt, from the oozing of blood that would continue to take place into its cavity. It is desirable to keep the bladder as empty, and thereby as quiet as possible, to enable it to adhere to the surrounding cellular membrane, and prevent the extravasation of urine. Nature herself, I suspect, guards effectually against this accident, by letting the water drain out of the bladder as far as it is secreted, instead of it collecting in its cavity, and distending its coats. A large opening also lessens the chance of infiltration; and I imagine this disastrous event to be much less likely to follow an operation for lithotomy than for puncturing the bladder for retention of urine, in which the opening into the bladder, as also in the integuments, is small.

It is doubtful whether any good is derived from keeping a catheter in the bladder during the cure, with a view of draining the water off, and preventing it finding its way through

the wound. In some respects it is attended with disadvantage; for, by constantly keeping the bladder empty, it is kept in a permanent state of contraction, which, though at first an advantage, by preventing extravasation, becomes afterwards an impediment to the healing of the wound. For, if the water could not find its way by the meatus, in the contracted state of the bladder, it must be constantly dribbling away by the wound; but, as soon as the catheter is withdrawn, the bladder becomes expanded by the collection of water, which only forces its way through the wound when the viscus contracts: and it was observed that the wound healed faster, and the bladder held more urine, after the catheter was withdrawn altogether.

The calculus measured in its longest circumference four inches and four tenths, and in its shortest circumference three inches and two tenths. For so young a child this was a large stone.

From the favourable result of this case, under certainly unpromising circumstances, I should feel disposed to practise the operation where circumstances prevented the meatus being dilated: its advantage over the lateral operation in the female is, in my mind, decided; and, in the case of a large stone in the male subject, I do not see any impediment to its success.

On the Removal of Morbid Enlargements of the Integuments of the Nose. By JOHN DALRYMPLE, Esq., Assistant Surgeon to the Ophthalmic Infirmary.

MORBID enlargements of the integuments of the nose are not of infrequent occurrence in persons somewhat past the middle period of life; while at the same time it appears that the female is exempt from this unsightly disease. The growth of skin often proceeds to a very considerable extent, and not only produces great personal deformity, but also distressing physical inconvenience. The appearance of a person thus affected is familiar to every one, and he is generally believed, though often most unjustly, to have earned this mark as characteristic of the intemperance of his habits. It is but seldom, however, that the patient feels it necessary, except in the most aggravated cases, to have recourse to medical advice; and but rarely indeed does it occur to his mind, that an operation would relieve him from an inconvenience, that has been familiarised by the slowness of its growth, not only to himself, but to his relations and acquaintance.

Instances of *decorative surgery* are met with in the Taliacotian operation; although, in the most successful cases, the appearance of the restored member is but little flattering

to the vanity of the patient. Another variety of this operation has been fully successful in the hands of Mr. Liston, of Edinburgh, where a permanent fissure of the alæ of the nose and the loss of the median column was repaired by his skill. Mr. Hey, in his excellent Practical Observations on Surgery, has described an operation for the removal of a tumour of the nose of the kind which I am discussing. He has cited the authority of the French surgeons,* as regards the safety and practicability of such a step, although he differs from them, and very justly, as to the malignant character of these morbid growths.

Although I believe this operation to be unattended with danger to life, yet, as it must be admitted to be exceedingly painful, and occasionally not a little tedious in the performance, the surgeon would hardly be justified in recommending it to the patient, unless the result were to be something more than the removal of a mere personal deformity. Several cases, however, occur in which great inconvenience, and even suffering, are produced by the excessive growth of the nasal integuments; and, if we place out of view the exclusion from general society which such a malady may entail upon the sufferer, yet the difficulty of breathing, the impediment to the speech, and the occasional ulceration of the surface of the tumour, sometimes render the removal of the diseased mass absolutely necessary.

This disease cannot be called simple hypertrophy of the skin, since this tissue has lost its pliancy and natural colour; but rather approaches to a state of elephantiasis, in which the cellularity is partially destroyed, and a fibro-cellular structure substituted. The mass presents externally a nodulated surface of a purple or deep red colour, traversed by numerous minute and tortuous vessels. The larger separated portions are frequently divided from each other by deep fissures, occupying in many cases the convexities of the alæ and extremity of the nose. Where the disease has been of long standing, the altered state of skin advances as high as the function of the frontal with the nasal integuments, seldom encroaching much on the palpebral furrow laterally, but accompanied, in the majority of instances, by a wattled state of the skin of the cheek, corresponding in colour and general appearance with the tumour of the nose. The sebaceous follicles are greatly enlarged, and their secretion is not only increased in quantity, but, unless extreme cleanliness is attended to, it is offensive in smell, and excoriates the surrounding skin.

* Vide Mem. de l'Academie de Chirurgie, tom. iii., p. 511; and the New Progress of Surgery in France, by J. Delonnes, M.D., translated by T. Chavernac, surgeon.

As the disease proceeds, the tumour becomes pendulous, hanging down in one or more masses to the level of the lips, and even below them, so that the nose requires to be suspended in the act of taking the food, or in drinking from a glass. At this time the patient is much inconvenienced by the pressure upon the nostrils, and he ceases to breathe by these apertures. The speech becomes troubled, while at night the respiration is noisy, and almost stertorous. If the patient be far advanced in life, or the vital powers begin to fail, the skin immediately around the sebaceous openings ulcerates. These ulcers, or rather excoriations, are however superficial, and, as far as my observations lead me, never become malignant; but they are sufficiently troublesome from their irritability, and difficult to heal. The following cases, in which amputation was resorted to, will demonstrate the safety of the operation, and the rapidity of the subsequent process of cure, by which the patients were relieved from a serious and painful annoyance.

The first case occurred in the practice of my father, Mr. Dalrymple of Norwich, and I assisted at the operation.

"Mr. Thomas Platfoot is fifty-five years of age; his occupation is sedentary, his constitution sound, his habits of life are temperate.

He has a considerable enlargement of his nose, which began, without any assignable cause, about eleven years ago. The swelling is exceedingly unsightly; it falls down over his mouth, below the level of his lower lip; it troubles his respiration especially during sleep, and is extremely inconvenient to him when eating.

As in a similar case described by Mr. Hey, the disease appears to consist of simple enlargement of the common integuments of the parts. The mass is of an irregular, nodulated form, of the deepest red colour, and very vascular. The orifices of the sebaceous follicles are very numerous and large, and give to the eye the appearance of common cuticle viewed through a strong magnifier.

The removal of the diseased parts was proposed, and assented to. On the 4th day of August, 1826, it was performed, with the loss, certainly, of much blood, and the infliction of considerable pain: one vessel only, however, was tied, and the pain and the hæmorrhage ceased with the operation. At the end of the fourth week the wound was perfectly healed; the natural form of the parts was preserved; and I do not recollect to have observed a smoother or more perfect cicatrix. The cure has been complete.

The morbid growth in cases of this kind, of which in the course of thirty years I have seen three examples, is, I believe,

altogether, simple and harmless, otherwise than as it incommodes by its bulk and pressure. It is quite destitute of malignant character, and appears to consist entirely of redundant growth of the common integuments of the parts. In the present instance, as in Mr. Hey's observations, its rate of increase in the earlier stages was extremely slow; latterly it grew rapidly; and at length, by its bulk, by its pressure upon contiguous parts, and by the deformity it occasioned, it became a very pressing evil.



Of the sketches, one was made two days before the operation, and the other seven weeks after it. They exhibit a very faithful view both of the morbid appearance, and of the result of the treatment.

The part removed, in one entire portion, is preserved in my collection, and forms, in its kind, a very perfect pathological specimen."

The above case I have given in the operator's own words. The following one occurred to me in the summer of 1831.

Mr. S., a gentleman, in the eighty-second year of his age, applied to me with a tumour of the character just described. He had had an enlargement of the nose for several years, which commenced with simple redness of the extremity; its first progress was exceedingly slow, but at length the cheeks participated not only in the redness, but also in the warty or tuberculated character of the nasal tumour. Within the last few years the disease has advanced with greater rapidity; but still, from the advanced age of the patient, and the inconvenience being at this time limited to the personal deformity, he was rather discouraged from thinking of the operation, and simply recommended to squeeze out the sebaceous matter from the orifices of the enlarged follicles, and occasionally to apply some simple emollient to prevent the chafing or excoriation of the skin. Mr. S. was a very fine old man, with all the liveliness and courage belonging to a much earlier period of

life; and, having heard of the preceding case, in which my father had removed the diseased mass, he was not only willing but desirous to submit to a similar operation. He stated to me that his comforts were much circumscribed, in consequence of the unsightly appearance he presented; and that he was restrained from associating with his friends, entirely from delicacy of feeling towards the strangers he might accidentally meet in society. Whenever he went into public, (and from his occupations he was much abroad,) his endeavour to conceal the tumour had made him contract an ungainly stoop, which gave him the appearance of considerable decrepitude. Altogether, he suffered much from mental uneasiness, although in all other respects he was in the enjoyment of perfect, even of robust health.

I had several opportunities of watching the progress of this case, and at the end of eighteen months the tumour had increased rapidly in bulk, the respiration had become embarrassed, and the skin excoriated in two or three places. The following is the appearance it now presented, (May 1831.) The enlargement of the integuments commences almost immediately below the depression dividing the nose from the forehead, the skin gradually increasing in thickness as it approaches the extremity of the organ. At this point, from its weight and excessive development, it depends nearly an inch below the level of the lower lip. The left ala nasi is occupied by a nodule of a similar nature, about the size of a walnut, and is separated by a deep fissure from the larger portion, between which the skin is slightly excoriated: the right ala is also enlarged though not to the same extent. The nares are closed by the pressure of the tumour, and from the loss of elasticity in the cartilages; but at the same time the internal area of the nostrils, as well as the length of these openings, is much increased, apparently from the dragging or stretching produced by the weight of the diseased mass.

The sebaceous follicles are greatly enlarged; the whole tumour is of a deep red colour, with small varicose veins meandering over its surface: the skin of the cheeks is red, hard, and tuberculated.

The health of Mr. S. being still perfectly firm, the operation was determined on, under the sanction of the late Dr. Babington, in whose presence it was performed a few days after our consultation.

An incision was commenced at the outer or posterior convexity of the right ala nasi, carried up over the bridge of the nose, about an inch below the fronto-nasal depression, and terminated at the inner or anterior convexity of the left ala. The skin was now dissected off, and by repeated strokes of

the scalpel detached from the subjacent cellular tissue; in fact the operation consisted in *peeling* off the integuments, leaving beneath a sufficient layer to prevent any danger of opening the chambers of the nose. Owing to the denseness of the parts, there was great difficulty in reflecting the diseased skin, and, obscured as the operation was by a pretty copious hemorrhage, the *modelling* of the new organ was a matter that required a little time and caution. The point of the finger of the left hand was inserted into each nostril, as the dissection advanced over these parts, in order to regulate by the touch the necessary thickness of skin that required to be left as the substratum of the future granulations. At about the end of four minutes the mass was detached, and the nodule upon the left ala nasi, which was more pendulous than the larger portion, was removed by a single stroke of the scalpel. Several small arteries bled actively from the exposed surface, but were soon closed by a little pressure. The wound was covered with a light dressing, and the patient kept his bed during the rest of the day; the loss of blood probably did not exceed eight ounces.

At the end of the fourth day the dressings were removed, and the general surface of the wound was found covered by a layer of soft lymph. After a few days, healthy granulations sprouted up, and the process of cicatrization advanced rapidly. At the end of about four weeks the sore was perfectly healed, without one untoward symptom having arisen during the process of cure. Mr. S. is now perfectly well, the tumour never having again made its appearance. Owing to the tuberculated state of the cheeks, and their red hue, the cicatrix, which gradually contracted more and more, is scarcely distinguishable from the contiguous skin.

The principal difference in the operation just described from that performed by Mr. Hey, consisted in commencing the incision on the outer or larger circumference of the tumour; and in dissecting, in consequence, from above downwards, the steps of the operation were less observed by the bleeding than if taken in a contrary direction. The skin at the upper part also, being less densely connected with the subjacent cellular tissue, affords a greater facility of reflecting the integument, which is of considerable consequence to the operator, especially as he approaches the extremity of the nose. One caution is yet to be added. When detaching the skin from the situation of the ala nasi, the fore finger of the left hand should constantly be kept in the nostril, since the great dilatation of these cavities makes it necessary to beware lest the chambers of the nose be exposed by the scalpel of the operator.

Account of two Cases of Phthisis, attended with peculiar circumstances. Communicated to the Harveian Society, by Wm. Stroud, m.d., Physician to the Northern Dispensary, &c.

Although phthisis has of late years been studied with much diligence, and success, the subject is by no means exhausted; and, on account of its frequency, and fatality, as well as of the valuable illustration which it affords to various branches of medical science, it is still a disease of great interest, and importance. Select cases, carefully observed, and faithfully reported, furnish, perhaps, the best mode of presenting medical facts in a clear, and natural point of view, and the best foundation for useful deduction, and theory. In prosecuting this object, insignificant details should, of course, be excluded; but some degree of prolixity, and minuteness is almost necessary, in order to place the reader as nearly as possible in the situation of the observer, and to satisfy him that the whole of the evidence, in its genuine, and original state, is submitted to his inspection. It should, moreover, be remembered that facts apparently minute frequently involve important principles; and that the suppression of circumstances seemingly inconsiderable, is often productive of serious obscurity, and misapprehension.

The two following cases of phthisis are distinguished by peculiar, and interesting features. In the first, the disease, which was confined to one lung, terminated in empyema, gangrene, and hemorrhage; in the second, while occupying one lung nearly in a crude state, it entirely destroyed the other, by converting it into an immense vomica, attended with obliteration of the pleural sac, and contraction of the side. These peculiarities, together with the mutual illustration of cases, remarkable alike for their similarity, and their diversity, and the conclusions naturally deducible from them, constitute their chief claim to attention.

Case of Empyema of the left pleural sac, accompanied with tubercular, and gangrenous destruction of the subjacent lung.

Towards the end of November, 1831, I was requested to visit, as a patient of the Northern Dispensary, Charles R*****d, aged thirty-one years, and formerly a merchant's clerk. I found him extremely ill, in the last stage of a pectoral disease, which he ascribed to cold; but, as one of his brothers was said to have died of phthisis, there was reason to suspect that he, also, possessed a similar constitution. More than two years before, being in the country, and returning home one night in a state of intoxication, while under the

influence of mercury, used on account of a severe venereal disorder, he was bruised, and chilled by falling into a ditch; and, from that time, became the subject of the pulmonary complaint which ultimately terminated in his death. Soon after the commencement of his illness he made an excursion to Ireland, to try the effect of change of air, but returned worse than he went.

On the 12th of May, 1831, he became a patient of the Northern Dispensary, under the care of my colleague, Dr. Tweedie, who prescribed for him during a month; and having, by the use of the stethoscope, found pectoriloquy on the left side of the chest, but none on the right, and observing that, with little or no pain, he had hectic fever, a pulse of 120, and a troublesome cough, with purulent, and remarkably fetid expectoration, Dr. Tweedie regarded the case as advanced phthisis, and recommended him to live in the country, and to use a milk, and vegetable diet.

Shortly afterwards, and about five months before his death, a sudden, and peculiar sensation impressed him with the conviction that a pulmonary abscess had burst into the left pleural sac, in consequence of which the heart was pushed towards the right side, and, when the body was agitated, the fluctuation of a liquid could be distinctly heard on the opposite side. In compliance with Dr. Tweedie's advice, he ultimately went into the country, where for a while he seemed to improve; and, by his own suggestion, afterwards proceeded to France, with the intention of passing the winter in the southern part of that country; but, finding himself rapidly declining, he changed his mind, and returned to London. Yet, with the inconsistency, and self-delusion which are so characteristic of phthisical persons, he called on Dr. Tweedie, reported himself nearly well, and inquired whether he might be allowed to resume his former occupation as a merchant's clerk; a design from which he was, of course, prudently dissuaded. Shortly after his return to London, and about three weeks before his death, by violent efforts, of a character between vomiting, and coughing, he suddenly expectorated, in the course of three, or four days, five, or six pints of extremely fetid pus, unmixed with blood.

When I first saw him, a week later, (November 23, 1831,) his symptoms were as follows: On applying the stethoscope, the respiratory sound was observed to be loud, or puerile, throughout the whole of the right side of the chest, but inaudible throughout the whole of the left side, with the exception of a feeble murmur near the clavicle, and occasionally a low, and transient whisper in other parts. In like manner,

the sound yielded by percussion was clear, and tympanic on the right side, but perfectly dull on the left; and from both indications it resulted that there was a large collection of liquid in the left pleural sac, without any mixture of gas. The patient, who had previously suffered pain in the sternum, and in the left side, was now free from pain, but lay better on the back than on either of the sides. He had a troublesome cough, attended with a sensation as if the left side of the chest were drawn inwards by a cord. His expectoration, which was thin, frothy, yellowish, and in considerable quantity, seemed to contain a portion of pus, and his breath was extremely fetid. He had some degree of hectic fever, much debility, and little sleep. Pulse in the recumbent posture 108, small, and weak. Tongue slightly white in the middle, urgent thirst, and scarcely any appetite. Bowels generally confined; urine copious, turbid, and dark-coloured. Having an intelligent, and highly sensitive mind, he described his symptoms with all that clearness, and precision which arises from a patient's long, and anxious study of his own complaint.

Prescriptions. Infus. Sennæ, f℥vi.; Aquæ Menth. vir. f℥ij.; Magnes. Sulphat. ℥ij. Sumatur f℥i. primo mane, prout opus fuerit.—Aquæ puræ, f℥vss.; Pulv. Acaciæ Gummi, ʒiv.; Sulphat. Quinin. gr. iv.; Acid. Sulphur. dilut. fʒi.; Tinct. Hyoscyam. fʒij.; Syrupi, fʒiv. Sumatur f℥i. ter. in dies.—Extract. Hyoscyam. ʒss.; Sulphat. Quinin. gr. iv.; Syrupi, q. s. Fiant pil. xij. quarum sumantur ij. omni vesp. horâ somni. Bibat, ad libitum, Decoct. Lichen. Island.

27th. He is rather weaker. His bowels have been relieved by the aperient mixture, but the pills fail to procure sleep. He is now unable to lie on the right side; and the left, or affected side of the chest is very tender, and painful on percussion. His breath is so offensive as to infect with a strong gangrenous odour, not only the chamber where he lies, but also the adjacent staircase; and the patient himself, being annoyed by it, frequently requests that one of the windows may be opened. Besides the general fetor, a volume of unmixed putrid gas seems occasionally to be discharged from the trachea.

Prescriptions. Repet. prout opus fuerit, Potio Cathartica, etiam Decoct. Lichen. Island. et Potio Tonica; sed, pro Sulph. Quinin. substituantur Tinct. Gent. comp. fʒiv.

December 1st. The symptoms are not relieved, but, on the contrary, the patient is weaker, with more of restlessness and anxiety, and seems to have some uneasiness about the left temple, which he frequently strikes with his hand. Thoroughly wearied, and distressed by the various annoyances

attending his complaint, and, at the same time, hopeless of amendment, he expressed a wish that, by bleeding, or otherwise, his remaining strength may be rapidly exhausted, and his death accelerated; a wish which, as will presently be seen, was soon afterwards spontaneously accomplished.

Prescriptions. Pectori sinistro affigantur hirud. vi.—Sumat horâ somni, vel quoties opus fuerit, Ext. Hyoscyam. gr. v.—Aquæ puræ, f ℥vi.; Potass. Nitrat. ʒi.; Pulv. Acaciæ Gummi, ʒiv.; Tinct. Hyoscyam. f ʒij.; Tinct. Gent. comp. f ʒiij. Sumatur f ℥i. ter, vel quater in dies. Repet. si opus fuerit, Potio cathartica.

On the afternoon of this day, my respected colleague, Dr. Roget, joined me in visiting the patient; and, having duly considered the previous history, the stethoscopic indications, and the other symptoms, agreed in opinion that there was a large collection of liquid in the left pleural sac, and that, although the case seemed to be hopeless, temporary relief might, perhaps, be afforded by tapping. An opportunity for trying this operation never, however, occurred; for the following is the final report.

2d. The leeches drew a good deal of blood. During the past night, the patient suddenly expectorated two, or three pints of bloody liquid; after which he became rapidly exhausted, and, conscious of the approach of death, which he ardently desired, died tranquilly about two in the afternoon.

Post-mortem Appearances. The body was inspected by me on the 4th of December, nearly forty-eight hours after the patient's death, in the presence of Professor Carswell, Mr. Kiernan, Doctors Roget, Tweedie, and Theophilus Thompson, when the following appearances were observed.

General Conditions. The body was, in general, well-proportioned, and reduced, but not emaciated. It contained no fat, and little blood, except what was extravasated. Although, during the last days of life, its gangrenous odour had been almost intolerable, its fetor after death was inconsiderable. The countenance was pale, and placid, with some remains of coagulated blood about the nostrils, and mouth. The chest was rather narrow: its left, or diseased side was more prominent than the right, and livid from ecchymosis, especially at the middle, where the leeches had been applied.

The head and spine were not examined.

Thorax. On raising the front of the chest, the cavity of the left pleura was immediately exposed; its anterior half presenting the appearance of a vast, oblong, empty sac; its posterior, or decumbent half, being occupied by an opaque, black liquid; above which, towards the upper end, emerged a large,

loose flake of equally black false membrane. The pleura was universally thickened by chronic inflammation, and fibrinous deposit; its surface being rough, dark-coloured, and speckled with short, angular, blackish lines, owing apparently to the engorgement of its minute veins, or absorbents. On the inner surface of the sternum, a median line distinctly divided this diseased pleura from the perfectly sound membrane of the opposite side.

