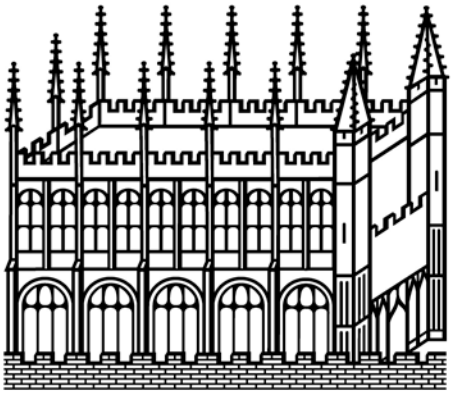


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GICAL

AND EXTRACTS

FOREIGN.



THE

LONDON

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JOURNAL;

CONTAINING

REVIEWS OF ALL NEW WORKS, ORIGINAL COMMUNICATIONS, AND EXTRACTS FROM ALL THE MEDICAL PERIODICALS, DOMESTIC AND FOREIGN.

EDITED BY

MICHAEL RYAN, M. D.

Quærere Verum. HORACE.

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THE

London Medical and Surgical Journal.

No. 37. JULY 1, 1831, VOL. VII.

CRITICAL REVIEW.

I.—*The Pharmacopœia Universalis; or, complete Encyclopædia of the Materia Medica, contained in the Pharmacopœias of London, Edinburgh, and Dublin, as well as of all those of Europe and America; and of the Dispensatories, Formularies, and Chemical Works of Ainslie, Bigelow, Brande, Brera, Brugnatelli, Buchner, Chevalier, Chevreuil, Coxe, Cullen, Davy, De Lens, Duncan, Gray, Guibourt, Henry, Hufeland, Magendie, Murray, Orfila, Paris, Phillips, Piderit, Poiret, Ratier, Richard, Robinet, Rose, Spielmann, Thomson, Van Mons, and numerous others: giving the officinal and other synonymes and scientific characters of simple substances, the preparations of the compounds, according to the various formulæ, and the usual doses prescribed.* By A. J. L. Jourdan, M. D. of Paris.

With an Appendix, containing the Charters, Laws, and Regulations, affecting the Medical Profession; and an Outline of Medical Chemistry, and Manipulations in the Manufacture of Drugs and Medicinal Waters; including the most recent Discoveries in Pharmacy. Edited by J. Rennie, A. M. London, 1831. Parts I. & II. Fry and Fletcher, Brompton.

In no age was medicine reduced to such fixed and intelligible principles as in the present; and yet there is no civilized country which has not its own pharmacopœia. We shall not now stop to compare the value of the respective codes; but may observe that all possess excellencies and defects. The profession is much indebted to M. Jourdan for the laborious and valuable compilation before us, which cannot fail to be instructive to every class of medical practitioners. This must be obvious, as the object of every man engaged in practice is to apply the best remedy for his patient; and it is a matter of perfect indifference to him in what pharmacopœia he discovers it. In the production under notice, the British practitioner will find an immense number of medicinal agents excluded from the national codes of drugs, and many of them highly efficacious. Among these are the new and powerful medicines lately discovered in France, such as quinine, iodine, strychnine, &c. which as yet have no place in the London pharmacopœia, and cannot be procured from one in twenty of our pharmacopolists; and when obtained are generally so adulterated as to be useless. We are indebted to the lethargy of the College of Physicians, and Apothecaries Company for this state of things. It may be said that our representation is exaggerated, but we reply, by adducing one fact, that within a few days, we have ordered the solution of hydriodate of potass, prescribed by the Dublin Pharmacopœia, which was unknown to six wholesale and retail druggists, one of whom was the most extensive perhaps in London. Strychnine can only be procured at the Apothecaries' Hall, and at the

moderate price of four pounds sterling per ounce. We might cite numerous examples in farther attestation of the correctness of our statement. Under such circumstances, the publication of an Universal Pharmacopœia is a great desideratum, and more especially in vernacular language. Mr. Rennie has executed the translation with great fidelity and judgment, and it will add much to his well-earned reputation. We have no hesitation in recommending this work as decidedly the most comprehensive Dispensatory of any in the English language. It should be in the possession of every medical practitioner.

In order to justify the favourable opinion we have given of this Work, we insert an extract.

Acidum Hydrocyanicum.—Prussic Acid, Hydrocyanic Acid.
Acidum Borussicum,, seu *zooticum*, seu *zootinicum*. *Acidum Prussicum.* (Dubl.; Amer.; Belg.; Batav.; Gall.; Ferr.; Niemann; Brugnatelli; Van Mons.

1. Prepared after the method of Scheele.

R. Prussian Blue, one hundred and twenty-eight parts.
Red Oxide of Mercury, sixty-four parts.
Distilled Water, five hundred parts.

Boil for a quarter of an hour, stirring constantly; strain, filter, and wash the residuum with

Boiling Water, one hundred and twenty-eight parts.

Mix together the two liquors, put them into a flask, and add

Iron-filings, reduced to very fine powder, ninety-six parts.
Sulphuric Acid (66 degrees), twenty-four parts.
Diluted with Distilled Water, twenty-four parts.

Stir the mixture, and keep the flask, for one hour, plunged in cold water; pour the decanted liquor into a tubulated retort placed in a sand bath, to the neck of which a long adapter is fixed, which passes into the tube of a globular receiver, whence goes out another tube of a bent form, which is plunged into a flask full of water; lute the apparatus, cover the receiver with wet cloths, and increase the heat until the liquor boils, and it has passed

One hundred and ninety-two parts of liquid into the receiver.

Add to this liquid,

Subcarbonate of Lime, eight parts.

Distil again, and draw one hundred and twenty-eight parts.

Preserve it in a flask covered with black paper. (Amer. Gall.; Ferr.; Brugnatelli)

Van Mons directs three parts of cyanuret of mercury to be dissolved in water; to put the solution into a retort containing three parts of iron filings; to pour upon the whole ten parts of sulphuric acid, diluted with thrice its weight of water; to stir until the mercury is separated; to place the retort in a sand bath; to heat it to ebullition: to distil over one hundred and seventeen parts of liquid; and to rectify it by a new distillation.

This process gives an acid, which is always mixed with water, in an uncertain quantity.

2. After the process of Gay Lussac.

R. Cyanuret of Mercury, one ounce.
Muriatic Acid, seven fluid ounces.

Water, eight fluid ounces.

Distil from a glass retort, into a receiver kept cool, eight fluid ounces; and preserve in a well stopped bottle, in a cool, dark place.

The specific gravity of this should be 998. (DUBL.)

R. Cyanuret of Mercury, any quantity.

Put into a tubulated retort, the neck of which is furnished with a large glass tube, filled with marble bruised, and melted chloruret of calcium, which tube communicates by another more narrow, with a bell glass surrounded with a refrigerating mixture. Pour upon it enough of hydrochloric acid to rise above the cyanuret the height of a finger, heat gradually and moderately, and receive the condensed product in the bell-glass. (GALL.; FERR.; MAGENDIE)

The acid thus obtained is free from water. It has a specific gravity of 0.700.

3. After the process of GEA PESSINA.

R. Hydroferro-cyanate of Potass, pulverised, eighteen parts.

Put it into a tubulated glass retort, placed on the iron grate which supports a stove, and communicating with a very small tubulated flask, the tube of which plunges into another flask containing a little distilled water; and pour upon it a mixture of

Concentrated Sulphuric Acid, nine parts.
Water, twelve parts.

Let them act upon each other for twelve hours, during which time the ice ought to be renewed, as fast as it melts, and the retort be gently heated, by means of some burning coals; the fire is to be removed when a blue matter rises, and threatens to pass into the receiver, and the apparatus suffered to cool. (HENRI)

The acid so obtained has a density equal to 0.9 or 0.898.

4. After the manner of VAUQUELIN.

R. Cyanuret of Mercury, one part.
Distilled Water, eight parts.

Pass a current of sulphuric acid gas into the solution, until the gas is in excess; then pour into the liquor as much pulverised subcarbonate of lead as will remove the excess of the hydrosulphuric acid, constantly stirring the mixture; when it no longer has the odour of rotten eggs, and it no longer blackens paper impregnated with the acetate of lead, filter, and preserve it for use. (BATAV.; BELG.; GALL.; NIEMANN; VAN MONS)

The acid produced by this operation has the same density as the acid of SCHEELE.

The variable density of the hydrocyanic acid prepared according to the method of SCHEELE, does not permit it to be applied to the purposes of medicine. For such purposes, that procured by the method of GAY LUSSAC is generally made use of; but as its concentration renders it dangerous, it ought to be commenced with by mixing it with a quantity of some distilled water. ROBIQUET has proposed to reduce its density to 0.900. by adding to it two parts of water. Thus reduced, it becomes similar to the acid of SCHEELE, but with the advantage over the latter of exhibiting a constant and well-known proportion between the pure anhydrous acid and the quantity of water with which it is mixed. MAGENDIE adds to it six times its volume, or eight times and a half of its weight of distilled water, and calls the mixture *Medicinal Prussic Acid, (Acide Prussique Medicinal.)* Others

have recommended the use of a mixture of three-fourths of water, and one-fourth of acid, under the name of *Acide Hydrocyanique au quart*. The formula of MAGENDIE ought to be preserved, because it is generally adopted, but for this only reason, for it has no real advantage over the others.

Pure hydrocyanic acid is a formidable poison, as it would kill the most robust man, with the rapidity of lightning, at the dose of a single drop. Mixed with water, it has a less energetic action, the result of which is to destroy the excess of irritability which may be developed in one particular part of the body. It has been recommended in nervous and chronic coughs, asthma, hooping-cough, pulmonary consumption, indigestion with or without vomiting, painters' colic, &c. Externally, it has been employed in lotions, for various cutaneous diseases, particularly for allaying the itching of the skin.

The remainder of the article under this head consists of an enumeration of the various formulæ in which the acid is used, amounting to fifty-five in number.—The article "Aloes" occupies twenty-five closely printed pages.

This Work will be one of reference and standard authority. The spirited publishers of it well deserve the patronage of the profession.

II.—*Observations on Distortions of the Spine, with a few Remarks on Deformities of the Legs.* By LIONEL J. BEALE, M.R.C.S. &c. London, 1831, 8vo. pp. 102. John Wilson.

IT is only a few months since we expressed our strong approbation of Mr. Beale's work on Distortions of the Spine and Deformities of the Legs, and in proof of our opinion, we have to state, that a new edition is required. Our author wishes to delay it for some time, and publishes the present essay to elicit criticisms and opinions upon the matters he has discussed. In this production he offers some valuable observations on the causes of spinal curvature, rickets, spinal irritation, and distortions of the legs of rickety children.

Our author commences with remarks upon the connexion between nervous and hysterical disorders, and spinal irritation; but we have so fully described this subject, and it is now so generally understood, that we cannot notice it further at present. We refer the reader for ample information upon this topic to our reviews of the works of Teale, Tate, Addison, Shirley Palmer, and others in our fourth volume. The frequency and causes of "lateral curvature" are thus described—

"Perhaps there is no infirmity to which the human frame is liable more deserving our attention than that which is the subject of the following pages—whether on account of that portion of the community who are most frequently the sufferers, or in reference to the numerous afflictions which result from disturbance of the spinal cord, or its appendages. From a variety of causes, lateral curvature of the spine has of late years become so common, that there is hardly a family in the middle or upper ranks of society in this country which has not one or more of its members so afflicted: indeed, so generally have these causes operated, that there are very few females in these classes of society who are totally exempt from some slight degree of

spinal curvature or weakness. A small degree of curvature exists in numerous instances without being suspected, and many of the nervous, hysterical, and other anomalous affections met with in practice, have their cause in some slight deviation of the bones composing the spine.

"The causes which give rise to this widely-spread calamity are very numerous and very different. There are various kinds and degrees of lateral curvature, some arising from a single, some from a combination of several of these causes. The origin of different cases may be traced to the following: a softened state of the bony parts of the spine—chronic inflammation of the cartilages and ligaments of the vertebræ—the long-continued operation of peculiar attitudes, tight lacing, &c.—contraction of one of the sides of the chest from inflammation, and destruction of a portion of lung by abscess—overgrowth, especially when operating in conjunction with the debilitating effects of some of the diseases peculiar to childhood, as scarlet fever, &c.

"In some instances of lateral curvature one of these causes may have alone produced the effect, but in others, several of them have acted in concert. I shall make a few remarks on each."—p. 6.

Our author has properly stated, that the disease called rickets is the chief cause of spinal and other deformities, and his remarks upon the causes and treatment of this very prevalent disease are correct and judicious. He thinks that nutritious aliment with proper attention to cleanliness, bathing, and exercise in the open air, will generally restore deformed rickety children of two or three years old to perfect health. Every observant practitioner can attest this fact. He considers open air, even in the most closely built portions of the old city, is sufficiently pure to preserve a tolerable standard of health; and he maintains the most prevalent opinion, that in ninety-nine disorders of children, it is the stomach which is primarily in fault. There is scarcely a disease so common to children as infantile remittent fever, which every one knows arises from a morbid condition of the intestinal canal. Rickety children suffer most severely from this disease. The causes of rickets are thus described by our author—

"Rickets, in every degree of intensity, is produced by the mismanagement of children during the first three years of their life. Many of the subjects of this malady are weak from their birth, but the majority of them are rendered so by the neglect of those means which invigorate children, by proper attention to which even those who are born weak may be strengthened, and preserved from this scourge of the children of this country. I call it so, because it is, perhaps, the most diffused of all the maladies of this period of childhood, existing more or less in almost every family, in many cases so slightly, that the name of rickets is not applied, although the tendency to the disease, in its incipient characters, cannot escape the eyes of the observant practitioner. All those children who have apparently large joints, those who are late in their dentition, and others in whom there is a tendency to curvature in the bones of the legs, are rickety subjects, and, under circumstances favourable to the developement of the disease, bad air, bad food, insufficient clothing, and want of cleanliness, would become miserable objects of deformity."—p. 10.

"The disease in this variety of spinal distortion commences by general derangement of the nutrient system; the child either refuses its usual food,

or is preternaturally voracious, for the latter is as certain a sign of disordered stomach as the former: he loses his flesh—his arms and legs become flabby and emaciated—he cares not to move about—neglects his usual sources of amusement, is irritable and peevish—this state of things in a young child is almost invariably referred to its teeth, and is, consequently, too often neglected. Hundreds of children are sacrificed, or become cripples, from the common practice of referring all their disorders to teething, although some derangements do unquestionably depend on this as a cause. Dentition is the grand process of the animal economy, is the point to which all the energies of the system is directed in infants very soon after birth, and any derangement of so important a process must be attended with bad consequences. There is doubtless a connexion between the process of dentition and the deposition of ossific matter in the bones of the skeleton, and it invariably happens that, when the teeth are backward in their appearance, the bones are soft, and in all such cases more or less curvature of the legs will be found. Many children, at the period when they should begin to walk, are incapable of so doing; and as the teeth should also appear in succession about the same time, it *must* be the teeth which prevent the child from walking. In fact, every complaint to which the human frame is liable, from the crown of the head to the sole of the foot, is at this time of life referred to dentition."—p. 12.

In these cases the alvine dejections are depraved, they will be found brown, green, black, grey, or white; the tongue is furred with a dirty white, yellow, or brownish coat; and hence the value of alterative doses of mercury under such circumstances. Children affected in this way, are generally cured by small doses of calomel or chalk, with mercury combined with rhubarb, antimonial and aromatic powders. The child should not be allowed to stand or walk while the bones remain soft, as the weight of the trunk is too great for the strength of the inferior extremities. In such cases the author should have stated, that the head, trunk, and abdomen are preternaturally developed, and too weighty for the lower limbs. He should also have cautioned parents against the custom of allowing such infants to be left constantly sitting, which is generally done by the lower classes, and of course induces excurvation of the spine and partial paralysis of the inferior portion of the body. He strongly advises the child to be kept in the open air as much as possible, in all weathers, except extreme cold. As active exercise is, of course, impracticable, gentle friction of every part of the body, the muscles of the back, abdomen, inferior extremities especially, is strongly recommended as a means of improving the tone of the muscles, and increasing the vigour of the circulation. A little flour or powder to prevent chafing, is all that is necessary. Mothers are seldom satisfied or attentive to this plan, and hence neglect it unless some liniment or other medicinal form is ordered. In France, the various tonic tinctures combined with oil, are frequently employed with decided advantage; and we must admit, that any remedy must be medicated to inspire the confidence of patients. With regard to diet, we are told the meals should be at regular hours, and nothing whatever, on any pretence, given in the intervals. The greatest simplicity must be observed; when the child has teeth it should be allowed a portion of animal food for dinner, solid in preference to broth; three meals a day are insufficient. We cannot assent to this

plan for many reasons: first, the child cannot have too much nourishment, and its stomach is in general unable to digest solid animal food, which is presented in an imperfectly masticated condition; therefore gravies, soups, and broths will afford most nutrition: secondly, there can be no exact rule laid down as to the number of meals; but certainly three in twenty-four hours are too few for children under three years of age. The plan proposed by Sir Astley Cooper accords with our own, and produces the most beneficial results in a very short time. (See his Lectures on Surgery.)

Mr. Beale has omitted to notice fully the value of cold bathing, cold ablution, and sea bathing, all of which are powerful auxiliaries to the cure of rickets. With respect to medicine, we have the following remarks:—

"With regard to medicine but little need be said—the secretions of the alimentary canal should be improved by aperients and alteratives, and the general tone of the system invigorated by tonics—the various preparations of iron are more readily taken by children, and, as far as my experience goes, they are infinitely more beneficial than the vegetable tonics."—p. 20.

Our author is not sufficiently minute upon this head, he should have specified those remedies which are in general use among scientific practitioners. In cases of rickets the digestive functions are defective; the liver, mesenteric glands, and intestinal tube are generally disordered. The abdomen is tumid; the bowels are constipated; the motions are unhealthy, and hence the inestimable value of mercury in alterative doses. Without this other purgatives are almost useless, for until the alvine evacuations are natural no improvement in the general health will be permanent. The preparations of iron, more especially the carbonate, may be combined with rhubarb and sugar, and will be readily taken by children. Tincture of cinchona and quinine are generally refused; indeed we have never known a case in which they had a fair trial. Sponging the body with tepid or cold water is of great value; but great caution is required in cold weather. Mr. Beale should have stated that apparent excurvation of the lower dorsal and lumbar vertebræ will generally disappear, as well as the distorted legs of rickety children, by judicious management. It is astonishing how little attention is paid by routine practitioners to rickets. The little sufferers are generally pronounced incurable, and doomed to death. Often have we heard this declaration in cases in which recovery not only took place, but the most perfect health was established, and the children became the finest that could be seen.

Our author maintains that chronic inflammation of the cartilages and ligaments of the vertebræ, is the cause of spinal curvature in strumous children, between the ages of six and fourteen. He differs with Mr. Bell and Mr. Shaw, who are of opinion that lateral curvature always begins in the loins. He thinks it may commence in the dorsal vertebræ, and inserts a long letter from the talented Dr. E. Barlow, of Bath, in proof of his position. This difference of opinion is of little consequence, as the treatment must be the same. Dr. Barlow has often been consulted in cases of supposed disease of the lungs, heart, and digestive organs, which were purely symptomatic of spinal inflection. He says,

"It has often surprised me to witness how much disturbance a very slight inflection of the spine could occasion in the heart and lungs, and how

readily it was allayed by directing the treatment to the primary malady. This treatment has, in my hands, been very simple, consisting chiefly in regulation of bowels, suitable diet, this being nutritive without pampering, tonics, especially quinine, sometimes steel, recumbent posture alternated with exercise of the spine, cold sponging, shower-bath, partial exercise of the muscles of the back by means of the weight and pulley, with the cord attached to the head, I have used with advantage; but, in the incipient cases to which I allude, the simpler means in general suffice. From repeated examination of such cases, my impression had long been that, in them, the dorsal curve was that which first occurred, the countervailing bend afterwards taking place below. It is very possible that my scrutiny might not have been conducted with sufficient accuracy; and while I still retain my original belief, I by no means contend that I may not be wrong." —p. 23.

He thinks the recumbent posture indispensable—alternating this as much as possible with active exercise. The sitting posture must be avoided whenever the trunk cannot be fully supported. The use of the "board" may be obviated by converting a sofa into an inclined plane, which can be readily effected by a common carpenter; "a plane raised to seven or eight inches at one end, and terminating in a point being slipped under the cushion. This arrangement excites no observation, a consideration of some moment when the feelings are sensitive."

"Young females have been brought to me with alleged disease of the heart, phthisis, &c. whose maladies, traceable to muscular weakness and incurvated spine, have readily yielded to such treatment as I have mentioned; while bleeding, digitalis, and remedies of this class, would have sunk their powers and accelerated their fate. Had either disease actually existed, the treatment employed must have failed. I have seen local excitement enough to mislead an unwary practitioner into bleeding and depletory treatment, which, however it might abate symptoms, must, by increasing weakness, aggravate the real disease. These cases require close discrimination, for it does happen that the pulmonary disturbance leads to a state of congestion and inflammation, so as even to require the lancet to be used; but these cases differ widely from primary inflammation of the chest, and require the treatment to be modified accordingly. In reflecting on this subject, it has occurred to me, that the insidious disorganization of the lungs characteristic of phthisis, may not unfrequently have its origin in the disturbance of pulmonary function occasioned by curved spine."—p. 27.

Mr. Beale considers the disease of the fibrous tissues connecting the vertebræ, of a precisely similar nature to that which occurs in the hip and knee joints, of subjects of a similar habit.

"However, long before any appearance of mischief occurs in the back, the patient will have suffered repeated attacks of various kinds;—affections of the pulmonary or abdominal viscera have frequently occurred and resisted the ordinary remedies. Sometimes there is continual cough and expectoration, with evening fever and emaciation, giving rise to fears of consumption; in some cases the heart is affected, in others the attacks assume the form of spasmodic asthma. When the functions of the abdominal viscera are prin-

cipally deranged, we find, at times, symptoms of chronic inflammation of the liver—pain about the head of the colon is very common in many cases of lateral curvature—the functions of the stomach are generally depraved—the process of digestion always impaired, and the action of the large intestines torpid. Very often the pelvic viscera exhibit symptoms of disorder, more especially the uterus, and then we meet with all the Proteian forms of hysteria.

"Two or three years will one or other of these trains of symptoms go on, sometimes alternating with each other;—apparent inflammation of the lungs will be suddenly succeeded by violent pain in the bowels, and simulated inflammatory action will appear by turns in almost every part of the body. I do not know any more important faculty which a medical practitioner can possess than a power of minute discrimination, of seeing those small distinctions which are not very apparent to any but experienced eyes. It is of the utmost importance to distinguish these simulated diseases of the nervous system from the active inflammations which they resemble, and the points of difference are sometimes so minute, that there is often difficulty in the diagnosis. In all such complaints the spine should be examined; and so commonly is it affected in nervous disorders, that these will almost always be relieved by local means applied to that portion of the spine with which the nerves of the affected part communicate."—p. 32.

With regard to the treatment of this variety of spinal curvature, the recumbent posture is of the greatest importance, inasmuch as the removal of the weight of the upper part of the body, will remove much irritation from pressure on the inflamed cartilages. The inclined plane is considered injurious, as some degree of pressure on the inflamed parts will be induced. A few leeches only should be applied daily, or every two or three days, according to circumstances. Blisters are useful, but caustic issues are highly injurious from the degree of irritation they produce, which is often so distressing as to require their removal. Young children cannot bear them. The due regulation of the bowels, and the restoration of healthy evacuations, are indispensable to a cure. In these cases there is often an immense accumulation of fæces in the large intestines, and these are as dark as pitch. Mercurials are therefore necessary. Upon the whole, this form of curvature seldom leaves deformity, when this plan of treatment has been fairly tried.

The next section is on the "effects of attitude, want of exercise, tight lacing, stays, &c." and contains much information. Our author justly criticises the absurd regulations which influence young females in their various pursuits, and quotes Dr. Arnot and Mr. C. Bell in support of his conclusions. He observes,

"The attitude assumed in needle-work, writing, drawing, the piano, the harp, all have the same tendency to contort the spine; all these occupations are sedentary, and so many of these and other accomplishments are now demanded, that the day is hardly long enough to go through the usual lessons. Boys sit much at their studies as well as girls, but when relieved from them, their amusements are of such an active description, that the alternation of a few hours sitting is really beneficial to them; but girls, in their intervals of relaxation, are too often permitted to take no other exercise than

a slow walk for an hour or so. The motions necessary for boyish games, bring into active play the muscles of the back, increase their vigour, and thus enable them to maintain the spine in its proper position, but the action of walking has but little effect on this class of muscles; the omission of these active exertions which youth of both sexes would naturally indulge in, is one main cause of such frequent instances of lateral curvature in girls. Every care is taken to check in girls that activity which is natural to the season of youth—young ladies should not be romps—such and such exercises are boyish—delicacy of appearance is considered genteel, and we all know how successful the system is in rendering girls delicate. Even in those cases where some degree of active exercise is permitted, the poor child is eternally admonished not to assume the attitude which Nature dictates to relieve for a while the muscles of the back. Miss must not stoop, must always hold her head erect, sitting or standing; the head and chest must be upright, and straight-backed chairs, backboards, and other ingenious arts of tormenting have been invented, to prevent children from adopting the attitudes of repose dictated by Nature. Who would ever think of preventing a horse from assuming that position of repose which he almost invariably takes when standing still, by raising one of his hind legs to rest, while the body mechanically bears on the other three without much muscular exertion—in this position the spine becomes curved; and, it would be as wise to fear deformity in a horse, because he occasionally assumes this position, as in a girl to fear her being permanently round shouldered, because she occasionally relieves herself from the irksomeness of continually maintaining the same position. Perhaps there is nothing more beautiful or more conclusive of design, than those contrivances in the structure of animals which enable them to assume positions of repose without the expenditure of muscular power. The manner in which birds roost is a familiar illustration; the weight of their body alone acts on the tendon of the flexor muscles of the toes, which thus mechanically grasp the perch without any muscular effort. The position of the horse above-mentioned, and that of the soldier when he stands at ease, are also examples of this provision of Nature."—p. 39.

We regret that want of space prevents us from quoting the remarks of Dr. Arnot on this head, which are full of that force and beauty that characterise all his writings. But who has not seen and esteemed his Elements of Physics? The following remarks by Mr. Beale deserve much attention:—

"Although want of exercise is perhaps the most important cause of the frequency of lateral curvature, yet I do not doubt that stiff stays and tight lacing very materially increase the mischief produced by inactivity. Tight lacing not only prevents a due development of the muscles by pressure, but by fixing into one immoveable mass the ribs and vertebræ of the back, which, more especially in youth, should have free motion on each other, makes the whole upper part of the body a dead weight on the vertebræ of the loins, which in consequence give way to one or other side, and lateral curvature is produced.

"The natural and proper motions of the spine are produced by muscles connected with the head, shoulders, ribs, and pelvis; and it is in the perfect

adjustment and reciprocity of action among these muscles, that the true equilibrium of the spine is to be maintained. If we deprive a large class of these muscles from acting at all, this reciprocity is destroyed; the remaining muscles having more duty to do than properly belongs to them, either become weakened, or having lost the opponent power of their antagonists, draw the vertebral column awry. This is precisely the effect of tight lacing—the numerous muscles inserted into the ribs, shoulder-bones and spine, are all compactly bound together, so that the bones of the chest, which should have some motion on each other and on the spine, become one mass, being a dead weight on the vertebræ and muscles of the loins. I cannot but think that this is one great source of that variety of lateral curvature which commences in the loins, and which is the most common; indeed it is almost universal, for there are few women in whom some slight deviation of the lumbar vertebræ may not be detected."—p. 43.

The great injury inflicted on the muscles of the back, on the ribs and respiratory muscles by stays, is very ably described, and corroborated by quotations from the works of other writers. Spine supporters may be employed while the growth proceeds, but they often prove useless. There are but few cases of lateral curvature which may not be cured, if properly treated before the cessation of growth.

"The principal feature in the treatment of lateral curvature is exercise. In incipient cases of contortion of the spine, if the body be observed during exercise, all appearance of curvature will have disappeared. While the body is in active motion, the muscles of the spine hold it erect; but soon after the patient stands still, or sits down, the curvature will reappear. If, during the intervals of exercise, the spine can be prevented from falling out of its proper line, an obvious benefit will result, and this may be effected in two ways—1st, by keeping the body in a horizontal position when not in exercise—or, 2nd, by putting on a machine which will support the spine during the period of sedentary occupation. A combination of these means I think preferable to the use of only one, as, by such combination, a girl may continue her studies without inconvenience or danger of increasing her present distortion. Such an instrument has been made by Mr. Eagland, and well fulfils the intended object.

"This instrument supports the spine by embracing the ribs, and holding up the axillæ on a kind of crutch, the lower end of which rests on the seat, so that, while the patient is at her meals, or taking any lessons, the muscles of the back are relieved from all exertion. It slips over the dress, is adjusted in a minute, and as soon removed. By this means and the recumbent position alternately during the intervals of exercise, the spine is never suffered to relax into that serpentine form which constitutes lateral curvature."—p. 52.

Our author has not met with one case before the age of twenty, where the spine could not be made more straight by extension, if not entirely rectified. The great desideratum in these cases is perseverance, and without which no method of treatment will avail.

"By perseverance in a system of judicious exercise, alternated with repose, lateral curvature dependant on muscular debility may be removed in most cases and benefited in all."—p. 54.

A good summary of the modern views of spinal irritation is next given, chiefly from the works already named, and from the essays of Dr. and Mr. Griffin, published in the Medical and Physical Journal. Then follow a series of cases illustrative of the author's opinions; and lastly, is an account of "distortion of the legs."