After removing the flake of false membrane, and three or four pints of the black liquid in which it was immersed, and which seemed to be blood in a dissolved or altered state, the remains of the left lung, at length, came into view. It was a blackish, irregular mass, lying in the upper, and posterior part of the left side of the chest, and firmly adherent in several points to the costal pleura. When extracted, it was found to be much reduced in size; and, when washed, and cleansed from the inky liquid by which it had been inundated, its colour was dark blue. The upper portion of this lung was still tolerably sound, but interspersed with a few crude tubercles, varying from the size of a pea, to that of a small bean. The divided bronchia were rough, and somewhat dilated; and their lining membrane was thick, and stained by the black liquid. The lower portion was much broken, and excavated, and some of its fragments were gangrenous, and nearly detached. It contained several vomicæ, about the size of a large walnut, freely communicating with each other; and, by a number of round holes, some of which would admit a finger, opening into the pleural sac. When emptied of all its contents, this sac was found to be very extensive, and dilated. By the pressure of the confined liquid, the ribs had been somewhat protruded, the diaphragm depressed, and even the spinal column a little hollowed, the heart being, at the same time, slightly pushed towards the right side.

With the exception of the left pleura, and its contents, the body was substantially in a healthy state. The right lung merely presented a little œdema in its posterior, or decumbent portion, and a little reddish serum in its pleural sac; both probably the result of effusion occurring, either after death, or immediately before it. On making sections into this lung, it was found perfectly light and spongy, without a single tubercle, or any trace of inflammation. The heart, although so closely in contact with the diseased mass, was also quite sound, and nearly empty. The pericardium contained a small quantity of limpid watery liquid. The auriculæ propriæ were small, the walls of the left ventricle thick and strong, and the pulmonary artery rather dilated.

Abdomen. The omentum was retracted under the liver, and perfectly destitute of fat. The stomach was of moderate size. The intestines were externally of a chocolate colour; which, on opening them, was found to depend on a portion of the blood expectorated a little before death having been swallowed. This blood, in the state of broken coagulum, resembling dark currant jelly, could be traced as far as the cœcum, where it began to be mixed with feculent matter. There was no inflammation nor ulceration of the mucous membrane at the lower extremity of the ileum, nor any enlargement of the mesenteric glands. Owing, probably, to the violent expectorant efforts, the arch of the colon was empty, and much contracted; while the cœcum and the sigmoid flexure were somewhat dilated. The liver was large and protuberant, but healthy; its decumbent portion merely exhibiting the usual cadaveric discoloration. The gall-bladder contained a moderate quantity of thin, yellow bile, without concretions. The spleen was large, quadrangular, and of a pale pink colour, both internally, and also in distinct patches on its peritoneal coat. The kidneys were in like manner rather pale, but quite sound. The urinary bladder was considerably distended, owing either to the weakness of the patient in his last moments, or to his delicacy towards his mother, and another female, who latterly were almost always in attendance on him.

REMARKS. This case presents a striking example of pulmonary consumption, confined to one lung, and varied in its character by the bursting of vomicæ into the pleural sac, followed by universal inflammation of that membrane, and by an accumulation, first of pus, and afterwards of blood, within its cavity. In some of the lower animals, tubercular deposits may be induced, almost at will, by certain modifications of food, exercise, or temperature; but, in the human race, the frequent failure, or absence of such causes, in conjunction with the evidence of family history, shows that a special predisposition, usually derived from parents, is more actively concerned in their production. In the present case, the influence of hereditary predisposition is by no means denied, more especially as one of the patient's brothers is reported to have died of phthisis; but it seems to have been comparatively feeble, for, with the exception of the left lung, no part of the body exhibited any trace of strumous affection, and the accidental causes which immediately excited the disease were of a powerful nature; namely, a violent chill, combined most likely with local violence, occurring in the night, and during the action of mercury employed for the cure of a severe venereal disorder. It is, indeed, remarkable that the right lung, and the

heart, situated in the close vicinity of a part so thoroughly disorganized, and corrupted, should never have sustained the slightest injury; a circumstance which furnishes another proof of the weakness of the predisposition.

For a long time the tubercular disease of the left lung seems to have proceeded slowly, and in the usual manner, to the stage of softening and suppuration, according to the testimony of Dr. Tweedie, who, having examined the patient about six months before his death, observed pectoriloquy, with hectic fever and purulent expectoration, but no appearance of pleurisy, empyema, or pneumothorax. By the bursting of some of the more superficial vomicæ into the pleural sac, an event of which the patient was distinctly conscious, these conditions were, however, soon afterwards superadded. That the membrane became universally inflamed, was apparent from its thickened and coated state in the dead body; and, thenceforth, by the union of its own secretions with those of the ulcerated lung, several pints of purulent liquid, together with a portion of gas, were slowly collected in its cavity; as was proved by the splashing or fluctuating sound produced by agitation. The pressure resulting from this accumulation, which was sufficient to dilate in some degree the affected side of the chest, and to push the heart towards the other side, must, of course, have acted on the diseased lung; which, being free from adhesions, except near its summit, seems to have been gradually condensed, and impelled into the upper end of the pleural sac, where it was found after death. It was, probably, owing to this process, and to a valvular position of the perforated lung, like that of the ureters, more favorable to the descent of fluid than to its return, that such large collections took place, without any material interruption from expectoration. In the meanwhile, the increasing pressure naturally accelerated the progress of ulceration; and, by insulating and enfeebling some of the ulcerated fragments, induced gangrene, which was clearly announced by its peculiar and intolerable odour. The same pressure facilitated the exhalation of fetid air, both by ordinary expiration, and, occasionally, by sudden gusts; when, in consequence of some mechanical obstruction, portions of it had been longer detained, and had thereby become more offensive than usual. These gusts might, also, have been derived from the pus in the pleural sac, rendered putrescent by long confinement, and by partial communication with the outward air through the gangrened lung.

At length, by a violent effort of a character between vomiting and coughing, excited, perhaps, by the distention and irritation of the diaphragm on the affected side, the whole of

this pus was rapidly expectorated, with temporary relief, but was soon succeeded by a similar collection of black and liquid blood; which might be ascribed partly to the sudden subtraction of internal pressure, while that of the atmosphere continued to operate, and partly to the usual tendency of pulmonary ulceration and gangrene to open neighbouring blood-vessels, and, more especially, some of the branches of the pulmonary artery. The amount of the two collections was nearly the same, but their circumstances were different. The first was of pus, derived chiefly from the inflamed pleura. Resisted by the reaction of the surrounding parts, it accumulated slowly during a period of about four months; and must at last have been entirely evacuated, since no pus was found in the sac after death. The second collection was of blood, supplied principally by the diseased lung. Encountering little resistance from parts already dilated, it took place more rapidly within a period not exceeding three weeks; and, owing to the exhaustion of strength thereby induced, the last evacuation was less complete than the former one, since between two and three pints only were expectorated, while a larger portion remained behind, amounting together to about six pints of blood; a quantity closely corresponding to that of the pus which had been previously discharged. The same excessive exhaustion naturally accounts for the patient's tranquil and easy death, which almost immediately ensued.

That the black liquid partly expectorated, and partly left behind in the pleural sac, and by which all the contiguous surfaces had been stained of an inky hue, was venous blood from the pulmonary artery, modified by the action of sulphuretted hydrogen gas, and perhaps also by other causes, there can be little doubt; since, on this supposition, the source of supply was close at hand, while none other can reasonably be imagined. It is a remarkable fact that, although the large quantity found in the pleural sac was perfectly black, and liquid, that which, in the process of evacuation, was left about the nostrils, and lips, or had descended into the stomach and bowels, was of a brighter colour, and partially coagulated. This change may, probably, be ascribed to the influence of atmospheric air, which is not only in contact with the external surface of the body, but of which, by means of a constant, and almost insensible deglutition, a considerable quantity seems to be always present in the alimentary canal.

It is also worthy of remark, that in this, as in many other instances of gangrene, the putrescent process was arrested by death; a result which may reasonably be attributed to the diminution thereby occasioned in the supply of air, heat, and

blood to the affected parts; and, in some measure also, to the cessation of that more subtile influence, owing to which the dissolution of feeble parts is actively promoted by the superior vitality of stronger ones.

On the value, in a scientific point of view, of the physical signs derived from auscultation and percussion in cases like this, it is scarcely necessary to comment; since it is evident that, although the general history, when duly collected and considered, was highly significant, it would not have been sufficient, without the aid of these more precise indications, to ascertain the actual condition of the internal organs; namely, the perfectly healthy state of the right lung, the thoroughly disorganized state of the left lung, and the accumulation of a large quantity of liquid in the left pleural sac. The absence of pneumothorax, a little before the last evacuation, a circumstance not usual in cases of empyema, was, doubtless, occasioned by the peculiar situation of the internal parts, as previously explained; namely, by the reduced bulk and elevated position of the diseased lung, which allowed the confined liquid to accumulate until the air which might originally have been admitted was ultimately expelled through the same perforations by which it entered. This explanation is in exact accordance with the advanced period of the accumulation when the observation was made; for, had an examination taken place either before or after, it is most probable that the usual signs of pneumothorax, a clear resonance on percussion, accompanied by a total absence of respiratory murmur, would have been noticed.

On the treatment of so deplorable and desperate a disease, nothing satisfactory can be offered, since it is manifestly beyond the reach of all the ordinary resources of the healing art. The proposal to tap the left side of the chest was merely entertained from a desire to relieve, for the moment, the distress and anguish of the patient, occasioned by its distention; for, although, in idiopathic empyema, when the symptoms are urgent, and more especially when there is a tendency to spontaneous aperture, the operation may often be successful, in a secondary and complicated case, dependent on diseased lung, it must unquestionably be hopeless, and, generally speaking, inadmissible.

[The second case of modified Phthisis will be inserted in the ensuing Number.—EDITOR.]

CASES OF LIGATURE *of the* COMMON CAROTID ARTERY. By HERBERT MAYO, F.R.S., Surgeon to the Middlesex Hospital, &c.

I.

IN the number of the London Medical and Physical Journal for November, 1828, a case is described, in which I tied the common carotid artery for repeated arterial hemorrhage from a sloughing ulcer of the pharynx. After the carotid had been tied, the hemorrhage did not return, and the patient was shortly restored to health. But in two years the same person fell into a decline: he was admitted again into the Middlesex Hospital, in the last stage of phthisis, in the summer of 1833. Upon his death, the neck was examined; and the artery which had bled was ascertained to be the lingual. This was in accordance with the conjecture, which I had formed as to the source of the hemorrhage at the time of tying the common carotid. In a case, which I had previously seen with Dr. Watson, of bleeding into the fauces after cynanche tonsillaris, and which terminated with the patient being suddenly suffocated by blood pouring down the windpipe, the ulcerated artery was likewise the lingual. These facts, coupled with the exposed situation of the lingual artery towards the fauces, render it probable, that in the majority of cases of bleeding from the side of the pharynx, the lingual artery is the source of the hemorrhage.

It may likewise be inferred from the preceding case, taken with another, which will be narrated in the present paper, that ligature of the common carotid is sufficient permanently to restrain hemorrhage from the branches of the external carotid, when one or more of the latter happen to have been opened by ulceration, or in wounds. But this operation can only be safely recommended in young persons, and in persons free from deranged circulation in the head. In persons past the age of fifty, or labouring under cerebral excitement, it is probably unsafe to disturb the circulation in the brain to the extent which must follow the obliteration of one of the carotid arteries; and I should be rather disposed, on the recurrence of such a case, to cut down upon the external carotid, and to tie it immediately below the origin of the lingual; tying at the same time the upper thyreoid half an inch from its origin. The objection to this operation is, that it is more tedious and difficult than that of tying the common carotid. And peculiar circumstances may of course be present, as in Case III., which may render the ligature of the common carotid advisable on other grounds.

II.

James Blackett, a remarkably fine infant, of the age of five months, was admitted an out-patient of the Middlesex Hospital, in August last. There was a considerable and increasing swelling on the left side of the face, which extended from the level of the upper edge of the ear to below the jaw, and from the tragus, which it pushed backwards, half way to the chin. At two or three points the skin covering the swelling was slightly raised, with a shining and irregular and highly vascular surface; in other words, there were several vascular nævi, or aneurysms by anastomosis, upon the skin covering the swelling; and the swelling itself consisted of a subcutaneous vascular tumor, continuous with the superficial nævi. The tumour grew into the ear: the fore part of the external passage of the ear was red and prominent, encroaching into and narrowing the meatus. When the child coughed or cried, the tumour became more full and swollen.

The extent and probable depth of the tumour rendered it impracticable to include it in ligatures, and made it likely that, if excision was attempted, the little patient would die of hemorrhage.

Under these circumstances, the practice which I adopted consisted in passing four double threads, or small setons, in different directions through the tumour. No bleeding followed the introduction of the threads. In a few days there was a free discharge from each seton. The threads were not removed till the expiration of a month. The tumour had undergone no diminution, but had become fuller at the upper part, where the skin had already begun to ulcerate. The surface ulcerated was of the size of a sixpence.

A week after the removal of the setons I tied the common carotid artery. The operation was followed by no ill consequence. The ligature came away on the eighth day. The effect of the operation on the tumour was decided and satisfactory. The ulcer at the upper part healed, the tumour flattened, and in a fortnight was reduced a third in volume. A week afterwards pressure was made upon the cheek, by means of a piece of lead attached by adhesive plaster. The pressure has been continued to the present time: it has excited a return of discharge from the setons on the cheek which had closed. The tumour on the cheek has continued to diminish, and is externally less by one half than at the time of the operation.

It is now two months since the carotid was tied. What

the final result of the treatment employed in this case will be is yet uncertain.

The operation of tying the carotid in this infant was extremely difficult, owing to the shortness, fulness, and vascularity of the neck, and the delicacy of the parts, which made me fearful of injuring the internal jugular vein, in passing the ligature round the vessel.

In placing a ligature round the carotid artery, it is always more convenient and safer to pass the aneurysmal needle from the inside of the vessel, and to bring it out between the artery and vein, than to introduce it between the two.

III.

A gentleman, ætat. thirty, suffered under the severest mental anguish, which bordered upon distraction, and excited the fears of his friends for his safety. Placed under proper medical care, he became seemingly more tranquil; but, when the vigilance of his attendants relaxed, he made a desperate effort to destroy himself: he stabbed himself in the right side of the throat, immediately below the angle of the jaw, with a penknife, which penetrated a depth of four inches, and divided the external carotid above the origin of the lingual artery. This, however, was learnt only after the fatal termination of the case. At the time there was a great effusion of blood, and he became insensible. When he was roused from this state, the hemorrhage did not recur.

I first saw this patient eight days after the attempt at self-destruction, up to which period every thing had gone on favourably. A sudden gush of arterial blood had now taken place from the wound. When about a pint of blood had been lost, the patient became faint, and the hemorrhage stopped. The wound of the integument was three quarters of an inch in length, and irregular, showing that he had made repeated pushes with the knife, after he had forced it into his neck. I removed the clot from the wound. The patient was raised; he swallowed some liquid; coughed; the bleeding did not recur. The finger, introduced into the wound, passed a considerable depth, and seemed to extend behind the upper part of the pharynx. It was of course impossible to conjecture with certainty what artery had been wounded: it was even conceivable, from the direction of the wound, that the internal carotid had been injured. The patient's neck was naturally short and full, and the parts around the wound were swollen, and condensed by inflammatory infiltration.

As the smallness of the external wound rendered it easy to arrest hemorrhage from it, I determined to wait, and to avail myself of the chance that the hemorrhage might not recur. I therefore dressed the wound lightly, and left a person with the patient capable of arresting the bleeding, if it returned. Six hours afterwards the hemorrhage broke out anew; it was suppressed in a minute, but nearly a pint of blood had been lost. There was now too great a certainty that the bleeding would recur, if nothing were done to prevent it: I therefore tied the common carotid artery in the middle of the neck.

The patient went on favourably for a few days; but he exhibited at times considerable excitement, and he complained of pain at the upper and back part of the head. When the head was tapped at this part, he felt the pain shoot through the head. Leeches were applied to the temples, and cold, and the bowels were repeatedly acted on by medicine.

In the evening between the sixth and seventh day after the operation, two or three ounces of blood were observed to have escaped from the wound made in tying the artery. Six hours afterwards a violent gush of blood took place from the carotid, which had ulcerated below the ligature. The instantaneous faintness of the patient, and pressure made by the attendant, stopped the hemorrhage. Being sent for, I enlarged the wound, and applied another ligature below the first, which had not separated from the artery. The patient complained of numbness of the left hand. He said that, when he was bleeding, he felt his left arm become numb, and supposed that it was death beginning. The numbness of the arm and loss of power in it, increased day by day; then the left leg became numb and powerless, and the left side of the face became partially affected. He became violently delirious, and sank, and died on the sixth day after the second operation.

Upon examining the head and neck after death, matter and lymph were found in a thick layer between the arachnoid and pia mater, covering the upper and back part of the right hemisphere of the brain; and at two parts the matter formed considerable abscesses between the convolutions, which were pressed aside, and their texture softened, and partially absorbed to give room for the matter. One abscess was of the size of a bullet, the other as large as a chesnut.

The ulceration of the artery behind the ligature was in part the result of a general tendency to suppuration in the system, evinced by the formation of abscess in the brain. But, besides this cause, it is to be surmised that little or no

clot had formed in the artery below the ligature. A strongly adherent clot, nearly an inch in length, had formed below the second ligature. The secondary hemorrhage from the carotid occurred on the sixth day after the vessel had been tied. In a patient in whom I tied the external iliac artery for femoral aneurism, in September last, secondary hemorrhage, from ulceration behind the ligature, supervened before the completion of the seventh day. In this case, to suppress the bleeding, I was compelled to tie the common iliac. The patient did not survive beyond twenty hours; but a large and sufficient clot had already formed in the common iliac, behind the ligature.

It is evident that, after tying an artery, all the conditions should be most carefully promoted, which encourage the coagulation of the blood. On examining the arteries in patients who have died after amputation, they are generally found to contain a clot: but this is not always the case. Secondary hemorrhage from arteries which have been tied on a stump is proportionally rare, although it occasionally occurs. In one case, in which violent arterial hemorrhage supervened ten weeks after amputation above the knee, through a sinus which led to a portion of exfoliating bone, I found it necessary to tie the femoral artery at the groin. The patient did well.

When an artery has been tied, there is danger of secondary hemorrhage from the fifth day to the period, however distant, of the entire closing of the wound.

To the Editor of the Medical Quarterly Review.

SIR: According to the intention expressed when I last had the pleasure of addressing you, I now forward the result of my observations on Inflammatory and Spasmodic Strictures of the Urethra; and have the honour to remain,

Yours respectfully,

FRED^{K}. TYRRELL.

17, *New Bridge street, Blackfriars;*
December 23d, 1833.

Of Inflammatory Stricture.

By the term inflammatory stricture, I understand a narrowing or closure of the urethra, in consequence of acute disease of the mucous membrane and adjacent parts, which must occur in a degree whenever acute inflammation exists in these structures.

Symptoms. Pain and tenderness along the urethra, usu-

ally, however, confined more particularly to some portion of the passage. A frequent desire to void the urine, which is ejected in a small, twisted, or scattering stream, and attended with a sense of heat or scalding in the canal, especially at that part where the tenderness is greatest. Sometimes the stream is so diminished as not to exceed a small thread in diameter, but I have not known an instance of perfect closure of the urethra from inflammation without spasm.

Causes. It is generally a consequence of gonorrhœa, but is also produced by injury. In the former instance the disease may be confined to the ordinary seat of gonorrhœal inflammation, about one inch and a half or two inches from the meatus, or it may extend nearly throughout the canal. In the latter case the affection is usually confined to the seat of injury.

Proximate Cause. The condition of the diseased part I believe to be similar to that state of the conjunctiva termed chemosis, or when it is thickened and elevated, by distention of its vessels, and by deposition of serum and fibrin in the subjacent cellular tissue.

Treatment. The patient should be kept in the recumbent posture, and the genitals should be well supported towards the abdomen. Leeches should be applied along the under part of the urethra, and subsequently fomentations and poultices. The hip-bath is often very serviceable; and, after the application of leeches, subjects the patient to less inconvenience and annoyance than the fomentations. The bowels should be freely acted on by some mercurial, followed by an alkaline salt in solution. The patient should drink sparingly of some mucilaginous liquid. The diet should be light, and consist principally of milk with farinaceous substances. If there be much irritability of the bladder, a suppository or opiate injection into the rectum may be advantageously used, when the bowels have been freely opened.

In some cases, when the local symptoms are severe, and there is much constitutional disturbance of an acute kind, it may be requisite, in the commencement of the treatment, to abstract blood from the arm.

Perseverance in these means will speedily subdue the acute disease, but the surgeon must be cautious not to neglect his patient until he is satisfied that the effects of the inflammation are annihilated; otherwise, the formation of permanent stricture is very likely to ensue: he should therefore observe the stream of urine, and examine the course of the urethra, to learn whether any deviation from the natural stream still exists, or whether there be any tenderness or thickening along the canal.

If simply a slight irregularity in the stream of urine remains, with trifling tenderness in some part of the urethra, these symptoms will gradually subside if the patient remains quiet, keeps his secretions in good order, and avoids stimulating food and drink. But, should there be a very small or irregular stream of urine, with some hardness as well as tenderness about the urethra, and uneasiness during erection, something further must be done.

The most effectual plan is that of applying a blister over the seat of the thickening of the canal; it should be allowed to remain on for sixteen or eighteen hours, and, when removed, a light poultice of bread and water should be used until the part has healed. Otherwise, some stimulating ointment may be rubbed into the part night and morning; such as the blue ointment with camphor, or the ointment of the hydriodate of potash.

When the thickening about the urethra is considerable, I should advise the use of mercury, (provided there be a state of general health admitting it,) so as to affect the system slightly; having seen much advantage from it in expediting the absorption of the morbid deposit.

This condition of the urethra I alluded to in my observations on Permanent Stricture, as being so frequent after gonorrhœa, but which can, I believe, always be subdued by careful treatment, without the aid of mechanical means, as bougies, catheters, &c. Such means should never, in my opinion, be resorted to until the plan I have described has been fully and fairly tried without success.

Of Spasmodic Stricture.

It consists in a partial or complete closure of the urethra by involuntary muscular contraction.

It may take place without any evidence of previous disease in the canal, or it may occur during the existence of permanent or inflammatory stricture.

Symptoms. In the first instance, the patient will experience a sudden interruption or obstruction to the flow of urine, attended with uneasiness or pain in the region of the perineum, and frequent and urgent desire to void the urine.

If the patient has previously suffered from permanent stricture, he may find a sudden inability to discharge the urine, accompanied with the above symptoms, only generally of more severe character.

If spasm occurs during the existence of inflammatory stricture, the retention of urine is accompanied with excessive suffering; the pain in the perineum, and in the course of

the urethra, generally being excessive, and the part very tender on pressure.

If the spasm closes the urethra completely, and occasions retention of urine, there is usually constitutional disturbance, evinced first by rigors, and afterwards by febrile action proportioned to the severity of the local affection; greater, therefore, when the spasm is combined with inflammatory stricture, than when there has not been previous disease of the urethra.

Causes. Exposure to cold and damp, or the imprudent or excessive use of spirits. The influence of these causes may be noticed in almost any case of permanent stricture, when the stream of urine always becomes lessened in damp and cold weather, or in consequence of any debauch in wine or spirits.

Predisposing Causes. Acute or chronic disease of the mucous membrane of the urethra.

Proximate Cause, I consider to be partial or complete spasmodic contraction of the accelerator urinæ muscle.

The most attentive and careful examination of the urethra and its parietes does not exhibit any trace of muscular fibre in contact, or nearly so, with the mucous membrane, as some have supposed. The only muscular structures which can exert any influence over the diameter of the canal are, first, that denominated the accelerator urinæ, or ejaculator seminis; and, secondly, a portion of the levator ani, described by Mr. Wilson as distinct muscles, under the names of levatores urethræ.

The former, the accelerator urinæ, is attached superiorly and posteriorly to the under surface of the triangular fascia which occupies the pubic arch, and inferiorly and anteriorly it is connected by muscular slips to the corpora cavernosa. Between these attachments the muscle covers the corpus spongiosum (that part called the bulb,) to the extent of an inch or more; the muscular fibres being united beneath the corpus spongiosum on the median line, from whence they are continued forwards and upwards, so as to embrace the corpus spongiosum inferiorly and laterally, and become united to a tendon which is placed between the corpus spongiosum and corpora cavernosa, so that the muscle and tendon together completely surround the bulbous part of the spongy body; the muscle is consequently capable of closing the urethra by its actions.

The levatores urethræ I have not been able, by most careful dissection, to expose as described by Mr. Wilson; but, even allowing his description to be correct, the muscles

only support the membranous part of the urethra as a sling, and could not, by their most forcible action, afford that resistance which we meet with in spasmodic stricture.

There being therefore no structure but that known as the accelerator urinæ, which is capable by its action of closing the canal, our attention would be naturally led to the situation of this muscle when spasm exists; and my own experience (which has been considerable,) has satisfied me that the seat of spasmodic stricture is always in that part of the urethra enclosed by the bulb of the corpus spongiosum, and by the accelerator muscle.

I have stated, in my former observations on Stricture, how readily spasm is induced in this part of the canal by the irritation of bougies or other instruments, but which does not occur in any other situation. This is a proof of the influence of the muscle.

Treatment. Surgical assistance is not generally sought for unless the spasmodic action be sufficient to produce retention of urine; for the partial spasm is never of long duration, or productive of any serious inconvenience. I shall therefore only consider the treatment as applicable to the condition of perfect retention: 1st, as resulting from purely spasmodic stricture; and, secondly, when the spasm occurs during the existence of other disease in the urethra.

When retention of urine takes place with the symptoms I have described as indicating spasm, there not having been any evidence of previous disease in the passage, the patient may be relieved in most instances by simple means: but the disease becomes aggravated under severe local treatment. The surgeon should first endeavour to ascertain the cause of the urethral affection, and the amount of general disturbance.

If it has resulted from exposure to cold and damp, there will generally be a sensation of universal chilliness and rigors. The patient should then be placed in a warm bed, and should take a full dose of opiate combined with some mercurial, and have a general or hip bath as soon as convenient, at a temperature of ninety-eight or one hundred degrees; otherwise, the perineum and lower part of the abdomen should be well fomented. If the patient is not relieved by these means, the surgeon should administer some purgative, either by mouth or by injection; the latter mode being generally preferable, as producing the most speedy effect. The enema may consist of some senna and salts, or gruel, with the sulphate of magnesia or castor oil; and, after the bowels have been relieved, opium may be again given. Some sur-

geons recommend that the tinctura ferri muriatis should be administered with the opium, in the dose of thirty or forty minims. I have frequently seen it employed, and I think in some cases with decided advantage.

It is generally allowed that mechanical remedies are improper and injurious at the commencement of the treatment; and I perfectly agree in this opinion, but would strongly recommend a local remedy which I have found most beneficial, and consider likely to afford relief in a large majority of cases: it is the application of the extract of belladonna to the seat of stricture. I first used this extract in the winter of 1819, and have had numerous opportunities of employing it since, and am perfectly satisfied of its being a very valuable remedy. The mode of application is as follows: a common wax bougie, of moderate size, should have the rounded extremity cut off, and a small excavation made at the end. This small cavity is to be filled with the extract of belladonna, and the bougie is also to be smeared with the extract mixed with oil. The instrument is then carefully and gently to be passed into the urethra until the extremity, loaded with belladonna, reaches the seat of stricture; it should then be pressed against the part with a very moderate force, and kept there for ten or twelve minutes, or until the patient expresses a wish to void urine. I have generally, found that the patient has been able to discharge urine when the bougie has been withdrawn; but I have sometimes been obliged to introduce a bougie or catheter before the patient could micturate; and this I have effected usually with facility after the application of the belladonna in the way I have described.

In the greater number of cases in which I have employed this remedy it has been, after repeated trials and failures of the ordinary mechanical means, and where these means have produced injury to the mucous membrane, indicated by considerable hæmorrhage; but even in these cases it has been successful.

During the last year, a man was admitted into the accident ward of St. Thomas's Hospital, with retention of urine from purely spasmodic stricture, after exposure to cold, having within twelve hours before his admission passed his urine in a full and free stream. He was about thirty years of age, of spare habit, and not addicted to the use of spirits. My dresser tried the effect of general bloodletting and the warm bath, which produced syncope, but did not relieve the spasm. He then resorted to the bougie and catheter; but, failing to pass them through the stricture, he sent for me. On my arrival at the hospital, I found the man very feeble, with his

bladder greatly distended, and bleeding from the urethra, which was also extremely tender, from the force which had been employed in endeavouring to introduce the instruments. I immediately applied the belladonna in the way I have described, keeping the bougie pressed lightly against the stricture for about twelve minutes, when the patient said that he felt as if he could pass his urine if I withdrew the instrument. In this, however, he was disappointed; and I then introduced a middle-sized common wax bougie smeared with oil in the usual way, and with scarcely any difficulty passed it into the bladder. I allowed it to remain in about a minute, and, directly I withdrew it, the patient voided urine freely.

The preceding year a man came to the surgery in the hospital, having retention of urine from spasmodic stricture, after drinking more freely than usual of spirits. The gentleman then on duty as dresser, who had seen me use the belladonna with good effect, immediately applied it in this case, and succeeded in relieving the man in the course of five or six minutes, without the aid of any other remedy. The man having obtained relief so speedily, and with scarcely any suffering, in three or four days afterwards drank largely again of spirits, and again had retention of urine, for which he sought relief at the hospital. Fortunately, the same dresser was on duty, and, by the application of belladonna, relieved the case as speedily as before. This patient came a third time, some weeks afterwards, under similar circumstances, when the belladonna was once more applied with equally good effect.

The surgeon may not be able always to procure this extract, and may not succeed in overcoming the spasm by bleeding, the warm bath, opiates, purgatives, or other general means, when he must resort to some local treatment. There are two plans which I have known succeed; the first has been the introduction of an elastic gum bougie, or catheter, which has been very carefully passed as far as the stricture, and then pressed against it with moderate force for several minutes; after which the stricture has yielded, and admitted the instrument into the bladder. A common catheter may answer the purpose; but I consider the kind of instrument least likely to produce irritation the best calculated to succeed. The pressure employed should be firm, but still not sufficient to risk the laceration of the mucous membrane. The other plan has been the use of the nitrate of silver. The extremity of a wax bougie being armed with a minute piece of the caustic, nearly in the same way as I have directed the belladonna to be applied, has been introduced into the urethra, so as to

carry the nitrate of silver to the stricture. The caustic being allowed to remain in contact with the affected part for a few seconds, has been withdrawn; and, if the patient has not then been able to discharge urine, a common bougie or catheter has been used. But I have known both plans fail, and the belladonna to succeed after such failure.

In cases of purely spasmodic stricture, I do not see any decided objection to the application of belladonna before other remedies; but consider its operation likely to be facilitated by the previous employment of the general means before mentioned.

When there is evidence of previous disease of an acute kind in the urethra, the general treatment is absolutely necessary, as there is little probability of overcoming the spasm whilst the local action continues severe. I should therefore recommend general and local bloodletting, the warm bath, purgatives, followed by narcotics, so long as the degree of pain and the extent of tenderness about the urethra indicate the continuance of acute inflammation. These means generally subdue spasmodic action; but, should they fail, I should resort to the belladonna as before described.

The combination of spasmodic with permanent stricture is a very frequent occurrence, so much so, as to be the cause of retention of urine in more than one half of the cases in which such affection takes place.

The morbid change which constitutes permanent thickening may, as I have described in my former communication, so far reduce the calibre of the urethra as to permit the urine only to pass guttatim; but this is rarely the case, for the patient usually seeks advice long before the disease has reached this extent, or is compelled to do so in consequence of sudden retention.

Supposing a person to be the subject of permanent stricture, which has produced great alteration in the stream of urine, reducing it to the diameter of a coarse thread, and that, having voided the urine in a stream of such size in the morning, he becomes unable in the course of a few hours to discharge the smallest quantity, or that he suffers from retention: in such a case the retention does not arise from the permanent stricture alone, but from spasm.

The progress of the chronic affection which produces permanent stricture never proceeds so rapidly as to close the canal in a few hours, but retention frequently takes place in such cases. When therefore a patient has been able to pass his urine even in a very fine stream within twelve hours of the period of retention, I believe the retention to be occasioned

by spasm; and, with this conviction, should treat the patient, as in the former instances, by warm bath, local bleeding, purgatives, and opium at first; and then by the application of the belladonna. The first case in which I had an opportunity of employing the remedy, was of the kind last described. The patient was between fifty and sixty years of age; had been for years the subject of permanent stricture, which had reduced the stream of urine to the size of a small crow-quill. Retention occurred after drinking spirits. I was called to see him in consequence, his general medical attendant having failed to relieve him by purgatives, hip-bath, and catheter: the latter means had caused free hemorrhage from the urethra. I had gone provided with belladonna, having for some time been anxious to try it. I immediately applied it with a bougie, and in the course of a few minutes the gentleman said he felt as if he could discharge the urine, which he did as soon as I withdrew the bougie.

I have since had very frequent opportunities of trying the belladonna in somewhat similar cases, and in a large majority with equally good effect. A gentleman, who consulted me some years since, being the subject of permanent stricture, which had reduced the stream of urine to the size of a small straw, but who would not submit to treatment for the removal of the chronic thickening, has been attacked with retention at least half a dozen times in the course of the last three years, and has been each time relieved by the warm bath, opium, and belladonna. The two former remedies have always been tried before the belladonna, so that the relief could be attributed to their influence alone.

Most of those gentlemen who have acted as dressers under me at St. Thomas's Hospital have witnessed the good effects of this remedy for spasmodic stricture: indeed, within the last week, I was called to a case of retention at St. Thomas's Hospital, after the warm bath and the catheter had been ineffectually employed. I first applied the extract of belladonna, and, after five or six minutes, passed a small-sized wax bougie into the bladder, without the slightest difficulty.

In the foregoing observations I have two objects in view: 1st, to get rid, as far as possible, of mechanical means for the relief of retention from stricture, being convinced that there are very few cases to which such means are properly applicable; and, 2dly, to make known more generally a remedy which has, in my own practice, proved of the greatest value.

To the Editor of the Medical Quarterly Review.

SIR: Having read in the first number of your Quarterly Journal an interesting case of Empyema, treated by Dr. STROUD, I thought the following case, terminating more fortunately, might prove worthy of notice to some of your readers.

Yours, respectfully,

JOHN BULLOCK,
Apothecary, Westminster Hospital.

December 23, 1833.

Silas Hann, a tailor, æt. twenty, of dark complexion, and weak habit of body, was admitted August 6th, 1833, under the care of Dr. ROE, at the Westminster Hospital.

About six weeks previous he enjoyed his usual health, (which was never very good, having for some years been subject to a dry, hacking cough,) when he was seized with pain in the limbs, and fatigue on slight exertion. After a few days he experienced a sharp lancinating pain under the right breast, shooting to the shoulder, and increased by inspiration, with dry cough. He was relieved at the time by some medicine and a blister. July 31st, after exposure to the night air, he became worse: at present feels very weak, has a dry cough, more troublesome at night; breathing short and hurried; pain in the right side increased on inspiration and pressure in the intercostal spaces; generally reclines on the right side; pulse 120, weak; tongue reddish, brown in the centre, white at the edges; is fatigued by sitting up. On percussion, there is extreme dullness of sound over the right side of the thorax, before and behind, although it diminishes somewhat above the sixth rib. Absence of respiratory murmur generally over the same side, except in one or two places, where it was indistinctly audible. Ægophony at the inferior angle of scapula. The liver descends considerably lower than usual. Respiratory murmur of the left side strong and puerile. On the introduction of a grooved needle between the sixth and seventh ribs, a clear straw-coloured fluid escaped.

7th. Two P.M. A trocar was introduced at the same point, and six pints of fluid, interspersed with numerous flocculi of lymph, drawn off; a quantity of air at the same moment rushing into the pleural cavity, through the instrument. The wound was accurately closed, and he expressed himself relieved.—Calomel. Pulv. Opii, *aa* gr. i. statim et h.s.

Ten P.M. Very weak, but not more so than before the operation. Pulse 108, fuller. Tympanitic sound on percussion, with absence of respiratory murmur.

8th August. Passed a tolerably good night. He coughs less, and breathes more freely. Pulse 116, full, and strong; bowels not open.—Ol. Ricini, ℥ss. statim. ℞. Acid. Hydrocy. dil. m. xij.; Tinct. Scillæ, ʒiss.; Aq. distill. ℥viij. ℥i. secundâ quâque horâ. Empl. Canth. lateri dextro. Rep. Pil. Calom. et Opii, h. s.

August 9th. Some anxiety of countenance; pulse 100; skin dry and hot. Adde Mist. Vin. Colchici, m. xl. Tongue brown; bowels open; slept well, but sweated much in the early part of the night.

August 10th. Less anxiety of countenance; slept well; pulse 116.

August 11th. Did not sleep so well. A full inspiration excites cough and pain in the side. Pulse 124, full.—Hirudines xviij. lat. appl.

August 12th. Was much relieved by the leeches. Pulse 120.—Rep. mist.

August 15th. Respiration audible on the fore and upper part of the right side of the thorax. Pulse 116; very little cough.

August 17th. Feels very low: pulse 112.—Omitt. mist. Pulv. Opii, gr. iss. h. s.

August 19th. Slept well; still very weak; pulse 108.—℞. Inf. Gent. c. ℥vijss.; Tinct. Rhei, ℥ss.; Conf. Arom. ʒi.; Cretæ pp. ʒij. ℥i. ter die.

August 21st. Very weak; pulse 104; skin rather hot; slept well.—Omitt. Mist. Gent. Vini Lusitan. ℥iv. quotidie. ℞. Sulph. Quin. gr. xvj.; Acid. Sulph. d. ʒi.; Mist. Camph. ℥viij. ℥i. ter die.

August 23d. Looks more emaciated and feeble; pulse 110; tongue dry and reddish.

August 24th. A hollow sharp-pointed instrument, about the length of, and somewhat larger in diameter, than a common darning needle, with a hole about an inch from the extremity, accurately adapted to a stomach-pump, was introduced into the right side, and the air exhausted. He could draw a deep breath with more ease, there was no tympanitic sound, and the respiratory murmur became much more audible, immediately after the operation.—Omit the medicine.

August 25th. Breathes with more freedom; pulse 112, weak; tongue dry and chapped.—Continue the wine.

August 27th. Dullness of sound on percussion has much increased; pulse 104.

August 31st. Dullness on percussion increasing; pulse 106.

September 2d. Cough rather more troublesome; respi-

ration not heard over so great an extent; pulse 112, weak; tongue moist.

Sept. 4th. Pulse 104; appetite improving; respiration heard above the fourth rib anteriorly and posteriorly at the root of the lungs, and hollow sound on percussion over the same space.—A mixture containing Acet. Potass. ter die.

Sept. 11th. Feels stronger; coughs less. Right side of the thorax manifestly contracted; the shoulder much lower than on the left; in fact, exhibiting precisely the appearance of plates 6 and 7 in Laennec's work.

He continued much the same up to the 25th, when a blister was applied, in consequence of recurrence of cough and pain.

Sept. 30th. Neither cough nor pain; pulse 116; tongue clean; percussion elicited a clearer sound on the upper and fore part of the right side.—Pil. Sapon. c̄ Opio, gr. v. o. n.

October 9th. Continues to improve daily.

Oct. 19th. Respiration is heard quite distinct and natural at the upper third of the right side; not so below. Sound on percussion clear superiorly, dull inferiorly.—℞. Sulph. Quin. gr. xvi.; Sulph. Ferri, gr. xij.; Acid. Sulph. d. ʒss.; Mist. Camph. ℥viij. ℥j. ter die.

Oct. 26th. Respiration gradually extending over the whole of the right side.

November 16th. Dismissed cured.

To the Editor of the Medical Quarterly Review.

SIR: The following brief account of a case of recovery from an abdominal abscess, after parturition, may not be uninteresting to your readers. In the works which I have an opportunity of consulting, I find but very little said on the subject, excepting in Howship's "Practical Observations in Surgery and Morbid Anatomy;" with the statement of the dissection of one of whose cases I shall close this paper, and, by thus placing it by the side of mine, it may serve to elucidate the nature of this formidable disease.

Your obedient servant,

JOHN VALENTINE, M.R.C.S.L.

Somerton, Somersetshire; December 18th, 1833.

"Inflammation of the peritoneum is a frequent occurrence, and in almost every case a very serious one. Affections of this nature sometimes run on very quickly to purulent effusion; and, when this happens, I believe, there are exceeding few, if any, well-authenticated instances of recovery. Should

the inflammation, however, fall rather short of the above effect, so as to connect itself with the pouring out of coagulable lymph only, even in this case the event must be extremely precarious, particularly when the effusion has taken place to any considerable degree."—*Howship's Practical Observ. in Surgery*, page 228.

CASE. Ann Sheppard, æt. twenty-one, was delivered, the 5th of December, 1832, of her first child. She was in labour twelve hours. A full secretion of milk took place at the usual period, and she continued well for a fortnight after, excepting occasional pinching pains of the bowels, like labour-pains. At the end of this time she was attacked with pain of the head and delirium, frequent shiverings, fever, and increased pain of the abdomen, with great tenderness, diarrhœa, and suppression of the milk and lochia. The medical man who had attended the patient in her labour being sent for, prescribed saline medicines, and ordered the hair to be cut very short, and the head to be bathed with vinegar.

At the end of the fourth week I was requested to see her, and found her labouring under a violent cough and difficulty of breathing, to which she had been subject long before her confinement. The abdomen, which was much enlarged, was painful on pressure, and the fluctuation of a fluid could be distinctly perceived. There were frequent rigors, followed by fever, and the pulse was 120. I gave her medicines calculated to allay fever and irritation. In a few days the umbilicus began to rise, and became as large as a common-sized apple, red and shining. Poultices were applied, and in about a month the tumour burst, and discharged a gallon of pus, of a white colour, but soon turning green in the cloths, with shreds of membrane floating in it. Considerable quantities came from the orifice daily, and the discharge did not cease till the end of four months. The health then improved: the cough and difficulty of breathing completely subsided, and the patient is now better than she was before the illness occurred.

Mr. Howship having described a case, which, excepting in its termination, was very similar to the one just related, gives the following post-mortem appearances:

"The body was extremely emaciated. On passing a probe by the opening at the umbilicus, a small sinus was traced, leading obliquely underneath the integuments, and through the muscles, towards the pubes, to the extent of three inches, where it found an open way into the general cavity of the abdomen.