Mr. Beale agrees with the majority of the profession, in maintaining that "there is no case of club foot, however bad, which may not be remedied, and but few which cannot be altogether cured by proper means employed immediately after birth." The earlier the treatment is commenced the better. These deformities may be removed at any time before the growth of the body has ceased, and especially during infancy and childhood, before perfect ossification takes place. After the age of ten or twelve, a cure can rarely be effected. We have invariably succeeded in curing club feet in infants, by splints and bandages for a few weeks, and of course afforded great comfort and satisfaction to the distressed parent. Permanent deformity seldom results in rickety cases; indeed, such children acquire a correct form about the third or fourth year, especially when the deformity arises from weakness of the ankle-joints. In these cases Nature restores the limbs without any mechanical aid.

"This tendency to deformity begins from the age of one to two: how frequently we see a child about this age in attempting to walk, waddling and throwing about its arms to retain its equilibrium, while its little legs are bending under the weight of the upper parts of the body—how anxious and alarmed, in consequence, have we seen mothers listening to every hint, adopting a variety of means to strengthen, and too often resorting to such as, far from relieving, increase the mischief. It will calm such anxiety, to be made acquainted with the fact that, if the treatment is at all rational, there is no danger of future deformity, that with proper management all will be well, and that before the age of five the limbs will be strong and straight; and this without the use of instruments, which in such cases are often pernicious, not only increasing the present evil, but actually inducing deformity in the knee-joint or other parts. I could enumerate several instances where in-knee has been produced by instruments intended to cure curvature of the leg-bones.

"If we observe children at this age, we shall find but few who can be said to walk really well, either the ankles or the knees are weak, the bones of the legs inclined to bend, or that there is debility in the muscles of the loins, &c. I will venture to assert that there are five out of every ten children in this metropolis more or less defective in these particulars, and yet how few adults comparatively are misshapen—some undoubtedly there are, and some who are very weak on their legs, but many of these owe their infirmity to improper means employed in their early age to remedy these defects; to bad instruments, improper food, &c., given with a view to strengthen the system, and that strange perseverance in teaching and encouraging children to walk when common sense points out that they should be kept off their legs. I think it is quite clear that, if this tendency to deformity became permanent, we should see more frequent examples of it in youth and adults; but the truth is, that these distortions are removed by Nature herself in the progress of growth, provided her laws are not much interfered with, and the functions of nutrition are kept in proper order.

Bandy legs and bakers' knees, although not uncommon, are by no means so frequently seen in adults as one might be led to expect from their common occurrence in children before the age of three; and if children were not permitted to stand or walk when symptoms of weakness in the limbs appear, such cases would be still less frequent. Among the more important causes of these distortions may be mentioned weaning, errors in diet and clothing, teaching children to bear on their legs too soon, teething, &c.

"Weaning may be mentioned among the primary and predisposing causes of that debility of frame which induces weakness of the lower limbs, curvature of the leg-bones, &c. The tender stomachs of infants are with difficulty reconciled to the change of food consequent on weaning, and the powers of digestion mainly depend on the well-being of the functions of respiration. In this and other large towns, children are from necessity too much confined within the house; and when they do breathe the open air, it has not that purity which is perhaps of greater importance at this early age than at any other. The digestive system not being supported as it should be by the respiratory, the stomach of an infant which could digest the already animalized food received from its mother, is incapable of extracting nutriment from a more crude aliment; the consequence is, that there are few children who do not suffer more or less from this change of diet. The most general rules that can be given with regard to the diet of infants are, that for the first five or six months after birth, they should have nothing more than the milk of a healthy nurse; that about this period they should have in addition some light farinaceous food, as arrow-root, baked flour, powdered biscuit, &c. The stomach is thus gradually prepared for the total separation of the child from its mother, which should always take place from the age of nine to twelve months. When the child has teeth, it should have some of its food in a solid state, but as a general rule, until it has all its primary teeth, animal food should not be allowed; although there are exceptions to this rule, and especially in large towns, where the digestive organs are not strong enough to extract adequate nutriment but from animal food; and not long since I met with a case in point. A child from the period of weaning until the age of two did not thrive, acquired no muscularity, the limbs were soft and flabby, the excretions from the bowels deviated extremely from a proper appearance: its general diet had been farinaceous, broths and jellies had at times been resorted to, but always produced fever and intestinal irritation. Under these circumstances I advised the trial of small quantities of solid animal food; an evident improvement immediately took place, the child has since daily partaken of the same diet, and now at the age of three, he is as healthy a boy as any parent would wish to have.

"In all weakly children, or those in whom there is a tendency to any acquired or hereditary constitutional disorder, the most minute attention should be paid, not only to the kind of food, but to the regularity of its meals. So far as health is concerned, the stomach is the most important organ of the body; every disorder of early age begins with derangement of this organ, and these occur at the very earliest moment of its existence. Even before birth the health of the child may be injured: if the mother's mode of living has been injudicious, the child will be born weakly, and the stomach, partaking of the general debility and being the first organ to be called into action, will show signs of derangement as soon as it takes in its

supply of food. Hence the flatulence, screaming fits, &c. of infants; and a pretty fair conclusion can be drawn of the future health of the child from the circumstances of its earliest infancy; but it is rather to the period of childhood than of infancy that I should direct my remarks.

"Children are often taught to stand at an earlier age than they would attempt to do so, if left entirely to their own feelings; the consequence is that, in heavy children and in those where the phosphate of lime has not rendered the bones sufficiently solid, the legs bend, and the child becomes more or less bandy. When the bones do not bend to the weight, the ligaments connecting the thigh and leg give way, and the child becomes knock-kneed; or the ligaments of the ankle-joint are stretched and the foot becomes unnaturally flat, so that in some instances the inner ankle rests on the ground. I am acquainted with several children more or less affected with deformity of the legs, in whom I could attribute them to no other cause than that of being instructed to stand and walk too early; their health has been uniformly good, nutrition has apparently gone on as it should do, and yet about the age of 12 or 18 months, their legs have began to shew signs of weakness and deformity. They are generally heavy children, with no other fault in their state of health than that of being too fat, a circumstance which is far from desirable, although a certain degree of rotundity is natural to the age. But some children from superabundant and fattening food are allowed to become mere masses of fat, and such are frequently the subjects of distorted legs. When there is this aptitude to fatten in children, so far from being taught to stand at an early age, every means should be adopted to retard them. It is a good rule to allow children to teach themselves to stand or walk; let them be placed on the floor, and use their own pleasure with regard to locomotion; as soon as they feel the capacity to do so, they will raise themselves on their feet, and the danger of future curvature in the bones of the legs will be less than if they are held up by the arms, and taught to stand at an earlier period."—p. 99.

Our author gives a lucid physiological view of the bones, ligaments, joints and muscles, and points out the influence of diet, air, exercise, clothing, and cold bathing, on the health of children. Cold sea bathing has frequently given tone to the muscles, and completely removed bandy legs and bent knees, when care is taken not to allow the child to bear too much upon its legs. It must be used with caution in cold weather, when the child is much debilitated, as the shock is violent, and the animal heat readily reduced. It is therefore evident that this remedy cannot be employed indiscriminately; indeed, every observant practitioner could refer to examples, in which it does more harm than good. The dress of scrofulous children should be warm, the diet highly nutritious, and easily digestible, and those hygienic precautions observed, to which we have already alluded. Such are the leading features of the tract before us, and they are highly creditable to the scientific acquirements and judgment of the author. He has evinced a perfect acquaintance with the causes and treatment of the various deformities of the human body; and, like a scientific surgeon, has freely communicated the result of his researches and observations to his contemporaries. There is no secrecy, no puff, no humbug, no claim to superior skill, no attempt at infallibility in this or the more extensive work of Mr. Beale. Yet no man can peruse his productions without a

strong impression, and perfect conviction, that he ought and will be consulted in those distressing maladies, which he has so graphically described. We strongly recommend this essay to our junior friends, and advise them to study it with attention. It contains a great deal of valuable information, such as will afford health to a numerous class of society, as well as comfort and pleasure, to almost all families in every rank in life.

III.—*La Manœuvre de tous les Accouchemens contre Nature reduite a la plus grande simplicite, et precedee du Mechanisme de l'Accouchement Naturel.* Par JULES HATIN, M. D. &c. Paris, 1829. 18mo. pp. 311.

The Management of all Preternatural Labours, reduced to the greatest simplicity, preceded by the Mechanism of Natural Labour. By JULES HATIN, M. D. &c. Paris, 1829. Henry Leclercq.—*(continued.)*

First Section.

Labours which can be terminated by the Aid of the Hand only.

GENERAL causes, which determine interference.

On the Mother's part.—Inaction of the uterus, hæmorrhage, convulsions, exhaustion, syncope, extreme obliquity of the uterus, aneurism, strangulated hernia, &c.

On the part of the Infant.—The presentation of the umbilical cord, its shortness, or its being twisted round the fœtus; the presence of many infants in the uterus, &c.

Position of the Woman.—The woman ought to be on her back, the pelvis raised, and uncovered; the thighs and legs half bent, and sufficiently separated; to be held in this position by assistants.*

Rules for the introduction of the Hand.—The hand ought to be lubricated with a fatty or oleaginous substance, which renders its introduction less painful, and preserves the obstetrician from the virus with which the parts of the woman may be infected. It ought to present as little volume as possible; to accomplish which, the fingers and thumb ought to be so united as to represent a cone, the top of which will be the extremity of the fingers. The hand ought to be presented in complete pronation; to be brought back to supination, as it penetrates in the parts; it ought to follow the direction of the two axes of the pelvis.

The absence of pain should be chosen to introduce it into the vagina, and if pain occur, we should, after its cessation, penetrate into the os uteri.

When we seek to pass this last, we should fix firmly the fundus uteri, with the other hand placed on the abdomen; by that we spare the woman severe pain.

Positions of the Feet.—The feet present in four principal positions, which correspond to the oblique diameters of the pelvis. We have pointed them out, with details, in the article Natural Labour.

The infant can be extracted in these four positions; but, as the termination in the first and second is the more favourable, and the fœtus can always

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* The woman need not be uncovered in these cases; and this position is more natural than the left side.—ED.

be brought to them, we ought always terminate it in these two first positions.

Signs for distinguishing the Feet.—The articulation at right angles of the foot with the leg, the jutting out of the heels, the shortness of the toes, the convexity of the back, the inverse disposition of the sole of the foot, and the projection of the ankles, are the signs by the aid of which we can always recognize the feet.

General Rule for the choice of the Hand.—We introduce, in preference, the hand which naturally corresponds to the heels; or better, when the heels are turned to the left side of the pelvis, we introduce the right hand; when they are turned to the right, we introduce the left hand; when they are turned to the pubis or the sacrum, we introduce either hand; but then the hand of which we make choice decides the position in which we are to terminate the labour.

First Position of the Feet—Principal Relations.—The heels are opposite to the left acetabulum, or cotyloid cavity, and the toes to the right sacro-iliac symphisis.

Signs which characterize the Position.—The direction of the feet alone is sufficient to indicate the position in which they present. Thus, in this the first position the sole is directed obliquely, in the situation of a line, which is drawn from the left acetabulum or cotyloid cavity, to the right sacro-iliac symphisis; the heels are forwards, and the toes behind.

Operation.—It is the same for both openings of the pelvis. The two feet are to be seized behind, the index finger placed between them. If one foot only presents itself, the other must be sought for, if possible, in order to extract the two at once. When the feet are extracted, we must ascertain that they belong to the same child. They are to be wrapped in linen, or a napkin, to prevent the fingers slipping; the left limb is to be seized with the left hand, and the right limb with the right hand, taking care to place the thumbs on the back part of the legs, and the united fingers on their anterior part; so that nothing can separate the limbs, and that they may afford each other mutual support; the legs and thighs are then to be extracted, in the direction of the axis of the superior strait; the linen and the hand are to be passed upwards, as the parts are born. When the breech has arrived at the inferior strait, it is to be raised, and finally we disengage the hip, which is behind. That being done, the right hand is to be passed under the thighs of the fœtus, to raise it a little towards the groin of the left side; the obstetrician then glides the index and middle fingers of the left hand along the belly of the infant, to assure himself of the state of the umbilical cord; if it is compressed, it must be relaxed, by drawing that part of it which is towards the placenta; if the cord was between the thighs, the upper one must be bent, the cord loosened, and attempts made then to bring it in the direction of the umbilical region. If it cannot be loosened, it must be cut, and the labour finished.*

After having attended to the umbilical cord, the obstetrician spreads his left hand on the left hip, and his right hand on the right hip, and gives the fœtus alternate movements of elevation and depression in the direction of a line, which traverses from the right groin to the posterior and internal part

* We cannot comprehend the reason of this practice; the infant must be destroyed by this proposal, as well as by pressure. Immediate delivery alone will save it.—Ed.

of the left thigh. In this manner the extraction of the body, as far as the arm-pits, is performed. When these appear at the vulva, the obstetrician raises the fœtus towards the right groin, and fixes it solidly on his left hand, to occupy himself then with the extraction of the right arm, which he disengages in the following manner: He begins by introducing in the anterior commissure of the vulva the thumb of the right hand, and carrying it behind the shoulder; then introducing the index and middle fingers of the same hand in the posterior commissure, and carrying them in front of the articulation, he lowers the shoulder, in drawing it in a parallel direction with the axis of the trunk; then gliding the index and middle fingers deeply behind the arm, and the thumb into the hollow of the arm-pit, he makes the limb pass through the curvature of the sacrum, and disengages it on the opposite side, bending the fore-arm on the arm, and all the parts, even to the end of the fingers, passing through it successively. In this last part it is better to carry the fœtus to the left of the woman, so that the disengagement of the arm be easier.

The right limb being extracted, it is placed on the corresponding side of the trunk; the fœtus is placed on the right hand, and it is lowered towards the posterior and internal part of the left thigh of the mother, while pressing on the hip of the same side. That being done, the obstetrician proceeds to the depression of the limb which remains to be disengaged, and for that purpose he seizes it between the left index finger, glided behind, and the thumb placed in the hollow of the arm-pit; then, while releasing it, he passes the index as far as possible, and makes the limb pass through the hollow of the sacrum, and disengages it in the same manner as the preceding one *.

The two superior extremities being disengaged, the obstetrician introduces the whole of his right hand on the face of the fœtus, and places two fingers on each side of its nose; he glides, at the same time, along the back of the infant as far as the occiput, the index and middle fingers of the left hand; then, drawing to himself with the hand placed on the face, at the same time that he pushes with the two fingers placed on the occiput, he thus performs the movement of flexion of the head on the chest. Then, without changing his hands, he draws the head of the fœtus to the inferior strait, carrying it in the direction of the superior strait. Placing then the index and middle fingers of the left hand transversely on the mastoid process of the right side, and the same fingers of the right hand transversely on the left side of the chin, he rotates the head; then, employing lateral motion, and raising it, so as to bring it into the axis of the inferior outlet, he performs its extraction. When it is on the point of being born, he must carry the left hand in front of the perinæum and under the head, with which he supports both these parts. He glides at the

* This method of extracting the arms is difficult, and too much complicated. The British practice is much safer, easier, and equally effectual. This operation is performed in these countries, by passing the index and middle fingers over the shoulder; then cautiously depressing this part, the fingers are next passed on the elbow joint, the fore arm bent on the arm, the palm of the infant's hand brought over the face, and extracted in the manner above stated.—Ed.

same time his right hand on the pelvis of the fœtus, and when it is completely extracted, he places the child across the parts of generation.*

Second Position of the Feet—Principal Relations.—The heels correspond with the right cotyloid cavity, or acetabulum, and the toes with the left sacro-iliac symphysis.

Signs which characterize the Position.—The soles of the feet are carried obliquely in the direction of a line, which is drawn from the right cotyloid cavity, to the left sacro-iliac symphysis. The heels are forward, the toes backwards.

The extraction of the fœtus, in the second position, is performed exactly in the same manner as in the first, except that it is done in an inverse order.

Thus, the feet are to be seized with the left hand, and then extracted: they are to be enveloped with linen, and the left limb to be seized with the left hand, the right limb with the right hand. The pelvis being nearly born, the fœtus is to be raised, in order to disengage in the first place the hip which is behind. The left hand is then to be passed in front of the thighs, and the fœtus to be raised towards the right groin; then with the index and middle fingers of the right hand, the position of the umbilical cord. Then spreading the right hand on the right hip, and the left hand on the left hip, we give the body movements of elevation and depression, in the direction of a line drawn from the left groin to the posterior and internal part of the right thigh: these movements are to be continued until the arm-pits have arrived at the vulva. The obstetrician next fixes the fœtus on his right hand, and keeping it raised towards the left groin, proceeds to the disengaging the limb which is behind. Then carrying back the fœtus on his left hand, and keeping it lowered towards the posterior and internal part of the right thigh, he disengages the limb which is above. He next glides the left hand on the face, and the two first fingers of the right hand on the occiput, he performs flexion of the head, and gets it into the inferior strait of the pelvis. Then placing the two first fingers of the right hand across the left mastoid process, and the same two fingers of the left hand on the right side of the chin, he rotates the head: then, giving it lateral motion and raising it, he disengages it. When the head is on the point of birth, he will carry the right hand in front of the perinæum, and will glide at the same time the left hand on the pelvis. When the child is born, he will place it across the parts of generation.

Third Position of the Feet—Principal Relations.—The heels correspond to the right sacro-iliac symphisis, and the toes to the left cotyloid cavity.

Signs which characterize the Position.—The soles of the feet are carried in the direction of a line drawn from the right sacro-iliac symphisis to the left cotyloid cavity. The heels are behind, the toes in front.

Operation.—Exactly as in the preceding position, except while the infant is extracting, it must be brought into the second position.

Note.—If we are called only when the trunk is partly born, place the

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* This manœuvre is unnecessarily complicated. The extraction of the head can in general be effected, by placing two fingers of the right hand on the neck, and the index finger of the left in the mouth to depress the chin, when very gentle traction in the axis of the outlet accomplishes delivery. The perinæum is to be supported with the left hand. This proceeding is more simple, less painful, and equally effectual as that of the text, and is therefore preferable.—Ed.

right hand on the belly of the fœtus, and the left hand on its back. The infant should be rotated several times, and in extracting it, we must endeavour to reduce it to the second position.

Fourth Position of the Feet—Principal Relations.—The heels correspond with the left sacro-iliac symphisis, and the toes with the right cotyloid cavity.

Signs which characterize the Position.—The direction of the soles of the feet is oblique from behind forwards, and from left to right.

Operation.—The feet are to be seized with the right hand, and extracted. The right foot is then to be seized with the right hand, and the left foot with the left hand; and as the parts are extracted, they are to be reduced to the first position.

Note.—If the body is already partly extracted, place the left hand on the belly and the right on the back; rotate the child as before, and as it is extracting, reduce it to the first position.

1. The heels can correspond directly with one or the other side of the pelvis, as Baudelocque admits. In these positions the general rule, established for the introduction of the hand, must be followed. If the heels are to the right of the pelvis, introduce your left hand, and reduce it to the second. When they are to the left, introduce your right hand, and reduce it to the first.

2. In those positions in which the heels correspond to the pubis or the sacrum, either hand may be introduced; but the hand which is chosen decides the position in which the labour is to be terminated. If the right hand is to be introduced, the heels are to be brought to the left of the pelvis, and to be reduced to the first position. If the left hand, to the right of the pelvis, and to be changed to the second position.

Note.—If the body is partly extracted in these vicious positions, endeavour to rotate it by placing one hand under the belly, the other on the back, to reduce it then diagonally, whilst it is being extracted.

If the whole of the body had passed the neck of the womb, and the head alone was stopped at the superior strait, it would then be no longer possible to rotate it, and the arms must then be extracted as generally practised if the chest of the fœtus were to the sacrum, or by bringing them under the arch of the pubis in the contrary case. The head must then be placed diagonally, by applying two fingers on the mastoid process of one side, and two other fingers on the opposite side of the chin. The head would then be got into the inferior outlet, and one would act as in the corresponding positions of the feet.

Review of the different Operations applicable to the Positions of the Feet.—1. In the first position, in the fourth, and in that in which the heels correspond directly to the left side of the pelvis, the operation is exactly the same: in fact, the heels being always to the left, the right hand must always be used, and it must be terminated in the first position.

2. In the second position, in the third, and in that in which the heels correspond directly to the right side of the pelvis, the operation is still the same: in fact, the left hand is always to be used, and delivery terminates in the second position.

3. When the heels correspond to either sacrum or pubis, either hand may be used.

The heels must always be seized behind, and the index finger placed

between them. In each position, when the feet are extracted, the right must be seized with the right hand, and the left with the left hand. The limb which is backward, must always be extracted first.*

Positions of the Knees.—The knees, like the feet, present themselves at the superior and inferior strait in four principal positions, which correspond to the oblique diameters of the pelvis. I have fully described these presentations when treating of the mechanism of natural labour.

Signs for recognizing the Knees.—The knees present themselves in the form of two round tumours, hard and much more voluminous than the elbows, the only part with which they can be confounded. These two tumours are placed generally by the side of each other. If, however, we have any doubt, we introduce the finger higher, and the neighbouring parts will soon enable us to determine.

The operations not being the same at the inferior and superior straits, we will examine first that which concerns the inferior.

Position of the Knees at the inferior Outlet.—The knees at the inferior outlet can be extracted; first, by the aid of the fingers, placed in the bend of the knees; secondly, by the aid of the blunt hook; and thirdly, by the aid of a fillet or ligature.

The fingers are too apt to slip, and are rarely sufficient.

The blunt hook will do very well, but it frightens the woman, and we ought to avoid using it. The fillet will replace efficaciously the hook, and has not its inconveniences.

General Rules relative to the Fillet.—The fillet ought to be applied with the right hand in the first and fourth positions, with the left hand in the second and third.

The fillet ought to be applied in preference on the bend of the knee that is forwards; or, if the knees are directed right and left, it may be introduced in either indifferently; one hand suffices for its application.

Once it is applied, it represents the extremity to which it is applied, and it ought to be seized with the hand which corresponds with that extremity.

First Position of the Knees at the inferior Strait—Principal Relations.—The anterior part of the legs corresponds with the left cotyloid cavity or acetabulum, and that of the thighs with the right sacro-iliac symphisis.

Operation.—The middle of the fillet is fixed on the top of the right index finger; it is passed from above, downwards, in the bend of the knee which is uppermost; it is drawn with the thumb and index of the same hand between the knees, and its extremities form two leaders equal in length.

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* In footling or pedal presentations, it often happens that only one inferior extremity descends or can be seized by the operator. Of course the other limb must come down, either on the abdomen or back of the infant. In these countries it is considered bad practice in such cases, to re-introduce the hand to bring down the limb which remains behind. Such a proceeding puts the woman to unnecessary pain, and the operator to unnecessary trouble. The pelvis of the infant ought to be extracted in the long diameter of the outlet, when one hip will be towards the pubis, the other towards the sacrum. When the pelvis has escaped, the trunk passes in the same course, but is usually adapted to the proper diameter of the pelvis, by the action of the uterus in the axis of the superior strait, which turns the chest of the infant to the sacrum—a manœuvre to be observed by the operator, as it facilitates the extraction of the arms, which would be effected with difficulty, if the abdomen of the infant was turned to that of the woman. In such case the elbows would pass into the concavity of the sacrum, the extraction would be almost impracticable, as also that of the head.—Ed.

These two leaders ought to be firmly fixed in the palm of the left hand with the three last fingers, whilst the index is stretched on the external side of the thigh which is uppermost; the index of the other hand ought to be passed on the external side of the limb which is below.

The knees are drawn outwards, in the direction of the axis of the superior strait; they will soon be sufficiently disengaged to be seized by the hand; then the fillet can be withdrawn: the thumbs are to be applied on the anterior part of the legs, and the united fingers on the anterior part of the thighs. As soon as the breech appears at the vulva, the fœtus is to be raised, in order to disengage, in the first place, the hip which is behind; the feet are then to be brought under the arch of the pubis, and to be disengaged by bending the thighs on the pelvis.

When once the feet are disengaged, the labour is to be terminated, as in the first of the feet.

Second Position—Principal Relations.—The anterior part of the legs corresponds to the right cotyloid cavity, or acetabulum, and the anterior part of the thighs to the left sacro-iliac symphisis.

Operation.—The fillet is to be introduced with the left hand, and to be seized with the right hand: the index finger of the other hand is to be placed along the limb which is below; the extraction of the knees is then to be proceeded in according to the rules already prescribed. When the feet are disengaged, the position is to be reduced to the second of the feet.

Third Position of the Knees at the inferior Strait—Principal Relations.—The anterior part of the legs corresponds to the right sacro-iliac symphisis, and the anterior part of the thighs to the left cotyloid cavity.

Operation.—The fillet is to be introduced with the left hand, but it is to be seized by the right, since it is attached to the right knee. The left index finger is to be placed behind, and the knees to be extracted, so as to be reduced to the second position. When the feet are disengaged, it is to be terminated, as in the second of the feet.

Fourth Position—Principal Relations.—The anterior part of the legs corresponds to the left sacro-iliac symphisis, and the anterior part of the thighs to the right cotyloid cavity.

Operation.—The fillet to be introduced by the right hand, but to be seized by the left, since it is attached to the left knee; the index finger of the right hand to be stretched along the limb which is behind; the knees to be drawn down, and brought to the first position; when the feet are disengaged, to be terminated, as in the first position of the feet.

1. If the anterior part of the legs corresponds directly to the left side of the pelvis, the fillet is to be introduced by the right hand, to be seized by the left, and to be reduced to the first position.

2. If the anterior part of the legs corresponds directly to the right side of the pelvis, the fillet is to be introduced by the left hand, to be seized by the right, and to be reduced to the second position.

3. If the anterior part of the legs corresponds directly to the pubis or the sacrum, the fillet may be introduced by either hand, and it may be reduced to the first or second position.

Review of the different Operations applicable to the Positions of the Knees at the inferior Strait.—1. In the first and fourth positions, and in that in which the anterior part of the legs corresponds to the left side of the pelvis, the operation is the same, since, in all these positions, the fillet must

be introduced with the right hand, seized by the left, and terminated in the first.—2. In the second, third, and in that in which the legs correspond directly to the right side of the pelvis, the operation is the same: as in all the fillet is introduced by the left hand, seized by the right, and reduced to the second.—3. In those positions in which the legs correspond to the pubis or sacrum, the fillet is to be introduced indifferently by either hand, and the fœtus to be brought to the first or second position.

Positions of the Knees at the superior Strait.—In these positions it is preferable to disengage each foot separately, and to change it then to one of the positions of the foot.

Choice of the Hand.—When the feet are to the left of the pelvis, the right hand is to be introduced; when to the right, the left hand; when to the pubis or sacrum, either hand indifferently to be introduced.

General Rule for the disengaging the Feet.—We ought always to follow the limb which is behind; but we should first extract that which is above. When the limb which is backward has been first disengaged, it serves as a guide for discovering that which is situated before; but when this has been extracted first, it is necessary to search for that which is behind for its extraction.

This general rule applying itself to all cases of disengagement of the feet, we shall not recur to it.

First Position—Principal Relations.—The same as at the outlet, except that the parts are less engaged.

Operation.—The right hand is to be introduced on the limb behind: it descends along the thigh as far as the knee; then, ascending along the leg as far as the foot, this last is to be seized by the thumb and fingers, and extracted. This limb being disengaged, serves as a guide by which to seek the other. The fingers to be passed up on its external and posterior side, the thumb being left at its internal side. When we have reached the breech, we find the other extremity, pass the fore fingers over it, and extract it, pressing on the limb previously extracted.

The two limbs being born, we terminate as in the first of the feet.

Second Position—Principal Relations.—The same as the outlet.

Operation. The left hand to be introduced, and the feet disengaged exactly as in the first position. Once the limbs extracted, to be terminated as in the second of the feet.

Third Position—Principal Relations.—The same as the outlet.

Operation.—The left hand to be introduced, and the feet to be disengaged after the same rules, as in the second position: once the feet extracted, the position is the third of the feet, which is to be reduced to the second.

Fourth Position—Principal Relations.—Same as the outlet.

Operation.—The right hand to be introduced, and the extremities disengaged as in the first position: once extracted, we have the fourth position of the feet to be changed to the first.

1. If the anterior part of the legs corresponds directly to the left side, the right hand is to be introduced, and the extremities disengaged, as in the first and fourth positions: to be terminated as in the first of the feet.

2. If it corresponds directly to the right side, the left hand to be introduced, and to be treated as in the second and third positions: to be terminated as in the second of the feet.

3. If the anterior part of the legs corresponds to the sacrum or the

pubis, either hand may be introduced indifferently, but the hand chosen decides the position in which the labour is to be terminated. Thus, when the right hand is used, the legs of the fœtus are to be carried to the left of the pelvis, in the contrary case to the right.

Review of the different operations applicable to the positions of the knees at the superior outlet—

1. In the first and fourth positions, and in that in which the anterior part of the legs corresponds directly with the left side of the pelvis, the operation is the same, since, in all, the feet being to the left, the right hand must be introduced, and the fœtus brought to the first position of the feet.

2. In the second, third, and in that in which the legs correspond directly to the right of the pelvis, the operation is the same in all, the feet being to the right, the left hand must be introduced, and the fœtus brought to the second of the feet.

3. In those in which the anterior part of the legs corresponds to the pubis or sacrum, either hand may be introduced, it is changed to a diagonal, and we act as in that position.*

Positions of the Breech.—The breech, as well as the feet and knees, presents itself at the brim and outlet in four principal positions, corresponding to the oblique diameters of the pelvis.

Signs by which we recognize the Breech.—We recognize the breech as a large, round tumour, softer than the head, and harder than the abdomen; having three osseous points, formed by the coccyx behind, and the sciatic tuberosities at the sides: and in its middle a deep fossa, in which we find the anus and the parts of generation: the two columns formed by the thighs, and the exit of meconium singularly aid the diagnosis.

The operation being different at the brim and outlet, we will first pay attention to the outlet.

Positions of the Breech at the Outlet.—When the breech presents itself at the outlet, it is almost always impossible to return it into the womb, and we must extract in the position which it has chosen.

For that purpose, we use either the fingers, the fillet, or the blunt hook applied to the bend of the hip.