"On laying open the cavity of the abdomen, the probe was ascertained to have entered by a small opening ulcerated through the peritoneum. The peritoneum covering the anterior parietes of the abdomen had suffered considerable inflammation, and about two pints of purulent matter, with some flocculent masses of coagulable lymph, were removed from the abdomen and pelvis.

"There was no mark of disease about the uterus, or its appendages."—*Howship*, page 231.

Smellie gives a case which he entitles "A Case of a violent Inflammation of the Uterus, an imposthume forming, and discharged at the navel." The discharge continued several weeks, by which the patient was much weakened; but at last she recovered.

COLLECTANEA.

PATHOLOGY AND PRACTICE.

REMARKABLE CASE OF ASCITES.

A JOINER'S wife, about thirty years old, had been subject since her childhood to a remarkable hardness of the abdomen, without suffering any other inconvenience. This state had lasted for about fifteen years, and she had used a variety of remedies with the intention of bringing down her belly; she had been long married, but had never borne a child. I was accidentally consulted by her, as I was attending her husband, who was labouring under pleurisy. The catamenia were regular, but she suffered from fluor albus vaginæ; the abdomen was of almost stony hardness. The evacuations by stool and urine were normal, her appetite good, and her complexion healthy; there were no symptoms of any affection of the liver or spleen, no trace was present of scrofulous cachexy. I thought that the case depended on a swelling between the parietes of the abdomen and the peritoneum, or perhaps on a steatomatous or fungous tumour. Several physicians, to whom I communicated the case, agreed in my diagnosis. What was to be done? I gave pills of Extr. Taraxaci, Graminis, Sulph. Aurat. Antimonii, and Aloes, to see if collections of mucus were present, as they often are, according to my experience, in persons who are apparently quite healthy, as they do not always betray their presence by such especial symptoms as are given in the books. Accordingly, great masses of mucus were passed by stool for three weeks, without any decrease in the abdominal swelling, or any other alteration; I then desisted from the employment of these remedies, and told the patient that her cure, if it took place, could be effected only by a

long course of treatment. She would not consent to this, as her disease caused her no inconvenience. For two years I did not hear from the patient, though I often saw her walking about, when I suddenly heard that she was ill in bed, and that a surgeon had said, she had water in her belly, and must be tapped, for which purpose a physician was to be fetched from Rostock. The thing however was not done, and after the patient was going about again, I learned from the surgeon just mentioned, that an opening had formed itself in the abdominal parietes, out of which water flowed, and that there was an obvious fluctuation around this opening, though I could not discover any, when I attended her; the surgeon therefore advised that the opening should be enlarged, and a trocar inserted, and I perfectly agreed with him. The operation was put off, but was performed about six months afterwards by a physician of this place, (Rybnik,) who was called into consultation, and a great quantity of water was evacuated. The abdominal cavity contracted, and the opening closed; and two years have now elapsed, since which the patient is quite well, and the abdomen is of a natural softness. It may be asked, how was it possible that an ascites should last so many years, without bad consequences? My opinion is, that it was a hydrops saccatus, and that the sac at last burst, as well as the parietes of the abdomen. So that it was a genuine cure performed by nature. Have other physicians and surgeons seen any thing similar?—*Dr. Tott, in Gräfe and Walther's Journal*, Band xix. Heft 3.

[Yes; this was a case of ovarian dropsy, in which the water was effused into the cavity of the abdomen; and Dr. Tott will find two similar cases related by Dr. H. Davies, in our last number.]—

EDIT.

ON THE USE OF THE SULPHATE OF CADMIUM IN DISEASES OF THE EYE.

A minute fragment of iron, about half as big as a pin's head, sprang into the left eye of a country boy, aged ten, as he was standing in a smithy. Dr. Tott, who narrates the case, did not see the patient till a fortnight afterwards, when he was suffering from inflammation of the conjunctiva and cornea, no remedies having been used in the interval. Dr. Tott ordered the eye to be shaded from the light, leeches to be applied, and aqua saturnina to be dropped in. No trace could be discovered of the fragment of iron. In eight days the inflammation and the swelling of the conjunctiva had somewhat diminished, and the piece of iron could be plainly seen, in a small fold, formed by the swollen conjunction of the cornea. It was removed with a pair of eye-forceps, leeches, and saturnine lotion were repeated, and a purgative was given, consisting of calomel and jalap. The inflammation soon disappeared; but the boy's sight was clouded by a blueish spot on the cornea, which covered half the pupil. Mercurial ointment, a collyrium of

sulphate of zinc, walnut oil, and a perpetual blister behind the ear of the diseased side were employed without advantage; but eight or ten drops of a collyrium of the sulphate of cadmium, (made with gr. j. to ʒij. of distilled water,) being now introduced into the eye three times a day, the speck was removed in four weeks, and the boy's sight perfectly restored.

The second case occurred in the same village in Pomerania as the former one. The patient was a girl about five or six years old, who had poked something into her right eye, thus causing a traumatic inflammation of the conjunctiva and cornea. Dr. Tott, who was not called in till six weeks after the accident, found that partial exudation had taken place, and that a speck had formed upon the cornea. Instructed by the event of the case just detailed, Dr. Tott used the sulphate of cadmium in the same manner, and in six weeks no trace of a speck was to be discovered in the eye of the little patient.

Both cases show that specks on the cornea caused by external violence can be removed by the same remedies which cure those which have arisen from internal causes. Hence, it is erroneous to suppose that the former cases are more difficult to cure than the latter, in which it was thought that the external remedies could be assisted by medicines intended to remove the internal cause. But the following instance shows, that even in the latter class of cases, cadmium, by itself, can effect a cure:

A boy, aged five, was suffering from a bark-like eruption on his face, of scrofulous origin, and at the same time from inflammation of the left eye. Dr. Tott administered antimonials, Plummer's powder, dulcamara, and conium, and the eruption disappeared; the ophthalmia also yielded to appropriate remedies, but a blueish-white spot remained on the cornea and covered the pupil. Blisters placed behind the ear, and collyria of zinc and lead, were of as little benefit as the continued use of antimonials and mercurials, from which Dr. Tott says he promised himself great advantage, on account of the symptoms of a scrofulous dyscrasia, which still remained. Afterwards tartar emetic ointment was rubbed in behind the ear; but this as well as all the other remedies having been discontinued, the sulphate of cadmium was now employed, and in a week had already lessened the speck. In six weeks more it would have disappeared entirely, but the parents withdrew the patient from my care, says Dr. Tott, for fear of greater expense; but it is probable that the speck, which was very small, and scarcely any hindrance to vision, is now entirely removed. It is not probable that the antiscrofulous remedies contributed to the cure, since even the eruption appeared again, and all the other symptoms of a scrofulous dyscrasia continued. When inflammations depend on an internal dyscrasia, then internal remedies are necessary; but when inflammation has run through its cycle, and terminated in exudation, the speck is then a purely local relic of the cachectic inflammation; it is not itself of a cachectic nature, but

is to be looked upon as a disease no longer depending on an internal cacochymia, and therefore to be treated merely by local remedies. The preceding cases show the sulphate of cadmium to be an excellent topical remedy, though unfortunately it is seldom used, even by those physicians who are especially devoted to the treatment of ophthalmic diseases; they talk continually of the employment of zinc, vitriolic remedies, corrosive sublimate, red precipitate, &c.; and when these means have failed, as often happens, they complain that nothing was of any use, and that the disease is a *scandalon artis*. Dr. Tott, however, confesses, that in a former number of the journal he mentioned a case of leucoma corneæ in which the red precipitate ointment bore off the palm from the sulphate of cadmium: but he is convinced that the remedy as applied by him then was not so strong as what he now employs.—*Gräfe und Walther's Journal*, Band xx. Heft 2.

SUDDEN COMPLETE AMAUROSIS, FROM VIOLENT INFLAMMATORY ATTACK OF THE BRAIN AND MEMBRANES.

A patient, thirty-seven years of age, came under my care at St. Bartholomew's Hospital, on the 2d of March, 1832, on account of inflammation of the basilic vein, consequent on venesection: the affection had begun on the 29th of January. The symptoms, which were serious and alarming, subsided under active treatment; the phlebitis had completely disappeared by the 16th of March, when the circulation was tranquil, the rest sound, the tongue clean, and the appetite good.

A mutton-chop was ordered daily, at the urgent request of the patient, who felt very hungry; and a draught of infusion of cascarilla, with infusion of rhubarb, three times a day. He took the chop, and three draughts, on the 17th, slept well, and had the bowels opened on the 18th, when he rose and dressed himself, and was found by the dresser sitting by the fire. He said he felt so well, that he could not remain in bed; he complained of being very hungry, and requested that he might have wine or beer at dinner: this was immediately refused. In the course of the morning his friends came to see him, and it was strongly suspected that they had brought him wine or spirits. He could not eat the chop at dinner; but he made no complaint at that time. At six P.M. he was suddenly seized with faintness, loss of sight, and slight pain in the head. He went to bed immediately, and had some calomel and James's powder, followed by an ounce of castor-oil in four hours.

19th. Restless and delirious during the whole night; the retinæ are totally insensible, so that he cannot distinguish light from darkness. The pupils are slightly dilated, but contract when a candle is held before the eyes, although he is not aware of its presence. The head is hot and painful. He is sensible, and answers questions rationally. The pulse small and quick; tongue white, and rather dry; there is great thirst.—The head to be

shaved, and covered with cold lotion; cupping on the nape to fourteen ounces; a blister between the shoulders; a saline draught, with antimonial wine, every four hours.

20th. Vision the same.—Twenty-four leeches to the temples; a dose of castor-oil; two grains of calomel, with two of antimonial powder, every four hours.

21st. A little sleep towards the morning; vision improved, so that he can see fingers held before him, and tell the number. In the middle of the day the former symptoms returned in an aggravated degree; delirium came on, with continual muttering, and the stools were passed unconsciously.—Blisters to the calves.

Death took place on the 23d. Seropurulent effusion was found in the pericardium, and purulent infiltration to a considerable extent had taken place in the muscular substance of the heart. Unequivocal evidences of vascular excitement were found throughout the encephalon; the medullary substance was partially softened in several situations. The arachnoid membrane was thickened at the basis of the brain, and yellow coloured, apparently from purulent infiltration. These changes were particularly conspicuous about the infundibulum, and the union of the optic nerves.—*Lawrence on Diseases of the Eye.*

COMPLETE AMAUROSIS, WITH CONGESTION IN THE HEAD, IN A PLETHORIC SUBJECT: PERFECT RECOVERY.

A young woman, twenty years of age, came to the London Ophthalmic Infirmary, then in Charter-house square, labouring under active congestion about the head; her countenance was peculiarly florid; all the veins were obviously turgid, and she had considerable pain. Before I saw her she had experienced severe external inflammation of one eye, which had produced a large leucomatous opacity of the cornea: the latter was in the state of incipient staphyloma. These serious changes, and the consequent loss of an eye in a young female of considerable beauty, were the obvious results of inactive treatment. She still suffered occasional relapses of inflammation in the eye; and at these times she experienced so much sympathetic affection of the opposite eye, that she could not use it without pain. Hence she readily submitted to the removal of the staphylomatous projection, which quickly and effectually relieved the sound eye. Within a month she came again, saying that she had lost the sight of the other eye. On examining it, I found that she had an attack of almost complete amaurosis: although it had existed only two or three days, she could scarcely distinguish the window. She had a dilated pupil and nearly motionless iris; there was no external redness, but she had, in addition to her usual florid colour, a flushed countenance, considerable pain in the head, and some febrile disturbance of the system. Knowing from experience how prone she was to inflammatory attacks in the eye, I had her bled largely, and cupped from the back of the neck, placed her upon

low diet, and gave purgative medicines; but, although this plan of treatment was followed up vigorously, no improvement of vision ensued; the retina indeed became quite insensible. Mercury was now used actively: as soon as it caused salivation the affection began to give way, and she recovered her sight perfectly. She was still liable to returns of congestion about the head, and repeatedly lost blood by venesection and cupping: she continued to employ mercury and aperients, and ultimately had a seton in the back of the neck. In spite of such means, continued and repeated for more than a year, during which time she was often bled and cupped, and took an immense quantity of mercury and purgatives, she still retained her beautiful colour and the florid red of a person from the country. She attended the Infirmary nearly a year and a half, undergoing the treatment above described, more or less actively, during the whole time. I saw her two years afterwards, the eye remaining perfectly well; but, although she had still much colour, the characters of youth and beauty were in a great measure lost.*—*Ibid.*

POST-MORTEM CONVULSIONS IN CHOLERA PATIENTS.

An artillery man, named Kapienski, aged twenty-three, a tall man, of herculean strength, and tolerable *embonpoint*, died about noon on a warm September day, after an eight hours' illness. I observed his corpse, (the convulsive movements of which had already been remarked by the attendant,) from half past one to three in the afternoon. Single muscles in the upper-arm, forearm, and lower part of the thigh, moved convulsively, at intervals of one, two, or more minutes, so, as occasionally to move a finger, and more rarely a toe; the motions of the lower extremities being rarer and weaker. The body had the usual posture, which I have already described; the fingers being moderately bent, and the ordinary motion of single fingers consisting in the momentary increase of this state of flexion, which was immediately followed by a return to their former state; I saw this particularly often in the right index finger, but in others also. When I arrived, I was heated by quick walking, and a dinner which I had just taken, so that, when I felt for the pulse of the corpse, pulses beat everywhere, which in reality were to be found only in the points of my own fingers; this happened also to the assistant physician, who was present. Afterwards, as might have been expected, I could feel neither the pulse nor the heart beat. It appeared to me that the stimulants which excite pain were not well suited to follow up the traces of life in a cholera patient apparently dead: and I therefore contented myself with looking for traces of respiration by holding a lighted candle before the open mouth and nose; but the flame did not move. I now placed a glass

* We are afraid that a recovery in which the characters of youth and beauty were in a great measure lost, would scarcely be deemed a "perfect recovery" by the patient. But who can stand cupping for a twelvemonth?—Edit.

of water on the chest, on the right pectoralis major, and it was supported by the assistant physician. The glass moved indeed, not from respiration, but merely when the deltoid was convulsively agitated; and these were the most frequent of all the movements. Some particular muscles were contracted in preference, namely, the right deltoid (whose motions continued more than two hours and a half after death;) and, next to it, the supinator longus, and the radialis externus longus, the flexors of the fingers and toes. After some time I exposed a portion of the deltoid, near the pectoralis major, and saw that for the most part it had been only some few of the larger bundles of fibres which had moved. I then exposed the brachial artery, to see if there was any remnant of pulse; but, as might have been expected, there was none. I laid bare a larger portion of the crural artery, and a part of the sartorius muscle, but there was no pulse; and, as it had now grown late, there were no convulsions.

On the 2d of January, 1833, from one to half past one in the afternoon, I watched the convulsions in the body of a strong middle-aged man, who had died at half-past eleven. When I came, I found the corpse covered, and tolerably warm everywhere, but especially on the back. Several bundles of muscles were in convulsive movement on the left upper arm, particularly its lower portion; more especially the biceps, but also a part of the brachialis internus. This was also the case on the upper and anterior part of the left forearm; but here, from the slightness of the convulsions, it was not easy to distinguish what muscles were in motion. On the outer and upper part of the left thigh, the vastus externus moved, and on the anterior part the rectus. There were no motions of the fingers or toes; nor were any movements perceptible on the right side. I attempted, by rubbing the upper part of the right thigh, first with my hand, and afterwards with a brush, to produce convulsions in the rectus and vastus internus, and succeeded for a short time, but soon failed. The convulsions in the left thigh then ceased, and could not be restored by a piece of rag dipped in spirits of wine and set on fire, and those in the left arm soon disappeared likewise.—*Ueber den Leichenbefund bei der Orientalischen Cholera. Von Dr. P. Phœbus, Berlin*, 1833, p. 263 et seq.

TREATMENT OF HYDROPHOBIA.

Royal Academy of Sciences, September 23d. A communication was read from M. Buisson, who states that the treatise on Hydrophobia sent in 1823 was written by him, and that the individual mentioned in it, as cured of hydrophobia, was himself. He regards his method as so certain, that he offers to inoculate himself with the disease. M. Buisson, who requests that his memoir may be allowed to compete for the Monthyon prize, gives the following history of his attack, and his cure.

He had been called to attend a woman who for three days had been suffering from what was supposed to be hydrophobia. She

uttered piercing screams, complained of a sense of constriction in the throat, foamed at the mouth, and spit continually. The neighbours of the patient said that she had been bitten forty days before by a mad dog. She herself did not confess that she was labouring under hydrophobia, but maintained that the symptoms depended on the appearance of the catamenia. She was bled at her own earnest request, and died two hours afterwards; a termination which might have been foreseen before the operation. M. Buisson, whose hands were covered with blood, rubbed them with a towel which had been used to wipe the mouth of the patient. One of his fingers was affected at the time with ulceration depending on caries; yet he thought to protect himself from danger by subsequently washing with pure water. Nine days afterwards, being in a cabriolet, he suddenly felt a pain in his throat, and a still greater one in his eyes. His body seemed so light, that he felt as if he could leap to a prodigious height; and his scalp was so sensitive, that he thought he could count his hairs without seeing them. His mouth was filled with saliva, and the impression of the atmosphere, as well as the sight of shining objects, caused a very painful sensation. He also felt a desire of running and biting, not men, but animals and inanimate objects. Lastly, he drank with difficulty, and the sight of water oppressed him more than the pain in his throat. These symptoms returned every five minutes, and it seemed as if the pain began in the injured finger, and thence extended to the shoulder. The combination of these symptoms made him conclude that he was attacked with hydrophobia, and he resolved to put an end to his existence by suffocating himself in a vapour-bath. He increased the heat to 42° (= 126° Fahr.) and was then surprised and delighted to see all the symptoms cease. He went out of the room cured, dined copiously, and drank more than usual. Since then he has treated more than eighty bitten persons, in four of whom symptoms of hydrophobia had appeared. All have been cured, except a child, seven years old, who died in the bath.

The treatment which he prescribes for those who have been bitten consists in taking a certain number of Russian vapour-baths, and in sweating violently every night by means of blankets and feather-beds. The perspiration is augmented by drinking large quantities of hot decoction of sarsaparilla. To show the advantage of copious and continued perspiration in this disease, he relates the following anecdote. A relation of Grétry, the musician, was bitten by a mad dog, as well as a number of other persons, who all died by hydrophobia. This one, however, when he felt the first symptoms of the disease, began to dance night and day, saying that he wished to die merrily; and he recovered. M. Buisson quotes moreover, to the same purport, the old histories of *tarentism* cured by dancing. He also observes that the animals in whom hydrophobia is most frequently spontaneously developed, namely dogs, wolves, and foxes, do not perspire.—*Archives Générales, Septembre.*

CASE OF ERYSIPELAS OF THE FACE.

Wm. Hogbin, aged 18, was admitted into Luke's ward, under Mr. Stanley, Aug. 22. He states that he caught cold the preceding week, and that, two days before he applied to the hospital, he was attacked with painful tumefaction and redness of the face. His bowels have not been relieved for four or five days. He has great pain in his head, and can get no sleep at night; pulse quick, irritable, and somewhat hard. Is ordered twelve grains of jalap, with five grains of calomel, immediately; to be followed by a compound senna draught in three hours; and, after the operation of these medicines, a draught to be taken every six hours, composed of saline mixture, with one drachm of antimonial wine. The face to be fomented frequently with warm stoups.

23. Pulse has lost its hardness, though still irritable; bowels have been well opened; fancies himself better.

24. Has had no dejections to-day; great tumefaction of the eyelids; pain in the head unremitted.—Continue the saline medicines. The calomel and jalap powder to be repeated. An evaporating spirit lotion to be constantly applied to the head.

25. Appears better; the pain in the head has almost left him; pulse much less irritable.—Saline mixture, with sulphate of magnesia, every six hours.

27. Is ordered two grains of calomel at night, in consequence of his tongue being coated with a dirty white fur.

29. Is much better in every respect. Simple saline medicines alone to be administered.

September 1. Has been gradually improving until this morning, when he had a recurrence of the erysipelatous inflammation; the pain in the head returned; his pulse became quick and irritable, without much power.—His bowels to be opened with calomel and jalap powder immediately, and to continue the saline medicines.

2. Is somewhat better: pain in the head relieved since the operation of the purge.

4. Continues to improve. The bowels to be kept gently relaxed by saline mixture.

6. Has no pain in the head; the tumefaction and redness of the face have almost entirely disappeared; free dejections; pulse less irritable, but slightly intermittent.

12. The patient has been daily improving, and is now convalescent.

In this case, as in several others lately reported, the purgative and saline treatment alone has been found sufficient to remove this disorder; and depletion by venesection seems rather to retard than accelerate recovery, particularly in the instances where those labouring under this affection have been addicted to the use, or rather abuse, of fermented liquors and ardent spirits; and this fact is worthy of being noted, as frequently the bounding full pulse

might seem, to one ignorant of this circumstance, to indicate the bold use of the lancet.—*Lancet.*

EFFECTS OF AN OBTURATOR MADE OF DIFFERENT METALS.

A lady, under the care of MM. Nauche and Moncourier, had a great fissure in the palate, through which her food used to pass into her nostrils. A dentist very ingeniously made an obturator which remedied the accident, but caused a remarkable sensation. A metallic taste and a slight numbness were experienced, analogous to those produced by galvanic arrangements. Suspecting that this might be occasioned by the dissimilar metals employed in the composition of the instrument, MM. Nauche and Moncourier put into their patient's mouth two disks of zinc and copper soldered together: the sensation now produced was recognized as similar to that caused by the obturator, differing only in intensity. The dentist was ordered to make another instrument, all of platina; the former being of platina jointed with gold. No sensation was experienced from the new obturator. From this we may gather the necessity of making those instruments of a single metal which are intended to be left in the system. When the metals are dissimilar, an electric current will be established, giving rise to decompositions of the fluids which they touch, and to feelings which may prove very troublesome.—*Med. Gaz. from Gazette des Hôpit.*

BAD RICE THE SUPPOSED CAUSE OF ASIATIC CHOLERA.

Dr. Tytler, a surgeon in the service of the East-India Company, has propounded his theory of the cause of Asiatic cholera to the London Medical Society, where it has afforded the subject for several nights' discussion. Dr. Tytler imagines that the Cholera Spasmodica, or (as he calls it) the Cholera Oryza, is produced by spoiled rice; and, by talking, writing, and thinking about this theory for some fifteen years in India, he has become so staunch a believer, that he has at last imported it from the East, where it might have some degree of plausibility, to England, where the theory has little but fancy to support it. As the investigation of one grievance very often tends to the discovery of another, we wish that this oryzean debate would incite some English Raspail to look at the state of what is called bread in London.

The following bit of dialogue at the Medical Society, which we take from the *Lancet*, is amusing enough:

"*Member.* The population of Jessore was two millions before the cholera occurred there, but what is it now?

"*Dr. Tytler.* Oh, it is still two millions.

"*Member.* Has the fatality caused by the cholera so speedily been—

"*Dr. Tytler.* God bless you! the destruction of people by the cholera in India is only like killing a bag of mosquitoes.

"*Member.* A most prolific climate. India is a wonderful country.

"*Dr. Tytler.* India is the world, sir.

"*Member.* Shall you return to it?

"*Dr. Tytler.* Yes, certainly.

"*Member.* Is not the climate too hot for you? I should think your substantial frame afforded a nice treat for the insects. [Dr. Tytler is a very robust, healthy-looking man.]

"*Dr. Tytler.* God bless you! I have been more stung in bed since I came to this nasty hole (London) than all the years I have been in India. See there: India is the country of humbugs, but this is the country for real bugs."

A. L. WIGAN AND THE RINGWORM.

The lovers of novelty will be delighted to hear of the printed letter circulated by one A. L. Wigan, of Brighton. It comes to you by the twopenny post, and you are amazed to find, not a tailor's puff, nor a catalogue of a bankrupt's stock, selling off at awfully low prices, but a medical man's bran-new method of curing ringworm. Our brother of Brighton tells us that he sees at his dispensary nearly 150 patients weekly, and he has private practice besides: two elements of a problem far too knotty for us, and which we must submit, therefore, to our Cambridge friends. We suspect that its solution depends on the calculus of variations, as thus: "A man sees 150 patients weekly, &c.; how many cases of ringworm does he treat in a year?" We often see the practice of physic talked of in books as a harassing occupation, and no wonder; for just listen to A. L. Wigan: "During more than twenty years of my professional life, this disease was a constant source of disappointment and vexation to me." So that if a good long professional life consists of fifty years, here are two-fifths of it embittered by one tiny disease, which would hardly get two pages for its share in a system of physic: and then there remain a thousand maladies, which even A. L. Wigan himself cannot cure, to throw their bleak shade over the remaining three-fifths.

We must not conceal from our readers that there are difficulties in this letter; but difficulties that the author will no doubt clear up in the course of his correspondence with the world. Thus he tells us, that to ferret out a ringworm, we must look at it "*with a very powerful lens;* an examination with the naked eye is worth nothing at all;" but he does not tell us what we are to find with the lens. Moreover, "Ringworm is not only frequently mistaken for, but is often actually complicated with, porrigo, psoriatis guttata," &c. Now, on turning to Bateman, (who, though not a Wigan, is somebody,) we are sorely perplexed by finding that "The PORRIGO *scutulata*, popularly termed the *Ringworm of the scalp*, appears in distinct and even distant patches." &c. (*Pract. Synopsis of Cutan. Diseases*, 6th edit. p. 169.) So that it may be mistaken for itself. Now for the treatment. "I believe that I am the first who adopted it—if not, it certainly was not suggested to me by any

one," says A. L. Wigan. "The head then being shaven, and time given for any slight cut of the razor to be healed, I apply all over it (by means of a short soft shaving-brush) the strong pyroligneous acid prepared by Beaufoy, diluted with one third of its volume of water—keeping the head thoroughly wet with it for the space of two minutes. Some slight and very transient pain is given at the spots, *which are immediately rendered visible, though they could not previously be distinguished,*—they become instantly of a very bright red, while the healthy scalp is not at all affected, except in some rare cases, where the skin being exceedingly thin and delicate, it is advisable to use the acid in a more dilute state. The complete detection of every infected spot makes our further progress easy and satisfactory, as we know the extent of the disease. I now continue to *soak* the affected parts with fresh applications of the acid in its full strength for a quarter of an hour; and if this be done carefully and steadily, a second or third application (with intervals of three or four days,) will always complete the cure. Once is sometimes sufficient, but I do not like to trust to it." Now, when on the first of January, A. L. Wigan reads the following bit from Bateman, we are sure that he will cry out with old Donatus, *pereant qui nostra ante nos dixerint*,—the devil take those who said our good things before us. "Mr. P. Fernandez mentioned to me an instance of speedy recovery, which followed a single application of the strong sulphuric acid, which was instantly washed off. A new and healthy cuticle succeeded. The acetic acid, or aromatic vinegar, which acts as a more gentle, yet very effectual caustic, has proved an effectual remedy in a few instances."—(*Bateman's Synopsis*, 6th edition, p. 173. Note.) We now take leave of the author. We do not object to his manner of treating ringworm, but we object most strongly to his manner of communicating his treatment. Would none of the Brighton doctors listen to him, or come and see his cures? It would have been a milder step to ask them to do so. "Mr. Wigan presents his compliments to Dr. Quick, and begs the favour of his company to a curing of ringworm, with acetic acid." "Dr. Quick is very sorry that he cannot wait upon Mr. Wigan, as he has invited a medical party to see him cure two aldermen of dyspepsia crapulosa, with the sulphate of zinc."

Or, why could not the author send his discoveries to the "Medical Gazette," or the "Lancet?" He should reflect, that if his unhappy example should be generally followed, everybody communicating his practice to everybody by the post, we poor doctors must certainly make our appearance in the Gazette, not the Medical, but the other one.

BINELLI'S SOLUTION AND KREOSOT.

It is difficult to decide on the merits of new remedies, for experiments on men can be tried only in certain cases, and when made

on animals, they give merely approximate results. In the instance of Binelli's solution, there was an additional difficulty, namely, that the composition was unknown. Excepting in Italy, where the commissions appointed by the governments at Turin and Naples declared themselves in favour of this secret remedy, it was first tried in Berlin, in the year 1831. As the experiments (which, however, were not very numerous,) terminated favourably without exception, they were published, with the promise that everything should in due time be communicated which might be learned from further investigation in the institution. We now discharge this obligation, as far as we can. Through the kindness of Count Lottum, the Prussian ambassador at Naples, we received a large quantity of this solution from the fountain-head. The bottles differed from one another in smell and appearance so much, as to give rise to rational doubts as to the sameness of the preparation. The intensity of these doubts was increased both by recent intelligence from Naples, stating that Captain Pironti, the present possessor of the secret, was not conversant with chemistry, and by the fact, that the experiments undertaken here in 1832 were not satisfactory. It resulted from them that Binelli's solution was an uncertain styptic both in animals and men. In a few cases it appeared efficacious, but in many others was of so little use, that we were obliged to resort to other aids; and in an amputation of the breast, and a removal of the humerus, we were obliged to tie the vessels. Our confidence in the new remedy was of course much lessened by these occurrences, as well as by the counter-experiments performed at the institution, in 1832; they showed that in rabbits, sheep, and horses, when the large arteries, and even the carotids were divided, the bleeding could sometimes, though rarely, be arrested by plugs of lint, or by cold water; and sometimes without any application. It is a uniform and perfectly certain operation alone which can give value to the preparation in question. It remains for time to decide whether this effect can be produced by a scientific employment of the peculiar ingredient contained in this arcanum;—an ingredient which has hitherto been too little investigated. It would be too hasty to drop the thing altogether, on account of the less satisfactory nature of our last experiments. Many distinguished Italian physicians, among whom I will name only Cotugno, Antonucci, Santoro, Boccanera, Ronchi, Vulpes, and Rispoli, have seen the internal and external use of Binelli's solution, of singular advantage in wounds where a ligature could not be applied, as well as in cases of hemoptysis and metrorrhagia. Some Berlin practitioners have similarly employed, and with advantage, the arcanum in imitation of Binelli's solution, prepared by the apothecaries Hummel, Jaenicke, Daneel, Staegemann, and Leide.

The late discovery of Kreosot, to which professor Schweigger Seidel had the kindness to direct my attention, will perhaps once be the means of the contradictory results of the experiments. This

savant supposes Kreosot to be the peculiar substance which Berzelius discovered in the solution which we sent him; it possesses the power of coagulating the albumen in the blood, and it is to Kreosot that smoke and pyroligneous acid owe their conservative powers.—*Gräfe, in his Journal.* Band xx. Heft 2.

TREATMENT OF CHOLERA BY CALOMEL ALONE.

We have received a letter from Dr. Peacock, of Darlington, who informs us that, in cases of Indian cholera, he gives a grain of calomel every ten minutes, with a glass of cold water; that he trusts to this alone, having found the saline mixture a useless addition, and that he is uniformly successful. Our correspondent concludes by saying, "I am so well convinced of the utility of this plan of treating the Indian cholera, that, if any two respectable practitioners will make a full and patient trial of it, either in England or America, I will be bound to forfeit a sum of money to any public charity in every instance in which it fails."

This will remind our readers of Dr. Ayre's system, who gives a grain of calomel every five minutes, but combines it with a drop of laudanum. Dr. Peacock's proposed bet is a very rash one; we should be glad to hear if any of the sporting doctors of the North have taken it.

CASES OF CLIMACTERIC DECAY.

A gentleman had been for some years attended by the writer. At the age of eighty-one years, during a severe winter, he suffered much from bronchitis, accompanied with great sinking of the vital energies. His habits were social, and he lived highly. He recovered, however, by means of warm diaphoretics and tonic cordial aperients, with a due regard to his accustomed indulgences, and to the precept of Hoffmann, "*ne subito muta assueta, quia assuetudo est altera natura.*" The following year he had a similar attack at his seat in the country. A nearly opposite treatment to that which was adopted by the writer in his previous illness was directed by his medical attendants on this occasion, and in a few days he expired *when seated* on the nightstool, [see Hoffmann's treatise "*De Situ erecto in Morbis periculosis valde noxio,*"] about half an hour after the physician had left him, and given a favourable opinion of the result to his friends.

General —— had served nearly all his life in the East Indies, and was upwards of eighty, but of a robust constitution. His ailments, when he was seen by me, could not be referred to any particular organ, and were attributed at the time to senile decay: the liver performed its functions. Nothing beyond the regulation and promotion of the digestive and excreting functions was attempted; and he was allowed a light and nutritious diet, with change of air, the use of the Bath water, &c. Under this plan he improved greatly, and was able to travel with ease from one part of the country to the other, and, when in town, to dine daily at the Oriental Club. The last occasion but one on which I saw him,

he came to my house, to inform me that his relatives were not satisfied with the progress he had made, and had repeatedly urged him to change his physician. I accordingly retired; but a few days afterwards was requested to see him. He was then sinking fast, evidently from the effects of a lowering treatment and of profuse evacuations upon a decayed frame. Speedy dissolution could not be averted; I therefore declined all interference. He died not many hours afterwards.—*Dr. Copland's Dictionary of Practical Medicine.*

POST-MORTEM EXAMINATION OF A PAINTER.

Mr. Byam and myself recently examined the body of a painter, who died at the age of seventy-eight. He had been a very strong man, and in constant employment all his life, up to a few days before his death. He died of hæmatemesis, from disease of a branch of the coronary artery of the stomach. The substance of the heart was soft and flabby. The small and large intestines were sound; the liver was studded with collections of a pultaceous semi-fluid matter, of a greyish white colour, contained in very thin cysts, from the size of a hazel-nut to a walnut, the portions of liver surrounding them being softened, and of a dark red colour. The top of the anterior mediastinum, and space behind the top of the sternum, contained an immense mass, nearly the size of the closed hand, of enlarged glands, of a cheesy consistence and appearance; and a similar change of the absorbent glands existed behind the arch of the aorta, the superior cava, &c., extending in the form of a long cushion down the vertebræ into the abdomen. The small arch of the stomach, the pylorus, and commencement of the duodenum, were remarkably thickened, from the deposition of adventitious matter, the thickened mass nearly approaching the characters of scirrhus. The coats of the arteries of the stomach were diseased, and contained atheromatous matter.—*Ibid.*

THE CRETINS OF SALZBURG.

The following account of the "*Fexes*," or cretins of Salzburg, is abridged from that given by Professor Knolz:

The whole body is stunted, its height not exceeding four feet. There is a total want of due proportion between its different parts; the height of the head, with reference to the rest of the body, being one fourth or one fifth, instead of one eighth, the natural proportion. The neck is strong, and bent downwards. The mammæ are very voluminous and pendent; the upper limbs reach below the knees; the arm is shorter than the forearm; the chest narrow; the abdomen hemispherical, and of a length not exceeding the height of the head; the penis and scrotum come down to the knees; the thighs are, with the haunches, of a greater width than the shoulders, and are shorter than the legs, the calves being almost wanting; the foot is small, and the toes partly distorted; the lower extremities are shorter than the upper half of the body. In the head, the masticating organs, the lower jaw, and the nose, prepon-

derate considerably over the organs of sense and intelligence. The skull is depressed, and forms a lengthened and angular ellipsis; the receding forehead presents, internally, large frontal sinuses, to which the brain has yielded a part of its place; the top of the head is not vaulted, but flattened; the occiput projects but slightly, and runs almost even with the nape of the neck, as in ruminating animals. The face is neither oval nor round, but spread out in width; the parts of which it is composed being wide and short, and the maxillary bones projecting greatly. The forehead is narrow, flattened, and low; the eyes are unusually far apart, diverge slightly, and are small, and seated deep in the orbit; the pupil is contracted, and not very sensitive to light; their external angles are situated higher than the internal; the eyelids, unless when dropsically swollen, are flaccid and pendent; the look is a fixed stare without expression, and turns with indifference from all that is not eatable. The root of the nose is widened and depressed, the bones of the nose square; the zygomatic bones are wide, and extremely projecting; the external ear is large, stands out from the head, and hearing is very defective. The elongated form of the lower jaw of the cretins, and their thick and padded lips, make them resemble ruminating creatures more nearly than man. The tongue is thick, and rather cylindrical than flat; the saliva is continually running from the angles of the mouth. Enlargement of the thyroid gland is recognized as one of the signs of cretinism; but its size is no sure guide to the extent of the existing infirmity. The throat presents also other obstructed glands. The thorax is generally narrow and flat; the abdomen is usually distended with gases, and largely developed towards the chest; the flesh of the extremities is flabby; the knee of an irregular shape, and usually bent; the fingers are very long and lank, and the nails very small. The upper part of the vertebral column being directed more or less forward, and the lower part, with the basin, being pushed backward, the sacrum assumes a more horizontal, and the other pelvic bones a more vertical position, than in the healthy formation. Besides the masticating and digestive organs, those of generation are also strongly developed, especially in the male. (*Medecin. Jahrbücher des k. k. Œsterr. Staates*, b. i. st. 1, 1829, p. 86.)—*Ibid.*

STEEL BUSKS.

It is extremely possible that whatever *conducts the electricity* of the body from it, will occasion direct debility. With this view I have long been in the habit of causing females who used steel supports to their stays, to lay them altogether aside. The experiments on Casper Hauser confirm this supposition.—*Ibid.*

CASE OF APOPLEXY.

Travelling in the summer, in one of the short stages, I sat opposite an aged and corpulent man, who, very soon after our

leaving town, suddenly lost his consciousness and power of motion. His countenance became first pale, then bloated and inexpressive, his breathing slow and slightly stertorous, all his muscles completely relaxed, and he fell, in a few seconds, upon those sitting around him. We were only a few doors from a chemist's shop; the coach was stopped, and he was carried thither. He was now profoundly apoplectic; a copious perspiration flowed from his face and forehead, the veins of which were distended, and all his senses were completely abolished. There was no sign of hemiplegia, but there was general and complete loss of motion and sensation. His neckcloth having been removed, the pulsation of the carotids was found to be slow, and of natural strength and fulness. Whilst he was held in a sitting posture in a chair, cold water was poured gently over his head from a sponge, and his head frequently sponged with it; volatile salts also were held for a short time, and, at intervals, to his nostrils. The power of deglutition was at this time abolished, so that it was impossible to administer a draught, chiefly consisting of a small quantity of spiritus ammoniæ aromaticus and camphor mixture, which was prescribed. In a very few minutes his consciousness returned, he took the draught, and in a short time afterwards he walked to a coach, in which I accompanied him home. He now complained only of very slight confusion of ideas, with scarcely any headach, but his carotids beat more firmly. One full bloodletting, and an active purgative, were now directed. The next day he was perfectly well, and has continued so. What would have been the result if he had been largely blooded previously to the reaction?—*Ibid.*

MEDICATED BATHS.

The idea that the skin is entirely incapable of absorbing fluids in which it may be immersed, has led to the neglect of medicated baths. But it should be recollected that, independently of any power of absorption this structure may possess, and which I believe it possesses under some circumstances, and in respect of various agents, it is a living, an active, a finely sensible, and, as to the nature and extent of its functions, an important organ ; and that it is very susceptible of impressions by which not only its own functions are modified or altogether changed, but the actions of other organs are variously affected in consequence of the nervous and vascular connexions and functional relations, which bind the different parts of the economy into one indivisible whole. Entertaining such views, I believe that cold, tepid, warm, or medicated baths; that lotions or washes, or stimulating liniments and frictions applied to the surface, the former in slighter cases, the latter in the more urgent; are not infrequently beneficial in diseases of debility, when judiciously employed, and with due reference to antecedent or existing visceral disorder. Sea or salt water bathing; shower baths; camphor and chalybeate baths; warm, tepid, or cold baths, either general or local, of iodine, or of iodine and sub-car-

bonate of potassa; baths of decoctions of willow or oak bark, sometimes with the addition of an alkaline sub-carbonate; washes with camphor water, rose water, and vinegar, applied to the trunk; or sponging the surface daily with a mixture of these, at a temperature of about 60°; or with a small proportion of the nitric and muriatic acids in water at a temperature of 70° to 80°; are respectively of much service, when suitably prescribed.—*Ibid.*

TREATMENT OF ASCITES CONSEQUENT ON AMENORRHŒA.

I was consulted, some years ago, respecting a case of ascites consequent upon profuse and frequent menstruation. This discharge had been suppressed by exposure to cold; and, soon afterwards, symptoms of inflammation of the serous covering of the liver, with effusion, were observed. These were combated by local depletions, which were repeated; by external irritants, by mercurials, and, subsequently, by cream of tartar with borax and diuretics, and other means in various forms of combination; but without any permanent benefit. I directed at last a weak solution of the hydriodate of potash with iodine; and caused it to be persisted in for seven or eight weeks, when good effects began to appear. This medicine was continued for five or six months; at the end of which time the catamenia had become regular, and the effusion had entirely disappeared. I was more recently consulted as to a similar case, in the care of Mr. Grabham, of Rochford; which had, likewise, been preceded by profuse catamenia, suppression of this discharge followed by pulmonary disease, and extension of tenderness and fulness from the thorax, over the region of the liver and abdomen; with effusion of fluid into the abdominal cavity. The pulmonary affection and the more acute symptoms subsided under the very judicious practice of this gentleman; but the means successively adopted in consultation failed of removing the dropsical collection, and of arresting the progressive emaciation. There was also, in this case, scrofulous disease of one or two of the metacarpal bones of the left hand. This was left to itself, in hopes that the discharge from it would have had a salutary effect on the principal seat of disease. In the summer, 1832, this young lady came to London, where various remedies were prescribed, without relief. I then put her upon a course of iodine; and, directing her to persist in its use, advised her return to the country. I have since understood that, during the use of this medicine, the effusion disappeared, and the catamenia returned; that she recovered her looks, and is now married.—*Ibid.*

TRANSFERENCE OF VITAL POWER.

A not uncommon cause of depressed vital power is the young sleeping with the aged. This fact, however explained, has been long remarked, and is well known to every unprejudiced observer. But it has been most unaccountably overlooked in medicine. I have, on several occasions, met with the counterpart of the following case: I was, a few years since, consulted

about a pale, sickly, and thin boy, of about five or six years of age. He appeared to have no specific ailment; but there was a slow and remarkable decline of flesh and strength, and of the energy of all the functions, what his mother very aptly termed a gradual blight. After enquiry into the history of the case, it came out that he had been a very robust and plethoric child up to his third year, when his grandmother, a very aged person, took him to sleep with her; that he soon afterwards lost his good looks; and that he had continued to decline progressively ever since, notwithstanding medical treatment. I directed him to sleep apart from his aged parent, and prescribed gentle tonics, change of air, &c. The recovery was rapid. But it is not in children only that debility is induced by this mode of abstracting vital power. Young females married to very old men suffer in a similar manner, although seldom to so great an extent; and instances have come to my knowledge, where they have suspected the cause of their debilitated state. These facts are often well known to the aged themselves, who consider the indulgence favorable to longevity, and thereby often illustrate the selfishness which, in some persons, increases with their years.—*Ibid.*

CONVULSIONS ACCOMPANYING THE CUTTING OF SECOND TEETH.