As these last deserve almost always the preference, we ought to notice these positions among those which require the use of instruments: but as indeed the breech can be extracted by the fingers, or by a fillet, we thought we might notice them here.

Rules for the application of the Fingers, of the Fillet, and of the Hook.

Fingers.—If the fingers alone are used, the right index is to be placed always in the bend of the right hip, and the left in the bend of the left hip. The fingers alone have not sufficient strength, they slip on the parts they embrace, and are generally insufficient to extract the breech. If the fillet is used, it is placed in the bend of the hip which is foremost: it is conducted by the right index in the first and fourth positions, and by the left index in the second and third.

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* In general the positions of the knees at the superior strait or brim of the pelvis may, and are left to nature in these countries; as there can be no dangerous pressure on the pelvic viscera, and more especially as nature brings them to the outlet or inferior strait, and the labour is effected as in pedal cases.—Ed.

The fillet once placed, represents the extremity it is attached to, and ought always to be seized by the hand corresponding to that extremity. The fillet is very difficult to introduce, and it is rarely used.

Hook.—If two hooks are used, one is applied in the bend of the hip which is foremost, the other in the bend of the one hindmost: but most commonly one is enough, and it is always applied in the bend of the foremost hip. The hook ought to form a right angle with its handle; so that there would be no fear of piercing the thigh, which might happen if the hook was so bent that it could not contain the whole of the thigh.

It matters not much which hand is employed for its introduction; nevertheless, it is better to use the right hand in the first and fourth, and the left hand in the second and third. The index of the unemployed hand ought always to precede the hook, so as to render its introduction more easy and more sure. The hook once applied, represents the extremity it embraces, and ought always to be seized by the hand corresponding to that extremity.

First Position of the Breech at the Outlet—Principal Relations.—The posterior surface of the sacrum corresponds to the left cotyloid cavity, and that of the thighs to the right sacro-iliac symphisis.

Signs which characterize this Position.—We find the point of the coccyx behind the left cotyloid cavity, and the genitals in front of the right sacro-iliac symphisis. Between these points we find the anus and the perinæal ridge, which is carried in the direction of a line drawn from the left cotyloid cavity to the right sacro-iliac symphisis.

Operation.—The hook is applied in the bend of the left hip, and seized with the left hand; the index finger of the right hand is then slipped into the bend of the hip which is behind; the breech is then drawn outwards in the axis of the outlet, and when it can be seized by the hands the hook is withdrawn; then spreading the left hand on the left hip, and the right hand on the right hip, the trunk is raised and lowered in the direction of a line drawn from the right groin to the posterior and internal part of the left thigh: the lower extremities are soon disengaged, and the labour is finished, as in the first position of the feet.

Second Position—Principal Relations.—The posterior surface of the sacrum corresponds to the right cotyloid cavity, and that of the thighs to the left sacro-iliac symphisis.

Signs which distinguish the Position.—We find the point of the coccyx behind the right cotyloid cavity, and the genitals in front of the left sacro-iliac symphisis. Between these points we find the anus and perinæal ridge, which follows the direction of a line drawn from the right cotyloid cavity to the left sacro-iliac symphisis.

Operation.—The hook is applied in the bend of the right groin, and seized with the right hand; the left index finger is then slipped into the bend of the left hip, and the breech is drawn outwards in the axis of the outlet. When it can be seized by the hand, the hook is withdrawn; then spreading the right hand on the right hip, and the left hand on the left hip, alternate movements of elevation and depression are given to the trunk in the direction of a line drawn from the left groin to the posterior and internal part of the right thigh. The inferior extremities are easily disengaged, and the labour is finished, as in the second of the feet.

Third Position—Principal Relations.—The posterior surface of the sacrum corresponds to the right sacro-iliac symphisis, and that of the thighs to the left cotyloid cavity.

Signs which mark the Position.—The point of the coccyx is in front of the right sacro-iliac symphisis, and the genitals behind the left cotyloid cavity. Between these points we find the anus and perinæal ridge, which follow the direction of a line drawn from the right sacro-iliac symphisis to the left cotyloid cavity.

Operation.—The hook is introduced into the bend of the right hip, and seized with the right hand; the left index is then slid into the bend of the left hip, and the breech is so drawn as to reduce it to the second position, and it is then treated as such.

Fourth Position—Principal Relations.—The posterior surface of the sacrum corresponds with the left sacro-iliac symphisis, and that of the thighs with the right cotyloid cavity.

Signs which mark the Position.—The point of the coccyx is found in front of the left sacro-iliac symphisis, and the genitals behind the right cotyloid cavity. Between these points are the anus and perinæal ridge, which follow the direction of a line drawn from the left sacro-iliac symphisis to the right cotyloid cavity.

Operation.—The hook is introduced into the bend of the left hip, and seized by the left hand; the right index finger is then slipped into the bend of the right hip, and the breech is so drawn as to be reduced to the first position: it is then treated as such.

1. If the posterior surface of the sacrum corresponds directly to the left side of the pelvis, and that of the thighs to the right side, the position will be marked by the presence of the coccyx to the left, and the genitals to the right. The perinæal ridge will have a transverse direction.

Operation.—Exactly the same as in the first and fourth.

2. If the posterior surface of the sacrum corresponds to the right side of the pelvis, and that of the thighs to the left, the coccyx will be to the right, and the genitals to the left, the perinæal ridge being transverse.

Operation.—Exactly the same as in the second and third.

3. If the posterior surface of the sacrum corresponds directly to the pubis, and that of the thighs to the sacrum, the position will be marked by the presence of the coccyx behind the pubis, and of the genitals in front of the sacrum; the perinæal ridge will be directed from before backwards.

Operation.—The hook may be introduced on either hip, and it is to be changed into one or the other diagonal, so as to leave always that limb forwards to which the hook is attached; it is then to be treated as in that diagonal.

4. If the posterior surface of the breech corresponds directly to the sacrum, and that of the thighs to the pubis, we shall find the coccyx in front of the sacrum, and the genitals behind the pubis; the perinæal ridge will be as in the last instance.

Operation.—The hook to be placed in one or the other hip, and the position to be reduced into the third or fourth diagonal, so as to have the limb to which the hook is attached foremost.

Review of the different Operations applicable to the Positions of the Breech at the Outlet.—1. In the first and fourth positions, and in that in which the sacrum corresponds to the left side of the pelvis, the operation is the same. In fact, in all these positions the hook or fillet is to be introduced into the bend of the left hip, the right index finger to be slipped into the bend of the right hip, and they are to be terminated as the first.—2. In

the second, third, and in that in which the sacrum corresponds to the right side of the pelvis, the operation is the same; since, in all, the hook or the fillet must be placed in the bend of the right hip, the left index finger in the bend of the left hip, and the labour to be terminated always as in the second.

When the posterior surface of the breech corresponds to the pubis or sacrum, the fillet or the hook is introduced indifferently in either hip, and it is then changed to a diagonal, and terminated in the first or second.

Positions of the Breech at the Brim.—When the breech is still at the brim, it is almost always easy to return it, and to bring down the feet. By this means, we change at once a breech presentation to that of the feet.

Indications to fulfil before endeavouring to get at the Feet.—As the breech embarrasses the brim, and it is impossible to introduce the hand, and also the feet are far from the brim, we must, before all things, by a well-executed manœuvre, disengage the brim, and bring the inferior extremities near it. This double indication is fulfilled, by returning the breech into one of the internal iliac fossa, on the one hand; and, on the other, by inclining the uterus to the other side.

General Rule relative to returning the Breech.—Each time the right hand is introduced, it must be returned to the right. When the left hand is used, it must be returned to the left. The uterus is always to be inclined to the opposite side to that in which the breech is returned.

Choice of the Hand.—When the feet are to the left of the pelvis, the right hand should be introduced; and when to the right, the left hand is to be used; if they are to the sacrum or pubis, either hand may be employed.

First Position—Principal Relations.—The same as at the outlet, except the parts are not so much engaged.

Signs which mark the Position.—Same as at the outlet.

Operation.—The left hand to be introduced in the parts; the breech to be seized between the thumb forwards and the fingers behind, and returned into the left iliac fossa, whilst with the right hand, applied against the fundus uteri, that organ is inclined to the right; the hand is then passed along the lower extremity which is behind, and, when the foot is found, it is seized between the thumb and fingers, and extracted.

This first limb being disengaged, serves as a guide to seek the other, which crosses commonly over the anterior part of the belly and chest. We pass the hand along its external and posterior side, leaving the thumb within. Arrived at the anterior region of the trunk, we soon find the second extremity, over which we pass the four fingers, and extract it. Once the feet extracted, it is terminated as in the first of the feet.

Second Position—Principal Relations and characteristic Signs.—Same as in outlet.

Operation.—The right hand is introduced, and the breech returned to the right iliac fossa; at the same time, with the left hand placed on the belly, the uterus is inclined to the left. We proceed then to disengage the lower extremities, exactly as in the first position. When they are once extracted, it is terminated as in the second of the feet.

Third Position—Principal Relations and characteristic Signs.—Same as at the outlet.

Operation.—The right hand is introduced; it is returned to the right

iliac fossa, turning as much as possible the breech into the second position. The uterus is inclined to the left, and we proceed to disengage the inferior extremities, as in the second position. The labour is terminated as in the second of the feet.

Fourth Position—Principal Relations and characteristic Signs.—Same as at the outlet.

Operation.—The left hand is introduced, and it is returned to the left iliac fossa, turning it as much as possible into the first position. The uterus is inclined to the right, and the lower extremities are disengaged, as in the preceding positions. The labour is then terminated as in the first of the feet.

1. If the posterior surface of the sacrum corresponds directly with the left side of the pelvis, and that of the thighs to the right side, the position will be marked by the same signs as at the outlet: it is to be treated as the first and fourth.

2. If it corresponds directly with the right side, it is to be treated as the second and third.

3. If the posterior surface of the sacrum corresponds directly with the pubis, either hand may be introduced, and it is to be changed to the first or second diagonal, in such a manner, that the inferior extremities may correspond with the hand introduced into the parts. Thus it is to be returned to the right, and the right hand to be introduced; to the left, if the left hand. It is then to be treated as in the diagonal to which it has been changed.

4. If it corresponds directly with the sacro-vertebral angle, either hand may be introduced; and it is then to be changed into the third and fourth diagonal, to be treated then as already described.

Review of the different Operations applicable to the Presentations of the Breech at the Brim.

1. In the first, fourth, and in that in which the sacrum corresponds directly with the left side of the pelvis, the operation is the same. In fact, in all, the feet being to the right of the mother, the left hand is to be introduced; it is to be returned to the left iliac fossa, and the uterus inclined to the right. When the extremities are disengaged, it is terminated as in the first of the feet.

2. In the second, third, and in that in which the sacrum corresponds directly with the right side of the pelvis, the operation is the same, since in all the feet being to the left, the right hand must be introduced—it must be turned to the right iliac fossa, the uterus inclined to the left, and the labour terminated in the second of the feet.

3. When the breech corresponds directly with the sacrum or pubis, either hand may be introduced indifferently, and it is to be changed into a diagonal.

Position of the Vertex.—The head, as well as the feet, the knees, and the breech, presents itself in four principal positions, corresponding to the oblique diameters of the pelvis. We have already fully described them, while treating of the mechanism of natural labour.

Marks by which the Head is recognized.—The head presents itself as a voluminous, round, hard tumour, having membranous spaces in certain parts, some of which are called fontanels, and others, sutures. The characteristics of the scalp serve also to aid the diagnostic.

The Operation, applicable to the positions of the head, differs at the

superior and inferior straits. When the head is at the inferior strait, whether it has passed the neck of the womb or not, the forceps must be used; we shall therefore speak of this kind of position when on those labours which require the aid of instruments.

When the head is at the superior strait, although it is often more proper to apply the forceps, yet the child can be turned, and the labour terminated by the hand alone.

Extraction of the Fœtus, the Vertex presenting at the Superior Strait.—These presentations must be terminated by the hand, and must be turned.

Indications to fulfil.—Before seeking for the feet, the superior strait must be freed, by returning the head into one of the iliac fossa, and then the feet are to brought nigh the strait, by inclining powerfully the womb to the opposite side.

Rules for returning the Head.—They have already been given, when speaking of breech presentations at the superior strait.

Choice of the Hand.—Each time, that to reach the feet, we must traverse one of the sides of the trunk, we must always use the hand corresponding to that side. In the diagonal presentations, this side is always directed backwards. In the direct positions, the sides of the fœtus being, one directly to the right, the other directly to the left, either hand may be used indifferently.

First Position of the Vertex at the Superior Strait—Principal Relations.—The occiput corresponds to the left cotyloid cavity, and the forehead to the right sacro-iliac symphisis. The left side is behind, the right forwards. The feet are to the fundus uteri.

Signs which characterize the Position.—The posterior fontanel is found behind the left cotyloid cavity, and the anterior fontanel in front of the right sacro-iliac symphisis. Between the fontanels, we find the sagittal suture, which is carried in the direction of a line, drawn from the left cotyloid cavity, to the right sacro-iliac symphisis.

Operation.—The left side of the fœtus being behind, the left hand is introduced, and the head returned into the left iliac fossa, seizing it with the thumb in front, and the four fingers behind; at the same time, with the right hand, applied on the abdomen of the mother, the uterus is powerfully inclined to the right. Then, passing the hand as deeply as possible, we traverse successively the side of the head, the neck, the back of the shoulder, the side properly so called, and the hip. When we have got to the breech, we commonly find the feet, which we can draw along together, but which it is always best to disengage one after the other. For this purpose we pass the hand downwards along the thigh as far as the knee, and then upwards along the leg to the foot, which is to be seized between the thumb and fingers, and extracted. Once disengaged, this (the first) leg ought to be fixed by a fillet, attached in the form of a slipping knot above the ankles. This fillet is then to be given to an assistant.

The obstetrician using this limb as a guide, traverses its external and posterior side, carrying the thumb on the inside. When he has reached the breech, he meets the second foot, and extracts it, having the four fingers passed over it.

The two extremities being disengaged, it is to be terminated as in the second of the feet. It sometimes happens that the head striking against the superior strait, impedes the extraction of the fœtus: in that

case the right hand must be introduced, and the head returned, and at the same time the inferior extremities to be drawn on with the left hand.

Second Position—Principal Relations.—The occiput corresponds to the right cotyloid cavity, and the forehead to the left sacro-iliac symphisis. The right side of the fœtus is behind, and the left forwards, the feet to the fundus uteri.

Marks which characterize the Positions.—The posterior fontanel is found behind the right cotyloid cavity, and the anterior in front of the left sacro-iliac symphisis. The sagittal suture is carried in the direction of a line drawn from the right cotyloid cavity to the left sacro-iliac symphisis.

Operation.—Exactly the same as in the first position, except that the right hand should be used instead of the left.

Thus the head is returned into the right iliac fossa, the uterus inclined to the left, the side of the fœtus which is behind is traversed, and each foot disengaged separately. When the extremities are disengaged, it is to be terminated as in the first of the feet.

If the head impedes the extraction of the fœtus, return it with the left hand, at the same time drawing on the inferior extremities with the right hand.

Third Position—Principal Relations.—The occiput corresponds to the right sacro-iliac symphysis, and the forehead to the left cotyloid cavity. The right side of the fœtus is behind, the left forwards, and toward the fundus uteri.

Marks which characterize this Position.—We find the posterior fontanel in front of the right sacro-iliac symphisis, and the anterior behind the left cotyloid cavity. The sagittal suture is carried obliquely in the direction of a line drawn from the right sacro-iliac symphisis, to the left cotyloid cavity.

Operation.—Exactly the same as in the second.

Fourth Position—Principal Relations.—The occiput corresponds to the left sacro-iliac symphisis, and the forehead to the right cotyloid cavity. The left side of the fœtus is behind, the right forwards, and the feet at the fundus uteri.

Marks which characterize the Position.—The posterior fontanel is found in front of the left sacro-iliac symphysis, and the anterior behind the right cotyloid cavity. The sagittal suture is carried in the direction of a line drawn from the left sacro-iliac symphisis, to the right cotyloid cavity.

Operation.—Exactly the same as in the first position.

1. If the occiput corresponds directly to the left of the pelvis, and the forehead to the right, the position will be characterised by the presence of the posterior fontanel to the left, and of the anterior to the right. The sagittal suture has a transverse direction.

Operation.—Exactly the same as in the first and fourth positions.

2. If the occiput corresponds directly to the right, and the front to the left, the position will be characterised by the presence of the posterior fontanel to the right, and the anterior to the left. The sagittal suture will be situated transversely.

Operation.—Exactly the same as in the second and third.

3. If the occiput corresponds directly to the pubis, and the forehead to the sacrum, the position will be characterised by the presence of the posterior fontanel behind the pubis, and the anterior in front of the sacro-vertebral angle. The sagittal suture is directed from before backwards.

Operation.—Either hand may be introduced, and the position to be

introduced to the first or second diagonal, but always so as to direct backwards that side of the fœtus which corresponds to the hand employed. It is then to be treated as in that diagonal.

4. If the occiput corresponds directly to the sacrum, and the forehead to the pubis, we shall find the posterior fontanel in front of the sacro-vertebral angle or promontary of the sacrum, and the anterior behind the pubis. The sagittal suture will have the same direction as in the last position.

Operation.—Either hand may be introduced, the position to be reduced to the third or fourth diagonal; but always in such a manner that the side of the fœtus which is behind, may correspond with the hand introduced: it is then to be treated as such a position.

Review of the different Operations applicable to the Positions of the Vertex at the Superior Strait.—1. In the first, in the fourth positions, and in that where the occiput corresponds directly to the left side of the pelvis, *the operation is the same.* In fact in all these positions, the left side of the fœtus being behind, the left hand must be introduced, the head returned into the left iliac fossa, the uterus inclined to the right, and the labour terminated in the second of the feet.

2. In the second, third, and in that in which the occiput corresponds directly to the right of the pelvis, *the operation is the same,* since in all these positions, the right side being behind, the right hand must be introduced, the head returned to the right, the uterus inclined to the left, and the labour terminated in the first of the feet.

3. In those positions in which the occiput corresponds to the pubis or the sacrum, either hand may be introduced, and the position changed to a diagonal, to be treated then as such a position.* F.

IV.—*Observations on Mental Derangement; being an Application of the Principles of Phrenology to the Elucidation of the Causes, Symptoms, Nature and Treatment of Insanity.* By Andrew Combe, M. D. Edinburgh, Anderson. London, Longman & Co. Small 8vo, pp. 392. 1831.

When any new propositions or doctrines are presented to the public, they who steer a midway course in reference to reception or subscription, frequently share the fate of individuals who are injudicious enough to interfere with, and attempt the adjustment of, family differences; the moderators or mediators become equally obnoxious to both parties; and the determined systematic would, for the most part, rather have to do with what Dr. Johnson calls "a good hater," than be obliged to meet the suggested objections and candid queries of him, who loses his love of system in his love of truth, and who has no objection to receive a part while he cannot in conscience subscribe to a whole.

"In the tenets of craniology," says Blumenbach, "all that is true is not new, and all that is new is not true." To such lengths as these we

* In the malpresentations of the head at the superior strait of the pelvis, the general practice in this country and in America, is to rectify the presentation, by the hand lever, or long forceps, and when this is impracticable, to perform the operation of craniotomy. The operation of turning, as practised in France, is much safer to the parent and offspring; and it ought to be preferred when it can be accomplished. It is obvious that the head may be impacted, and all attempts to liberate it fail, except craniotomy.—Ed.

are very far from going; at the same time it may admit of a question, whether the assumptions of these very ingenious physiologists (the phrenologists, as they are more generally termed), are not too broadly based, and their practical inferences rather too loosely and largely enforced. We know that in the hands of such men as the Combes, there is much less danger of these results, than there would be in many others, because they are individuals of good sense, sound judgment, and correct taste—as marked by every page of their respective works. But when even Dr. Combe and his gifted relation place phrenological spectacles before their respective organs, every thing is likely to be seen and understood through one particular medium; and the artificial clearness or magnitude thus given to objects, is supposed to be the clearness and brightness of nature and truth.

In looking attentively through the book, the title page of which we have just transcribed, we have been struck with the meagreness of what we were led to infer would be the most satisfactory part of the disquisition, viz. that relating to the treatment of insanity; and we have been moreover surprised, that Dr. Combe should principally confine his citations of success in the management of madness, to the works of those who are avowed sceptics, at least, if not actual oppugners of his doctrines. He says, indeed, that Dr. Wright and others have told him, they have found a particular heat in the head just over the organ, assumed to be most especially implicated in this or that kind of species of aberration; but he does not even aver this on his own experience; nor, if it be true, would it seem to conduct to any thing very particular in the way of practical advantage.

Dr. Elliotson, however, has recently acted upon the information thus given by external signs; and in the case to which we now allude, having found much excitement, as marked by exterior irritation and increased temperature over the destructive organ, this practitioner placed leeches, and with success, immediately upon the part; but what would have been the result, if, from bad management of the operator, or from a determined dislike to destruction, the leeches had crawled to, and fastened over a neighbouring organ? We apprehend, pretty nearly the same; nay, we believe, that had the excitation of the particular part been entirely overlooked, and the blood-suckers been made to fasten behind the ears, the excitement would have been brought down with equal facility, and the treatment equally successful. It has been asserted, that there is no such thing as local blood-letting; or, that take a given quantity of blood from any portion of the circulating mass, and you do the same good or harm as by taking it from any other. This statement we do not hold to be quite correct; but we imagine, there is often a good deal of misconception and mistake in conceiving exterior heat and irritation as an index of interior disorder: the system of vessels which supplies the outside for the most part different from that of the internal circulation; and, therefore, to draw blood from over a part is often to draw it from vessels that are in functional relation a great way from it. We confess that our solicitude in the particular instance of *monomania* at present adverted to, would have been to bring down the topical heat by refrigerating applications; and we should not much have cared, whether the cravers for blood had confined their sanguinary workings to the organ precisely of destructiveness, or whether combativeness, or even amativeness, had constituted portions of their bitings; the reduction of destructive irritation would in either case

have been the same, without the smallest subtraction of power or propensity from the neighbouring organs.

That both madness and dreaming are mainly constituted by irregular excitement of the brain, or by one portion of this organ being in undue exercise, while another does not reach the healthy or ordinary standard, is, we think, pretty well established. Such theories of mental aberration have, indeed, been broached before Gall wrote, or Spurzheim lived. In Cullen's first lines of the Practice of Physic, we have this doctrine fairly propounded.

" It will clearly," says Cullen, " appear, that not only the different states of excitement and collapse can take place in different degrees, but that they can take place *in different parts of the brain*, or at least, with respect to the different functions in different degrees." Again, " In order to the proper exercise of our intellectual functions, the *excitement must be complete and equal in every part of the brain.* For though we cannot say that the vestiges of ideas are laid up in different parts of the brain, or that they are in some measure diffused over the whole, it will follow, upon either supposition, that our intellectual operations always require the exact and orderly recollection or memory of associated ideas; so, if any part of the brain is not excited, or not excitable, that recollection cannot take place, while at the same time other parts of the brain, more excited or excitable, may give false perceptions, associations, and judgments." In a following section, Dr. C. extends this mode of reasoning to the circumstances of insanity, and remarks, " that instances of the inequality alluded to, afforded by madness, will furnish a confirmation of the general doctrine." " Upon the dissection of the bodies (he goes on to say) of persons who had laboured under insanity, various organic affections have been discovered in particular *parts* of the brain; and it is sufficiently probable that such organic affections might have produced a different degree of excitement in the free and affected parts, and must have interrupted in some measure the free communication between the several parts of the brain, and in either may have occasioned insanity."

But it has not been with a view of investigating the legitimacy of phrenological doctrines, that we have taken up the pen on the present occasion. Another opportunity will shortly be afforded us to consider the topic of organology and mental aberration more at large, when we may have occasion to revert to some of the arguments and positions of our present author in the way of controversial disquisition. Meantime, we have thought it due to the subject, and to the author, to present the reader with a brief outline of the book now before us, which we say, once for all, is well written, ably argued, and altogether conducted with a spirit of candour and moderation, which is delightfully in contrast with many of our polemic volumes, and articles in reviews, in which ridicule is substituted for reason—flippancy for freedom of inquiry, and in which, what is still worse, you may sometimes discover that the writer is systematically and *ex officio* opposing what in his conscience he believes to be true.

The first chapter of Dr. C.'s book is on " the functions of the nervous system," in which the reader who may have made phrenology a matter of inquiry will find nothing very novel. He will be more interested by the second chapter, in which Dr. Combe aims to prove that cerebral magnitude *cæteris paribus* has an invariable connection with mental power. The

larger that all organization is, provided it be healthy, the greater, argues our author, is its functional capacity; and he meets, on this ground, with a considerable quantum of good humour and good nature, the objections of the Edinburgh Review, which stated, that with the exception of grandmama wolf, who tells Little Riding Hood that she has large eyes to see her the better, and, therefore, leans a little to the phrenological heresy, it has never before been held, that goodness was in proportion to greatness.

"The venerable grandmama wolf, (says Dr. C. in reply) whose physiological opinion is thus so contemptuously treated by the Edinburgh reviewer, was quite sound when she affirmed that she had large eyes in order to *see* the better; and the error which the reviewer advocates in denying this, has obviously arisen from confounding distinct parts as a common whole. Wherever the general plan and structure of the organ of vision are at all analogous, their increased size invariably indicates increased function. The scarcely perceptible eye of the mole, and the scarcely more evident eye of the bat, are in exact harmony with their imperfect vision; while the large eye of the cat, the eagle, and the falcon, and of most fishes, are remarkably in unison with the strong visual powers of these animals. But here also the *cæteris paribus* must never be lost sight of in estimating the influence of organic size. But even overlooking the contempt of the condition *cæteris paribus*, manifested by the reviewer, the predicament in which he has placed himself is by no means enviable, as his statement is at variance with all authoritative testimony. 'Large eyes,' says, for example, a celebrated Florentine professor of comparative anatomy, 'generally indicate that the animals which possess them see well in the dark. In fishes, also, we almost always find large eyes to fit them for living immersed in water.' Here, then, the reviewer is fairly beaten by grandmama wolf, who, in virtue of her *large mouth* and *wide throat*, makes but one mouthful of him. All the allies on whom he depended turn out to be *her* supporters and not *his*."

Dr. Combe, in thus arguing for size as a criterion and index of power, aims to prove that brain development is proportional to faculty, and that the exercise of such faculty brings with it a proportionate increment in that portion of the cerebrum or cerebellum which nature or accident, education or practice, shall call into especial and continued exertion—a principle which, if fairly and fully established, would prove exceedingly favourable to phrenological tenets; and we are told by many who have made this science a matter of particular scrutiny, that the head, even the head of the adult, changes in form and size as these or those organs, or rather as such and such faculties and powers, may be exercised, or permitted to lie in comparative quietude. Mental derangement, our author maintains, in the third division of his treatise, is *always* symptomatic of cerebral disease; and he is justly severe upon those metaphysical systems of nosology, which divide and subdivide in an abstract way, and without reference to the organ, or, as the phrenologists say, organs, especially implicated in one or other kind or degree of aberration. This chapter we think the most argumentative of any in support of the Doctor's mode of considering mental pathology. In most other portions of the work, the

observations—and many of them are very interesting—would equally suit an anti-phrenologist as a phrenologist.

We will here present our readers with a pretty copious extract from the work, as we hold it to be right that authors should be permitted to tell their own tale, and in their own words, rather than in the words of their reviewer, who may, probably unconscious to himself, be disposed to give a colouring to his representations of the writer's meaning, the accuracy of which the writer himself might be far from admitting.

" Phrenology has proved, and indeed it is scarcely disputed, that the brain is an aggregate of many distinct organs, each manifesting a distinct mental power. It proves that one or more of these organs may be injured or diseased, and their functions impeded or altered, without necessarily affecting the remainder; and thus explains how a man may be insane on one feeling or faculty, and sound on all the rest; and, consequently, how, when a different organ is diseased, the faculty or feeling that is deranged may be different, and the prominent symptoms be different, and yet the disease itself remain exactly of the same nature. Inflammation affecting the eye disturbs vision, and, affecting the ear, disturbs hearing, because vision is the function of the one, and hearing is the function of the other; but still it is inflammation in both, and requires in both the same kind of treatment. Phrenology shews that, in like manner, morbid excitement of the cerebral organs of combativeness and destructiveness may produce raving, violence, and fury; and morbid excitement of the organ of cautiousness produces fear, apprehension, despondency, and melancholy; not from any difference in the kind of excitement, but simply from the function of the one being to manifest the propensities first named, and from the function of the other being to manifest feeling of caution; and that hence both cases may require the same medical treatment for their removal, modified only by the difference of function; and, in so far, it affords a simple and consistent explanation of all the various forms which insanity assumes, and leaves us free to observe with care the nature of the organic derangement on which each depends. Widely different from this is the mode of proceeding of those who ridicule the plurality of cerebral organs, and maintain the brain to be an unit, every part serving equally to manifest all the faculties. On this principle it is impossible to explain how it happens that, in a majority of instances, a few only of the mental powers are deranged, while the others remain sound and untouched. For if the whole brain were the single organ of mind, every part of it ought to concur in every mental operation, and all the faculties of mind, of which it is said to be the instrument, ought in every case to be equally deranged, and the patient ought to pass in one moment from an abyss of despondency to the abodes of bliss, or from a state of listless apathy to that of demoniacal fury. We may be told that this is sometimes found actually to be the case, and no doubt it is so; but it is far more rare than that in which the mental affection is partial, and retains its characteristic features unchanged. The idiot, who to-day manifests the faculty of tune, the feeling of benevolence, of veneration, or of self-esteem, will not to-morrow, nor in a year, change the nature of his predominant manifestations. In like manner, the monomaniac, the feature of whose insanity is to fancy himself a king, or possessed of boundless power and wealth, will not to-morrow believe him-

self a slave, or in wretchedness and want. Nor will the rich lunatic, whose fear is of dying from starvation, manifest the gaiety and lightness of one who fancies himself the favourite of some supernatural power, as might have been expected had the brain been, as an unit, the organ of all the faculties. Sometimes, indeed, heterogenous manifestations and rapid changes from one class of ideas to another take place; but then the whole brain, including, of course, all the organs, is diseased. This state, therefore, affords a true picture of the nature of insanity, such as it would necessarily be in every instance, if the organ of mind were single. To account for the variety of forms which derangement of so many mental faculties and organs may assume, the advocates of the unity of the organ of mind are constrained to create a new malady for every change in the appearance of the mental symptoms, and following the wide variety thus presented, they conjure up a list of mental diseases numerous and complicated enough to damp the ardour of the most diligent and determined student, and at the same time running so much into each other as to defy all attempts at discriminating or describing them. Dr. Good's classification is an example of the utter inability of talent and industry to avoid falling into confusion and absurdity when not guided by sound principle, which in this instance could only have been supplied to him by that doctrine of the cerebral functions for which, in his ignorance of its nature, he has expressed so much contempt. The table, long as it is, is too instructive not to be given entire."