Although convulsions, or epilepsy, be not so common during the progress of second dentition as they are in the earlier development, yet many cases occur in which their presence may be attributed to pressure, opposing the progress of growth, and thus irritating certain nerves.

A boy, twelve years of age, was cutting the second or posterior permanent molares of the upper jaw, before those of the lower, and the process was accompanied by twitchings of various parts of the body. At last he became affected with chorea. Being a very nervous lad, if any notice were taken of him, he would quite involuntarily make the most extraordinary faces, and contort his body into various attitudes, that appeared to be most difficult and painful. This chorea continued for three months, during which time a variety of medicines were swallowed. At last he fell into an epileptic fit, struggling much, foaming at the mouth, and grinding the teeth. I thrust my fore-finger along the inside of his cheek, and found a hard cartilaginous space on each side, behind his first molar teeth. I succeeded in gashing these parts: he uttered a scream, and fell out of his fit, becoming quite sensible; nor had he a recurrence of his chorea.

A young gentleman, twelve years of age, with dark hair and eyes, greasy countenance, lymphatically stout, was removed from school, and sent to some relations in the country on account of being attacked by chorea. His bowels were costive; he had offensive breath; he started and moaned in his sleep. Something unpleasant to his feelings occurred in conversation, and he fell into an

epileptic fit. On recovering, he was placed in bed, where he slept soundly for two hours, and on awaking was perfectly unconscious of having had a fit. During the next fourteen months, this boy had many recurrences of his fits, and though much medicine was swallowed, nobody thought of the probability of his cutting teeth. In shewing me the young man at eighteen, his father said he had had no fits for four years: he supposed he had "outgrown" them, a truth spoken without reference to my hypotheses.

A lady, with dark hair and eyes, tall and handsome, of a highly nervous temperament, married at the age of nineteen; and was pregnant of her first child about eight months, when she was seized with an epileptic fit. She had for several months been affected with twitchings in her cheeks, and "live blood" was often very troublesome in her left eye. The epilepsy recurred twice before her labour, which was a very favourable one; and she had a very good getting-up. She nursed her child, which throve very well. At the end of seven months from her delivery, twitchings came on again, and she had at last another epileptic fit. They came on now twice, sometimes three times, in the week. The best physicians, some of the best surgeons, were consulted. The digestive organs were attended to, and she took various medicines. The fits came on at longer intervals; then, sometimes, two appeared in a day. I saw her first when she was twenty-two years of age. I was expressly told that she was placed under my care, with no hope of her recovery, but merely that I might look to the general regulation of her health. My first office was that of consulting-dentist, for I gave her an opinion upon her teeth, which was to the effect of condemning her to lose seven decayed molares. One of these was the only wise tooth she had cut. Three other hard cartilaginous obstacles to the progress of her teeth were removed, and this lady has had several years of freedom from epilepsy.

A young woman, nineteen years of age, of light hair and fair complexion, of fine tall figure, rather fat, was, in the year 1818, apprentice in a straw-bonnet shop, in Hayes-court. Her occupation was sedentary, and she had not been in the habit of paying attention to the state of her bowels: they were suffered to be very costive. For several months she had perspired profusely at night, and her breath had been observed to be very offensive; she started in her sleep, and had repeatedly awakened her bedfellow by kicking her on these occasions. She moaned and talked in her sleep. Dr. Nuttall, who was my colleague at the Westminster General Dispensary, was suddenly called to her, on account of her having fallen into a fit. He caused her to be profusely bled, and she recovered so far as to be able to see her physician at the dispensary. Three weeks afterwards, the doctor being from home, I was obliged to see this patient, in a fit similar to the first she had had. I learned that she had been very odd and nervous in her manner, and had often suddenly screamed out from cramps seizing her toes and the calves of her legs, which were succeeded by her thumb being drawn

in towards the palm of her hand, and her fingers being clenched upon it. I found her in a state of tetanus. The convulsions was over. I thrust my fore-finger into her mouth, where I found the wise teeth of the upper jaw through. In the lower jaw the teeth could not get through, for there were hard cartilaginous substances in their way; through these I scored freely, and the young woman was relieved instantly.

I was called last year to Upper Marylebone-street, in the night, to see the daughter of a very honest and independent tradesman. She had been attended for the fit in which I saw her by two medical friends. The parent's anxiety made him apply to me. The patient was a fine young woman, of nineteen, with dark hair and eyes. She was stiffly curved in tetanus. I asked her sister if she knew whether any wise teeth had lately been cut. Upon her answering in the affirmative, I took a gum lancet, and relieved my patient instantly, by cutting through the obstacle to the progress of her wise tooth, in the right side of the lower jaw.—*Dr. Ashburner on Dentition, in Med. Gazette.*

A CASE *of* ANASTOMOSING ANEURISM *of the* EXTERNAL MAXILLARY ARTERY, *treated successfully by Tying the Common Carotid Artery.*

By DAVID L. ROGERS, M.D. Lecturer on Surgery. Communicated by S. R. KIRBY, M. D.

This case occurred in a child, aged eight months, at the time of the operation. At its birth a small pulsating tumour was observed in the centre of the right cheek, which continued to enlarge, until it embraced nearly the whole of it.

It was bounded above by the prominent part of the malar bone; below by two thirds of the inferior edge of the inferior maxillary bone; posteriorly by the superior part of the inner edge of the sterno-cleido-mastoid muscle, on a range from above downwards, with the lobe of the ear; anteriorly, by a line drawn from the inferior part of the nostril, and terminating about one inch from the symphysis of the chin. The tumour pointed in two places, just above the ear, and at the angle of the jaw. It was irregularly convex, having its greatest convexity at its posterior part, and gradually diminishing from behind forwards; its colour purplish, with several red spots on its surface. The child seemed otherwise in good health. The operation was performed in the presence of Drs. Mott, Baxter, and Kirby, on Thursday, December 12th, 1832. An incision was made through the skin and the platysma myoid muscle, of about one and a half inches in length, in the direction of the inner edge of the sterno-mastoid muscle, but nearer to the trachea than to this muscle, which kept the external jugular vein at a greater distance; at the first incision a small artery was divided, which was secured by a ligature; the adipose tissue was cleared away, and very soon the sterno-thyroid muscle was partially exposed, at the outer edge of which the sheath of the vessels was seen;

this was punctured, and the artery secured with one ligature. No other vessels were tied, and the quantity of blood lost did not exceed a wine-glassfull. In a short time a diminution of the tumour was perceptible. A stitch was made in the middle of the incision, and adhesive straps applied. The little sufferer was not much exhausted; it was placed in its mother's arms, and immediately began to nurse, with occasional restlessness. A gradual diminution of the tumour continued until it had entirely disappeared, and the child wholly recovered, and is now in good health.—*The American Journal of the Medical Sciences, Nov.* 1833.

MISCELLANEOUS.

STATISTICS OF EUROPEAN MORTALITY.

M. Moreau-de-Jonnés lately read a memoir on this subject at the Royal Academy of Sciences. The causes which act on the population of Europe, says the author, have a much greater influence on mortality than on reproduction. The maximum of births is barely double the minimum; but, in deaths, the former is almost treble the latter (22, 59,) in ordinary times. The annual mortality in the Roman states, and the former possessions of Venice, is 1 in 30. In Italy, Greece, and Turkey, 1 in 30. In the Netherlands, France and Prussia, 1 in 39. In Switzerland, the Austrian Empire, Portugal, and Spain, 1 in 40. In Russia, in Europe, and Poland, 1 in 44. In Germany, Denmark, and Sweden, 1 in 45. In Norway, 1 in 48. In Ireland, 1 in 53. In England 1 in 58. In Scotland and Ireland, 1 in 59.

It may be remarked, that there are two principal causes which determine the rate of mortality; these are climate and civilization. A cold, and even a rigorous climate, is favorable to long life, and so is the sea-coast with a low temperature. The regions of the South, though their climate seems favourable to the human species, are quite the reverse. Those parts of the torrid zone whose mortality has been calculated, show the destructive tendency of a high temperature. Thus, at Batavia, in lat. 6° 10′, the annual mortality is 1 in 26½. In Trinidad, lat. 10° 10′, 1 in 27. In St. Lucia, lat. 13° 54′, 1 in 27. In Martinique, lat. 14° 44′, 1 in 28. In Guadaloupe, lat. 15° 69′, 1 in 27. In Bombay, lat. 18° 86′, 1 in 20. At the Havannah, lat. 23° 11′, 1 in 33.

The resisting power of life differs between the tropics according to the races of men, and its duration at the same place in one race is double or triple of what it is in another. Thus, at Batavia, in 1805, the Europeans lost 1 in 11; the slaves, 1 in 13; the Chinese, 1 in 29; the Javanese, 1 in 40. At Guadaloupe, from 1816 to 1824, the whites lost 1 in 23½; the freedmen, 1 in 35. At Martinique, in 1817, the whites lost 1 in 24; the freedmen, 1 in 33. We may compare with this the annual mortality in Madeira, the only tropical establishment of the temperate zone. Heberden calculated it at 1 in 50.

The greater or less perfection of the social economy exercises as powerful an influence on the mortality as climate does. Thus, in Sweden, the annual mortality, from 1754 to 1763, was 1 in 34; but, from 1820 to 1825, was only 1 in 45. A great decrease may also be remarked in Denmark, Germany, Russia, Holland, and Italy. In Great Britain, from 1787 to 1789, the mortality was 1 in 43; but, from 1800 to 1804, only 1 in 47. In England alone, in 1690, it was 1 in 53; in 1821, 1 in 58. In France, in 1776, it was 1 in 25½; in 1825-1827, 1 in 39½. The mortality has been stationary for thirty years in Russia and Norway, and has increased in the kingdom of Naples. Eighty years ago, Greesmilch calculated the average mortality of the whole of Europe at 1 in 36. According to M. Moreau, it is only 1 in 40 at the present day, so that it would have diminished one-ninth. But the author of the memoir thinks that Greesmilch very much underrated the mortality at the time he wrote, so that the diminution has in fact been much greater. —*Archives Générales, Septembre.*

This is an interesting paper, but it appears to have been imperfectly reported. Thus, in stating that the maximum of deaths in Europe is nearly treble the minimum, 1 in 22 and 1 in 59 are given as the extremes; but, in the detailed account, no European state appears with a mortality of 1 in 22; the mortality of Ireland is first given alone, and then joined with that of Scotland; and the following sentence is defective: "La résistance de la vie différe entre les tropiques, selon les races d'homme, et sa durée est dans le même lieu double ou triple de ce qu'elle est pour les autres." The words *pour une race* should be inserted after *triple:* in translating we have supplied the omission.—*Edit. Med. Quart. Review.*

ST. VITUS'S DANCE.

St. Vitus's dance was so called, because those who were affected with this disease used to go in pilgrimage to St. Vitus, the patron saint of the convent of Korbey, in order to request his aid.—*Jörg's Kinderkrankheiten,* p. 837.

PROMETHEUS A DISTILLER.

I shall conclude this section on the diseases of the liver, induced by spirituous liquors, with the well-known story of Prometheus, which seems indeed to have been invented by physicians in those ancient times when all things were clothed in hieroglyphic, or in fable. Prometheus was painted as stealing fire from heaven, which might well represent the inflammable spirit produced by fermentation, which may be said to animate or enliven the man of clay; whence the conquests of Bacchus, as well as the temporary mirth and noise of his devotees. But the after punishment of those who steal this accursed fire, is a vulture gnawing the liver; and well allegorizes the poor inebriate, lingering for years under painful hepatic diseases.—*Darwin's Zoonomia,* Vol. I. p. 356.

Letter from DR. SOMERVILLE *to* DR. HASTINGS, *on the Operation of the Anatomy Act.*

5, Saville row; 2d July, 1833.

My dear sir: I had anticipated, with much satisfaction, the prospect of being present at the ensuing meeting of the Medical Association at Bristol; not only from the opportunity thus afforded me of meeting you, and many of my old friends, but also in expectation that the bill which has been entrusted by government to my care might have received greater support, and be made more generally useful to my professional brethren, if its operation hitherto, as well as its provisions, were more generally explained.

Disappointed in the expectation, I have not hesitated to call your attention to this subject, knowing how much you have at all times at heart the advancement of your profession, and the education of those who are about to enter upon it.

The Anatomy Bill can scarcely be said to have been in operation from October last; for, having been recently passed, before the commencement of the winter courses, the teachers, as well as the public, had to enter on a discussion about the propriety of getting a supply from the sources contemplated by the bill; yet it is a fact, equally agreeable as it is surprising, that, notwithstanding the natural abhorrence of the public at the bare thought of dissection, a bill, essentially depending for its efficiency upon public feeling, should have met with such decided success. In London alone upwards of five hundred bodies have, during the last season, been supplied to the anatomical schools from parochial institutions.

To me it is more particularly gratifying to be enabled to add, that no untoward circumstance has yet occurred to give a moment's uneasiness to me: this is the more particularly gratifying, as it serves to shew that the system of management, while it affords the utmost protection to the public, has nothing in it to shock the feelings of the poor, while at the same time it is an effectual check to improper proceedings. This success I am led to attribute to the following circumstances:

1st. Carrying with us the feelings of the overseers, and of parish authorities, by shewing them the necessity of protecting the study of anatomy.

2dly. The avoidance of every circumstance calculated to give a shock to the feelings of the poor; and for this reason the bodies have always been removed by undertakers, in coffins, as if for the purpose of interment; and, on the burial of the remains, the utmost precaution has been taken as to the observance of the usual rites, with this difference only, that the appearances are made more respectable than those of paupers. Many of the more respectable inmates of workhouses, seeing the decency observed in these transactions, have voluntarily given up their bodies; and the relatives of others, grateful to their parochial surgeons, have asked to have their bodies sent to the schools for partial examination, as it is termed, when the teacher is requested not to disfigure the features, and to return the body within fourteen days.

It is impossible for me to conclude this description, without acknowledging, with pride, the unremitting zeal and anxious efforts of the home secretary to promote, by every means in his power, the operation of the bill, so as to make it of the utmost service to the profession. As to the provincial schools, there are difficulties which make me anxiously request the sense of the meeting, in regard to any suggestions which may appear to them calculated to remove them.

The obstacles in obtaining a supply in small towns are obvious; for, not only are the guardians of the poor reluctant to incur the odium of assisting dissection, but the actual number of unclaimed bodies is necessarily very small. To this circumstance I am bound to attribute the want of success which has attended the school at Exeter, which I the more sincerely regret, because, during the many years I was attached to the school of anatomy in Windmill street, I had the most convincing proofs of the proficiency of the pupils from that school.

The act is so framed as to prevent the removal of bodies from one town to another: indeed, the risks which attend such removals so far overbalance any advantage, that, for the sake of the community, as well as of the large schools, I believe such a permission to be highly inexpedient. It is to these difficulties to which I beg more particularly to call your attention.

It has often been suggested that the act might be made compulsory; but the objections to this are very strong, as it would not only very materially increase the prejudice against dissection, but it would be assuming a power quite foreign to every liberal feeling; and I do not know on whom the government could rely to carry such an act into effect. As to almost all the other provincial schools, the success has been of such a nature as to give the most encouraging hope that, by a continuance of the good understanding between the teachers and local authorities, this most essential part of medical education will no longer be made to depend upon the violation of the grave, or the caprices of resurrection-men.

So fully has the government been impressed with the belief that anatomy could not be prosecuted with safety until the practice of exhumation was put a stop to, that the most peremptory orders have been given for this purpose; and to the successful prosecution of several individuals engaged in this traffic we owe much of the success we have attained.

In conclusion, I have only to offer my humble efforts in rendering useful the enlightened and liberal measure of Mr. Warburton, who, in every transaction in which the advancement of our profession has been concerned, has ever been the foremost to give his utmost assistance.

Believe me, my dear sir, with great esteem, yours, most faithfully, JAMES C. SOMERVILLE.—*Medical Gazette.*

[We hear that there has been a great deficiency of subjects this season.—EDIT.]

THE DATE PALM.

Phœnicia formerly produced the best dates known, the date-palm was hence called *Phœnix*. It grows abundantly in Egypt, Arabia, Persia, and the neighbouring countries, and contributes largely to the support of the inhabitants, being in many places, as in Upper Egypt, the chief source of food.

The Date-palms being diœcious, (*i. e.* the stamens and pistils being not only in separate flowers, but growing on different trees,) the crops entirely fail, or the fruit is degenerate and unfit for food, if unseasonable weather, or any accident, should prevent the pollen of the stamineous plants having access to the flowers of the fruit-bearing ones. To ensure the fertilization of the seeds the Arabs have long been accustomed to gather the stamineous clusters and hang them over the pistilliferous flowers, and even to lay up stores of pollen from year to year. At the season when this is done a feast is held, called the Marriage of the Palms, of which Haselquist has given a very interesting account; and it is stated, that so well do the half-savage tribes know the importance of this process, that, during inroads into hostile countries, they cut down the stamen-



Phœnix dactylifera.

bearing palms, as one of the most severe injuries they can inflict. Desfontaines was witness to such an act of vengeance, and Kœmpfer relates that the threat of so doing once warded off an invasion; for, after describing the artificial fecundation of the date, he adds:

"I remember it happened in my time that the Grand Signior meditated an invasion of the city and territory of Bassora, which the prince of the country prevented, by giving out that he would destroy all the male palm-trees on the first approach of the enemy, and by that means cut off from them all supplies of food during the siege."

The extensive importance of the date-tree is, says Dr. Clarke, one of the most curious subjects to which a traveller can direct his attention. A considerable part of the inhabitants of Egypt, Arabia, and Persia, subsist almost entirely on its fruit; as a luxury they make a conserve of it, and they boast also of its medicinal virtues, esteeming it a tonic. Upon the abortive fruit and upon the ground date-stones, the camels are fed. From the leaves they make couches, baskets, bags, mats, brushes, and fly-flaps; from the trunk cages for their poultry, and fences for their gardens, and other parts of the tree furnish fuel. From the fibrous webs at the bases of the leaves, thread is procured which is twisted into ropes and rigging, and from the sap, which is collected by cutting off the head of the palm and scooping out a hollow in its stem, a spirituous liquor is prepared. Three or four quarts of sap may be obtained daily from a single palm for ten days or a fortnight, after which the quantity lessens, until, at the end of six weeks or two months, the stem is exhausted. So numerous being the uses of this palm, it is no wonder that it is highly prized, or that the native literati should have celebrated in verse and prose (as Gibbon informs us,) the 360 uses to which the trunk, the stalks, the leaves, the juice, and the fruit, have been skilfully applied.—*Ibid.*

ORDER OF THE ERUPTION OF THE FIRST TEETH.

Dr. Ashburner supposes that the following is the order in which the first teeth most frequently appear:

Two central lower incisors,
Two central upper incisors,
Two lateral lower incisors,
Two lateral upper incisors,
Four first molar teeth,
Two lower canine teeth,
Two upper canine teeth,
Last four molar teeth.

A correspondent of the "Medical Gazette," however, gives a table drawn up by Sir Richard Croft, which he thinks more accurate: *judicent peritiores.*

Molars.		Canine.	Incisors.				Canine.	Molars.		
9	5	7	3	2	2	3	7	5	9	Upper jaw.
10	6	8	4	1	1	4	8	6	10	Under jaw.

ENGLISH EYE-SURGERY; A SKETCH. BY PROFESSOR WALTHER, OF MUNICH.

The first, and, in the common estimation, the best oculist now alive in London, is Mr. H. Alexander. He was formerly the pupil, and for many years the assistant, of Phipps, who, after having practised, as an oculist, for a long space of time with success and celebrity, retired while yet a hale and hearty man, was raised to the dignity of a baronet, married an extremely rich lady, drew up entirely with the nobility, and left as a legacy to his assistant a most capital practice.

Even the external appearance and the whole demeanour of Alexander are significant of sudden elevation from an inferior station, without scientific instruction. Medicine and surgery he appears never to have studied. With the lessons of his master, merely, has he become a bustling, clever oculist. As such he not only commands a very extensive private practice, embracing as widely the genteel part of the community as the middle ranks, but he has also the care, almost exclusively, of the most important and popular of the London Charitable Eye Institutions, namely, the Royal Infirmary for the Diseases of the Eye, in Cork-street. It is true that Sir H. Halford, and some other gentlemen are connected, as consultants, with the infirmary; but their appointment is merely nominal, and the whole business is managed by Mr. Alexander, without assistant or clerk. The name "Royal Infirmary" signifies, as with other of the London institutions, nothing farther than that the office-bearers have chosen the king as patron. The infirmary it entirely poli-clinical, and comprised in a very confined set of rooms. Mr. Alexander gives gratuitous advice thrice a week, to from three hundred to four hundred patients. This occupies him two or three hours.

Wondrous is the activity with which in this proportionally short time, Mr. Alexander examines so great a number of patients, determines the diagnosis of their diseases, single-handed enters them in the journal, prescribes for them, dispenses, himself, most of the internal medicines, performs operations of more or less importance on the eye, and maintains, amidst such a crowd, the necessary degree of police. To solve this difficult, comprehensive, and complicated problem, it is so arranged, that the small consultation-room, which is lighted by a sky-light, is connected with the waiting-room by two doors, through one of which the patients enter, while through the other they retire. In the consultation-room is a very convenient arm-chair, the back of which presents a soft hollow space for the reception of the patient's head. In this chair the patient immediately places himself on his entrance, (or the nurse does, if the patient be a child;) and as quickly must he vacate his seat, when he is dispatched about his business, and removes himself through the door of exit. In the consultation-room stand several barrels full of fluid medicines, eye-waters of different sorts. From these Mr.

Alexander taps, as he speaks to the patient, and measures, by his eye, the necessary quantities into the bottle which the patient brings with him, at the same time putting into the patient's hand a printed paper of directions. These directions are occasionally full and particular. Those for ophthalmia neonatorum appeared very proper, and were well put together.

Except this ophthalmia, Mr. Alexander regards all the other inflammations of the eye in children as scrofulous. In adults, he appears to know only three ophthalmiæ, viz. iritis, xerophthalmia, and psorophthalmia. Under this last are comprehended, in London, almost all inflammations of the eyelids, with slight affections of the eye-ball, catarrhal rheumatic inflammations of a serous, mucous, puriform kind, with or without granulations and growths on the lining membrane of the lids. Xerophthalmia, again, comprehends those more deeply-seated affections of the eyeball, not perhaps distinctly inflammatory, often more of a congestive nature, and sometimes subamaurotic. The diagnosis of the ophthalmiæ in England extends no further than the distinguishing of these few varieties.

Xerophthalmia, as it is called, arises chiefly from long-continued straining of the eyes by candlelight. It is treated with local bleedings, purges, cooling lotions, and opiates taken at bed-time. In iritis, calomel, and cupping on the temples, are prescribed. In psorophthalmia and strumous inflammations of the eyes, especially if there be fulness of the vessels, with slight swelling of the lining membrane of the lids, Mr. Alexander scarifies the conjunctiva with pretty long incisions. Mr. Alexander introduces red precipitate salve with a spatula between the eyeball and the upper eyelid, at the outer angle. Vinum opii he pours upon the eye with a little spoon; he employs alum-water abundantly; and uses as an escharotic the solid sulphate of copper.

Mr. Alexander says that he has cured blenorrhœa of the lacrymal sac by means of frequent, long-continued pressure of the contents of the sac through the nasal canal.

The operation for cataract, which he generally prefers, is extraction, and his procedure has several peculiarities. The patient sits in the arm-chair already noticed, the head being bent considerably back, and pressed against the hollow space forming the top of the chair-back. This the operator manages himself, while standing behind the patient. With the thumb and forefinger of the hand which is disengaged, he fixes the edges of the upper and under eyelids towards the nose, pressing them against the margins of the orbit, and thus keeping the eyelids open. This was accomplished, as it seemed to us, with considerable security. The section of the cornea was made with Wenzel's knife, in the direction upwards and somewhat outwards. In this part of the business, the operator went somewhat slowly to work, tarrying long with the knife in the anterior chamber, pressing the instrument on with pauses, during which he addressed himself to the patient, exhorting him to quiet-

ness, and receiving from him pretty full replies. To divide the capsule, Mr. A. makes use of a hook with a sharp point, made of gold, and contrived by Phipps. He enters this hook with great steadiness, pushing it through the pupil into the posterior chamber, driving its point far behind the iris towards the nasal angle of the eye, drawing it across towards the temple, and so effecting a horizontal rent of the capsule. With moderate pressure on the eyeball, the lens escaped whole and entire. We saw Mr. A. perform several extractions in this way with complete success. The cases, indeed, were of the most favorable sort; pure, hard, lenticular cataracts, of moderate size, without any opacity of the capsule, in old, very composed subjects, with large anterior chambers, and ordinary prominence of the eyeballs. After all, however, the technical skill of Mr. A. is very great, and he must unquestionably be ranked amongst the best of operators. Whether he be one of the best and most intelligent oculists is another question. The operation being finished, he lays a wet linen compress over the closed eye, and fastens this with a roller.

Whether there be any one in London besides Mr. Alexander possessing a real taste for eye-operations, we might almost doubt. We saw performed by other hands only one very successful operation on the eye. Mr. Tyrrell formed an artificial pupil by incision of the iris. The case was very favorable for the operation. The iris, much on the stretch, was adherent to the lower part of the cornea, which, except at the place of the adhesion, was sound and completely transparent. The anterior chamber was at the same time sufficiently large; the posterior entire, and without exudation, and the lens and capsule natural. Having made an incision, rather too large, through the cornea, the operator passed a pair of small thin-bladed scissors, bent into an obtuse angle in the direction of their cutting edges, and having one point sharp, and the other blunt, into the anterior chamber. The restlessness of the patient required time and patience. The English operators appear in general, however, to lay but little stress on the quick termination even of eye-operations. At length the horizontal incision through the middle of the iris was completed, when instantly the edges sprang aside, and the pupil gaped widely, especially at its centre. The parts in the posterior chamber did not appear to be disturbed, much less injured.

This closes the list of fortunate eye-operations which we saw in London. All the others failed in the utmost degree. The last-mentioned operator performed, in the Moorfields Ophthalmic Infirmary, a depression through the sclerotica, which miscarried entirely, and in which the eye was materially injured. His colleague attempted an extraction. The section of the cornea happened to be uncommonly small. After he had opened the capsule, he became convinced, only by the fruitlessness of long-continued pressure on the eyeball, of the necessity of enlarging the section. For this purpose there is in use in London, not Dariel's scissors, but a narrow

little probe-pointed knife, with a concave cutting edge, introduced by Phipps. This stupid instrument was six times introduced into the anterior chamber, and the collapsed cornea, incapable of offering the necessary resistance to be divided with a knife, but drawn by the instrument into folds, was at length sawn, rather than cut.

Still more unfortunate was the result of an extraction undertaken by Mr. Earle. In this case, too, the section of the cornea was too small, and quite irregular, and the iris besides was wounded. Dilatation of the section with the probe-pointed knife was had recourse to, then attempts made by pressure to extract the lens, then repeated introductions of the curette for the same purpose, till at length, after fruitless endeavours for half an hour, the lens was left in the eye, and the unfinished operation delared impracticable.

The Moorfields Eye Infirmary, of which mention has just been made, is, in other respects, well situated, and fitly conducted. Besides lodging for the superintendent and house-surgeon, it contains a spacious consultation-room, where, amidst a throng of pupils, the poli-clinic is conducted, not in a way, I think, likely to be very instructive,—an operation-room and several wards, each containing ten beds, where lie the patients that have undergone operations. Lawrence was formerly, Tyrrell is now, the chief medical attendant on this institution.

Besides these, there is a third Eye Infirmary, the Royal Westminster, under the direction of Mr. Guthrie. This hero of English military surgery also treats eye-cases with heroic means. We saw in his institution a well-marked case of syphilitic iritis, the nature of which he had not discerned, but had treated, according to his well-known method, with the internal exhibition of oil of turpentine. In blenorrhœal and granulating inflammations of the eye, he puts in upon the eye, with a wooden spatula, large portions of a salve, made up of six grains of Lapis Infernalis, ten drops of Goulard, and half an ounce of Axunge; and rubs it in very much with the eyelids. He calls this "Unguentum ophthalmicum magicum," having seen quite extraordinary and almost incredible effects from its use. The pain which it causes is very great and continued. The traumatic reaction goes off only after several days. According to his notion, a peculiar Egyptian ophthalmia has at no time been prevalent among the English troops, and those who assert the contrary he accuses of quackery and fraud. On this point he expresses himself violently respecting Adams, against whom indeed the surgeons, generally, of London, are extremely bitter. Adams, after receiving from Parliament a national remuneration for his pretended discovery of granulations as a characteristic and diagnostic sign of the Egyptian ophthalmia, and living in style as a rich man, lost his means by unfortunate speculations in the stocks, and has disappeared from London, without our being able to learn if he were yet alive, or whither he had gone. We could not join in the unconditional reprehension and contemptuous verdict of his opponent. Supposing even that his accomplishments as an author were of no

great worth, and his numerous works more calculated to commend his own operations and to secure patients, than to advance the interests of knowledge, still would he claim a lasting merit and enduring fame, had he written nothing more than his small publication on Ectropium, and on the operation which he practised for the cure of that disease, which was really a useful, praiseworthy, and real advancement of the art, in a department which in a great measure had previously been studied to no purpose.—[*Translated from the German for The Lancet, by* ALLAN GREAME, M.D.]

ANECDOTE OF THE DOMESTIC CAT.

The sagacity of animals in shunning disease has been observed by several naturalists, particularly among gregarious animals, who are constantly found to avoid such as are affected with any complaint. Domestic animals are not generally so remarkable for this propensity, as their habits are associated with those of man. A cat I have, however, has exhibited a remarkable instance of sagacity during the present epidemic. She had been in the practice of coming up to my bed-room every morning to drink out of my ewer; but, during the continuance of the febrile symptoms attending the influenza, she did not come to drink, and never entered the room. No sooner, however, had the fever subsided, than she immediately returned, and took her morning draught as usual. This shows that the senses of animals, particularly that of smell, must be extremely acute, and that the diseased atmosphere, however insensible we may be to its effect, has a powerful influence on their more acute organs. —*Field Naturalist's Magazine.*

DIFFICULTIES OVERCOME BY SCIENCE.

The manner in which facts apparently lost are restored to light, even after considerable intervals of time, is sometimes very unexpected; and a few examples may not be without their use. The thermometers employed by the philosophers, who composed the Academia del Cimento, have been lost; and, as they did not use the two fixed points of freezing and boiling water, the results of a great mass of observations have remained useless, from our ignorance of the value of a degree on their instrument. M. Libri, of Florence, proposed to regain this knowledge by comparing their registers of the temperature of the human body and of that of some warm springs in Tuscany, which have preserved their heat uniform during a century, as well as of other things similarly circumstanced.

Another illustration was pointed out to me by M. Gazzeri, the professor of Chemistry, at Florence. A few years ago, an important suit in one of the legal courts of Tuscany depended on ascertaining whether a certain word had been erased by some chemical process from a deed then before the court. The party who insisted that an erasure had been made availed themselves of the knowledge of M. Gazzeri, who, concluding that those who committed the fraud would be satisfied by the disappearance of the colouring matter of the ink,

suspected (either from some colourless matter remaining in the letters, or perhaps from the agency of the solvent having weakened the fabric of the paper itself beneath the supposed letters,) that the effect of the slow application of heat would be to render some difference of texture or of applied substance evident, by some variety in the shade of colour which heat in such circumstances might be expected to produce. Permission having been given to try the experiment, on the application of heat the important word reappeared, to the great satisfaction of the court.—*Babbage's Reflections on the Decline of Science in England.*

COST OF BECOMING A MAN OF LETTERS.

It is the custom to attach certain letters to the names of those who belong to different societies, and these marks of ownership are by many considered the only valuable part of their purchase on entry. The following is a list of some of these societies. The second column gives the ready-money prices of the tail-pieces indicated in the third.

SOCIETIES.	Fees on Admission, including Composition for Annual Payments.			Appended Letters.
	£	*s.*	*d.*	
Royal Society	50	0	0	F.R.S.
Royal Society of Edinburgh	25	4	0*	F.R.S.E.
Royal Academy of Dublin	26	5	0	M.R.I.A.
Royal Society of Literature	36	15	0	F.R.S. LIT.
Antiquarian	50	8	0	F.A.S.
Linnæan	36	0	0	F.L.S.
Geological	34	13	0	F.G.S.
Astronomical	25	4	0	M.A.S.
Zoological	26	5	0	F.Z.S.
Royal Institution	50	0	0	M.R.I.
Royal Asiatic	31	10	0	F.R.A.S.
Horticultural	48	6	0	F.H.S.
Medico-Botanical	21	0	0	F.M.B.S.

Thus, those who are ambitious of scientific distinction, may, according to their fancy, render their name a kind of comet, carrying with it a tail of upwards of forty letters, at the average cost of 10*l.* 9*s.* 9¼*d.* per letter.—*Ibid.*

DR. THOMAS YOUNG.

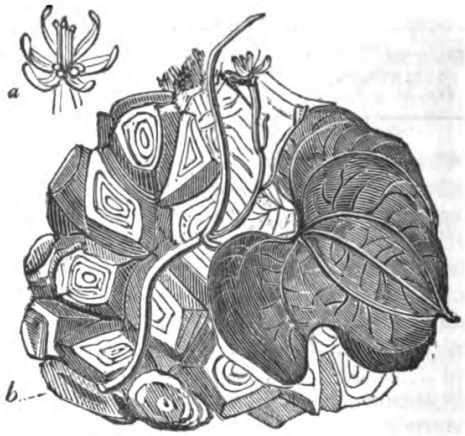
Now I am persuaded that there does not exist at this day in the profession an individual who comes up to the standard which (it is implied) all ought to reach. It has been my happiness to know many men in my time who have had enough of attainment to command my highest respect; some who have reached great eminence during their lives, and some who have been thought worthy of mo-

* The Royal Society of Edinburgh now requires, for composition in lieu of annual contributions, a sum dependent on the value of the life of the member.

numents since their deaths; yet I have known one, and one only, who came up to the requirements of an introductory lecture, which I have read; and that was Dr. Thomas Young. But Dr. Young stood alone among mankind. The most learned and scientific men of his time were struck with wonder at the extent and variety of his knowledge: yet Dr. Young was the only person whom any man now alive ever saw learned and scientific enough for a physician, according to the Utopian measure of things.—*Dr. Latham, in the Med. Gazette.*

HOTTENTOT'S BREAD.

The *Testudinaria elephantipes*, or Hottentot's bread, is a very curious plant, resembling in its rootstock a tortoise encased in its protective shell. My friend, Mr. Burchell, to whom we are so much indebted for information collected during his travels in Africa, tells me he met with it frequently; and in times of scarcity the Hottentots break off the woody case, and eat the pithy substance it contains, whence the name Hottentot's bread.—*Burnett's Outl. of Botany.*



Testudinaria elephantipes. *(a)* Flower. *(b)* Rootstock, voluble stem, and reticulate leaf.

ARBOREOUS FERNS.

The ferns of this and other temperate regions are comparatively humble plants, their true stems generally creeping on the surface of the earth, as in the *Lycopodiaceæ*, or even being subterranean, as in most of the frondose ferns, the parts which are usually considered stems being in reality only branches; but in the West Indies, in St. Helena, the Isle of Bourbon, and other hot insular situations, arboreous species are found, the stems of which rise out of the earth, and elevate their crown of fronds to the height of twenty, thirty, or forty feet, or even more. In the British Museum is a stem of *Alsophila*, brought to England by Dr. Wallich, that measures forty-five feet; but seventy or eighty feet are occasionally ttained. In hese noble examples of the class, the true structure

of the stem and affinities of the plants in general with palms, and even with cycases and pines, is much more obvious, even to the common observer, than in the suffruticose and herbaceous brakes that are now indigenous to these northern latitudes. Even the Aspidia or shield-ferns, which do form a dwarfish stem and collect their fronds into a crown, hold only the same comparative rank to the arboreous species as onions or lilies do to palms; or our herbaceous cresses to our forest-trees; and the ferns with subterranean stems, like our eagle-brakes and horsetails, are only to be compared with the tree-ferns in the same way in which fodder-grasses are compared to canes and towering bamboos, or rushes to the loftiest palms.—*Ibid.*



Cyathea glauca, and other arboreous ferns, natives of the Brazils and of the Isle de Bourbon.

EASY PARTURITION AMONG SAVAGES.

In confirmation of these accounts, which are not always received by the fireside philosopher with the credit which they frequently deserve, I may be allowed to mention an anecdote related to me by a very intelligent American, who four or five years ago was a pupil of this class, and is now prosecuting the practice of physic in his own country. This gentleman, in October 1822, was sailing down the American river St. Lawrence, in company with a party of natives: among them was a pregnant female, who complained of being ill, was landed, retired a little distance from the shore, and returned in an hour to the boat, which waited for

her, with an infant, that she had just brought into the world. I place every reliance on this statement. I hold in my hand my pupil's original account, written in French, and he assured me that the account was by no means looked upon as extraordinary by the people with whom he journeyed.—*Dr. Ramsbotham's Lectures in Medical Gazette.*

RAPID PARTURITION, AS CONNECTED WITH FORENSIC MEDICINE.

A woman has been known, I might almost say, to drop a child, while moving across the drawing-room, while riding in a coach, while walking in the street, under circumstances in which her own life, as well as the infant's, must be brought into some degree of hazard.

Now the possibility of such an occurrence is worth being borne in mind, not only that we may guard our married patients, if we know they possess a large pelvis, (and we may know it by having attended them in labour previously,) against the chance of the child suddenly emerging into the world, but in a judicial point of view also. It may be the means of saving a life that might have been unjustly sacrificed, if we reflect how rapidly the process of labour has been accomplished in some instances; and that what has once occurred in nature may possibly occur again. We will presume, then, that a young unmarried woman has unfortunately been entangled by the snares of one of our own sex, and that she finds herself impregnated: from the modesty inherent in the female character, she is unwilling that her shame should be divulged; she fully intends to acknowledge her misfortune before her expected accouchement, but puts it off from day to day, with a natural aversion to make a confession which must drive her from the society of her friends. Probably she may have miscalculated the time at which she expects to be delivered, or perhaps she may be seized with parturient pains rather prematurely. She feels a rumbling in her bowels, (by no means uncommon at the commencement of labour;) she fancies she has an inclination to evacuate the rectum; she retires to the garden for that purpose; she finds strong pains come on; she is unable to leave the seat on which she has placed herself; the vagina and the external parts are very much relaxed; the uterus acts forcibly, and the child and placenta are propelled out together into the mire below. She is aware then of what has happened; she hears no scream; she has but a very few minutes in which to take a final determination; she wishes to hide the occurrence; she comes into the house again; returns to her friends; makes the best story she can for the appearance of her linen; and for a time everything is hushed. By-and-by suspicion arises: it is possible the place may be emptied, and the child is found. A cry of "murder!" is raised; she is suspected first, then indicted, dragged into a court of justice, and upon medical testimony will often depend her life.

That a girl inexperienced in the feelings of childbirth may be unaware of the approach of labour, is sufficiently evident to re-

quire no illustration; but I cannot help enforcing the position by relating a short anecdote. I was in attendance on a lady who had borne a number of children, and had generally suffered protracted labours. I had just made an examination, and found the os uteri but little dilated. I was standing by the fire in her chamber, in conversation with a female relative, who was anxiously watching over her, when I was requested to leave the room, in consequence of an inclination my patient felt to evacuate the rectum. I had scarcely retired when I was summoned back again; and, to my surprise, I found her sitting on the night-table, and both child and placenta lying in the pan beneath. In this instance the infant was saved. Had the same accident happened in a closet, it would most probably have lost its life. This case shews both the rapidity with which the parts occasionally become dilated, and also how much the mother herself may be deceived in her sensations. Nor is this the only instance of the kind that I have witnessed; but another very similar has also come under my own immediate notice.

It is very possible, then, that such an occurrence may take place as I have attempted to bring before you, and under such circumstances let us always lean to the side of mercy. We must not, and we dare not, as we value our oath, state what we know to be untrue, and we should be equally criminal if we withheld any knowledge that we possessed bearing on the case: we are bound to give in evidence that such rapid labours have occasionally happened, and it is for the judge and jury to grant the poor creature the benefit of this information. Let us treasure up these facts in our recollection; we may hereafter, perhaps, derive much consolation from their application.—*Ibid.*

THE DISEASES AND CASUALTIES THIS YEAR,
FROM DECEMBER 11TH, 1832, TO DECEMBER 10TH, 1833.
(From the Bills of Mortality.)

DISEASES.		DISEASES.	
Abscess	131	Erysipelas	82
Age, and Debility	2952	Fever	530
Apoplexy	442	Fever, Intermittent or Ague	13
Asthma	1265	Fever, (Scarlet)	481
Cancer	105	Fever, (Typhus)	100
Childbirth	275	Fistula	3
Cholera	1150	Gout	53
Consumption	4355	Hæmorrhage	42
Constipation of the Bowels	26	Heart, diseased	145
Convulsions	2140	Hernia	29
Croup	151	Hooping Cough	1040
Dentition or Teething	473	Hydrophobia	4
Diabetes	6	Indigestion	9
Diarrhœa	19	Inflammation	2607
Dropsy	860	Inflammation of the Bowels and Stomach	499
Dropsy on the Brain	860	Inflammation of the Brain	236
Dropsy on the Chest	100	Inflammation of the Lungs and Pleura	548
Dysentery	5	Influenza	135
Epilepsy	28		

Insanity	142	Thrush	109
Jaundice	55	Tumour	43
Jaw-locked	6	Venereal	6
Liver, diseased	302	Worms	2
Measles	524	Unknown Causes	887
Miscarriage	20	Stillborn	934
Mortification	241	CASUALTIES.	
Paralysis	212	Drowned	108
Rheumatism	37	Died by Visitation of God	39
Scrofula	19	Excessive Drinking	5
Small Pox	574	Found dead	8
Sore Throat and Quinsey	57	Killed by various Accidents	169
Spasm	79	Murdered	4
Stone and Gravel	91	Poisoned	6
Stricture	16	Suicides	55
Christened { Males, 13553 / Females, 13537 } Total,	27090	Buried { Males, 13319 / Females, 13258 } Total,	26577.

Of the number Buried were, Stillborn, 934; Under Two Years of Age, 6261; Two and under Five Years, 2805; Five and under Ten, 1145; Ten and under Twenty, 970; Twenty and under Thirty, 1700; Thirty and under Forty, 2225; Forty and under Fifty, 2615; Fifty and under Sixty, 2412; Sixty and under Seventy, 2551; Seventy and under Eighty, 2043; Eighty and under Ninety, 802; Ninety and under a Hundred, 107; One Hundred, 3; One Hundred and One, 1; One Hundred and Two, 1; One Hundred and Three, 1; One Hundred and Four, 1.