We cannot, however, afford space for the admission of Dr. Good's Genera and Species. Indeed, we suppose that "The Study of Medicine" of that author is in the possession of most of our readers; and whether we go all the lengths which Dr. C. would have us to do in objecting to Good's scheme of classification or not, certain we are, that considerable injury has been done to pathological science, by treating of it too much upon metaphysical principles; and that the more we take anatomy and physiology as our guide to practical inference, the surer will be our philosophy, and the safer our practice.

On the predisposition to and excitants of insanity, we find very little but what would be equally appropriate in a treatise without any particular doctrine to support. Neither do the *post mortem* examinations, so far as they have hitherto gone, tell in our judgment very greatly in favour of phrenological tenets. The prevention and treatment of the disorder are enlarged upon by Dr. Combe with his accustomed clearness, candour, and good sense, but, as before intimated, we find nothing much of novelty, especially in the curative measures; nor does phrenology appear to have indicated any thing at present which science and observation had not before furnished to the practitioner, who had paid due attention to the important subject of mental aberration.

By the suppression, however, of one particular fact bearing on the question of phrenological principles, we might be deemed unfriendly to their admission; and it is on this account principally, that is, with a view of proving our perfect impartiality, that we close our present engagement with the author before us, by extracting from his pages an account which he presents to the reader of Mr. Combe's visit to the Richmond Lunatic Asylum of Dublin; and we leave the reader to make what inference he

pleases from the alleged coincidence between those statements, which were the result of careful and repeated observation, of phenomena, and those which the science of cranioscopy immediately supplied.

In the presence of a number of most respectable and disinterested witnesses, Mr. G. Combe was called upon to state his opinions respecting the kind and degree of delusion of several of the patients, and of their probable character, as marked by the size, shape, and form of the head; and Dr. C. extracts from the Phrenological Journal the following collated account with that which Dr. Crawford had already noted.

MR. COMBE'S REMARKS.		DR. CRAWFORD'S REMARKS.
Patient's name Lynch.		Patrick Lynch, aged 42, a cooper. Two and a half years ill. Married and has children.
Largest organs.	*Self-esteem.*	
	Wonder.	
	Causality.	
	Language.	
	Combativeness.	
All large.	Amativeness.	
	Philoprogenitiveness.	
	Concentrativeness.	
	Acquisitiveness.	
	Love of Approbation.	
	Firmness.	
Full.	Veneration.	
Deficient.	Conscientiousness.	

Monomania. — *Religious Pride,* with riveted imagination, and the highest degree of excitement, requiring restraint; *fancies himself inspired and endowed with omnipotence.* Frequent hallucinations; *visits from heaven, &c. Great flow of language in a style quite superior to his rank in life;* drinking the cause of his illness; second attack.

Mr. Combe said, that he considered *Wonder,* which when diseased, gives notions of supernatural agency and inspiration; and *Self-esteem* as probably the leading sources of alienation in this case; that Casualty and Language should also be conspicuously manifested.

Note.—Dr. Gall remarked in the first frantic who fell under his observation, a large developement of the part of the brain now marked "Wonder," and subsequently met with many similar instances.—*Dr. Combe's System,* p. 226.

But we find that our limited space forbids further quotation, and we are therefore compelled to refer the reader to the book itself for the additional cases, all of which, it must be admitted, furnish the same correspondence between Mr. Combe's predications and Dr. Crawford's history. Our author states, that the same coincidence extended to fifteen or sixteen out of twenty-three that were examined. "In four," he adds, "the organs were so developed as to afford no grounds of inference; and in one the features of hallucination and the predominant organization did not correspond; thus presenting results so completely in harmony with what was anticipated, as to render it difficult to deny the influence of a disproportionate development of the different parts of the brain as a predisposing cause of cerebral and nervous disease."

A large self-esteem, we observe, is almost invariably characteristic of the maniacal condition. Let our reader look to this who may be inclined to find fault with the present article under the feeling that he could have constructed a better. The fact is, that we have been a little pozed and puzzled under the conviction indicated by our opening paragraph; and of

this we are fully assured, that while the phrenologist will do any thing but thank us for our "faint praise" and "civil leer," the anti-phrenologist will look down with contempt upon our endeavour to reconcile contending opinions with nature and truth.

V.—*A Treatise on the Mineral Waters of Harrogate and its Vicinity.*—By Adam Hunter, M. D., Member of the Royal Medical Society of Edinburgh, Physician to the General Infirmary, House of Recovery, and Public Dispensary, Leeds, &c. London, Longman & Co. Edinburgh, Black. 12mo. pp. 136.

This work is partly professional and partly popular. It contains the history and topography of Harrogate, and a chronological account of the writers who have described the mineral springs for which that place is famed. The only interesting feature to the profession, in this production, is the author's analysis of the different waters. It appears by his account there are fourteen springs more or less frequented at Harrogate, six of which are sulphureous, five chalybeate, two saline, and one saline chalybeate.

The sulphureous springs are, 1. The Old Sulphur Well; 2. The Crown Spa; 3. The Crescent New Pump; 4. The Crescent House Pump; 5. The Starbeck Spa; and 6. The Hospital Well. The following ingredients were detected in these springs by our author:—

Saline contents, in grains, of an imperial gallon of the water of each of the principal sulphuretted springs of Harrogate and its Vicinity.

CLASS I. Water of	Chloride of Sodium	Chloride of Calc.	Chloride of Magn.	Sulph. Sod.	Bicarb. Sod.	Total
1. Old Sulphur Well	867.	87.	42.5	....	20.	1016
2. Thackwray's Pump	802.	77·5	38.6	....	28.	960
3. Crescent New Pump	462.	47.2	21.8	14.	11.	556
4. Crescent House Pump	280.	23.25	17 25	....	4.	324
5. Starbeck Sulphur Spring	122.	10.	8,25	2.5	3.	146
6. Hospital Well	329.	27.6	16.8	6.	3.	384

Gases separated from a gallon of the water of each of the same springs.

Water of	Sulph. Hyd per gallon	Carb. Acid. per gallon	Carb. Hyd. per gallon.	Azote per gallon	Total
1. Old Sulphur Well	15.6	2.72	6.8	8.84	34
2. Thackwray's Pump	21.6	4.32	5.76	4.32	36
3. Crescent New Pump	5.75	3.25	4.8	10.1	24
4. Crescent House Pump	3.	3.	2.	12	20
5. Starbeck Sulphur Spring	5.	8.3	....	11.7	25
6. Hospital Well	4.5	5.4	....	8.1	18

To ascertain the quantity of iron in the waters containing it, a given quantity was evaporated to dryness, the residuum dissolved in muriatic acid, and the oxide of iron precipitated by ammonia, dried, and weighed.

Contents per imperial gallon of the Chalybeate waters of Harrogate and its Vicinity.

CLASS Water of	Oxide of Iron	Chlorid. Sod.	Sulph. Sod.	Chlorid. Calc.	Chlorid. Magn.	Total
II. Oddy's Saline Chalybeate	5.3	576.5	....	43.5	9.65	636
III. Oddy's pure Chalybeate..	1.8	5.	3.5	6.	4.	21
Old Spa	2.5	Remainder carbonate of lime.....				10
Tewit Well.....	2.	..... earthy salts.....				10
Saint George's Well	1.	..... earthy salts.....				10
Starbeck Chalybeate	0.75	..... chiefly chloride of sodium.				18

Saline Contents of the following Springs.

Water of	Chlorid. Sod.	Sulph. Sod.	Chlorid. Calc.	Chlorid. Magn.	Carb. Lime	Total
IV. Crescent Old Well	107	27.	10.1	7.4	4.	156
		Carb. Soda	Sulph. Lime	Sulph. Magn.		
Dropping Well	....	6.	132	11	23.	172

Ample directions are given as to the mode of taking the water of each spring, which affords valuable information to the profession and public. This is very important to the former, when it is recollected that the annual number of visitors to Harrogate, is estimated at 10,000. Our author is rather hyperbolical in his praises of these waters, as he informs us that there is scarcely any chronic disease which is not frequently subdued by them. Few pathologists will give implicit credence to this statement; indeed, we are much surprized that it should be made by any scientific physician—such as the author before us. It may have due weight with the public, but very little with the profession. The work, however, is not a puffing advertisement, such as generally emanates from similar quarters; for the author deplores and despises such publications. It is one of the best monographs we possess on any of the mineral waters of these countries, and will be read with pleasure and instruction by the profession and the public.

ORIGINAL COMMUNICATIONS.

I —*Case of Tubercular Disease of the Abdomen.* By John Swift, Esq. M. R. C. S.

To the Editor of the London Medical and Surgical Journal.

Sir,

Having perused, in a late Number of your Journal, an account of tubercular disease of the peritoneum by Dr. Blake, of the 7th Dragoon Guards,

I beg leave to send you the following, which bears some resemblance to the case detailed by that gentleman. By giving it insertion, you will much oblige Your very obedient Servant,

JOHN SWIFT.

Thomas Malone, aged 36 years, was admitted into the Richmond Hospital on the 24th of September, 1829, with considerable swelling of the abdomen, and decided marks of the existence of fluid within its cavity. On making pressure, a large flattened tumour, of firm consistence and irregular surface, was discovered occupying the epigastric, hypochondriac, and part of the umbilical regions, and terminating below by a well-defined margin, unequally convex, and notched, so as to bear a close resemblance to the anterior edge of the liver. The correspondence, however, was not exact, the tumour could be nearly insulated superiorly, and it was more moveable than an enlarged liver would have been. Tumours equally firm, but more irregular and knotty, could be felt in the iliac fossæ, and in the lower part of the umbilical and hypogastric regions the central one particularly was moveable. There was scarcely any pain on making strong pressure, or after the closest examination, nor had the origin or progress of the disease been attended with any remarkable suffering. He complained of a sense of great weight at the stomach after taking any quantity of food, particularly animal, and stated, that vegetables produced the most distressing flatulence. If he ate heartily, the stomach generally rejected its contents in about an hour after his meal; but if the portion of aliment used was sparing and light, or if vomiting had not taken place about the period mentioned, the process of digestion was completed. His pulse was soft, rather feeble, and varied from 80. to 90.; he was affected with slight dyspnœa, which was materially increased by stooping; his tongue white, bowels costive, and subject to borborygmi. The dryness and harshness of his skin was remarkable; his urine was scanty (about a pint in twenty-four hours), and his thirst considerable. He slept badly; and, though not confined to bed, was languid, and incapable of exertion. His form was much wasted, and his countenance pale, yellow, and stamped with that peculiar expression which long-continued suffering, however trivial, constantly impresses. There was no affection of the cerebro-spinal system.

About two years from the date of his admission (previous to which he enjoyed excellent health), he became infected with syphilis, from wearing a sailor's trowsers, purchased at a cast-clothes shop. The disease first appeared on the scrotum, next on the penis, and, in some time afterwards, he was attacked by heaviness and severe pains, chiefly in the shoulders, succeeded by an eruption of the papular kind, on his legs, arms, and forehead. For these symptoms, which he was informed were venereal, he took mercury for three weeks, was salivated, and got apparently well. While under the influence of mercury, he drank very freely, and was exposed to intense heats, being employed about the stove of a rectifying distillery.—From this time, up to what he considers the commencement of his present disease, he became affected with chills, flushes of heat, perspirations, debility, and loss of appetite. Four or five months afterwards, during the active prevalence of these symptoms, swelling of the abdomen took place, with obstinate costiveness, piles, scanty urine, sensation of weight in the epigastrium, after taking any considerable quantity of food, and pains

shooting from the cartilage of the ninth rib, towards the lumbar vertebræ, on the left side. About three months afterwards his breathing became difficult, he experienced pain in the left side of the epigastrium on stooping, and then, for the first time, felt the tumour in the abdomen. He stated, that, when he discovered it, he thought it might be two palms' breadth in extent, and that it had been progressively increasing since. For the reasons which have been mentioned before, he has avoided animal and vegetable diet; and, for the last six months, lived almost exclusively on tea and slops. Four or five days generally intervened between each alvine evacuation; but the colour of the stools is natural. He frequently hears a loud rumbling noise in the great intestine, accompanied with pain round the lower part of the abdomen, which he regards as a call to stool, but is never affected with tenesmus. Flatulence is a source of great annoyance to him, and he feels more relieved by the expulsion of wind than fæcal evacuation. About three months before admission, he had bilious vomiting, which continued for three weeks, attacking him every second or third morning. He went into Stevens's Hospital, some time afterwards, and got hydragogue purgatives, and a solution of cream of tartar, which drink he thinks reduced the size of the abdomen, but gave no relief to the other symptoms.

From the date of his admission to the 6th of October, his treatment consisted in friction with volatile liniment to the abdomen, purgative draughts, blue pill occasionally, and enemeta, which gave some slight relief.

Oct. 7th. To have the belly rubbed with the same liniment, combined with tartarised antimony and ung. hydrarg.

13th. Potio potassæ super tartrat ad libitum. Two of the following pills to be taken night and morning:—

℞ Pill. rhei ℈ ij. ext. colocynth ij.
Capsici gr. v. olei carui ♏ v. ft. pil. x.

22d. Has two evacuations daily, since he has been using the pills. Occasional tenesmus; flatulence less troublesome; thirst diminished. Urinary secretion as before; tongue and appetite unimproved. The liniment has produced an extensive crop of pustules over the abdomen.

31st. Complains of pain in the left side of the epigastrium; to rub the liniment as before over the affected part.

4th Nov. Taking his pills, which produce two motions as before, the last scanty, and attended with griping; abdomen tense; tumour undiminished.

6th. Pain in the left hypochondrium, again complains of want of sleep. Countenance pale and sunken. Diarrhœa with tenesmus; the stools thin, slimy, and greenish; some irritability of bladder. Tumour as before; no œdema of the lower extremities. The diarrhœa continued for about a week, and the stools were occasionally tinged with blood. It ceased on the 14th.

24th. Dyspnœa increased. It affects him now when he lies on his left side; appetite worse—emaciation increasing. Abdomen tympanitic.

16th Dec. Frequent vomiting almost immediately after taking food; œdema of the left lower extremity.

29th. Dyspnœa increasing. Numbness of the left thigh, with progressive œdema and coldness of the entire limb; more emaciation; vomiting as on the 16th, which continued until the 5th of January, when it was checked.

Jan. 9th. 1830. Has been using friction with volatile liniment over the left lower extremity. Ordered ʒj. of the following mixture :—4 tis horis

Mist. camphoræ ʒiv. spirit ammon. aromat. ʒj.
Sp. etheris oleosi ʒiij. *M.*

14th. To have his mixture repeated; œdema increasing.

23d. Swelling of the left lower extremity very great; œdema commencing in the right leg and foot. Vesications have formed on the anterior part of the left leg, and burst, discharging a large quantity of serous fluid, and emptying the limb. The integuments surrounding the vesicles are of purplish colour. Fluid in the abdomen much lessened, and the surface and figure of the diseased mass rendered more evident. No sleep; increasing debility. To have opii gr. iss. o. n. lbss. of decoct. genistæ, with half an ounce of supertartrate of potass daily; his draughts as before occasionally; a poultice p. d.

26th. Cuticle extensively separated from the anterior part of the left leg. From the toes to the upper part of the ulcer, the surface around presents an erysipelatous blush. The sore itself is of a deeper red, and is coated over with a layer of lymphy matter.

29th. Sloughing of the limb rapidly increasing—dyspnœa aggravated. Has been lying on his right side for the last few days. Great thirst; insomnolence and exhaustion; pulse cannot be felt—is evidently sinking.

30th. Died.

Necroscopic Phenomena.—On examination, the thorax and upper extremities appeared much emaciated; the abdomen swollen, with distinct sense of fluctuation, and the lower extremities affected with extensive anasarca. On cutting into the abdomen an immense quantity of fluid gushed out, of a serous character and reddish tinge, and closely resembling that which is effused in ascites. In this fluid was seen floating a vast number of colourless or whitish transparent bodies of a flattened spheroidal or lenticular form, and of the average size of a small hazel-nut, in each of which were observed spots of minute vascularity. There was some variety in the degree of transparency, and on holding them to the light, a slightly opake spot was observed in the centre of each. The consistence and firmness possessed by these tubercles was that of the healthy lens in the young subject. An immense tumour occupying the situation, and possessing the dimensions of the omentum, now presented itself to view, extending over the epigastric, hypochondriac, and part of the umbilical and lumbar regions. To the surface of this tumour a number of the bodies before mentioned, adhered slightly, and could be detached from it by friction. It was covered by a membrane resembling those of the serous class, but it was impossible to trace satisfactorily its exact continuity and identity with the sound peritoneum. A delicate membrane, of similar character, invested each of the small bodies.

A section of the tumour from behind forwards shewed it to vary from an inch to two inches in thickness, and to consist of a number of cells, each capable of containing about the bulk of a garden pea, and filled with a transparent gelatinous fluid. From the analogy of their appearance, size, and contents, to those of the small bodies described before, it appeared evident that the tumour was formed by the successive concretion of a vast number of tubercles. Masses of the same kind, of smaller size, were found occupying the situation of the mesentery, and the duplicatures which attach the

different portions of the colon and its sigmoid flexure. There were no particular marks of disease in the liver, except that it was very much reduced in size and condensed in structure from the pressure of the tumour, by which it had been forced up considerably towards the right side of the chest. The spleen was quite healthy. The stomach and intestinal canal presented no appearance of derangement worthy of remark. A few tubercles were found in the cavity of the thorax.

The following analysis of the tubercular bodies by Dr. Apjohn, Professor of Chemistry in the College of Surgeons, I am enabled to lay before your readers by the kindness of Dr. M'Dowel:—In a letter to Dr. M'Dowel, he observes, "The morbid product I find to possess the following properties: It is composed of a number of detached globules, each of which has the average size of a garden pea, and is of an oblate spheroidal form. Most of the globules are colourless, all are transparent, but some exhibit an amber tint. A few also towards the centre present the appearance of effused blood. Generally speaking, they are of a soft uniform consistence throughout; some, however, include a nucleus of considerable firmness, and have the appearance of the lens in the incipient stage of cataract. When thrown into distilled water, at the temperature of 50°, the greater number of them fall to the bottom, among which are all those spotted with blood, and having indurated centres. The rest do not rise to the surface, but remain floating in the fluid. A very slight examination is sufficient to shew that each is composed of a transparent membranous pouch, which not only acts as its envelope, but ramifies through its interior, dividing it into cells, in which is deposited a gelatinous fluid. This structure is most easily seen by suspending the globule in water, and examining it with a microscope. The membrane alone, with its cells, is in such cases visible, owing, no doubt, to the refracting power of the lens being the same as that of water.

"When the bloody serum with which they were encompassed was washed away, some of them were digested a considerable time in water, at the temperature of 140°. The solution, when decanted from the globules (which, by the way, underwent no change), was not at all affected by corrosive sublimate, or any of the other tests for albumen, but was slightly disturbed by tincture of galls. A much more copious precipitate was obtained by the latter re-agent, when the globules were broken up in a mortar, and the water boiled for some time on them. By boiling, the envelopes lost their transparency, and became of an opake white colour. The same effect was immediately produced by the mineral acids. By nitric acid, with the assistance of heat, the entire globule was dissolved, with the disengagement of azote, and upon evaporating to dryness, there remained a yellow matter, with a very disagreeable taste, and which closely resembled the bitter of Welter. By digestion with potass, solution also took place, accompanied by the disengagement of a large quantity of ammoniacal gas.

"From these experiments, we are entitled to conclude that the membranous part of the globules was, like the serous tissues in general, of an albuminous nature, and that the matter deposited in their interior was gelatine."

In looking over this case, the reader will find some points of resemblance to that detailed by Dr. Blake. The patients were both of the same age,

the disease appears to have commenced with both in the same situation, (probably the gastro-hepatic or gastro-splenic omentum), and in either case was equally insidious in its origin and progress. There were also the same sense of weight in the epigastrium, the same irritability of stomach and obstinate costiveness, alternating occasionally with dysenteric symptoms. A predisposition to disease existed in both, though it was produced in one by obesity and sedentary habits, in the other by the abuse of ardent spirits and exposure to great varieties of temperature during a mercurial course. The coincidence of the same tissue being affected to a similar extent, the vast quantity of effused serum, the state of the tongue, the general nature of the alvine discharges, and the absence of any well marked symptoms of biliary derangement will be noticed. It is also singular that in both cases, the inferior margin of the diseased mass presented the deceptive feeling of the anterior edge of an enlarged liver.

Malone's case, however, differs in some circumstances from that of Serjeant Gourlay. The matter vomited by him was not exactly of the same character as that rejected by the latter: though continually annoyed by the sense of weight in the epigastrium, he never complained of a broiling sensation at the stomach, or of distressing singultus, and the alvine evacuations never assumed the appearance of black vomit. The dyspnœa and flatulence, which in his case were prominent symptoms, appear not to have been noticed in that of Gourlay. The termination of the disease was also different; death arising in one from cerebral effusion, destroying the functions of the nervous system; while in the other, effusion taking place in the cellular tissue of the lower extremities, gave rise to an erysipelatous inflammation, followed by extensive sloughing, which in a debilitated constitution, naturally brought on rapid dissolution.

These distinctions, indeed, may appear unimportant, and easily accounted for by the peculiarities of each case; but it would appear from an inspection of Dr. Blake's report, that there was an essential difference in the structure and appearance of the morbid product. In Malone's case, it did not present the cartilaginous hardness and appearance of tuberculated sarcoma, nor was the surface covered with red and granulated lymph. The peritoneum was certainly studded with tubercles, but these were not white, but in general colourless, and did not give it a stellated appearance; and there were immense numbers of them floating in the effused fluid, presenting a striking uniformity in size, transparency, and freedom from colour, and corresponding exactly in those properties with those bodies whose concretion gave origin to the larger masses.

Many cases, in which the symptoms bore considerable resemblance to those of Malone, are to be found in the Treatise on Tuberculated Accretions by Dr. Baron, but from an attentive perusal of them I do not perceive that the morbid product in this case resembled any of those which are described in that work. In his account of Sarah Tandy's case, the peritoneum is described as "easily torn and granulated on its surface, and the diaphragm studded with small granulated masses." In Sarah Aldridge's, "the diseased mass had the feel of a solid tumour, and the pleura was thickened." In Higgins's, the peritoneum was found studded with tubercles larger than usual, many of which contained, when cut into, a

yellow cheesy substance. Those attached to the liver were pendulous, some as large as peas, others as beans." In Browning's, "the parietal layer of the peritoneum was thickened, and the tuberculated structure general." In Sunnock's, "the peritoneum was extensively tuberculated." In Mr. Shrapnell's, "the parietal peritoneum was principally diseased, the tubercles distinct and well defined, with vascular patches between them. The omentum near the stomach thick, and when cut into, having a firm cheesy kind of texture. Tubercles distinct and circular, of a cream colour." In that of Priscilla Bullock, "the tubercles were circular and pendulous, varying in size from a pin's head to a Spanish hazel-nut. The large ones containing soft curdy yellowish matter—others of cartilaginous hardness." In Haynes's case, "the tubercles were of various sizes and contents. They shewed vascularity, but the vessels could be scraped off them, and they were found pearly and hard as cartilage." In most of the above cases, the liver is described as being loose in its texture, and of a copper colour; and in some of these, there is no mention made of effusion in the cavity of the peritoneum.

From an inspection of these cases it does not appear, that the tubercles, or, as Dr. Baron would call them, the transformed hydatids, bore any distinct and obvious resemblance to the globular bodies noticed in Malone's examination. Dr. Baron, however, states, that hydatids occasionally grow to a very great magnitude without undergoing *any change of structure*. This may be true, but the tubercles in question do not appear to be strictly analogous to the hydatid in its simple and original form. In Dr. Baron's work, hydatids are described as being composed, in their natural state, of *two* coats, the interior softer and more delicate than the exterior; filled with a limpid fluid, which does not coagulate by heat or rest; of variable size, possessing the power of expelling their contents with force when punctured, and when afterwards examined having their interior surface thrown into rugæ. A slight perusal of the accurate description of Malone's tubercles given by Dr. Apjohn, will be sufficient to shew that there is very little resemblance between them and the simple hydatid. Whatever identity there may be in the contained fluids, there is certainly none in their envelopes.

From these circumstances it would be reasonable to conclude, that in Malone's case the morbid product was *sui generis*, and unlike any of those cases mentioned by Drs. Baron and Blake. With respect to its origin, we must certainly refer it to the action of the peritoneal vessels alone; for amidst such extensive disorganization, no morbid change was discoverable in the tissue of any other organ contained within the abdominal cavity. It has been before stated, that the larger masses owed their formation to the successive concretion of a vast number of tubercles, as was evident from the analogy between their parietes, size, appearance, and contents. It would appear also, that the tubercles were parasitic bodies, formed on the surface, and not within the substance of the peritoneum. This opinion derives some support from the facts, that no distinct continuity or palpable identity could be traced between the membrane investing the tumours and the sound peritoneum, from the facility with which they could be detached by slight friction, and from their being completely covered by a delicate envelope, apparently of the class of serous membranes, and proved to be such by chemical analysis. Could the origin of these bodies

(all of which presented a striking uniformity in figure, size, and appearance), be referred to the extravasation of lymph? Could the lymph in this disease (in which the characteristic marks of inflammation are absent), be exuded slowly and in separate and detached *globules*, such as have been seen and described by M. Bauer? Could each of these globules have a power of extensive morbid developement? Has the tendency to assume the spheroidal figure, observed in these and almost all other tubercles, any connexion with a *globular* origin? These queries are put merely in the spirit of inquiry, as most of your readers are familiar with the ingenious opinions of Dr. Baron on this subject. With respect to the contents of these bodies, the secretion of so large a quantity of gelatine, as entered into their composition, is a curious and singular fact. In the growth of young animals, this secretion goes on with considerable activity; after their period of maturity has arrived, it becomes considerably diminished; while in the aged subject it almost entirely disappears. In this case, however, from the great size of the tumour, and the vast number of tubercles both adherent and detached, the quantity secreted must have been very considerable. It is difficult to account for this, unless we suppose that nature, summoned to exercise her long forgotten powers in the formation of a new product, reverts again in some degree to the original laws which governed her operations in the developement of fœtal and adolescent life.

5, *Sackville Gardens, Summerhill, Dublin,*
June, 1831.

[We wish very sincerely that our modern clinical reporters would imitate this graphic and able narrative, and append remarks which evince a perfect knowledge of the opinions of the profession; and not detail cases without the slightest allusion to habit, temperament, and vocation. This case is exceedingly well drawn up, and will be read with advantage by every man engaged in medical practice.—Ed.]

II.—*On the Medical Effects of Gaseous Substances.*

By T. W. Vincent, Esq.

Many and great have been the improvements in scientific knowledge within the last fifty years; the laws of nature have been investigated and explained, and important results have been produced for the advantage and benefit of mankind. But none have been more useful in the common concerns of life, or have been attended with more beneficial consequences in the affairs of the world at large, than the late discoveries made in chemistry. Its brilliant light has thrown a halo round every other science; has laid open the hidden laws of nature to every beholder; has unfolded those mysteries by which the world for ages has been beguiled and held in bondage. Men of science have availed themselves of these advantages, and have sought the aid of chemistry to assist and improve their arts and manufactures, and have by this means brought them to a degree of perfection unknown before. Pneumatic chemistry was almost a new discovery: men of the deepest knowledge were unacquainted with it. Air was generally thought to be an homogeneous substance, endowed with certain qualities,

as weight, density, levity, elasticity, expansibility and compressibility. They had no idea of factitious air of various qualities; they were not aware of the atmosphere being a combination of two gaseous substances, differing in weight and quality, much less suspected that water was a compound of two different gases. They were not aware that almost all bodies in nature were composed of air, compressed so that by a slight mixture with other substances they become permanently solid; but by the operation of chemistry might be again liberated, and possess and retain all their former qualities. Caloric and the causes and nature of combustion were but little understood, till the researches of chemistry unfolded their operations. By the aid of gas, men have learned to sail through the air as on the water; they have produced a light more bright and vivid than was even known before, and with which they almost rival the light of day; they have discovered the art of removing colouring matter in a small portion of time, so as to facilitate the progress of manufacturing; but of all sciences and arts on which it has the greatest bearing, and in which it might be more extensively useful, is that of medicine and the art of healing; and yet the practitioners in this science and art have availed themselves of it the least of all others; they have, in fact, shewn it the greatest neglect when it promised to be of the greatest service to mankind.* Medical science, as it now stands, has no solid basis to rest upon; it is matter of guess and judgment alone, and that judgment is founded on symptoms which are frequently deceptive, and in many instances cannot distinctly and decisively mark the disease, or its prognosis, as it depends so much on the strength or weakness of the system and the temperature of the constitution; but by chemistry they might obtain a basis on which they might erect a superstructure that would stand every attack; they might more fully ascertain the cause, nature, and progress of diseases, and with more ease and certainty in every case apply a remedy.†

There are a few considerations which chemistry suggests, which would form a basis for the practice of medicine, but especially that of pneumatic medicine. Chemistry, by analysis, discovers the component parts of all bodies with their suitable proportions; but we have to do now with those of

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* This is the more remarkable, as Dr. Priestly, by various experiments, discovered the antiseptic quality of carbonic acid gas; and acquainted his friend, Dr. Percival, with his discovery, as in his hand he thought it might come forward to the public with advantage. The trials which Dr. Percival made, though on a very small scale, were so satisfactory as to convince him of its powerful effect in putrid diseases. The Dr. being far advanced in years, recommended to his medical brethren to make farther trial of its effects. This was afterwards done by Sir John Pringle, Dr. Macbride, Dr. Beddoes, Mr. Varley, and others, by various satisfactory experiments, by which its qualities and power were fully established; but however unaccountable it may appear, the generality of medical men have set their faces against it, and have opposed it, in some cases, to the evident loss of life, where it was administered with success, and had it been continued, the favourable symptoms augured convalescence and final restoration of health.

† The laws of vitality and of chemistry are different, nor can the latter ever explain the former.—Ed.

animals and vegetables chiefly, both of which nourish and sustain the human body, being of the same nature as to their essential substances, and easily decomposed by the digestive powers. Nature has given both to animals and vegetables their peculiar form and qualities, which cannot materially be altered without disorganization; but every species may be much improved by management. After the fabric is considered, which gives to each species its peculiar nature and qualities, the component parts of all are nearly alike, differing only in their proportions, which fix their temperament and particular properties, that vary only in the individual body, as it becomes disordered by accident, mismanagement, or sudden disease; when the proportion of the component parts is changed by the loss of some, or the addition of others, either of which will produce disorder in the system. That this is the case in the vegetable world, is evident from frequent analysis. It is on this account that manures are used to afford that nourishment to plants which had been previously exhausted from the ground. It is proved from the analysis of plants, and substances obtained from them, they are all simple or compounded of the same materials, differing only in the quantity and proportion. Oils and gums, and sugars, and acids, &c. are all made up of the same component parts; but our speculations must be confined particularly to the human system. That, as well as most substances in nature, is composed chiefly of gaseous products, which are carbonic acid gas, oxygen, nitrogen, and a small portion of hydrogen gas; according to the varying proportions of these, so is the healthy or unhealthy state of the system. To understand this, we must consider the quality of these gases, and thus trace the effects on the system, when their proportions may be altered by accident or disease, or improper food, &c. &c. The carbonic acid gas is the greatest in quantity, and, indeed, is the very basis of animal flesh: it is the only preservative from putrefaction; as this, by any intervening cause, is largely elicited, or not duly supplied in the necessary proportion, the putrefactive process commences and proceeds;* at the escape of carbonic acid gas, the nitrogen of the atmosphere by affinity,

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* As carbonic acid gas is detected in the most healthy person, not only passing from the lungs, but on the whole surface of the body, it is necessary to explain this circumstance, especially as I heard an eminent medical gentleman form an objection against the administration of the carbonic acid gas from this very circumstance: at the same time denying the possibility of the absorption of the gas by the skin. But the gentleman was either not sufficiently versed in chemistry, or did not choose to remember, that it is not the gas itself that really, without a disease, escapes from the system, but the carbon or worn parts by the force of circulation, are brought to the surface to be expelled by transpiration. These attracting the oxygen of the atmosphere, pass from the surface in the substance of carbonic acid gas: hence we find, that a free, clear, and unclouded atmosphere so much better removes the carbon than a close, confined town or city, where the inhabitants, on account of the warm particles loading the system, give them a sallow, pale, or swarthy look, instead of a clear wholesome complexion. It is disease alone that favours the rapid escape of that portion of carbonic acid gas which is necessary to sustain and preserve the healthy state of the system.

uniting with the hydrogen in the system, form ammonia, and hastens the decomposition. In some cases where the carbon does not escape so quickly, the oxygen of the atmosphere (and it is likely that also which the system contains) unites with the hydrogen, and forms water, and thus occasions dropsy: there does not appear that any other account can be given for the vast increase of water in that disease; besides, there are positive proofs that by inhaling oxygen gas, properly diluted with atmospheric air in considerable quantity, very formidable dropsies have been subdued and finally cured.

Carbonic acid gas, which consists of eighty-five oxygen and fifteen carbon, is a powerful antiseptic, and on this account it not only stops the rapid process of putrefaction, but will subdue mortification, and quickly heal the parts thus attacked, of which I have known many instances. The diseases that have been cured by it have been typhus and scarlet fever, cholera morbus, scorbutic eruptions, ring worms, nervous irritation, and wounded nerves, and diseases arising from excessive doses of mercury. It abates and generally cures every kind of inflammation; it brings abscesses to an easy and safe suppuration; and relieves paralysis where it arises from a morbid cause. It is received by absorption through the skin, and spreads itself over the whole system by the mucous membrane. I have known the skin to absorb from six to ten gallons of gas within an hour, when it was greatly needed; in this case the bulk of the body, or of an affected limb, is rather reduced in size, and the texture of the muscular flesh consolidated and strengthened.

The qualities of oxygen gas have been more studied and better known. It is called vital air, as it supports and maintains life, which is the vital principle. Wholly deprived of this, life becomes suspended, and very soon wholly extinct. Its necessary quantity diminished, life languishes, and becomes feeble; the system becomes oppressed, and all the functions are impaired; nutrition in a measure fails, and the body sinks. Oxygen also is the quickening and exciting cause of the irritability of the animal fibre; it increases its activity and power. It produces the same effect on vegetation: an extra portion artificially applied, renders it flourishing and luxuriant. To raise the human system, it may be either inhaled (properly diluted), or those medicines given that hold it so loosely as to be separated by the action of the stomach, by which means the force of circulation may be considerably increased, and every gland urged to perform its proper office. For this purpose, nothing exceeds the oxymuriate of potash in small doses, as it very freely parts with its oxygen. But to make it effectual, the fibre must be in a proper condition to be wrought upon as to firmness and strength; as every one knows when an animal fibre loses its contractility, it also loses its strength, and becomes subject to discontinuity.

Nitrogen, the other component part of the atmosphere, and which composes nearly three-fourths of it, is the basis of the animal and vegetable fibre; and therefore when a purer air is recommended for invalids, the nitrogen affords strength to the fibre, while the oxygen produces excitement. Of course where excitement is too great from a super-oxgenation of blood (which is sometimes the case) it is abated by a lowered atmosphere being inhaled, a part of the oxygen having previously been abstracted.

Of different meats for food, beef yields the most nitrogen, and is therefore calculated to produce most muscular strength, the effect of which is

well known to the trainers who prepare their subjects for pugilism. Hence beef tea affords so much nourishment to invalids.

As hydrogen is the basis of animal fat and oil, a portion of this is necessary for the animal system to sustain and lubricate the various parts, to prevent it from wearing and fretting. Where hydrogen abounds too much and the fat is cumbersome, and renders the body unhealthy, a larger portion of oxygen is necessary to reduce it. This may be best obtained by increased exercise in the open air, whereby the circulation is quickened, and more oxygen inhaled; less food and sleep should be taken to prevent the increase; and any substance that contains oxygen, and will give it out freely, will counteract the excess of hydrogen; some resort to powerful acids with the view of reducing corpulency. Hydrogen also is possessed of a cooling quality; it is but in a slight degree respirable: it may be inhaled by being mixed with atmospheric air, and in that way I have known it in several cases stop and prevent the progress of inflammation of the lungs. Substances containing much hydrogen, are used in common to abate inflammations. Ether has frequently been inhaled with success in inflammation of the lungs. Ether applied with a feather on a burn or scald, or to any inflamed part, will, by increasing evaporation, give speedy relief: for the same purpose of cooling, oils and fatty substances are applied to inflamed sores; the hydrogen they contain attracts the oxygen and withdraws the heat.

There are other factitious gases which are occasionally brought into use, but cannot be said to be component parts of the animal system. The first I shall mention is hydrocarbonate gas, which arises from lighted charcoal having been lightly sprinkled with water. The effect of this gas when received into the lungs is, to reduce the pulse according to the quantity and the length of time inhaled; so may the pulsations be regulated as to their number. It is very salutary at the latter stage of a pulmonary consumption. I have known a chafing dish of charcoal introduced to the bedside of a patient previous to the hectic fever coming on, not only prevent the fever but the subsequent night sweats. In this case, the patient should be watched till the pulse is sufficiently reduced; then the charcoal should be removed; the attendant should keep at a distance to avoid the fumes, which to a healthy subject might prove pernicious.

Another factitious gas which is found useful to purify close confined rooms, and vivify and refresh the invalid is, nitrous oxygen gas. It is made by pouring sulphuric acid on powder of purified nitre in a clean glass vessel. A white smoke arises which smells like new hay: this will clear any room of any ill or unwholesome scent. This gas will arise a long time if the vessel be kept in hot water or hot sand. It may be occasionally stirred, but it must be with a piece of glass, as other substances will render it impure. Another gas, which is also used for cleansing and purifying infected rooms is, the chlorine or oxygenated muriatic acid gas; but this requires the room to be shut up with it, as the lungs cannot inhale it with impunity.

These are the principal gases that have been applied to medical use, and it is to be lamented that they have been neglected so long, capable as they are of being rendered beneficial to mankind. Now as the blood contains all the component parts mentioned, besides several compounds, and as that alone nourishes every part of the system, it may be fairly inferred, that an

alteration in health must arise, either primarily or secondarily, from the variation of the quantity, either of the component parts, or the compounds depending upon them. This fact seems to be proved throughout nature: in the removal of vegetables and animals from their original climate to others more or less congenial to their nature, their qualities are materially altered.

This would lead us to inquire into the operation of food and medicine, and their effect on animal life and the human system. As vegetable matter contains all the component parts which the human body can require, the digestive organs can extract sufficient nutriment from them to preserve and sustain life; but so much vitality and strength cannot be obtained from the productions of the earth, as from the flesh of animals; it being nearer by many degrees to our nature, and therefore more easily assimilated and incorporated with it. Now as there is a greater quantity of some of the component parts in some vegetables, and in some animals, than in others, it is manifest that a change of diet and air will frequently effect a permanent change of constitution. This may be instanced in the sea scurvy; by living long on salt provisions, and constantly inhaling a saline air, there is a great deficiency of carbonic acid gas in the system, and a septic state of the blood is induced. This is quickly removed by a free and timely use of fresh vegetables, which supply a large quantity of that gas. By taking articles to sea for diet that contain a considerable portion of this substance, the scurvy scarcely ever attacks a ship's crew with any degree of violence.

When a component part is deficient, or in excess, which may be judged of by the symptoms, nature, and effects of the disease, food and medicine should be sought for and used, which will either supply the deficiency or lessen the redundancy, or counteract any deleterious compound that may have been formed in the blood or lodged in any part of the system. If the stomach generates an acid which has a tendency, as it mixes with and passes on with the chyme, to destroy the effects of the soda in the bile, and in the blood, a liberal fish diet would partly remedy this evil. Thus the free use of oysters has restored invalids of this cast. Some persons have an excess of soda or other alkaline qualities: a free use of mild vegetable acids would quickly remedy this disease. I knew a gentleman who was subject to bilious attacks, and he had had the advice of the most experienced medical practitioners, and nothing in the materia medica usually recommended would reach his case; as the attacks commonly went off by throwing out tetters or pimples, which broke and discharged, he tried the matter by an application of a separate portion of acid and alkali, to find which would effervesce, that he might discover its quality, which he found to be that of a powerful alkaline nature; he knew the remedy then must be an acid. I have known him, when he had an attack, to take a quarter of a pint of clear lemon juice at a time, which would give him instant relief; when this was not at hand, he took strong vinegar. These instances may suffice to shew the nature of the thing. To enumerate the various changes to which different constitutions are liable, would be endless; every person should learn to judge of their own, at least of its tendency towards any peculiarity. In some persons there is a want of phosphoric acid, to give the bones a firm texture; being made up almost solely of the carbonate of lime, they are brittle and break, and little osseous substance being secreted, they never firmly unite. Others have too much osseous substance, and it is deposited in various parts; if on the vitals, it

soon becomes fatal. In some others, the bones contain too much gluten, and not having a proper degree of firmness, they give way and bend.

It may not be amiss to compare and bring into one point of view, the use of the gases and other artificial aids with the practice and operation of medicine. There are two principal modes by which medicine acts on the human system. The first is mechanical, and the other chemical; some perhaps may act both ways. Those medicines that act mechanically, I conceive, are such as excite, move, or irritate the fibre, so as to produce action in the part to which they are immediately applied, or to which they are most adapted. The nature and fabric of the parts being so diverse, the medicines acting upon them have appropriate names to distinguish them. The general design of them is to relieve and free the part or organ that is more immediately burthened and oppressed. If the fibre has lost its contractility by weakness, or by the putrefactive process, medicine will produce no effect; it is in vain to increase the dose; but the carbonic acid gas will quickly restore the original state of the fibre: then the latent dose will operate. I have known this in several instances. Some drugs, especially the metals, most of which contain an astringent quality, which contracts, and by that means hardens and strengthens the fibre. Some metals will act as poisons on the blood, and congeal it. Mercury will dissolve and decompose the blood; if the system is strong enough to separate the impure parts and throw them off, the component parts may form a fresh union, and the system be benefited; but the greatest part of those who take mercury have the blood left in a disunited state; and so it continues more or less through life, unless a sufficiency of carbonic acid gas has been received to effect a union. Many have been recovered from the mercurial disease by the free use of this gas.

Where drugs are administered that act chemically, their nature, their affinities, and their general power, should be well understood. It should be known what they have to encounter, and what may counteract their operation. It should be considered whether they are calculated to act chiefly on the nervous or the sanguiferous system. I fear there have been fatal mistakes made for want of this knowledge, more especially in medicines of the sedative class. Where attempts have been made to quiet nervous irritation by digitalis, the sanguiferous system having been considerably debilitated by such constant excitement, vitality has been presently overcome by a lowered pulse, and life has unexpectedly become extinct.

No drugs can be administered with safety and propriety, especially when compounded, without the chemical action of each ingredient on the others is well known, as well as on the system in general; for it is to be recollected, in some cases, two simples, innocent in themselves, being mixed, will form a strong poison. On the other hand, a poison may be rendered nearly innoxious, by forming a union with a substance of an opposite quality.

In using the gases medicinally, there is little or no danger, as they are simple, and their effects easily and correctly traced. Gases inhaled, the certain effect is measured by the pulse: when the gas is removed, the progress of the effect ceases; which cannot be said of medicine, as this, in many cases, cannot be ascertained. Gases, externally applied, to be absorbed when saturation takes place; the system will admit no more, especially of carbonic acid gas. It is a question worthy of notice, whether the

effects of many medicines are not produced by the gas they contain being liberated and mixed with the blood and humours: some contain a quantity of oxygen, and some hydrogen; some carbonic acid gas, and many ammoniacal gas.

It is to be lamented that so few have ventured to come forward to the public to administer the gases in a medical way. The faculty have discountenanced it, and raised many obstacles in the way. This is generally the case with any new discovery, especially where it militates against private interests or strong prejudices, where they have long indulged. A person of good understanding, with some knowledge of medicine, might do much good by administering the gases, especially with the assistance of some mechanical auxiliaries, as electricity, galvanism, the air-pump, vapour bath, and sudatory. I know of no efficient practitioner who adopts the whole of these modes but a lady of Exeter, a Miss Cragg, pneumatic chemist, who has had marvellous success in cases that had baffled all medicine, and have been pronounced incurable. By perseverance, she has overcome all opposition, and silenced all clamour; patients have resorted to her from various parts of the kingdom; and even medical men have condescended to submit to her treatment. She undertakes no critical case but under the auspices of some of the faculty. She resorts to no puffing advertisement, as she is well known by the many cures she has performed.

London, June 10. T. W. VINCENT.

III.—DR. RYAN *on Homicide by Poisoning.—(continued.)*

MEDICAL jurists and toxicologists are almost universally of opinion that symptoms alone can never supply decisive proof of the administration of arsenic. This opinion is correct in the majority of cases, as the symptoms are only burning pain in the stomach and bowels, vomiting and purging, oppressed circulation, excessive debility, and speedy death. These symptoms are characteristic of cholera, but I fully agree with Dr. Christison, that when the inflammatory and nervous symptoms, already detailed, have been present, the evidence is conclusive. This able author relates some cases in proof of this conclusion, which no jurist can question. He properly maintains, that it is probably within the bounds of possibility, but in the highest degree improbable, that disease can produce the train of symptoms consequent on poisoning by arsenic.

The Morbid Appearances do not always enable us to pronounce a positive opinion that poison has been taken. In many cases there will be no redness in the mucous membrane of the gullet, stomach, or intestinal tube, though in general such appearances are present. Nor can these be distinguished from ordinary results of disease. This fact is well attested by M. Andral, in his account of hyperemia of the gastro-intestinal mucous surface. (Pathology.) Black elevated spots on this surface, sometimes appear, and, in the opinion of the Edinburgh Toxicologists, are held to be diagnostic; but Andral mentions such appearances in cases in which there was no symptoms indicative of intestinal disease. The softening of the mucous coat of the stomach, or perforations of the three coats of this organ, are the result of disease, as well as the effects of poisoning by

arsenic; and here I must remark, that Andral thinks more evidence is wanted to warrant the conclusion of Mr. Hunter, which ascribed such condition to the influence of gastric fluid after death. *Op. cit.* The older jurists said arsenic eroded or corroded the stomach, which is a palpable mistake; and this substance has no chemical affinity for animal matter, and is not a corrosive. The presence of black clots of blood in the stomach, is a strong proof that arsenic has been administered. It is to be recollected, however, that in mælena or yellow fever, the black fluid, or black vomit, as it is vulgarly denominated, may exist in large quantity in this organ without any breach of surface.

Arsenic is generally found adherent to the stomach, though vomiting may have continued for thirty-six hours. Every white powder found in the stomach is not to be mistaken for arsenic; the proper tests must determine the presence of the poison. It is singular, that the rectum may be ulcerated, and the rest of the large and small intestines may be healthy. The mucous membrane of the windpipe and lungs may be inflamed, as also the inner surface of the heart, or there may be absolute inflammation of the lungs. The cardiac appearance is equivocal, though much dwelt upon by Sedillot. The sexual organs are said to be black and congested, but little reliance is to be placed on these appearances. Dr. Christison cites numerous cases to prove, that when arsenic is retained in the stomach and bowels, putrefaction is impeded even for days, weeks, or months. It has been said that the vessels of the brain are congested by the poison under notice; but little reliance can be placed on such appearances. Upon the whole, little certainty can be placed on the pathological appearances produced by arsenic, though they afford strong presumptive evidence.

With respect to the treatment of this species of poison, it is now determined, that the chemical antidotes are of little use. Milk is the best fluid, and should be drank freely. If vomiting come on, the milk should be continued, and inflammation prevented by free depletion, and large doses of opium; local bleeding is of little use. Castor oil and opiate suppositories are highly valuable.

Preparations of Copper.—Two preparations of copper have been used as poisons, the deuto-acetate (crystallized verdigris) and the deuto-sulphate (blue vitriol). Solutions of these, as well as of nitrate of copper, are of a fine blue colour. Potass, soda, and baryta decompose them, and precipitate the deutoxide in the state of hydrate. Hydro-sulphuric acid and the soluble hydro-sulphates give a precipitate of the black sulphuret of copper. When a plate of iron is immersed in the solution, it is covered with a coat of copper.

The sulphate of copper is used instead of yeast for the fermentation of bread. The preparations of copper can seldom be disguised, on account of their colour, and are rarely administered as poisons. It is to be borne in mind, that there is scarcely an article of food or drink which may not be impregnated with copper, if kept in copper vessels after having been boiled. The impregnation does not take place during boiling, but after cooling, and is caused by alimentary matters invariably containing some acid or fatty matter. The detection of the combinations of copper in vegetable and animal mixtures, is not as yet satisfactorily determined. The reader will find all the information on this subject in Dr. Christison's work

on poisons. The white of eggs is the best antidote for the poisonous preparations of copper.

Preparations of Antimony.—Tartarized antimony, or tartar emetic, is the preparation of antimony which most commonly produces poisonous effects.

" By far the best re-agent," says Dr. Christison, " is *sulphuretted hydrogen*. In a solution containing only an eighth part of a grain per ounce, it strikes an orange red colour, which, when the excess of gas is expelled by heat, becomes an orange red precipitate; and if the proportion of salt is greater, the precipitate is thrown down at once. The colour of the precipitate is so peculiar as to distinguish it from every other sulphuret; but if any doubt regarding its nature should occur, it may be known at once by the process of reduction with hydrogen gas.

" Tartar-emetic, like the soluble salts of mercury and copper, is decomposed by various organic principles. All vegetable substances that contain a considerable quantity of tannin, have this effect; of which an example has been already mentioned in the action of infusion of galls. Decoctions of cinchona bark decompose it still more effectually. The animal principles do not act on tartar-emetic, with the exception of milk, which is slightly coagulated by a concentrated solution. Many vegetable and animal substances, though they do not decompose it, alter the operation of the fluid tests. Thus tea, though it does not effect any distinct decomposition of the salt, will prevent the action of the gall nut infusion; and French wine gives a violet tint to the precipitates with that test and with sulphuric acid. The sulphuretted hydrogen gas, however, acts, according to Dr. Turner, under all circumstances, and always characteristically, whatever the colour of the fluid may be. He found that when transmitted through a diluted solution in tea, porter, broth, and milk, with certain precautions to be mentioned presently, he procured a precipitate which either shewed its proper colour at once, or did so at the margin of the filter on which it was collected."

The best mode of shewing the presence of antimony is the method proposed by Dr. Turner. He places a little of the sulphuret of antimony in a horizontal tube, transmits hydrogen gas through it, and when all the air of the apparatus is expelled, heat is to be applied to the sulphuret with a spirit lamp. Sulphuretted hydrogen is evolved, and metallic antimony is left if the current of hydrogen is gentle, or it is sublimed if the current is rapid. When there is much animal or vegetable matter present, the metal is not always visible. It is to be heated in an open tube, when it oxidates, and sublimes in the form of a white powder, which glimmers, but is not crystalline and adamantine, like oxide of arsenic.—*On the Detection of Antimony in mixed Fluids, Edinb. Med. and Surg. Journ.* xxviii. 71.

When tartar-emetic is taken into the stomach, it produces vomiting, violent pain in the stomach, colic pains and purging—in a word, inflammation of the gastro-intestinal mucous membrane. There are violent cramps of the limbs. In some cases there have been eschars and perforations in the intestinal canal. This medicine is now given in repeated doses to the extent of sixty or eighty grains in pneumonia, without any poisonous effects—a fact which proves it is not so dangerous as formerly supposed. When applied to the skin, it sometimes induces severe nausea; two instances of which have fallen under my observation. One patient was an

adult male, the other a female. The best antidote for this poison, is a decoction of yellow bark, or the tincture, if it can be procured, or the bark in powder. Vomiting should be first induced by copious draughts of warm water, or by tickling the throat with a feather, or a finger. When the poison is evacuated, opium is useful, but we must recollect the danger of gastro-enteritis, and act accordingly.

Preparations of Tin, Silver, Gold, Bismuth, Chrome, and Zinc, are rarely employed as poisons, and very little is known of their effects. The reader must consult systematic works on jurisprudence for information as to the effects of these metals.

Preparations of Lead.—The preparations of lead which claim especial attention are, litharge, red lead, white lead, and sugar of lead, or, according to chemical nomenclature, the protoxide, deutoxide, carbonate, and acetate. The commentator on Dr. Christison's work in the *Lancet*, objects to the re-agents proposed by that distinguished writer, namely, the chromate of potass, hydriodate of soda or potass, and metallic zinc. These, he says, may be applied, by an inexperienced person, to a copper solution, and positive testimony given to the detection of lead. He therefore prefers the reduction process, which is extremely easy, and affords the most satisfactory evidence.

A small hollow should be scraped in a piece of dense fine charcoal, and in this the sulphuret should be placed, moistened with a drop of distilled water, in order to make it adhere to the support; it should then be touched with the *interior* or blue flame of the blowpipe, when the reduction almost instantly takes place. The little globule of metal should then be removed and examined, for we have now to distinguish it from silver, which, take it in the pure state, is a white, shining, and a soft metal; the globule should, therefore, be flattened by gentle pressure, replaced on the charcoal, and touched with the *furthest* point of the flame, when it quickly disappears, and on withdrawing the charcoal, two beautiful concentric circles of red and yellow remain, being the yellow and red oxide of lead. Nothing can be so conclusive as this experiment, and its success is perfectly certain.

When a soluble salt of lead is taken to an excessive dose, the phosphate of soda, or sulphate of soda or magnesia, should be administered as soon as possible, and vomiting speedily excited; an insoluble sulphate or phosphate is thus produced, and an effectual antidote supplied. A point now remains for consideration, which Dr. Christison has entirely omitted, viz. the means of detecting lead in the condition of the extremely insoluble phosphate or sulphate contained in the vomited matters; for this purpose the matters should be agitated with a considerable quantity of water; this mixed with solid matter, the phosphate or sulphate from its weight quickly subsides, and should be collected, washed, and heated to redness with charcoal in a glass-tube; phosphuret, or sulphuret, of lead is thus generated, either of which may be reduced by the blowpipe in the manner above directed; the reduction should be accomplished in the interior flame, when, if the salt be the phosphate, which the analyst should always inquire, the process presents a modification thus described by Griffin, in his excellent Manual on the Use of the Blowpipe, p. 177, and for the accuracy of which description we can vouch from repeated trials.

" Before the blowpipe alone on charcoal, in the *exterior* flame, it melts,

and on cooling forms a dark-coloured polyhedral crystal, the faces of which present concentric polygons. In the interior flame it exhales the vapour of lead; the flame assumes a bluish colour, and the globule on cooling forms crystals, with broad facets inclining to pearly whiteness. At the moment it crystallizes, a gleam of ignition may be seen in the globule. If the crystallized mass be pulverized and heated with borax, there results in the first place a milk-white opaque enamel; upon the continuance of the heat this effervesces, and at length becomes perfectly transparent, the lower part of it being studded with metallic lead."

Another and still easier mode is, to suspend the phosphate or sulphate in water, transmit sulphuretted hydrogen, wash and reduce by the blowpipe-flame. In both cases the concentric circles of red and yellow oxide remain on the charcoal when the flame is removed.

The foregoing extracts and remarks are amply sufficient for the guidance of the examiner of matters of food, drink, &c. suspected to be adulterated with lead, with the exception of cheese, which has been, and is, occasionally, coloured with red led. In this case the cheese should be chopped into fragments and suspended in water, when, if blackened by sulphuretted hydrogen, the indication may be considered decisive without further trouble.

Dr. Christison's chapter on lead is still the most interesting ever published. In relation to medical police, it is of immense importance. The narration of the effects of water on lead will be perused with advantage by the best informed of the faculty. It would be superfluous to copy it here, as the original is in the hands of every scientific practitioner.

Preparations of Baryta.—These have been as yet so seldom employed as poisons, except on the inferior animals, that the student of toxicology may be spared the trouble of considering their detection at present.

IV.—*Evidence in proof of a Remedy for the immediate Relief of Tooth-ache when arising from caries or decayed Teeth, without any pain or the Operation of Extraction.* By Dr. Ryan.

Of the numerous diseases incidental to humanity, few are of more painful or of more frequent occurrence than tooth-ache; and for none is there less sympathy, or less relief by medicine. The concurrent testimony of the scientific portion of the profession attests the truth of this position. A remedy which is capable of affording immediate relief to the excruciating pain of tooth-ache, without the slightest pain, being produced by its application, has long been a desideratum; and I feel great gratification in being the medium of proposing such a valuable remedy to the profession.

It is right to observe, that before I resolved upon this course, I deemed it necessary to determine the value of this agent, and to try it upon myself and many other individuals; and ample experience has convinced me of its efficacy.

Like many of our best remedies, that which I proceed to notice was discovered by accident. A gentleman who attends my lectures (Mr. Myers, of Newington Causeway), had frequently applied sulphuric acid to his tooth with some relief; but on one occasion, he, in a moment of confusion, took down the next bottle to his remedy, which contained nitric acid. To his

great surprise, he experienced immediate relief, and without the slightest pain. Since that period he has not suffered from tooth-ache, though three years have now elapsed. During the last winter he informed me of the success of this remedy, which induced me to try it, while labouring under the most intense pain from tooth-ache. The effect was immediate, and no pain whatever was induced. I have since used it in numerous cases, and invariably with complete success. In some instances the disease does not return for days or weeks; and in others not for months.

The best mode of employing it is by means of lint wrapped round a probe, and moistened with the acid, which is then to be slowly applied to the cavity of the tooth; care being taken not to touch the other teeth, the gums or the cheeks. On withdrawing the probe, and inquiring how the patient feels, the usual reply is, "the pain is entirely gone." The mouth is next to be washed with tepid water. The acid should be gradually applied to the whole cavity of the tooth, or otherwise a second application will be required before complete relief will be obtained.

This remedy may be used when the gum and cheek are inflamed, so as to preclude the possibility of extraction. In cases where the diseased fang remains, and when the caries faces the adjacent tooth, it obviates the necessity of extraction in all cases of hollow teeth, which all practitioners declare to be desirable, if possible; and it enables the dentist to perform the operation of "stopping or filling teeth," much sooner than he can otherwise accomplish. In a word, it will alleviate a vast deal of human suffering, and supersede a most painful operation. It is not a panacea for all the diseases of the teeth and gums, though a certain and efficacious remedy for the most common cause of tooth-ache. It will be a valuable remedy for children, delicate persons, and pregnant women. It does not accelerate the decay of the tooth to which it is applied.

As the employment of this acid in the disease under notice is not recommended in any pharmacopœia, ancient or modern, of these or other countries with which I am acquainted, and as tooth-ache is now a most prevalent complaint, in consequence of the inclemency of the season, I think a more favourable opportunity cannot occur for the communication of the information described in this paper.

Hatton Garden,
June 1831.

BIBLIOGRAPHY.