Decrease in the Burials reported this year 2029.

MEDICAL POLITICS AND INTELLIGENCE.

I. THE PROPOSED SCOTCH ASCENDANCY IN THE COLLEGE OF PHYSICIANS.

THERE is a pleasant story in the books which bears upon its face every mark of authenticity. An Irishman, delighted with the flavour of an apple-pie into which the cook had put a quince or two, declared that there was nothing which he should like so much, as an apple-pie made entirely of quinces. Now this story, besides its intrinsic merits, obviously allegorises the popular feeling with respect to the distribution of honours. Let us, cry the mob, have no invidious distinctions; in the great pie of society, let every apple be a quince. Suppose the prayer of the mob to be granted, what is the consequence? The gustatory nerves are first over-stimulated, and then lulled into torpor; or, to drop the metaphor, the respect paid to the new honours soon gives place to indifference or contempt. To illustrate this fact, it is not necessary to leave our own country, or to inquire whether titles of honour have attained their minimum of value in France, Italy, or Germany; we can find instances at home. To be an esquire was once a considerable distinction; it is now bestowed with a lavish hand by every one who can write a letter: to be an M.D. formerly signified that a man was qualified not merely to practise physic but to teach it; it now very often means merely that he is in pos-

session of a piece of parchment, sent him by some unheard-of university.

Another honour is now to be defaced, to lose its freshness and its bloom. Let us in, cries the invading army of Aberdeen; and it is to be feared that the demand will be assented to, and the garrison will march out — without any of the honours of war. At present, the Fellowship of the College of Physicians is a desirable distinction; throw it open to all that ask for it, and they gain little but a short-lived triumph, while we have lost the commodious link which connects the heads of the profession with the gentlemen of England. In refusing to grant this title indiscriminately, we would not therefore deny it to all; but some measure is to be observed in this kind of generosity. When St. Martin gave half his cloak to a frozen beggar, he was a charitable saint; had he divided it among a thousand, he had been but a crazed humourist. We would propose that the licentiates, without limitation as to number, should be eligible as fellows, after passing ten years in their probationary state. To concede much more than this would be weak, to concede much less might seem illiberal. It would surely be unreasonable for the holder of a Scotch diploma to obtain everything at once; it is as if the possessor of a Columbian bond were to expect to be paid in full. Men do not gather figs from thistles, and the half-honours of Aberdeen or St. Andrew's would be rather over than undervalued in our benevolent scheme.

II. THE EXAMINATION AT APOTHECARIES' HALL.

As some men are born great, and others achieve greatness, so others, says the old saw, have greatness thrust upon them. The Company of Apothecaries are an example of this freak of fortune: by a legislatorial joke, (as when Sancho was made Governor of Barataria,) a knot of traders has been elevated into the most powerful body in the medical profession; and, if the purple robe of authority sits but awkwardly on the dealers in mustard and arrow-root, the fault is with those who insisted on the strange disguise, and determined on creating lords of misrule. We justly murmur at authority when it is exercised by those who, having neither birth, nor education, nor splendid talents to boast of, can appeal neither to the instincts of nature, nor to the conventional usages of society; and we suspect that no man with a diploma in his pocket (though it were only a diploma of St. Andrew's), ever went up to the examination in Blackfriars' without a deep feeling of humiliation. Yet, though the examination may be bad, it does not follow that everything which can be said against it is good: and we must confess that the writer of the following observations has very much the air of a man who has been more than half flayed: like a modern Marsyas he complains that the examination of these little gods of physic is both harassing and superficial. We think it rather a wild theory too, that people at this end of the world preferred him "as an educated Scotsman to any of their

own countrymen;" but we must recollect that these sorenesses first saw the light in Glasgow; and, as Aristotle says, "it does not go against the grain to praise the Athenians at Athens."

The Apothecaries' Company of London the other day, in their memorandum or remonstrance to Lord Melbourne, mentioned their having frequently rejected the Scottish candidates for their diploma, even when these gentlemen possessed the highest Scottish medical honours; and they wish the world to believe from this, that the diploma of the worshipful company is a higher evidence of medical merit, than any diploma or degree from Scotland, as is evinced by gentlemen possessing all the honorary titles and qualifications to boot of Edinburgh, Glasgow, St. Andrew's, or Aberdeen, being unable to pass *their* ordeal. All this is very strange; but there are one or two things behind the curtain which the world must know, to be able correctly to form an opinion of these worshipful worthies. The English public are perfectly aware of the superiority of the Scottish educated practitioners. This is no vain boast or hearsay; the writer of this has been told it repeatedly by individuals educated and uneducated, who were utter strangers to him, and who seemed glad of the opportunity of telling him they could trust in him as an educated Scotsman, in preference to any of their own countrymen,—of this predilection the apothecaries are perfectly aware, and their cue is to keep as many out as they can, thus reserving to themselves as large a share of the good things of the profession as possible. There are a variety of ways for attaining this. The five years apprenticeship was a dextrous and a pretty successful one—the minute and often silly differences between the pharmacopœias another; if these do not succeed, they have the ungentlemanly one of browbeating the candidates during examination, in such a manner that few nervous men are able to stand it. Before the examination commences, they usually contrive to make out if the candidate has passed any other college; if he has, of course they delight in rejecting him if they can, because by this means they not only keep up still further the monopoly of practice, but afford themselves another instance to prove, according to them, that a man may have obtained the highest honours of those schools most celebrated for their alumni, and yet be altogether unable to pass the examination required by the worshipful company of apothecaries. I knew an instance where a gentleman who did not know them so well as I do, signed the Latin translation he had to make, and added "M.D. of Edinburgh, &c.;" the consequence was, whenever he entered the room, he was *ordered*, in a surly gruff voice, to "write that over anew, sir—we don't want any of your M.D.'s—it will not serve your purpose here, sir,"—and neither it did, for they rejected him. The apothecaries boast that none of their examining board teach, consequently can have no interest in rejecting or passing the candidates; but it appears to me that there is as little objection to a teacher as to a practitioner. As practitioners, the London apothecaries are objectionable examinators, inasmuch as they are tempted to keep as many out of the way of competition as possible, which they easily hitherto could accomplish by unjust bye-laws, and equally unjust examinations.

If the reader will turn to No. 495 of the Lancet, for 23d of February, 1833, he will get a specimen of the examination customary at the hall in Bridge street, London, and after he has read it he will easily understand by what *laudable* means the Scottish applicants are rejected, and with what decency the apothecaries can boast of having rejected so many from this side of the Tweed. The examination alluded to was that of the writer of this article; and, though they did their best to throw him out, they did not succeed.

Their apprentice system is another of their boasted means of securing a fine medical education in the rising generation of medical aspirants. It has been

my lot to be thrown not a little in the way of these young gentlemen, and I can safely say that it is of almost no value to the apprentice whatever, but of considerable importance to the master, a handsome fee in the first place of from 150*l.* to 500*l.*, and gratuitous services during five years, have hitherto been pretty reasonable sources of emolument. All the disagreeable drudgery part of practice is done by the apprentice, and at the end of five years he goes to town with just as much information as could easily be acquired by six months' assiduous attention in the shop of any respectable practitioner.

Many of them go out as assistants at the end of their apprenticeship, and if in town, and their master kind, contrive to attend a class or two—and to these young men often are cases of considerable importance entrusted, in the absence of the principal. One very gentlemanly young man was assistant to a friend of mine in good practice in the west end of London, and I never recollect being so much astonished as on discovering the ignorance of my young friend. He had been five years an apprentice at Exeter, and one year at the classes in London, and knew nothing—absolutely nothing,—to be able merely to make a pill or mix a powder, I call nothing. A man surely does not require five years to get up such splendid acquirements as these, and yet this gentleman, of some three and twenty years of age, and six years' standing in the profession, had not information enough to enable him to discover an inflamed gum, or any one of the commonest "ills that flesh is heir to," and when pointed out to him, had no idea of how it was to be remedied. So much for the value of the five years' apprenticeship.—*Glasgow Medical Journal*, Oct. 1833.

Some of the mistakes the writer makes in the course of his article are so gross, that we are amazed at the facile good-humour of the Southrons, who preferred him to any of their countrymen; and our only reason for not calling him a half-informed person is, that his information has by no means reached so respectable a fraction. Thus he asks, "how are men, who have attended a short course or so upon such a subject as chemistry, to be expected to answer questions regarding the atomic theory—a very common subject at the hall?" How obvious is the answer! The student who desires to learn chemistry, will not be content with what he hears in the lecture-room, but he will read and perform experiments for himself. The author concludes with the threadbare objection to Cambridge and Oxford, that they form deep scholars, but that scholarship is not wanted in the medical profession.

Answer.—It *is* wanted for the heads of the medical profession, unless we wish the practitioners of physic to be ranked with mechanics and artizans; the most useful persons on earth are ploughmen, and they get 18*d.* a day.

III. DISPENSARIES.

Shabbiness has had a temporary triumph; the Aldersgate street committee has found a set of medical tools, and consequently has gained the day, at the cost merely of ruining the institution to which they belong. It is but half a triumph, after all; for, in a cause like this, where the vanquished have the monopoly of good sense as well as good feeling, defeat, if it has not the advantages, has at least all the honours of victory. We look upon the seces-

sion of the late officers as the commencement of a happier era in the history of dispensaries, and trust that we shall soon see these institutions re-organized on a new basis. This basis should be public utility, to which all other considerations must yield. Why, for instance, should the sick poor be compelled to apply for relief exactly at a given hour? Surely a dispensary might be open, like a government office, from ten to four. The slaves of routine will answer, that the physicians and surgeons would be unwilling to stay six hours. True; but it would be easy to get active, zealous, paid officers, to remain three hours, and to come in rotation.

But there is another improvement which the state of society imperiously demands, and which is of still greater importance; we mean the establishment of self-supporting dispensaries. The mechanic, the small tradesman, the lean annuitant, could here find relief for their sufferings, without the degradation of receiving charity, or the painful anticipation of a "doctor's bill." From one to two guineas per annum, subscribed by each member of these medical clubs, would, we think, cover all the expenses of house-rent, medicine, &c. and leave a decent salary for each of the medical officers. The advantages are so obvious, and the thing is so feasible, that we have no doubt self-supporting dispensaries will soon be established in London. It is to be hoped, however, that the first founders may be persons of some weight and respectability, lest we should see the frail creations of their patronage vanishing like the Western Hospital; and again hear disappointed tradesmen exclaiming "Who is to pay us?"

[We have received the following article from a correspondent.—*Edit.*]

IV. THE LONDON MEDICAL SOCIETY.

During the present session the London Medical Society has been in great part occupied by discussions on Dr. Tytler's theory, that diseased rice is the cause of cholera. When it is considered that bad rice must have existed in all times, while cholera (in its late form and extent at least,) is a new disease; and that the disease has only within two years been known in many parts of the world, where as much rice was imported formerly as at present; the theory seems so untenable, that one feels some surprise that the society should have tolerated its discussion for four successive evenings. Such, however, was the case, and Dr. Tytler received the thanks of the society, a compliment paid rather to his assiduity and perseverance in supporting his fanciful hypothesis, than to any conviction among the members that he was right.

Oct. 28. Mr. Proctor inquired the opinion of the society about the cholera of this season. He thought it had been modified, and that the treatment generally had been more successful than it was last year, although no specific had been discovered.

Mr. Stephens observed that there were various shades of the disease. He had suffered himself, during the prevalence of the epidemic, from coldness of the extremities, borborygmi, and threatenings of diarrhœa, with numbness, and occasionally even cramps in the limbs. These symptoms were accompanied by a sense of anxiety. Others he had seen in the same state, and he believed that it might be endured some time before the health gave way, and that it did not always lead to cholera, especially if attention were paid to diet.

Dr. Williams gave Mr. Stephens a hint that his own was a case of fright, an opinion which the latter gentleman rebutted; and then arose the interminable dispute whether the recent or Asiatic cholera be a different disease from the ordinary cholera of England, or merely a severer form of it.

Mr. Proctor thought them different diseases, because, in the old cholera, the patients, when they died, sank from the exhausting effects of the vomiting and purging, while the new disease operated at once on the system as a poison. Common bilious cholera, simple diarrhœa, and the Asiatic disease, all existed at the same time as separate diseases.

Dr. Johnson took them to be all grades of the same complaint. The symptoms described by Mr. Stephens were often followed by diarrhœa, and that ultimately by cholera.

Dr. Negri endeavoured to distinguish ordinary diarrhœa from that which precedes cholera. In the latter species there was a strong throbbing pulse, a peculiar expression of the eyes, resembling that of a drunken man in the vascularity of the conjunctiva.

Nothing was said for or against the diagnostic laid down by Dr. Negri, and, in the hands of Dr. Uwins, Dr. Walshman, Mr. Headland, and Mr. Hooper, the question of the identity of the diseases continued to be agitated, without eliciting anything likely to interest your readers.

The meeting, on the 4th of November, was occupied entirely with passing a series of resolutions, commendatory of the conduct of the physicians and surgeons lately attached to the Aldersgate street Dispensary, and which have been elsewhere published.

In the conversation which took place on the 11th, Dr. Uwins, after stating "that the contagions which had been termed specific depended much on time, place, and circumstance, and produced different effects under different states," proceeded to mention some instances tending to prove that the poison of hydrophobia, which was usually traced to one specific source, was subject to modifications; that the rabid poison might be susceptible of graduation, so that an animal in an excited condition, though not positively rabid, might be capable of communicating a disease resembling and even identical with hydrophobia. He next named a case in which insanity had been communicated from a brother to his sister by a bite in the hand.

The last remark excited a good deal of interest in the society.

It was agreed that such an occurrence was extremely uncommon, and Dr. Whiting considered the present instance as an accidental coincidence. The insanity of the sister followed, in his opinion, the insanity of the brother as a natural consequence, if it were a family complaint.

With respect to the spontaneous occurrence of hydrophobia, instances in corroboration were referred to by Dr. Whiting, Dr. Negri, and Mr. Kingdon; but no remarks were elicited which supported in the slightest degree Dr. Uwins' proposition, that hydrophobia is subject to modifications or graduations, (such, however, is probably the fact.)

At the meeting on the 18th, a resolution was passed to the following effect: "That a special meeting of the council be called to *take into consideration the state of the profession*, and to determine on the propriety of calling a meeting of the society to petition Parliament on that subject."

Afterwards, Dr. Uwins drew the attention of the society to some cases of apoplexy, in which bleeding, the usual remedy, was not indicated. The doctor did not appear to us to distinguish these cases by any very well-marked signs from more ordinary instances, in which, however unsuccessful, it is nevertheless the only measure that offers the most distant chance of removing the cerebral congestion. This opinion seemed very general in the society.

Dr. Whiting, Mr. Dendy, and Mr. Headland, all agreed that there were some cases of apoplexy in which mischief might be produced by immoderate bleeding, and they seemed to agree that these cases were usually of the kind denominated serous apoplexy. But little definite was stated as to the symptoms which distinguish the serous from the sanguineous apoplexy, and still less concerning those which indicate the particular serous state in which bleeding prove dangerous.

On the 25th of November, a paper, by Dr. Negri, was read, on the efficacy of secale cornutum in hemorrhage, in leucorrhœa and gonorrhœa. In the introductory part of the paper, the author proceeded to notice the observations of Dr. Atlee, of Philadelphia, Professor Bigieschi, and Dr. Ballardini, in Italy, Dr. Guillemont, in France, and Dr. Marshall Hall, in this country, all of whom had recommended the secale in menorrhagia; of Dr. Shallcross, who employed it in uterine hemorrhage, arising from detachment of the placenta; of Dr. Spajrani, who, in a paper in Omodei's Annals, for March, 1830, speaks of its use in uterine hemorrhage, uterine congestion, epistaxis, hemoptysis, and hematemesis; and of other Italian and French physicians, who have employed it more recently in the same cases. Dr. Negri then observed, that during the time the preceding authors had been investigating the therapeutical powers of the secale, he also had availed himself of numerous opportunities of trying its efficacy in similar cases, and also in gonorrhœa. He had found it of great use, not indeed an infal-

tible remedy. The dose was five or six grains of the powder, three or four times a day, or oftener.

In the discussion which followed little was elicited, no one appearing to have tried the remedy in similar cases, and all, therefore, being destitute of sufficient experience to speak to any purpose on the subject.

Dr. Shearman raised the objection, that Dr. Negri had not narrated the cases of failure along with those of success.

Mr. Blenkarne thought it had been administered too indiscriminately, and that in the paper just read sufficient distinctions had not been made as to the kind of cases which promised success, and those in which its exhibition might be expected (from what was known of the usual effects of the drug,) to do mischief.

Dr. Whiting considered that to the measures used in some of the cases, in conjunction with the secale, as much might be attributed as to the medicine itself.

Dr. Negri replied that his unsuccessful cases were but three in number, that he had endeavoured to show the particular states which required a different or antiphlogistic treatment; and that, in many instances he had used the medicine alone, in order that its effects might not be confounded with those of other remedies.

At the meeting in December, the following case was related by Mr. Dendy:—A man, æt. 65, who had been subject to scrotal hernia for 25 years, died with symptoms of strangulation. Upon examination, after death, an egg-cup was found in the bowels, with the concave part directed downwards. The discussion turned upon how the egg-cup had been introduced. Mr. Dendy was of opinion (owing to the absence of inflammation in the large intestine, and its presence in the small,) that the egg-cup in question had passed from the mouth, while other members thought that it had been introduced into the rectum.

A special general meeting of the society takes place on Tuesday, the 7th of January, to take into consideration the report of the committee, when the Reform question will, doubtless, be warmly debated.

OBITUARY.

Died, lately, at Edinburgh, in the fifty-third year of his age, Edward Milligan, M.D. He was born in a small village in Dumfries-shire, of poor but respectable parents, and received such an education as their humble circumstances would allow. At an early age he was apprenticed to a shoemaker, and continued to follow his trade until he had attained the age of manhood. He afterwards removed to Edinburgh, and worked at his trade; but, after a short time, studied Latin, and became a very good classic. Having made considerable progress in medical knowledge, he began teaching Latin to young men preparing for graduation, and by this means was enabled himself to graduate. It has been erroneously stated that he graduated only thirteen years ago; but, to the certain knowledge of the writer of this imperfect sketch, Dr. Milligan was already an M.D. in 1817. As soon as he had obtained the degree of M.D. he became a regular private tutor, and in this capacity was highly

esteemed, not only by the young men under his care, but he enjoyed the respect and friendship of those who had formerly profited by his instruction. He was indefatigable in his endeavors to convey information to those who were willing to receive it.

During the winter session of the Edinburgh classes, he constantly rose at six o'clock in the morning to receive his pupils, and was in this way fully occupied until midnight, allowing himself but very short intermissions for his meals. He was thus enabled to amass some property. About five or six years since he was deprived of his sight by amaurosis, after which he declined receiving any more pupils.

He was the translator of Magendie's Physiology, and the editor of an extremely accurate and excellent edition of Celsus. In 1819 and 1820, he lectured in Edinburgh on Physiology, and had a tolerably good class. In 1820 he became joint editor of the Edinburgh Journal of Medical Science, which was most excellent both in its arrangement and contents, and promised fair to have had an extensive circulation; but some disagreement occurred amongst the editors, and, after living a year and a half, the publication came to a premature end.

Such was Dr. Milligan; a striking example of the valuable truth, that unremitting industry, even when unaccompanied by brilliant talents, is certain to lead to competence and content.

METEOROLOGICAL REGISTER,

FROM SEPTEMBER 1 TO NOVEMBER 30,

By Messrs. HARRIS and Co., Mathematical Instrument Makers, 50, High Holborn.

	Thermometer.		Barometer.		De Luc's Hygrometer.		Winds.		Atmospheric Variation.
	max.	*min.*	*max.*	*min.*	*max.*	*min.*			
Sept. 1 to 7	67	43	30.07	29.24	66	61	ENE	WNW	fine, cloudy, rain
14	66	47	29.91	.54	75	63	E	NW	cloudy, fine, showery
21	64	47	30.01	.42	76	65	NW	SW	fine, fine, cloudy
30	73	48	.01	.40	75	71	SE	SW	fine, rain, fine
Oct. 1 to 7	61	47	.05	.82	75	72	E	SSE	fine, foggy, cloudy
14	61	45	.01	.27	78	63	ESE	SW	fine, foggy, rain
21	59	40	29.53	28.83	79	71	WNW	W	fine, cloudy, rain
31	63	48	.79	29.18	81	69	S	SE	fine, cloudy, foggy
Nov. 1 to 7	60	35	30.02	.24	80	70	W	NW	rain, fine, cloudy
14	59	36	.06	.56	80	76	SW	NW	foggy, fine, rain
21	53	37	.06	.66	84	77	SSW	W	foggy, cloudy, fine
30	56	34	29.94	28.63	83	74	WSW	WNW	fine, foggy, rain.

The quantity of Rain fallen in September, 2 inches and 25-100ths.
— — — October, 1 inch — 29-100ths.
— — — November, 1 inch — 15-100ths.

NOTICES.

We have received ADAMS' *translation of Paulus Ægineta,* COLQUHOUN *on Animal Magnetism,* Sir C. SCUDAMORE *on Inhalation, and* WALKER *on the Physiology of the Iris. We shall review them in our next.*

We have also received Dr. EPPS's *Essay on Counteraction.*

Advertisements of books about to be published can appear only in our Advertising Sheet.

We are much obliged to Dr. PEACOCK *for his communication: he will find an abstract of it in our Collectanea.*

We shall be happy to hear again from Mr. VALENTINE.

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