PHYSIOLOGY.

1. *Results of the dissection of three double Monsters, by D. C. Mayer, Bohnn.*—The first of these monsters was a calf fully developed, which lived some hours after its birth. The heads and necks were separated; but the two trunks were confounded together in such a manner that, however, we could feel through the skin, the double vertebral column as far as the pelvis. There were two hearts in the animal to the right; the right subclavian artery arose from the pulmonary artery: this latter gave off the ductus

arteriosus, as it generally happens: the aorta gave off the two common carotids and the left subclavian, but not the right. There was, in reality, an innominata, but this was for the origin of the two common carotids.

The second monster was the fœtus of a sheep: the head single, with a double spine: possessing eight limbs, one heart: the pulmonary artery gave origin to the two subclavians: the œsophagus and trachea formed one canal.

The third monster was also the fœtus of a sheep; the head was double; but, at the occiput the heads were so confounded, as to have but one foramen magnum; the rest of the body was simple. In this monster, as in the preceding, the œsophagus and trachea communicated, so as to form only one canal. The right pulmonary artery arose from the aorta.—*Zertschrift fur Physiologie, from Bulletin des Sciences Medicales.*

2. Dissertatio Inauguralis Anatomica sistens enumerationem nervorum pelvis et partium generationi inserventium in sexu potiori, *quam consentienti gratioso medicorum ordine Cæsariæ Universitatis literarum mosquensis pro gradu doctoris Medecinæ, die quinto Aprilis* 1826, *publice* defendit Petrus Einbrodt mosquensis. In 8vo. de iv. et 40 pag, sans fig: Moscow, 1826; Aug. Semen.

There is a part of neurology cultivated more than the rest; that part is the cerebral system. We study with less care the vertebral nerves, and more especially those of the pelvic extremity of the trunk. This motive has engaged M. Einbrodt to publish a detailed, yet succinct, description of all the nerves of the pelvis. The first part of his work comprehends the history of the lumbar and sacral nerves: in the second, the inferior extremity of the great sympathetic is described: in the third and last part are described all the nerves of the sexual organs of man, whether they arise from the spine or the great sympathetic. This work is, in fact, only a compilation.—*Op. Cit.*

3. *Dos Aufrechterscheinen der Gesichts objecte.*—Of the right appearance of visual objects, in spite of their inversed image on the retina. By Ar. Ad. Berthold, at Gottingen. Stitched, in 8vo. 1830. Dieterich.

The author endeavours to explain this phenomenon by the general feeling of the eye. The eye, he says, has a certain weight, of which we are well aware: there is also a certain feeling attached to the movement we are obliged to make to raise the eye, or to move it, whatever attitude we are in. Thus, to see the top of an object, we are obliged to direct the eye in a contrary sense to its weight; and, to see the bottom of the same object, we carry it in the direction of its weight; and it is the consciousness that we have of the weight of the eye, in the movements we are obliged to give it, which makes us judge of what is above or below. We see, by this, that it is not the act of vision itself, but the intimate act of our organs, to which our author attributes the faculty of seeing objects in the right position: so that in proportion as the eye loses weight, our vision becomes imperfect. Finally, this theory is expressed so obscurely, that we have experienced great difficulty in understanding it.

We perfectly agree with the editor of the *Bull. des Sciences Med.* that the theory is obscure. We think M. Berthold, in regard to this disputed point of physiology, has left the matter as he found it.—Ed.

4. *Ueber die Eigenscaften Welche sich bei Menchen und Phieren von den Eltern auf die Nach-kommen vererben.*—On the qualities which are propa-

gated in man and animals from parents to their children, with particular considerations on horses. By J. D. Hofacker, Prof. at Tubingue, and F. Notter, at Stuttgard. Stitched, 8vo. 158 pages. 1828. Osiander.

This important subject was first treated of in Latin, and formed the inaugural dissertation of M. Notter, who obtained his degree of doctor during the presidency of Professor Hofacker. Since then, M. Notter has considerably augmented his materials, and published, in concert with the President, the German *brochure* we have announced. The distribution adopted by the authors is as follows: In the first chapter they treat of the vegetative and irritable properties transmitted by parents to their posterity: these qualities relate to, first, the shape; secondly, the figure of certain isolated parts; thirdly, the colour of the hair, feathers, &c.; fourthly, the state of the skin and dental apparatus; fifthly, the state of leanness, or obesity; sixthly, the duration of life; and seventhly, the locomotive apparatus and the voice. In the second chapter they treat of the sensitive and intellectual functions, as influenced by generation. The third chapter is on the transmission of the qualities of the reproductive functions; namely, first, the developement of the genital organs; secondly, fruitfulness; thirdly, the abundance of milk; fourthly, the quality of the sex; fifthly, the history of the influence which the age of the parent exercises on the sex of the infants; and sixthly, the influence of seasons, the strength of parents, their continence during youth, &c. The fourth chapter is on the question whether the qualities of the father, rather than the mother, are transmitted by generation. The fifth treats of the diseases and mal-formations which may be propagated hereditarily. The sixth and last chapter treats exclusively on the consideration of the causes which induce the degeneracy of the breeds of horses: the authors discuss and refute the theory of Buffon on mixing the breeds, and propose some ameliorations.

This little work is only a compilation, to which, nevertheless, the authors have added some facts of their own, as the transmission of the colour of hair, on the influence that the age of parents exercises on the sex of their offspring, &c.

5. Rapport de M. G. Cuvier sur un Mémoir du Dr. Bennati, intitulé, *Du Mecanisme de la voix humaine pendant le chant*; lu à l'Académie des Sciences en 1830; Report of M. G. Cuvier on a Memoir of Dr. Bennati, entitled, *Of the Mechanism of the Human Voice during singing*, read at the Academy of Sciences in 1830.

The intention of this *Memoire* is to make known the part that an organ, to the functions of which physiologists have hitherto paid little attention, takes in the modulations of the voice. We mean, the velum palati, or, rather, the strait of the throat formed by the velum palati, its arches, and the base of the tongue.

We are aware that of the physiologists, who have studied the organ of the voice, some have compared it to a stringed instrument, others to a reed instrument. M. Savart has compared it more happily to a kind of bird-call, and has established that the two ligaments of the glottis, and the ventriculi which separate them, take an essential part in the primitive formation of the voice. He has shewn, at the same time, that the nature of the walls of the mouth, its internal configuration, and the more or less of tension of the parts which form it, concur in modifying the primitive sound, and can more especially lower it by means which do not consist in

the greater or less elevation and depression of the larynx, taken in its totality. M. Savart has not, however, paid attention to the special character (role) of each of these parts, neither has he attended to that which the velum palati plays. In general, little attention has been paid to this second strait, through which the air, which produces the voice, is obliged to pass. Fabricius, of Aquapendente, had, nevertheless, remarked its importance, after having shewn that the voice is formed at the larynx, after having made known the relations of elevation and depression of the larynx, and, in consequence, the variations in length of the buccal cavity. This illustrious anatomist also described the variations in width that the same organ undergoes in passing from grave to sharp sounds. Ferrein, long after, appears to have attended to the same considerations, and to have gone farther than Fabricius: for, in terminating his memoir on the voice, he says, that the chordæ vocales are not the organs of every kind of voice; that a certain guttural intonation, and a false treble of the same nature, are produced by a new organ, the existence of which he has declared, and which he proposes to make known in a new *memoir*. The promised memoir never appeared, and thus we know not of what organ he intended speaking; Haller has supposed it to be the velum palati, but, however, he has not said in what manner this organ concurred in forming the voice.

In a thesis sustained at Tubingue, in 1781, M. Hellvay stated, that in the false treble, the uvula contracted, whilst it did not change its shape in the ordinary tone. This is, we believe, all that has been said hitherto of the part the velum palati plays in the production of the voice, before the appearance of this memoire. M. Bennati, who joins to the skill of the physician a great exercise of the art of singing, and who has one of the finest voices we know of, has paid particular attention to these motions: he has ascertained that the tongue itself, in elevating and depressing itself, or in forming itself into a hollow, exercises a powerful influence on the modulations, and that, in order that the larynx may give any tone, it is necessary that the os hyoides be firmly fixed in a determined position. He has, besides, recognised that the notes improperly called *de la tete*, and false treble, are formed almost exclusively by the labour and the strongest contraction of the superior part of the vocal canal. He names them, in consequence, *super laryngeal*, and he calls their union *the second register*, to distinguish them from the notes said to come from *the chest*, and which he had rather call *laryngeal*, and their *ensemble*, the *first register*. He does not mean to say, by that, that the larynx does not aid in forming the one, nor the throat the other; but he wishes merely to show the more essential part that the throat takes in forming those of the *second register*. In regard to the *third register*, of which some works on singing speak, he regards it as imaginary, and owing simply to the vibration, more or less powerful, of the last notes of the first, and of the first notes of the second. Those singers, whose voices are composed of *two registers*, have need of more art to manage the transition from one register to the other, so as to unite them in the ear, and are more easily fatigued than others.

6. *The Cause of the Pulse.—Arnott's Elements of Physics, Vol. I.* p. 556.—The opinion which the ancients held, that the arteries contained *vital spirits*, or *air*, and not *blood*, rendered the pulse to them a very mysterious phenomenon, and many curious hypotheses were framed to explain it. These it would now be unprofitable to detail. Even Harvey's grand disco-

very of the circulation, however, has not rendered the subject so simple as might have been anticipated. The following opinions now exist, or have lately existed, with respect to the pulse:—

1st. The great majority of physiologists have believed, that a tumefaction is produced in the aorta by each jet of blood from the heart; and spreads afterwards, as a wave, into all the arterial branches.—2d. Many have supposed a contractile action in the arteries themselves, corresponding to that of the heart.—3d. Bichat, unable, by any means, to detect the slightest change of diameter in the arteries, during pulsation; but perceiving, that, in many situations, they were, at the same time, somewhat lengthened, so that straight portions became bent, and portions, originally bent, were bent still more, held that this locomotion, or changing of place in the arteries, was the cause.—4th. Others have supposed the impulse of the heart's contraction to be transmitted through the fluid blood, somewhat as sound is transmitted through bodies generally, or as a blow, struck on one end of a log of wood, is felt distinctly by a hand applied to the other, although there be no visible locomotion.—5th. Dr. Young, in a paper in the Philosophical Transactions, has shewn, that a sudden rush forward of the blood in the artery, such as might be produced by injection at one end of a rigid tube, would be felt by a finger applied to the artery, quite as distinctly as a tumefaction; and he deems this occurrence to be a chief cause of the pulse. Dr. Parry, in his work on the pulse, points to this almost exclusively as the cause. Now the truth is, that the pulse, in the living body, does not depend on any one of the particulars just noticed, but has all of them as elements; and its fluctuations and varieties depend upon the proportions in which these elements are combined. We shall review them again to prove this,

1st. At each jet of blood thrown into the aorta a tumefaction or *wave* must spread from the heart to the extremities; for it is evident, that if blood be at all pushed into the arterial system, it either must dilate it, or cause an equal quantity to be expelled at the same instant from the distant extremities. Now, as the passage of the blood through the capillaries appears perfectly uniform, there must be an intermediate dilatation. Dr. Parry and others should not have denied this dilatation, because they could not see it: for even if its advancing front were more considerable than it is, because it passes almost with the velocity of a shock of electricity, it could no more be visible than a cannon ball crossing before the face.

2d. Contraction of the arterial coats certainly does not take place in the manner and to the extent supposed by some, who have spoken of it as resembling the contraction of the heart itself, and as what might be a substitute for the action of the heart in propelling the blood; but, as shewn before, the rigidity of tube, which, in all degrees of arterial dilatation, causes the pulse to be transmitted so quickly, can depend on nothing but a contractile action of the fibres. There are some reasons for doubting whether this rigidity may not increase at the moment of the pulse.

3d. Unless the arterial tubes were absolutely inelastic, which they are far from being, they *must* be lengthened a little by a sudden injection of blood; and, therefore, at all the curvatures particularly, there *must* be a degree of the locomotion, described by Bichat, often sensible to a finger applied.

4th. That a tangible shock is conveyed through a fluid, without any ap-

parent accumulation of it, or change of velocity, and much in the manner of sound, is proved, by the facts, that we may discover the working of a water pump at a very great distance, through the iron pipes connected with it, and even through elastic pipes of leather, as those of a common fire engine, from which the water is spouted, nevertheless, in a uniform stream. The pulse, in a tied artery, in which there is no current or rushing wave, must be chiefly from this cause, and from the locomotion of the artery.

5th. That any additional quantity of fluid injected into elastic vessels, already full, must spread all over with a *forward rush*, affecting the finger, as described above, is also most certain. As the heart, however, often beats, without discharging much of its blood, and, as in many arteries, from inaction of the capillaries or pressure, the blood, for a time, makes little or no progress, while the pulse, however, remains very distinct, the pulse, in such cases, must be produced independently of the forward rush. An animal intestine, prepared and filled with water or air, and laid upon a table, or a full vein in the living body, carries a rapid and distinct pulse to a great distance, when gently tapped by the finger. The cause of the sensation, then, cannot be the simple forward *rush*, without tumefaction, described by Dr. Young and Dr. Parry.

In whatever proportions these particulars combine to form the pulse, its force will be proportioned to the size of the artery; hence, as an artery, leading to an inflamed part, becomes of greater calibre, its pulse also becomes stronger.—*Glasgow Medical Examiner, May*, 1831.

PRACTICE OF MEDICINE.

7. *A Memoire on the Cholera of Russia; addressed from Moscow to the Academy of Sciences.* By Dr. Joehnichen, Member of the Temporary Council of Medicine.—Dr. Joehnichen informs us, that this paper is not intended as a complete dissertation on the cholera, but relates more especially to the degree of contagion of that disease, and its identity with the cholera of the ancients, of Galen, &c. He proceeds to state, that to justify his disputing the opinion of the academy to which he addresses himself, as shewn by their terming the disease "*Pestilential Cholera Morbus,*" that his deductions are drawn from his own practice, including 500 cases within three months, as also from the authority of a great number of physicians, both in Moscow and the provinces.

The cholera morbus first inspired fear in Moscow towards the end of summer, when the news of its arrival at the fair of Nijni-Novgorod came. The little distance of that city, the frequency of communication, and the belief in mediate and immediate contagion, then in full existence, rendered its importation into the capital very probable. Precautions were immediately taken; quarantine established, and no one allowed to enter without undergoing fumigation. Temporary governors were appointed in each quarter, as likewise temporary hospitals, under the direction of a medical inspector, with physicians and students of the university. The inspectors formed a temporary medical council meeting every day. Each householder was directed to report to the police, as soon as the symptoms of cholera came on. The disease first appeared at Moscow on the 15th of September. The greatest number attacked in a day at Moscow was 244. The barriers were open, and the peasantry allowed to go in and out as they pleased.

After this account of the appearance of this disease, Dr. Joehnichen details his reflections on the degree of contagion of the cholera.

The result of his observations is, that,

1st. " The invasion of cholera in Moscow and elsewhere in Russia was preceded by a particular disposition to diarrhœa, vomitings, &c. which continued throughout the whole of the disease, and which seems to prove the existence of a particular epidemic state of the atmosphere.

2d. " Several animals of different kinds have fallen victims to this disease, as geese, fowls, turkeys, crows.

3d. " Minute research in Moscow, establishes incontrovertibly that the disease has not been imported into this capital, but has developed itself spontaneously.

4th. " A great number of physicians, contagionists, previous to seeing the cholera, have since ranged themselves on the contrary side, and the ranks of the first are almost deserted.

5th. " The partisans of mediate and immediate contagion still existing in the temporary counsel of medicine, being three to twenty-one, have not been able to produce one well-confirmed fact of this immediate contagion.

6th. " Thousands of well authenticated facts, from hospitals and private practice, prove incontestibly the nullity of immediate contagion.

7th. " It is recognised now, that if examining by the touch in every way, patients attacked with cholera morbus does not cause the disease, their effects, those of the dead, merchandise, &c. are absolutely incapable of propagating the affection; and, consequently, immediate contagion is illusory. This assertion is strengthened by innumerable facts.

8th. " The absolute isolation of some families, from the commencement of the invasion at Moscow, has not preserved them.

9th. " The dissections of the bodies is not at all dangerous, and my observations, in this respect, coincide with those of the English and French physicians in the Indies. I have opened fifty bodies, the four cavities of which I have examined with care, and often the course of the nerves and vessels. I have frequently wounded myself, as well as my assistants, without any injurious consequences. If then some physicians have pretended the touching of the body has produced convulsions, I think I have reason to hold this as a poetic illusion.

10th. " The duration of the epidemic appears limited to six weeks, or two months in one place; its intensity is in direct proportion to the hydrometrical state of the atmosphere: cold, and especially drought, diminish its power of propagation.

11th. " The epidemic is severer among the lower classes, in the low, wet, and dirty habitations, and, consequently, in the quarters where this population abounds; drunkenness, debauchery, bad quality of food, incontinence, exposure to colds, ingestion of certain meats, predispose more especially to it.

12th. " Several houses have shewn, during the epidemic, all the conditions of that which I term a "*foyer d'emanation*," which I distinguish from a foyer of infection, and the disease has there attacked a great number of persons. It has ceased only after government had taken the necessary measures to purify them.

13th. " Six persons, during duty in the hospitals, were attacked in preference, by the cholera.

14th. "It has sometimes happened, that a person attacked with the cholera, has disseminated it throughout his family; at other times this has not occurred.

15th. "Numerous *cordons sanitaires* and *quarantines* did not hinder the cholera from spreading from the confines of Persia as far as Moscow, Astracan, and D'Orembourg, as far as Odessa; and if the Russian government has maintained these precautions up to a certain time, it is owing to doubt, or rather to the reading the Memoire of M. Moreau de Jonnés.

16th. "The disinfectants, chlorine, and the chlorurets have had no influence on the develloping of cholera. The use of the chlorurets was abundant; everywhere in the hut of the peasant, and in the palace of the nobleman; nevertheless the cholera ravages everywhere, despite the emanations of chlorine. I know not whether it is owing to the want of hydrogen in the miasma."

From these observations Dr. Joehnichen concludes that, "the cholera morbus is not a *pestilential* disease, and he thinks even that the *plague* itself it not *pestilential*, in the real meaning of the word.

"That the cholera is not *contagious* either *mediately* or *immediately*.

"That there is a germe, a miasm of cholera, which is found in the emanations of the patient, in his atmosphere.

"That these emanations can constitute a foyer, even from one individual according to the intensity of the disease; an hospital will always be a *foyer d'emanation*.

"That a particular disposition is absolutely necessary, in order that the miasm of cholera can have its effect on an individual. This disposition appears to increase with the severity of the epidemic, but we have not yet discovered the proportion according to which it can reproduce the disease in a population. At Moscow it was about three per cent.

"That the propagation of cholera follows the laws of all epidemics.

"That the pulmonary absorption in individuals predisposed to the disease is the only way in which it can be introduced in the system. It is not therefore *contagion* but a species of *penetration*.

"That the miasm appears to have a particular affinity for watery vapours, and to be as volatile. *The fact is, that these vapours condensed in the wards, containing a great number of patients with cholera, has furnished us with a* SUBSTANCE *exactly resembling that which Moscati obtained at Florence*. The Doctor, in consequence, believes that the miasm of cholera is transported with the watery vapours, and being *very light*, may be carried in every direction by the wind.

Our author declares on this reasoning, that the quarantine is useless, the only measure of service, is concentrating *all the patients in hospitals*. He also believes that it will be spread as far as the western limits of Europe, and be there far more fatal than in Russia; that it will be more and more fatal as it advances.

"After a certain point, *this cholera is incurable*. After the twelfth hour, we must '*despair and die*, for no medical aid is of service.'"

We agree with Dr. Joehnichen in great part of his statements, but we cannot reconcile the suppositions, that contagion will *not* produce the disease, whilst, at the same, an emanation or effluvium arising from the bodies of the patients, is capable of causing the disease; nay, of forming a focus for its diffusion. Surely if there be such an emanation, those who expose

themselves to contagion, are in more danger than those who are at a distance. This contradiction we cannot reconcile.

At a time when all England, all Europe, we may say, is agitated with this cholera question, every light thrown on the subject is of the highest importance. A medical man can hardly see a patient or meet a friend without the enquiry, "What of the cholera, shall we have a visit from it?" The non-professional public have been from time immemorial rank contagionists, and it will be difficult to dissipate their erroneous idea; however, we will attempt it, and should we fail, we can only say,

> "'Tis not in mortals to command success,
> But we'll do more, Sempronius, we'll deserve it."

The question of contagion has been the debateable ground of the profession for years. On both sides of the question are ranged names of the highest authority, and for which we entertain the profoundest respect. It has engaged the greatest attention and industry of men whose attainments and talents have justly raised them to the highest honours in our profession. Surely, then, we will attempt the question with becoming diffidence.

The question of contagion is not considered as attending cholera alone, but also as attendant on yellow fever, typhus, plague, and many others; and on all these points we shall consider it.

It has long been contended that, having once had any of these diseases, the predisposition to them is lost. We shall not examine this position, but merely ask, if so, how is it that the diseases can be taken by contagion, since we may be exposed to the full action of the contagion, and not take the disease, having previously had it? It is a strange anomaly.

In the yellow fever, the Bulam fever, *fievre des Matelots*, or whatever name it may be distinguished by, the attack commences by an extreme depression of the nervous system, so that the patient falls senseless frequently, and occasionally even dies on the spot. But this is owing to miasma, not to contagion. These fevers invariably come on *after* the rainy season, and during the heats of summer or autumn; whilst there is an immense quantity of putrifiant animal and vegetable substance in the marshes and jungles, the decomposition being aided and the dessication prevented by the evaporation of the rain, which had previously inundated the country. This is exemplified by the dangerous neighbourhood of Rome, the Pontine marshes, the marshes of Lincolnshire, by the fatal Walcheren expedition, &c. We never hear of intermittents being contagious, though they are only a minor kind of these fevers, and are produced by the same causes. The advocates of contagion assert, that because either the whole family are attacked at once or speedily after, that the disease is contagious, but they forget that the whole family are exposed to the same miasma. Gentlemen, physicians, and others, have slept in the beds, yet warm, of the patients who have died from fever; have worn their shirts reeking with perspiration from their bodies, and covered with black vomit, nay, have even swallowed this latter fluid without danger. There is an instance recorded of a young woman who slept with her husband while labouring under this disease, yet she escaped it. The Turks, who are predestinarians, frequently strip the bodies yet warm, and put on the clothes without inconvenience. Again, it is said, that those who do not fear the complaint are not attacked by it; surely they are as liable as ever, if

exposed to the effluvium, supposing it to be contagion. All depressing passions, by lowering the nervous influence, render one more likely to be attacked: this should not be were it from contagion; all being exposed to it alike, it should act alike on all; yet when does this occur? Again, drunkenness, debauchery, incontinence, in the same manner, predispose to cholera, as to yellow fever, typhus, and plague, evidently proving the close analogy of these diseases.

In the epidemic fevers which have raged in Ireland, from the earliest period to the present, they have always been consequent to famine and not traceable to contagion. Hence they commenced among the poor and seldom attacked the affluent. In these attacks the physicians, clergymen, and nurses who waited on the sick, suffered much less in proportion than the remaining part of the population, though exposed much more than they were to the full influence of the *contagion*, in addition to harrassing duty and mental labour. Of course inducing great depression of the nervous system.

We hope we have advanced sufficient to remove the fear of contagion; we might adduce much more, but are unwilling to occupy more of our reader's time.

We cannot, however, dismiss this article, without remarking the singular inconsistency Dr. Joehnichen has fallen into, in recommending an hospital for all sorts of patients, after stating that an hospital will be *always a foyer d'emanation.—Gazette Medicale of Paris, 5th March,* 1831.

In conclusion, we express the same opinions as himself on the inutility of the quarantine, and have never yet known any instance of a pair of breeches or a pound of sheet lead being affected with cholera or the plague, much less of their having conveyed it to individuals of the human species. The skull of the individual who first imagined it must have been *rather leaden.* We would be very happy to see a piece of lead or other material with the plague spots on it; we would not fear the contagion.

We do not, however, coincide with the Doctor in thinking, that it will spread to the West; we do not think the nature of the country will admit of it. The superior advantages of this kingdom, both moral and physical, the proverbial cleanliness characteristic of the people, will in all probability resist the violence of the epidemic now raging on the continent. Should it however extend to this country, which is highly improbable though not impossible, it will be much less fatal for the reasons already mentioned, and more especially from the decided superiority of our profession. The alarm excited by the public press is calculated to effect great mischief; it will convert our simple endemic cholera, which always prevails at this season into formidable pestilence, and intimidate the weak-minded to such a degree as to render medical aid of little efficacy in a large proportion of cases. It is well known to medical men, that patients who despair of life seldom recover, and therefore this false and groundless alarm given to the credulous multitude is extremely mischievous and highly prejudicial to public health.—Ed.

8. *Observations on Cholera.* By Dr. Ryan.—It is now admitted by the most eminent physicians of this and foreign countries, that the primary symptoms of cholera, yellow fever, plague, and typhus, are precisely similar, and that in all there is first prostration of the vital powers, or derangement of the brain and nervous system. It is therefore singular,

that the pathology and treatment of these diseases should be so widely different. No doubt these maladies are modified and varied by numerous circumstances, as situation, season, climate, and individual constitution. Nevertheless the primary phenomena of all bear an exact similitude, and of late years their treatment is becoming more uniform, and much more efficacious than heretofore.

Much diversity of opinion still prevails, as to the question, whether these diseases are contagious, or merely infectious; and this question is now deeply interesting in consequence of the public alarm, with respect to the extension of continental cholera to this country. It appears from the concurrent testimony of the College of Physicians in London, of the Academy of Medicine in Paris, and of the Russian physicians, that the disease now raging in Russia is not contagious. According to this conclusion, which no scientific physician can question, the precautionary measures taken by our government, with regard to quarantine, are unnecessary, really useless, as to the prevention of the importation of the Russian epidemic to this country.

On referring to the records of medicine, it will appear that human aid cannot arrest the progress of epidemic diseases; but on examining the voluminous evidence on the nature of Indian cholera, the inference is, that it is highly improbable, though by no means impossible, for it to visit this country.

SURGERY.

9.—*Taliacotian Operation for Restoration of Under Lip.* By C. Bryce, M. D.—In July last the Hakim-Bashi sent me at Constantinople the following singular case of destruction by mortification of the under lip and chin, which, from the success following the treatment pursued, seems worthy of notice.

The subject of it, a Turkish child three years old, was attacked in June preceding with scarlet fever, that spread sparingly over the body, and in which the mouth and throat were aphthous but not ulcerated, disappearing by the use of a wine gargle and laxatives. The subsequent affection of the mouth was preceded by much fever and restlessness, and appeared in a small pustule on the left commissure of the mouth, which became rapidly black, and opened, discharging an offensive sanies; the gums at the same time were discoloured, and bled on the child's crying. The sore formed on outside of mouth spread quickly downward and laterally; and on the seventh day of the disease, when the patient was first brought to me, the whole of the under lip and chin presented a fœtid, black, irregular-shaped slough, surrounded by a broad dark-coloured line of inflammation, marking the threatened progress of the disease on the integuments, the left cheek, and upper lip, which were painful and hard. The incisors of the lower jaw were loose, their gums and alveoli partaking of the affection, and by contact involving the tip and anterior edges of the tongue. The tongue was œdematous and loaded, but the fauces shewed no appearance of unhealthiness. The countenance had a peculiar livid colour; body dry and hot; pulse small and rapid; diarrhœa.

From certain circumstances, an emollient poultice to the sore, and frequent ablutions of the mouth, and a few drops of laudanum internally, were all that could be recommended at this period. On the 3d day's visit, and 10th of the disease, observing the rapid progressive destruction of

the integuments, the gangrenous parts were touched with diluted nitric acid, and sulphate of quinia with opium was exhibited. This external treatment twice repeated in thirty-six hours did not in any measure arrest the spreading of the mortification, which had now involved an inch and half in circumference of the left cheek and upper lip, and extended downwards under the chin. The diarrhœa was checked, and the child had enjoyed some hours of sleep, but was evidently sinking. It was now determined on to apply a fermenting poultice over the diseased parts, and to administer pills composed of quinine, camphor, and hyosciamus in large doses, and allow 8 oz. of English porter daily. This plan, after forty-eight hours' continuance, shewed a marked improvement in the patient; the mortification had made no farther progress for the last eighteen hours; the slough was partially detached; whilst the look of the child was improved, with a slower and fuller pulse. The poultice and porter were continued as before, as were the pills, reduced in strength. In a few days the slough was totally separated, leaving a florid granulating surface. The integuments had assumed their natural colour and feel; four incisors and two canine teeth, with fragments of alveoli, were removed, as were also three small exfoliations from the under maxillary bone. The tongue had thrown off its slough, and appeared healthy.

The only treatment practicable for the moment, was to encourage granulations by spirituous applications, and support, and diminish the loss of substance by compresses and bandages, whilst the general health of the child was improved by liberal diet and change of air. In six weeks a healthy cicatrix had formed, and the breach of continuity was much lessened by its contractions. It was now very evident that a complete, or even partial, reparation of the great destruction of the soft parts could be promised only by an operation, the necessity for which arose as much from the disagreeable deformity of the face as from the evident ill effects on the system that the constant flow of saliva occasioned. The writer was encouraged to this attempt by the very perfect success of a Taliacotian nose, made a short time before by him at Constantinople. The operation, in which he was assisted by the advice and skill of his intelligent friend Mr. Millingen, was performed by removing from the upper part of the throat a triangular portion of integuments, whose suitable form and size had been judged of, by measuring a model of the lip and chin adapted to the deficiency. This segment was now reflected, the twist being made immediately on the point of the chin, and its two angular points attached by ligatures to the commissures of the mouth, previously made bare by scarifications, as was also the whole of the former cicatrized surface. The flap was further supported by adhesive plaster and bandage, and the wound on the throat brought together by the same means. The parents were directed to keep the child in a recumbent posture, and to feed her sparingly on pap. The wound was looked at on the third day; on the fifth the dressings were changed, when adhesion had taken place on one side very completely, and, on the other, although the ligatures had cut through, there was no opening of the wound: there existed no symptoms of excessive inflammation of the parts, or of irritation of the system. In fifteen days the cicatrices were perfectly formed, and the wound on the throat almost closed. On closing the mouth the artificial lip seemed very well adapted to the other, and even when partially open retained the saliva,

and very materially diminished the unseemliness of features. It cannot be yet determined whether or not the second set of teeth, with their alveoli, have been so much destroyed as to prevent the great help derivable from their growth, by supporting the flaccid flap. On the whole, the result of the operation was very satisfactory, especially at Constantinople, by exalting the practice and utility of surgery amongst the Turks, and encouraging them to submit to operations beyond the barber's province of bleeding and tooth-drawing.—*Glasgow Medical Journal.*

10. *Amputation of the Thigh at the joint. Russian Surgery.*—In a work entitled *Institutiones Chirurgicæ*, written by *Professor* Frederic Hiltebrandt, *and said to be* approved and published by the Imperial Medico-Chirurgical Academy of Moscow, for the *use of students*, which said work has gone to the second edition, it is gravely stated, that " the disarticulation has never been followed with success: and that it must be rejected, *(omnino spernenda)*. Surely the existence of our great and distinguished army and navy surgeons, of Mr. Guthrie and others, must be entirely apocryphal, and Francois de Gay never had any existence.* Verily the knowledge of surgery, and the march of science must be backwards in Russia, owing probably to the influence of the despot Nicholas.

11. *Account of the Treatment of calculous Patients in the Hospital Necker, from July* 1829 *to July* 1830. By Dr. Civiale.—Eleven patients presented; seven were operated on by lithotrity; the other four by lithotomy. In one of the seven, the stone was so large and the bladder so closely around it, that but a few spoonsful of fluid could be injected. The sittings were at first, consequently, painful, but as they proceeded they became less and less. Success attended these operations: 173 patients have now been operated on by lithotrity; of these 162 by Dr. Civiale's method, and he has himself operated on 152.

The Russian *surgeon* already alluded to, in his *Splendid Expose of the State of Surgical Science*, states, that " Lithotrity is a dangerous innovation," and attributes its discovery to Gruithuisen.

MIDWIFERY.

12. *M. Velpeau on the Operation of Turning.*—This able and indefatigable author has, with his usual extensive research, collected the opinions of the most eminent obstetricians of all countries upon the operation of turning, and added an impartial criticism on the whole. His brochure is entitled, " Remarques sur les Positions Vicieuses et la Version du Fœtus." His essay will be read with great advantage, and add much to his high and well-earned reputation. We shall notice it fully on another occasion, and feel much indebted to the eminent professor for his politeness in favouring us with a copy; as also for his " Memoire sur l'Amputation de la Jambe dans l'Articulation du Genou, et Description d'un nouveau procede pour pratiquer cette Operation."

13.—*Plurality of Infants at a Birth.*—A case is recorded in the Philadelphia Journals of four children born at a birth. They were exhibited at the theatres in that city. A similar curiosity may be seen at a cottage at the road side, between Bromsgrove and Worcester, at about a mile from

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* The officer operated on by Mr. G. with success, after the battle of Waterloo; and, we believe, still *in life* at the hotel des Invalides.

the former place. They were twelve years old in May last, are extremely handsome, and very much alike, except the youngest, who is not so tall as the other three.

CHEMISTRY.

14. *Chemical Properties of some of the more important Principles of the Urine—Of Chylous Urine—Urea—Cystic Oxide—Lithic Acid—Purpuric Acid, &c.* By Dr. Prout.—In the present lecture it is my intention to exhibit to you a few of the leading chemical properties of some of the more important principles occurring in the urine, and at the same time to take a concise view of an interesting and very rare form of disease connected with *Albuminous Urine,* or rather that variety termed *chylous* urine, and which I believe, was first distinctly described by myself in my little work on urinary diseases. Since that time, principally by the favour of different friends, I have seen more or less of eight other cases of the same affection.

The properties of the urine in this disease (of which I here exhibit a specimen) have been so minutely described in the work above alluded to, that I do not think it necessary to enter very minutely into the subject at present, particularly as many of the phenomena require close attention, and can scarcely be exhibited in a public lecture. The leading circumstances are, that in general this urine so nearly resembles chyle in all respects as to be scarcely distinguishable from it; that it occasionally passes on the one hand into blood, and on the other into lithate of ammonia: that the chylous state is generally found to be more marked two or three hours after eating; while in the morning it is sometimes nearly absent; lastly, that its specific gravity little exceeds, and sometimes does not equal, that of healthy urine; so that unless the quantity of urine be inordinate, which is sometimes the case, the drainage from the system does not exceed that of health—a circumstance accounting in some degree for the little constitutional disturbance generally produced by this affection.

The following conclusions may be drawn from the cases which have occurred to me.

First.—This disease occurs in both sexes before and after puberty. Of the nine cases, four were males and five females; and two cases occurred before puberty, one, namely, in each sex.

Secondly.—The majority of the cases, five out of nine, occurred either in natives of hot climates or in individuals who had been resident for many years in such climates.

Thirdly.—The general health suffers much less from the affection than might be expected. There is commonly more or less of emaciation, accompanied by uneasiness, usually described as a sense of heat, or pain in the region of the kidneys, but sometimes these are entirely absent. The disease does not interfere with the pregnant state, nor with the secretion nor qualities of the milk, and may continue more or less, for a great number of years, without apparently much affecting the constitution. The appetite is generally good, and sometimes inordinate,

Fourthly.—There is evidently an inflammatory tendency in the system during the continuance of the disease, or at least such a tendency frequently arises during its progress, and requires, and is benefitted by, bloodletting. Two of the individuals died of inflammatory attacks of the abdominal viscera—one during the disease, and the other some time after it had subsided; and it is remarkable, that in the latter case the kidney

(which, by the favour of Dr. Roe, I here exhibit to you) does not exhibit any marks of organic lesion. It is a singular circumstance, however, that during *acute* inflammation and fever, and also during the presence of ptyalism from mercury, the chylous characters of the urine usually disappear, but return again, sometimes in an aggravated form, as soon as these have subsided. In the chronic state of the affection, the complaint has yielded completely for a time to the use of opium, astringents, and the mineral acids, but in other instances, these and every other remedy tried have failed. Sometimes the complaint ceases spontaneously, and occurs again after a long interval, and when it has once occurred it appears to be very liable to return, particularly after exposure to cold, or any cause producing fever. In general I have observed that all stimulating remedies and powerful diuretics do harm: the same may be observed in general also of tonics, which, from the inflammatory character of the affection, do not in general agree well, and, indeed, I have seen the affection much aggravated by their use.

Lastly, what is the intimate nature of the disease? The intimate nature of this affection, like that of all others, is obscure; but the principles developed in our former lecture seem to throw light on its general nature, and by directing our attention to the right road, may at some future time enable us to follow out its nature in detail. That both the assimilating organs and the kidneys are involved in the affection, cannot, I think, be doubted. The chyle, from some derangement in the processes of assimilation, is not raised to the blood standard, and consequently, being unfit for the future purposes of the economy is, agreeably to a law of the economy, ejected through the kidneys; but these organs, instead of dismerorganizing it as usual—that is to say, instead of converting it into the lithate of ammonia—permit it to pass unchanged. That this is a just view of the matter, cannot, I think, be doubted; for if the chyle was properly converted into blood, this fluid, and not chyle, ought to be thrown off by the kidneys. On the other hand, it may be stated as an argument in favour of the notion that the kidneys are affected, that I have often found chyle in the blood when the urine was entirely free from albuminous matters; shewing, that, in the healthy state of those organs, even though chyle does get into the sanguiferous system, it is not necessarily ejected, or if it is, that it undergoes the usual changes in passing through the kidneys. This affection of the kidneys, however, like that in diabetes, does not seem to amount to organic disease, at least such as is cognizable by the senses.

1. The next principle occurring in the urine, on the properties of which I shall make a few remarks, is *urea*. This principle, of which I here exhibit a specimen, has been lately found in the blood. Indeed I detected it, or something very similar, in the blood myself, fourteen or fifteen years ago, but could not at that time believe the evidence of my senses. It has been lately said to have been formed artificially, but I have some doubts on this points, at least as to the manner stated.

Urea I consider as an albuminous product, and one of two principles into which that substance is capable of being decomposed, as I hope at some future time to be able to demonstrate. It plays a very important part in the urine, chiefly of a secondary nature, and which admits of a complete and satisfactory explanation, founded on its composition. I ascertained, many years ago, that it is composed of the elements of carbonate of am-

monia and water; and hence the ease with which it is changed into these principles by a variety of substances, particularly by the fixed alkalies and alkaline earths, which, seizing the elements of carbonic acid, set the ammonia free. To the decomposition of this principle is, therefore, chiefly owing an ammoniacal state of the urine, one of the most distressing conditions of this secretion, and one of the most liable to terminate in the formation of stone in the bladder.

Urea occurs as a natural ingredient in healthy urine, but sometimes in much greater quantity than usual; in which case it may be readily detected by the addition to the urine of a little pure nitric acid, in such a way that the two shall mix gradually; when, after a greater or less time, according to the proportion of urea present, the peculiar crystalline pearly compound, which I here shew you, is formed. Urine having an excess of urea, is usually of considerable specific gravity (between 1020 and 1030), and is often accompanied by many symptoms somewhat like diabetes, for which the complaint has been occasionally mistaken; but it differs from diabetes in being a curable disease, or at least, by care and attention, it can be so far subdued as to be rendered little troublesome.

2. The next substance on which I shall make a few remarks is the *cystic oxide*. This is of a very rare occurrence, and is mentioned here rather as a curiosity. Its properties you will find detailed in all chemical works. One of the most remarkable of these, and by which it can be readily distinguished, is the peculiar smell it yields when heated. This, as it cannot be described, I here exhibit to you. From the little that is known of this substance, it would appear to be generally connected with organic disease.

3. The last substance on which I think it necessary to make a few remarks, is the *lithic acid*, and some of its products. This principle, in many points of view, constitutes one of the most important principles occurring in the urine. In the first place, it gives origin to stone in the bladder, in at least two instances out of three; secondly, combined with ammonia, it constitutes the basis of the most usual sediments occurring in the urine; combined with soda it gives origin to the gouty chalk-stone, and sometimes to sediments in the urine, and even concretions in the bladder. When modified, it is converted into the purpuric acid, the principle constituting the colouring matter of the lateritious and pink sediments, and which are generally essentially composed of the lithate of ammonia, as before mentioned.

The lithic acid, when pure, is a perfectly white crystalline powder, very insoluble in water, but readily soluble in alkalies, and forming various compounds with them. When first precipitated cold from its solution in potash it exists in the state of a hydrate, and assumes the form of a bulky gelatinous mass, which does not begin to crystallize for a considerable time. This is a very important point connected with the pathological history of this principle, as the state above alluded to is that in which it is first separated from the kidneys, and often exists in the urine, and the knowledge of which will enable us to explain almost all the phenomena lithic acid gravel.—*Medical Gazette.*

MEDICAL JURISPRUDENCE.

15. *On the Blood and the Method of recognizing its Stains, and of distinguishing the Blood of Man from that of other Animals.* By Dr. Domi-

nique Meli.—The Doctor examines blood-stains by macerating the linen or whatever it be which is stained in cold distilled water, thus separating the colouring matter to which he applies the appropriate tests. He gives likewise processes for extracting the albumen, fibrine, and the iron, to which he likewise applies tests, and judges from the tout ensemble.

In examining M. Barruel's process for ascertaining to what animal the blood belongs, the author discovered that some cloths, paper, straw, &c. would give forth the odour of perspiration when treated with sulphuric acid. The colouring matter and albumen give forth most of the odour. He has also ascertained that the blood possesses aroma, which is most evident in principles already named.—*Annali Universali di Medicina*, 1830.

16. *Medico-legal Researches on Arsenic.* By M. Hunefeld, at Greifswald. Archiv. für Mediz. Erfahrung v. Horn, Nasse und Wagner, Sept. Oct. 1829, p. 772.—After poisoning with small doses of arsenic, it may have so disappeared, that, in examining the body, none can be found, if it has been interred some time. The question that naturally presents itself is, what becomes of it? The author, from experience, thinks that it can disappear in one of two ways.

1st. It may combine with the tissues, and thus escape the ordinary re-agents. In this case, M. Hunefeld treats the animal matter, supposed to contain arsenic with chlorine, and, by this means, he has frequently discovered traces of poison, which he could not find by the ordinary re-agents.

2ndly. The arsenic may exhale in the form of an hydroguretted arsenious gas; the author recommends from this circumstance, that, in disentering bodies suspected of being poisoned by arsenic, that the lid of the coffin be not taken off at once, but that a hole be made first in it to avoid the deleterious effects of gas.

17. *Antidotes for Chlorine and sulphuretted Hydrogen.* By M. Hunefeld. Archiv. für mediz. Erfahrung, September, October, 1829. p. 789.—The author judges from his experience on himself, that these powerful gases act as antidotes to each other.

18. *Poisoning by Wafers. Carper's Kritisches Repertor*, tom. xxiv. col. 3.—Four children at Aix la Chapelle, suffered from symptoms of poisoning, after eating some wafers. Chemical analysis discovered *cinnabar* and *blue mineral* as the colouring ingredients.

19. *Poisoned Confectionary.—Detection of Gamboge, Lead, Copper, Mercury, and Chromate of Lead, in various Articles of Sugar Confectionary. By* W. B. O'Shaughnessy, M. D.—From the *Lancet*, No. 402.—In the following observations, it is my principal aim to lay before the public and the medical profession, a calm, dispassionate statement of the existence of the various poisons enumerated above, in several articles of confectionary, the preparation of which, from their peculiar attractions to the younger branches of the community, has grown into a separate and most extensive branch of manufacture. I am fully aware of the hazardous task that individual undertakes, who ventures in this country to signalize such abuses. The wrath of the particular trade is, of course, especially excited. The sneers and ridicule of the ignorant are also abundantly provoked, principally through the recollection of the indiscreet and mischievous efforts, which over zealous or designing alarmists have occasionally made to terrify the

public mind, by topics of this description. I hope, however, by a plain narrative of facts, and by reference to justly accredited authorities, to avoid at the same time these unpleasant imputations, and to show the real extent of the danger in question.

I had, as far back as a year since, been requested, by the editor of this journal, to undertake a series of analytical investigations into the truth or inaccuracy of various alleged adulterations, with the view that the authenticated information thus obtained, might either dissipate needless apprehension, by pointing out the falsity of many alarming statements, or might lead to the efficient protection of the public health, by showing, as far as analysis could teach, what were the admixtures really prejudicial and essential to be prohibited. Different circumstances, unnecessary to particularise here, combined to delay the commencement of these inquiries until a fortnight since, when I received from Mr. Wakley the numbers of the *Journal de Chimie Medicale*, for the preceding three months, to an article in which (*Janvier*, No. 2) he requested me to direct my attention.

The article alluded to is from the pen of the distinguished Chevallier, whose labours in this department of medical police have acquired for him the highest reputation as a philanthropist and physician; it is entitled, "Note sur la vente des sucreries, coloriées, bonbons, &c." and as it places the importance of the subject in the most striking light, and shows, at the same time, the enlightened measures adopted by the French government on the occasion, I subjoin a sufficient abstract of its contents.

M. Chevallier commences by observing *, that at several times he had related in the *Journal de Chimie*, various serious accidents produced by the consumption of sugar confectionary coloured by mineral poisons. Of these he particularizes the *schweinfurt green*, a compound of arsenious acid (arsenic) and copper; the *chromate of lead*, and the *sulphuret of mercury*. Lastly, he enumerates *gamboge*, a drastic purgative, and consequently an active irritant poison. Despite of the notification of this dangerous practice, made in nearly all the journals, literary, political, and medical, this mode of colouring was persevered in, till at length the council of health was consulted on the subject. This body lost no time in investigating it as it deserved, and the result was, an ordonnance of police for the suppression of the nuisance. The following document, which led to the ordonnance, is well worth attention:—

Report, addressed by M. Andral to the Prefect of Police, on the dangers which may result from the use of coloured sugar confectionary.

"M. le Prefet, you have instructed the council of health to report to you, on the danger which may result from the consumption of coloured confectionary, and on the measures necessary to be adopted to prevent the manufacture and sale of any such pernicious articles. The delegates of the council have the honour to submit to you the following propositions:—

"1. It will be important to specify in the ordonnance, what are the colouring substances which should be prohibited. These are, in the first place, all those derived from the mineral kingdom, except the oxides of iron, ferruginous lakes, or Prussian blue, all of which may be safely employed. Of vegetable substances, *gamboge* should be severely proscribed,

* Journal de Chimie, tome vi. p. 608.

as being a drastic cathartic, which even in minute doses necessarily occasions violent intestinal irritation. *Litmus* should be equally prohibited, as well on account of its being occasionally incorporated with putrified urine, as that some manufacturers mix it with common *arsenic* and the peroxide of *mercury*.

"The most diversified colours may be obtained by the confectioners from totally harmless compounds. Thus from the lakes of cochineal and carmine, they can prepare all the reds; the lakes of logwood will afford them the violet; the lakes of dyer's broom *(genista tinctoria)*, &c. will give the yellow; the lake of Persian grain (*polygonum Persicaria*), with Prussian blue, forms a more beautiful green than any mineral can produce; finally, by the mixture of these harmless colours, all the intermediate tints and shades will be obtained.

"**2.** The papers used for wrapping up sugar confectionary should also be strictly attended to, since they are coloured with the same poisonous materials, and *children invariably will suck or eat these papers*, from which it is evident the most fatal accidents may occur. *A member of the council of health, a short time since, snatched a coloured paper of this description from an infant's mouth, and by analysis obtained from it both* ARSENIC AND COPPER.

"3. The delegates of the council are of opinion, that to ensure the observance of the ordonnance, you should determine, M. le Prefet, that a committee be appointed to visit the workshops of the manufacturers of this species of confectionary: all the poisoned articles should be seized, and their venders fined. Lastly, the delegates of the council recommend, as a measure of great utility, that on the day following the seizure, the names of the confectioners should be published in all the journals, and placarded over the walls of the city.

"In conclusion, the delegates of the council believe, that an ordonnance, founded on the principles thus pointed out, will prove of essential service, by suppressing a practice so pernicious to the public health."

The immediate result of this pointed and satisfactory report, was the issuing of an ordonnance from the prefecture of police, dated the 10th of December, 1830, and signed by the Comte Treilhard, in which the practice is denounced in the most energetic terms, the poisonous ingredients specified, the harmless enumerated, and in addition to the proposals of M. Andral, orders are given that no confectionary shall be sold, unless wrapped up in paper, stamped with the name and address of the confectioner. Further, by this edict, the venders are held personally responsible for all accidents occasioned by the confectionary or liqueurs sold in their establishments.

Pursuant to these resolutions, the visits were made, and several poisoned specimens destroyed. Generally speaking, the confectioners gladly banished from their laboratories the pernicious materials, and availed themselves of the harmless substitutes recommended in the report. Lastly, M. Chevallier describes the mode in which the sulphuret of mercury (vermilion) the chromate of lead, and the arsenite of copper (Schweinfurt green) may be detected by chemical analysis.

The preceding abstract, sanctioned by the name of M. Chevallier, and of that illustrious pathologist M. Andral, is amply sufficient to entitle me to the attention of the public, while I describe the extent to which the

practice of using poisonous colours is carried in London, and thence disseminated over the united kingdom, and its foreign colonies and possessions.

On the subsequent day to that on which I perused the article just alluded to, I purchased, in company with my friend Dr. Green, at several shops, different specimens of coloured confectionary, and of colourless articles, wrapped in stained paper. Of the coloured articles, the greater number (class 1) were sold expressly for eating, some (class 2) cast into small figures of cards, &c. were *apparently* rather intended for ornament, but were sold without restriction; and, lastly, some (class 3) were expressly designed for ornament alone. Of the first class I examined about thirty different kinds, and found the *reds* tinted as follows:—

Ten Specimens of Red Comfits, &c.

1. Minium, or red oxide of lead.
2. Red sulphuret of mercury (vermilion).
1. Mixture of both the former.
1. *Of a yellowish or orange tint,* chromate of lead, and a vegetable lake of lime.
2. Cochineal alone.
1. Cochineal, with a trace of *vermilion.*
2. Vegetable lakes of alumina and lime.

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It is seen here, that of the ten specimens of comfits sold for eating expressly, six contained mineral poison; all these specimens, with one exception, were only coloured externally.

Of the *yellows,* class 1, seven specimens of different forms and tints. 4. *Gamboge,* coloured externally; 1. Coloured throughout a vegetable lake of lime; 1. *Coloured throughout,* oxide of lead, and traces of antimony, or Naples yellow. Six of the seven consequently contained deleterious substances.

Of the *greens,* class 1, several specimens, all were coloured by Prussian blue, and a vegetable yellow lake of alumina mixed with the sulphate of lime, except one specimen, of which I had only two comfits, and which gave me a mixture of copper and lime.

The *blues,* class 1, were chiefly Prussian blue, and contained no hurtful compound.

In the second class, or those *apparently* intended for ornament, but sold without restriction, and formed in all sorts of fantastic shapes, of eight forms of yellow, three contained chromate of lead; one Naples yellow; one massicot or yellow lead, and three vegetable lakes of alumina and lime. All these were coloured throughout, and contained, moreover, sugar, and the sulphate of lime or plaster of Paris.

The *reds* in this class were, of six specimens, three vegetable lakes of alumina or lime, one chromate of lead, with a red vegetable lake, two red lead.

The *greens* and *blues* were composed as I described in class 1.

In the *third* class the composition was precisely the same, and the proportion little different from class 2.

The papers were next examined, especially those used for enveloping the sugar drops called "kisses." Without exception, the reds were coloured

by the red sulphuret of mercury, the yellows by the chromate of lead, and many of the greens by verdegris, or the carbonate of copper.*

With respect to the quantities of the poisonous substances, I had not leisure to submit the various products to the tedious process of delicate weighing. Moreover, it appears to me to be altogether unnecessary to take the trouble, as the mere presence of the minutest possible quantity of any such substance should not be allowed. In this opinion I entirely coincide with MM. Chevallier and Andral. It is perfectly unnecessary for me to occupy the pages of this Journal with any observations on the *nature* of the danger which thus threatens the junior branches of the community, and which indisputably exercises the most pernicious effects on their constitutions, I will merely remark, that one concern in the city, from which I have obtained the greatest number of poisonous specimens, employs eleven men daily in the preparation of these articles, furnishes immense quantities of them to country confectioners, supplies many of the minor shops in the metropolis, and, if I am rightly informed, exports to our foreign possessions to a considerable amount. Extent of manufacture always implies extent of sale, and in this case the ratio of the consumption of course equals both. I cannot, therefore, be accused of exaggeration, when I assert that millions of children are thus daily dosed with metallic and vegetable poisons, in minute quantities it is true, but in quantities dependent on their amount on the caprice of a workman or a machine, and sufficient in the minutest degree to exercise their peculiar insidious effects, if taken as a practice from day to day. Neither are these effects chronic alone, for not long since an *acute* case of poisoning arising from the use of confectionary of this description occurred in the children of a highly respectable family in Southwark, and, on analysis, the comfits were found to contain minium, or the red oxide of lead.

The next topic remaining for me to notice is he

Mode of Analysis of suspected Specimens†.—This varies, in its first step, according to the extent to which the colouring matter pervades the specimen. *If entirely external*, it should be agitated in water in a wine glass till the colour is washed off, which takes place usually in a few seconds. The solid part, or body of the article, should then be removed by decantation into another vessel, and the liquid, if transparent and coloured, filtered through paper and preserved. If the colour be throughout as seen on the fracture, the specimen should be reduced to powder, and boiled in a small flask in distilled water, which dissolves the sugar, and leaves the mineral substance, vegetable lake, &c.. which should next be transferred to a watch glass, and dried in the water-bath.

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* Sealed phials, containing specimens of the poisoned comfits, are left at The *Lancet* Office for public inspection, in order to supersede the necessity of a description of their forms, which could at best communicate a very faint idea of the pernicious kinds.

† M. Chevallier merely describes the mode of detecting vermilion, the arsenical greens, and chromate of lead. I have ventured to recommend different processes in this paper, under the conviction that those employed by M. Chevallier were not detailed with sufficient minuteness to be of practical utility.

If the supernatant liquid in either case remain transparent and colourless, it is an indication that the colouring matter is either a mineral substance, or a vegetable lake; in this case the fluid may be rejected, and attention confined to the deposit alone. If again we obtain a coloured fluid and a considerable residuum, it indicates a vegetable colouring extract, and a lake or mineral colour, and both are to become the subject of experiment. Lastly, if there be no residuum, and the specimens wash clean, and the fluid filter of a deep transparent colour, the fluid is alone to be reserved.

Analysis of the Yellow.—[The yellows ordinarily met with are coloured either by gamboge, massicot, Naples yellow, the chromate of lead or vegetable lakes.]

The *yellows*, coloured by *gamboge* externally, when washed thus by distilled water, form an opaque yellow emulsion, which lets fall no deposit. By evaporating this emulsion to dryness, a little strong alcohol added to the residuum, dissolves instantly the gamboge in a state of perfect purity. The alcoholic solution is then to be transferred to a test tube, and an equal quantity of distilled water added. The gamboge is now precipitated as a lively yellow; a drop or two of strong ammonia added, redissolves the gamboge, producing a blood-red solution, which again is precipitated pale yellow by the addition of nitric acid. This simple concatenation of experiments affords abundant proof of the presence of this substance. If the yellow colour proceeded from saffron, turmeric, or any other similar substance, it would form a *solution*, not an *emulsion*, with water. It would not be precipitated from its alcoholic solution by water, neither would it be precipitated from its ammoniacal solution by nitric acid. Two or three small comfits are amply sufficient for the process, as it will detect the 100th part of a grain of gamboge. If great expedition be required, alcohol may be used at first to dissolve the colouring matter, and thus the tedious evaporation will be avoided.

If the *yellows*, when washed with water, and the comfits removed, let fall a yellow deposit, and leave the supernatant liquid colourless and transparent, the deposit is either the chromate of lead, Naples yellow *(oxide of lead and antimony)*, massicot (or the yellow oxide of lead), or finally, a vegetable lake of alumina or lime. In most cases also, the precipitate contains sulphate of lime.

We can now readily gain a clue to which of these divisions it belongs, by the following simple system of trial tests, viz. by placing a minute portion of it, moistened with a small drop of distilled water on a thin slip of mica,* and holding it over the flame of a spirit lamp till it be heated to redness. If it be a vegetable lake of lime or alumina, it first chars, blackens, exhales smoke, and then leaves a brilliant, white, soft, earthy mass, entirely soluble in acetic acid when transferred to a watch crystal. A portion of this mass, if lime, stains moistened turmeric paper red; if alumina, has no such effect.

If, instead of charring and becoming white, the spot becomes red, and is

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* Mica can be procured at the mineralogists' shops at a very cheap rate, it is of immense service in minute analyses of this kind.—See *Lancet*, No. 396.

surrounded with a little yellow circle, the colouring is massicot or yellow lead.

If, during this operation, dense white fumes are evolved, and leave a copious circle of the same colour on the mica, the substance, besides lead, *probably* contains antimony, and is therefore, the Naples yellow.

If the colouring matter be chromate of lead, beautiful phenomena mark the action of heat, accomplished in the manner I describe; the substance on trial first darkens in colour, then shows a red surface, and by and by bright-green spots are seen mingled with the red. This contrast of colours becomes especially striking on the addition of a drop of water.

So far the experiments are trial tests, and may be performed in as short a time as it takes to read their description; our next object is to obtain unimpeachable evidence; this, in the case of the massicot, is acquired readily, by treating a grain or two of the yellow mass on a watch-glass with ten drops of nitric and six of muriatic acid, aiding the action by the momentary application of heat, white flakes of the chloride of lead now form and float on the acids; they are to be removed with a capillary tube, and transferred to a bit of firm charcoal; by directing the blowpipe flame on the chloride, it instantly fuses, and disengages globules of metallic lead, surrounded by concentric circles of red and yellow.

If the evolution of dense white fumes indicate the presence of antimony, the yellow matter should be treated, as just now described, with nitric and muriatic acid. The chloride of lead should be removed, and a few drops of distilled water poured on the residual fluid previously evaporated to dryness. If antimony be present in the smallest quantity, a white precipitate remains, which, if exposed to a current of sulphuretted hydrogen, expelled from a small bladder, furnished with a tube and stop cock, is converted into the orange-red sulphuret of antimony. The chloride of lead is then to be reduced by the blowpipe as before, and we have thus certain evidence of the presence of antimony and lead. Half a grain of the Naples yellow is sufficient for this chain of experiments.

If on the mica, green spots are mixed with the red, indicating chromate of lead, two or three grains of the remaining yellow matter should be fused for a quarter of an hour on a slip of mica, with an equal quantity of nitrate of potash; chromate of potash is thus formed, the green spots disappear, and red flocks of minium, or the red oxide of lead, are seen in the fused nitre. The fusion should now be discontinued, and the cooled mass dissolved in distilled water on a watch glass; the solution should then be separated from the red oxide by a capillary tube, and transferred to another crystal. Nitrate or acetate of lead will now occasion in it a precipitate of the yellow chromate of lead. The red flocks are to be heated with nitro-muriatic acid, and the resulting chloride of lead reduced on charcoal to the metallic state.

The protracted fusion of the nitrate of potash may be easily accomplished, by placing a slip of mica four inches long and two broad, over the mouth of a wine glass, so that it can be balanced by a shilling placed on it over the glass; about two inches thus project, beneath which is placed a spirit lamp, and the fusion may be kept up an unlimited length of time. To those unprovided with costly apparatus, this simple substitute may prove, as it has to me, of considerable value.

Analysis of the Red.—The red, on being washed or boiled with water, either forms a coloured transparent solution, which affords no deposit, and

filters through paper, or is coloured and affords a deposit, or affords a dense deposit, and leaves the fluid transparent and colourless.

In the first case, the solution is entirely decolourized by chlorine, or by dropping in a particle of the chloride of lime. If a second portion of it be changed to orange yellow by sulphuric acid, and a third assume a violet with ammonia, and if no black colour is produced by adding the sulphate of iron, it may be concluded to be a solution of *cochineal.*

If a deposit takes place, which, when dried and heated on mica, chars, blackens, and finally becomes white, and the residuum soluble in acetic acid, it is a vegetable lake of alumina or lime, probably carmine.

If the deposit be a bright red colour, and subside rapidly, it is probably either the red oxide of lead, or the sulphuret of mercury; in either case heat on mica; if the former, the colour remains unchanged, and the substance is permanent at a red heat. If the latter, it is darkened on the slightest application of heat; if then removed, it regains on cooling a brilliant vermilion colour. This alternate blackening and reddening may be repeated *ad libitum,* till it is finally volatilized, leaving no trace behind.

So far, as in the analysis of the yellows, the experiments are but trial tests. The reduction of the respective metals is next to be accomplished. This is easily effected, by boiling a few particles of the colouring matter in nitro-muriatic acid. If the trial test has pointed out the sulphuret of mercury, on evaporating nearly to dryness, brilliant crystals form on the watch glass; these should be redissolved in a few drops of distilled water, acidulated with nitric acid, and a gold ring with a bit of thin iron wire introduced. If the colouring matter contains the one-thousandth part of a grain of mercury, it will be thus deposited on the gold as a white amalgam.

If the red colour was permanent on the mica, the colouring matter is to be heated with nitro-muriatic acid as before described, and reduced on charcoal to the state of metallic lead.

Analysis of the Blue.—All the blues which I examined were prepared with Prussian blue. The analysis was very simple. On agitation with water, the specimens gave out a blue substance, which rapidly subsided after decantation. On boiling this with a little red precipitate of mercury, the blue colour disappeared, and brown-red flocks (the peroxide of iron) floated on the liquid, which, when filtered and redissolved in nitric acid, struck a blue colour with the ferro-cyanate of potassa.

Analysis of the Green.—In all the greens, with one exception, I found merely Prussian blue and a vegetable yellow lake. The single specimen, which contained the carbonate of copper, was dissolved in nitric acid, and the solution divided into three portions. Ammonia added in excess to one, produced a beautiful blue colour. The ferro-cyanate of potash gave a chesnut brown precipitate with the second. The third portion, after the separation of its copper by a current of sulphuretted hydrogen gas, gave a white precipitate with the oxalate of ammonia, which was converted by a red heat into carbonate of lime.

Analysis of the Coloured Paper.—This is to be conducted precisely in the manner just described, except that the bit of paper examined need not exceed half an inch square, and should be cut into small slips, which are to be removed from the solution when the colour disappears. The papers tinged with vermilion exhibit, in a striking and beautiful manner, the ap-

pearance of alternate blackening and reddening before a common fire, or over the spirit lamp flame.

Before I leave the analytic part of my subject, I may observe, that the absence of the Schweinfurt green in the specimens I have examined, proceeds probably from the fact, that that description of pigment, as well as Scheele's green, are seldom or never sold pure in the paint shops, but are usually imitated by the carbonate of copper and lime. Thus fortunately for public health, the dishonesty of one trade affords it some protection against the reckless negligence of the other.

In conclusion I may state, that urged by a feeling of public duty, I have laid the present subject before his Majesty's Government, through the Secretary for the Home Department, who favoured me with an interview, in which I submitted to his Lordship the paper published by M. Chevallier, in the *Journal de Chimie*, and specimens of the poisoned confectionary. How far this representation may induce the authorities of the land to direct their attention to matters of this description, I should not be justified in offering even a conjecture. The *statute* law of England affords the public little protection against any system of this kind, no matter how deadly in its nature. It will scarcely be believed, that the only enactments in the English code relating to the public health, which Mr. Coleridge thought worthy of insertion in his latest edition of Blackstone's Commentaries, are those which enforce the observance of quarantine, which prohibit the sophistication of wine, and the sale of unwholesome meat, *or meat bought of a Jew!* * Bakers are, it is true, prohibited from using carbonate of ammonia and some other ingredients, and the fiscal or *revenue* laws interdict the mixture of some pernicious substances with malt liquors. It is to be feared, however, that the collection of the hop-duty was the main object of our legislators in devising the latter provision.

In these particulars it is that our continental brethren, whether medical or judicial, have most outstripped us in their race with the progress of knowledge. The time, I trust, is not far distant when our legislature will perceive the necessity of imitating the rival nation in the establishment of councils of health on principles to which monopoly will be a stranger, and which shall have for their only object the preservation of the public life. No system of medical police can be less obnoxious to individual feeling, or more aptly calculated for the utter destruction of practices such as those I have endeavoured to describe.

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* "A second, but much inferior species of offence against the public health, is the selling of unwholesome provisions; to prevent which, the statute 51 Hen. III. stat. 6, and the ordinance for bakers, stat. 7, prohibit the sale of corrupted wine, contagious or unwholesome flesh, or flesh that is *bought of a Jew!* under pain of amercement for the first offence, pillory for the second, fine and imprisonment for the third, and abjuration of the town for the fourth. And by the statute 12 Car. II. c. 25. sec. 11, any brewing or adulteration of wine is punished with the forfeiture of £100, if done by the wholesale merchant, and £40, if done by the vintner or retail trader. *These are all the offences which may properly be said to respect the public health.*"—*Blackst. Com. 16th ed., 1825, edit. by J. T. Coleridge, vol. 4, chap. 13, p. 162.*

20. *Long* v. *Chubb, Court of Common Pleas.*—This was an action brought by John St. John Long against the defendant, a printer, to recover compensation in damages for a libel. The plaintiff was charged in the libel with gross immorality, as well as murder in the case of Miss Cashin. The defence was as follows:—

"To begin with the libel. It appeared that it imputed to the plaintiff that he was a Scotchman. It had been suggested to him that that mistake had arisen from the circumstance of the plaintiff's effecting his cures by the process of *rubbing* (laughter); a process which was supposed to be peculiar to the natives of that country. However, whether he was a native of that country, or of that land mis-called the sister island, mattered, he apprehended, very little. It was true, seven cities had contended for the honour of having given birth to a famous poet of old, and perhaps it would be well to save after ages the trouble of contending which of the three great component parts of the United Kingdom had to boast the honour of giving birth to Mr. St. John Long. To come to the facts of the case, this plaintiff would have the jury believe that he was a regular medical practitioner, for as such he had put himself before them on the record; 'practising,' as it set forth, 'in the city of Westminster, to the great increase of his riches and comfort'—(laughing)—no doubt. Now there was no evidence to prove that Mr. Long had qualified himself, either as a graduate or a licentiate for medical practice, and there was no proof of his having ever practised as a medical man, except what proof was afforded by the libel. He therefore had not conformed to the law, and he could not come to a jury for damages without showing that he possessed a legal title to such a remedy. Would he not, if he were a member of the profession, have availed himself of proof that he was not a quack, which was all the libel charged him with? He would then have laid his claim for damages on the plea that he had been represented to be that which he was not. He, therefore, submitted to his lordship, that the averment in the declaration, that he was a medical practitioner, had not been proved. The jury on this evidence must necessarily take him to be a quack, for he had not attempted to disprove that such was the fact. Was a jury to be found, he would ask, at this time, who would take it for granted, then, that this was got up by inspiration, knowledge, and skill, which the whole body of learned and scientific men, with the college at their head, had been unable to attain? What was a quack? An ignorant, artful, and dangerous pretender. He had no claim to pass as a medical practitioner, except by his assurance, which enabled him to practise on weak infatuated fools. The defendant in this cause was not backed by a purse or person, as had been insinuated; he kept a small shop in Holywell Street, where the only worthless things disposed of, besides old clothes, were new pamphlets—(laughter.) With respect to the nature of the libel, he did not mean to say, that the charges were capable of proof; but the jury ought not to look at particular parts; they must look at the whole, and its probable effects. The intention was a good one, for it was to warn the ignorant and foolish against a dangerous pretender. This person complained that it was calculated to injure his practice. What was his practice? Was it not contrary to the law, and had it not brought him, on more that one occasion, in rude encounter with the public justice of his country, from which he had been fortunate to escape with the simple stain of manslaughter against his

name? It was true he had been acquitted on one charge; how, it did not very satisfactorily appear to him. The docter, he believed, never before had a fellow of his own degree. Voltaire's doctor took care to do no harm by his quackery, for he gave his patients nothing but wholesome river water, made agreeable in flavour by a little nitre. *Dr. Last*, in the play, made excellent asses' milk out of pure water and a little essence of cucumber; and Dr. Ward took especial pains to do no harm to the state, in the persons of his majesty's subjects, for he confined his practice to puppy dogs, and the poor—(great laughter.) Now, Mr. St. John Long being a quack of a bolder spirit, confined his practice to the higher branches of society; whether because he there found a greater abundance of 'infatuated fools,' it was scarcely becoming to inquire; but so it was. So long as he confined his practice, even there, to ladies in the vapours, putting aside the ridicule which must attend them, there was no harm done by his quackery: but, when the result of his ignorant pretence was inflammation and death, he became a public nuisance, and it became a service to the public to put him down. Was such a man to come into a court of justice, and claim damages for injury done to his practice? He remembered a case in which a man brought an action against another for disturbing his decoy. He had a right to do so; there his decoy was lawful and he suffered damage; but here the case was different. If a man going a journey, were to be advised by his friend not to pass over Hounslow-heath, because Captain Macheath was there and would inevitably plunder him, and the man by the force of that advice was induced to stay at home and so disappoint Captain Macheath, would Captain Macheath be entitled to come into Westminster Hall and ask for damages against the wicked adviser of the gentleman whom he had promised to himself? It was a case exactly in point. St. John Long had just as much right to complain of injury as the other. With respect to the motive which had induced the bringing this action, it was pretty clear that damages were not the object, for what could the plaintiff expect to get from this obscure and poor printer? whose penny pamphlets, by the bye, it was not at all likely would ever get into the possession of the exalted individuals who were the happy subjects of Mr. St. John Long's care and medical skill. He might have had the author, if he pleased; but no, that was not what he wanted. Notoriety was all he cared for; and, so long as got that, it was pretty clear he cared but little how. This action, he firmly believed, was entirely of the nature of Mr. Puff's 'puff collusive.' This atrocious libel, which had called forth such an indignant refutation, and an affecting lamentation for the fate which he, in common with all meritorious persons from the beginning of the world, had suffered in being made the theme of obloquy and persecution, would be spread over the kingdom by every newspaper; and that notoriety which was, perhaps, a little on the wane, would again shine forth as bright as ever, and so blind the eyes of his majesty's liege subjects, that as been hitherto the case, they would fly to Mr. St. John Long; and not even their deaths would persuade them out of their reverence for his wonderful skill and cleverness. This man's genius was unfettered by the useless trammels of colleges and medical institutions; and it was monstrous to say he was not justified in taking the lives of the public into his care; and that he had no right to come into a court of justice for compensation when that right was questioned. Yet he would

say, that it was no mean offence, for a man, who was perfectly ignorant of the means by which he pretended to remove the afflictions of human beings, to set himself up as a medical practitioner. He would say that he was a public nuisance; and that he was entitled to no protection from the law; and he trusted so the jury would say to day. This man was not entitled to damages, he would repeat. He had no medical character: his moral character the jury had nothing to do with, for the loss which he complained of was that which his 'practice' might sustain. What that loss might be he believed the jury would have little hesitation in determining."

The Chief Justice, in summing up the case, said the plaintiff complained that the publication of this libel had been "detrimental to his profits;" and this he prefaced by stating that he was a medical practitioner, carrying on, with credit and reputation, the practice of medicine. He, therefore, alleged that the libel reflected on his practice as a medical practitioner. It certainly had not been shewn that he was a surgeon, a physician, an apothecary, or even a licentiate. Therefore they must take care not to give damages as if he had been proved to be one of these. The subject for their consideration was that part of the libel which referred to his private character and conduct; and if they should be of opinion that they had been invaded falsely and malevolently, they would give the plaintiff such compensation by their verdict as the merits of his case might appear to them to entitle him.

The Jury retired to consider their verdict at half-past twelve, and, after full twelve hours' deliberation, returned for the plaintiff—damages £100.

It is evident that the damages were given for injury done to the moral, and not to the medical character of the plaintiff. We agree with the counsel for the defence, that the object was notoriety, and not reward, as the defendant is a very poor man, who is unable to pay half the amount. The jury, with an obliquity of intellect characteristic of such persons in our London courts, awarded heavy damages, though they must have been satisfied that the circulation of catchpenny tracts could do little injury to the plaintiff or any one else. The verdicts given of late in cases of medical actions, disappoint and disgust every man of common sense.

MISCELLANIES.

21.—*The North American Journal.*—The Editors of this Journal have again remonstrated with us for the insertion of some trifling articles which were introduced into our Periodical eighteen months ago, without acknowledgment. We have only to re-assure our contemporaries that hurry and inadvertence laid us open to their remonstrance. If they feel annoyed at our former reply, they must bear in mind they merited it, by their silly and ridiculous nationality. They set much too high a value upon their productions, and cannot seriously imagine that British medical Journals are to look to them for information on the progress of medical science in Europe. And as to plagiarism, we have much more ground for complaint against our own contemporaries, one of whom lately extracted an article from us without acknowledgment, which was much more valuable than those short scraps which our coadjutors put in to fill up deficient pages. We wish to stand well with our contemporaries, domestic and foreign, and are not to be disconcerted by puerile irritation; and we beg to assure our irritated friends, that no Journal extant is more cautious in the *Suum Cuique* than

our own. We trust that this explanation will be satisfactory; and we must declare, once for all, that we shall not notice the matter farther.

22.—*New Bye-Laws of the Royal College of Surgeons.*—A new code of bye-laws has been arranged by the Royal College of Surgeons, and sanctioned by Lord Chancellor Brougham, Lord Tenterden, Chief Justice of the King's Bench, and Sir N. Tyndal, Chief Justice of the Common Pleas. The principal feature in these laws is, the power given to the President and Council of the College to expel any member or members of their body who shall interrupt the regular proceedings of the College.

23. *Medical Education.*—The following remarks upon medical education were delivered in an introductory lecture at the Richmond School of Medicine, Dublin, by Dr. Macdonnell, and form but a small portion of the valuable advice which is contained in this essay. We are happy to observe the spirit displayed by the private schools in Dublin, which seems to have deprived some of the public professors of their senses. It grieves us to allude to the disreputable and disgraceful squabbles, to which the monopolists have had recourse; and we can assure them, that their intemperate, ungentlemanly, and unprofessional disputes have disgusted the profession at this side of the channel—they are unworthy of gentlemen and of men of science.

"The object that I propose to myself then is, to place you, before you have yet entered the extensive field of medical science, on some elevated spot on its confines, from which I may be able to point out to you the individual sciences of which it consists; their relations and connexions with each other; which of them, as being essential, it will be necessary for you to explore minutely; and which, as being merely accessary, you will have to examine only in some particular departments, from which light is more or less strongly reflected upon the others.

"You are expected to enter on your professional studies with a certain stock of preliminary information in mathematics and languages. As these have no direct connection with medical science, I should omit all consideration of them, as not properly belonging to our subject, but that, as I conceive correct ideas are not generally entertained respecting the relative value of different languages to the medical student, it is likely, not to say certain, that your notions on this point require correction. I shall, therefore, beg leave to premise a few observations on this subject. A very slight acquaintance only with mathematics is absolutely necessary. So much arithmetic as every school-boy acquires, including decimal fractions, and such a knowledge of algebraic notation, as might be gained in an hour, will be sufficient to render intelligible to you the very simple arithmetical calculations and algebraic formulæ, which you will occasionally meet with in works on chemistry, and in those elementary treatises on natural philosophy, from which mathematics are, as much as possible banished. You must not, by any means, be satisfied with an equally superficial acquaintance with languages. Every medical student is under the necessity of knowing Latin, and is expected to have some knowledge of Greek. Besides these, I consider an acquaintance with French nearly indispensable, and with German highly desirable. The advantage you are to expect to derive from a knowledge of Greek, arises from the circumstance, that in all sciences, whether medical or not, most of the technical terms are derived from that language; because, besides being a language

with which all men of science are supposed to be acquainted, it admits, with peculiar facility, of the joining together, to form a word for the expression, of a new complex idea, the words which have already been dedicated to the expression of the simpler ideas of which the new complex one consists. An example will clear up what may seem to you obscure in this general assertion. *Genio-hyo-glossus* and *gastro-enter-itis*, are the names of a muscle and disease, formed by Greek words in the way I have just stated; and any person, having knowledge enough of the language to be able to analyse and translate these terms, would see, at once, that the former means the muscle attached to the chin, the bone at the base of the tongue called hyoid, and the tongue itself; and the latter, the disease in which the stomach and intestines are inflamed—the termination *itis* being conventionally understood to imply inflammation. The number of such terms occurring in every science is so great, that the advantage of an acquaintance with Greek, on that account alone, is of considerable amount. It is obvious also, that he who could analyse such terms, would be able to retain them with infinitely less exertion of memory, than one who had no other means of recovering them but the bare effort of recollection. Several of the most accurate observers in medicine and surgery, who have ever lived, wrote in Greek; but their works, without exception, I believe, have been translated into Latin. This is a language of much more importance to you than Greek. Very many scientific terms are derived from it, and besides, many of the classical authors, in various departments of the medical sciences, wrote originally in Latin, and of their writings, several of the best have never been translated into English. I allude particularly to the great store-house of physiological information, the "Elementa Physiologiæ" of Haller, a work of incredible labour, and which renders it almost superfluous to consult any book on the same subject written before his time; to the classical work of Sœmmering on Anatomy, "De Corporis Humani Fabrica"—and to the admirable treatise of Frank, on the treatment of diseases, "De Curandis Hominum Morbis." Many more might be mentioned, quite excellent in their kind, in different departments. It should be stated further, that although the practice of writing in Latin has fallen greatly into disuse, there are still, occasionally, first-rate essays published in that language, especially in Germany. I imagine very few persons could be found, now-a-days, to assert, that a knowledge of the French language is less essential to the medical student than that of Latin. In some of the medical sciences, the French philosophers of the present day excel those of all other countries, and in every department there are French writers of the highest respectability. The names of Cuvier and Blainville, in comparative anatomy—of Bichat, Portal, Boyer, and Cloquet, in descriptive anatomy—and of Lænnec, Andral, Cruveilhier, and Louis, in pathological anatomy, are, perhaps, the most distinguished of modern times in the sciences I have mentioned. In chemistry, since the deaths of Sir H. Davy, Wollaston, and Tennant, Gay Lussac and Thenard have no equal except Berzelius; and as writers on surgery, practice of physic, forensic medicine, physiology, and botany, Boyer—Pinel and Rostan—Foderé—Bichat, Magendie, Dutrochet, Edwards (who though an Englishman, writes in French,) and Adelon—and lastly, Jussieu, Mirbel, and, I may add, the Genevese professor Decandolle, are of the very highest class. These are men

with whose names you will soon be familiar, and whose writings would abundantly reward the labour of learning the language in which they are written. Let me add, as a further inducement to the acquisition of French, that it affords a key to many excellent German works, which have been translated into French, but not into English. It is for this reason principally, viz. that most of the capital works in German have been translated into French, that I consider German much less essential to be known than French. You will in a short time know, that it is a sufficient recommendation of German to say, that it is the language of Sœmmering, Tiedemann, Blumenbach, Meckel, Rudolphi, Sprengel, and a host of others, who are known, wherever medical science is cultivated, as men who have been eminently successful both in extending the limits of our knowledge, and in elucidating and confirming what was already known. Such of you as have but lately escaped the drudgery of learning Greek and Latin, and have not yet commenced French, will, I have no doubt, hear with dismay my recommendation to undertake the study of two new languages: but you may be assured, if you feel this alarm, that it arises from a misconception of the difficulty of learning a language for practical purposes, *i. e.* to put it to use. To gain such a knowledge of the languages I have mentioned, as will render accessible to you the works of the great men who have written in them, is certainly not a task of considerable difficulty. If you propose to yourselves, besides this, to be able to understand the spoken language, this is a more difficult matter; and lastly, if you have in view, in addition to these objects, to be able to speak and write the languages yourselves, this is, indeed, with regard to any language, an undertaking of the greatest difficulty. Unfortunately, languages are taught in our schools with this last view only. The very difficult object aimed at, is almost in every instance missed—if gained, it would be, in a vast majority of instances, useless, and unused in the business of life. Of the thousands who attempt to learn to speak and write Latin, how small a portion have occasion to speak or write it after leaving college!

"In strongly recommending to you the study of the French language, I do not wish you to encounter any difficulty in acquiring it, the overcoming of which will not turn to great and certain profit in use. Such an acquaintance with it, as will enable you to translate it, is all that I insist upon as nearly indispensable; and you may be assured, that I do not greatly understate the difficulty of attaining to this, when I say, that I am persuaded any one of moderate abilities, who entirely devoted himself to the study of French for one month, would in that time be able to read the French systems of anatomy, and, in two or three months more, would have acquired a tolerable facility in translating any of the ordinary writings on scientific subjects. The great copiousness of German, renders it much more difficult of acquisition than French. It is for this reason, together with the one already hinted at, that I have not more strongly urged the advantage derivable from an acquaintance with this language also. If I were required to enumerate the languages of which I have spoken, in what I consider the order of their importance to the medical student, I should place them as follows:—French, Latin, German, and Greek. In what I have already said of these languages, I have had in view merely the direct benefit you would derive from a knowledge of them; but in forming our

estimate of their value, it is not to be forgotten, that in the study of them, we are naturally led to the study of the most perfect models of composition, in every kind, with which they abound. This is not the place to enlarge upon the elegance of thought and expression, the cultivation of mind, and refinement of taste, which a familiarity with classical literature almost invariably bestows. That it does so is a fact, for which it would be easy to assign sufficient reasons, and which should afford a strong inducement, in addition to those I have already mentioned, to the study of the languages I have recommended.

"The two sciences of Anatomy and Physiology, form the basis on which is raised the superstructure of the other strictly medical sciences, viz. Practice of Physic, Surgery and Midwifery, Morbid or Pathological Anatomy, Materia Medica and Pharmacy, and Medical Jurisprudence. An extensive acquaintance with these sciences is indispensable, and since their importance is so obvious, as to appear evident on merely stating their objects, I shall not occupy much of your time in speaking of them. The remaining sciences with which you are either obliged, or ought to make yourselves acquainted, are Chemistry, Botany, Natural Philosophy, and Comparative Anatomy. These are not strictly medical. We shall call them accessary or auxiliary sciences, and because the importance of the two last to the medical student is not evident, nor even generally admitted, I shall be at some pains to point out clearly the grounds of their utility.

"You will perceive that I make no distinction between the purely medical and the surgical student. The distinction is a mischievous one, invented by ignorant, and continued by narrow-minded men. With the exception of skill in operation, there is no part of surgical knowledge which the physician ought not anxiously to seek, and it is no less incumbent on the surgeon to possess himself of whatever knowledge is more especially necessary in the practice of medicine. The distinction, however, between the medical and surgical practitioner, is no less advantageous than the other is mischievous—advantages, both as regards the interests of the public, and the progress of improvement in the different branches of our profession."

This lecture is very creditable to the reputation of the author.

LITERARY INTELLIGENCE.

JUST published, the Works of the Rev. Robert Hawker, D. D. late Vicar of Charles Plymoak, with his Memoirs, by the Rev. Dr. Williams. 10 vols. 8vo. with portrait, royal paper, of which only a limited number has been printed.

Also, published separately, Memoirs of the Life and Writings of the Rev. Dr. Hawker, by the Rev. John Williams, D. D. of Stroud, with portrait, 8vo.

A curious error was made in the newspapers and medical journals, in substituting the name of "Mr. Bennet," for "Mr. Burnett," as Professor of Botany at King's College.

All Communications and Works for Review, are to be addressed to the care of Messrs. RENSHAW and RUSH, (near Exeter Hall) 356, Strand; or to the EDITOR, at his Residence, 61, Hatton Garden.

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CRITICAL REVIEW.

I.—*La Manœuvre de tous les Accouchemens contre Nature reduite a la plus grande simplicite, et precedee du Mechanisme de l'Accouchement Naturel.* Par JULES HATIN, M. D. &c. Paris, 1829. 18mo. pp. 311.

The Management of all Preternatural Labours, reduced to the greatest simplicity, preceded by the Mechanism of Natural Labour. By JULES HATIN, M. D. &c. Paris, 1829. Henry Leclercq.—(*continued.*)

Transverse Presentations.

Positions of the Trunk.—Before speaking of the positions of the trunk, it would be, without doubt, natural to study those of the face and of the occipital and temporal regions; but these different positions not presenting any thing particular, and as they can be confounded with those of the trunk, it has appeared to us more simple and more proper to make of all these presentations one series. Thus we comprehend in the regions of the trunk, the face, properly so called, the occipital and temporal regions.

The trunk of the fœtus presents four great regions, one *anterior*, one *posterior*, and two *lateral.*

If we paid attention only to the operation applicable to each of these regions, we might dispense with subdividing them into many other secondary regions; but this subdivision appearing to us indispensable, to give with more exactness the characters which distinguish the different parts of the same region, we shall preserve it, as most authors have given it; but when speaking of the operation, we shall see in the anterior, posterior, and lateral regions of the fœtus, but one and the same region, which, in presenting itself at the superior strait, offers constantly the following indications to fulfil:—

First Indication.—If the bad position of the child is the only obstacle to the natural termination of the labour, all that is necessary, is to replace the fœtus properly; that is to say, to bring to the centre of the superior strait, the inferior limb which is the nearest.

Operation.—When this limb is to the left of the pelvis, the right hand is to be introduced, the fœtus returned to the right of the mother, and the uterus inclined to the left. If, on the contrary, it be to the right, the left hand is to be introduced, the fœtus returned to the left, and the uterus inclined to the right. Once the fœtus is properly replaced, nature finishes the labour.

Second Indication.—Whilst this bad position of the child exists, certain

accidents may happen, such as inertia of the womb, hæmorrhage, convulsions, &c. We must not then be contented with replacing the fœtus properly, it is necessary to terminate the labour by seeking for the feet.

Operation.—That hand is to be introduced which corresponds to the side of the fœtus to be traversed. This side is behind in the presentations of the anterior and posterior regions; it is beneath when the lateral regions present. It is to be returned to that side of the mother which corresponds with the hand introduced,* and the whole of that side indicated, is to be traversed, until the feet are met with, which are to be disengaged, as we have already directed.

Posterior Region of the Trunk.—The posterior region of the trunk comprehends the occipital region of the head, the nucha, the back, and the loins.

Marks which distinguish each of these Parts. Occipital Region.—This region is recognized by the posterior fontanel, the lambdoidal suture, the protuberance of the occipital tubercle, and by the vicinity of the posterior part of the neck.

The Nucha.—This region is recognized by the protruberance of the spinous processes of the cervical vertebræ, and by the slight volume which the neck presents, comparatively with the head which is on one side, and the shoulders on the other.

The Back.—The back is characterized by the presence of the shoulder-blades, by the spinous processes of the dorsal vertebræ, by the ribs and the intercostal spaces,

The Loins.—The loins are characterized by the spinous processes of the lumbar vertebræ, by the want of resistance which exists on each side of the spine, by the presence of the lower ribs superiorly, and of the bones of the pelvis inferiorly.

Positions.—The posterior region of the trunk presents itself in four principal positions, corresponding to the oblique diameters of the pelvis.

First Position of the Posterior Region of the Trunk. Principal Relations.—The head corresponds to the left cotyloid cavity, and the breech to the right sacro-iliac symphysis. The back is directed downwards, the abdomen upwards, the right side behind and to the left, the left side forwards and to the right.

Marks by which the Position is distinguished.—The direction which the whole of the spinous vertebral processes take, is sufficient to cause this, the first position, to be recognized, more especially if attention is paid to the characters assigned to each particular region,

Thus, in this position, we shall find forwards and to the left, the characters proper to the superior parts of the fœtus, and behind and to the right, those which belong to the lower parts. The spine takes the direction of an oblique line, drawn from the left cotyloid cavity, to the right sacro-iliac symphisis.

Operation. First Indication.—If the head is found near the superior strait, and it is to the left of the pelvis, the right hand is to be introduced;

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* If the head is near the superior strait, it will be, perhaps, easier to bring it to the centre of the pelvis, and apply the forceps.—J. H.

it is to be seized between the thumb in front, and the four fingers behind: it is to be returned to the right of the mother, and the fingers are then united on the vertex, which is to be drawn into the pelvis, whilst with the left hand, applied on the abdomen, the fundus uteri is inclined to the left. The position will then be the third of the vertex, and nature will do the rest.

If the breech is near the superior strait, as it is to the right of the pelvis, the left hand is to be introduced: it is seized between the thumb in front and fingers behind; it is then returned to the left, and drawn to the centre of the pelvis, whilst with the right hand, applied on the abdomen, the fundus uteri is inclined to the right. The position is thus reduced to the first of the feet, and nature does the rest.

Second Indication.—The right side of the fœtus being behind, the right hand is introduced upon this side: it is returned first above the pubis, then to the right of the woman, and the child is turned on its anterior region, so as to bring the feet to the left side of the pelvis. That being done, we traverse the whole of the right side of the fœtus, and we soon meet with the feet, which are to be disengaged, as we have already indicated. We terminate then as in the first of the feet.

Second Position. Principal Relations.—The head is to the right cotyloid cavity, the breech to the left sacro-iliac symphisis.

The back is directed downwards, the abdomen upwards, the right side forwards and to the left, and the left side backwards and to the right.

Marks which characterize the position.—The spine takes the direction of an oblique line, drawn from the right cotyloid cavity, to the left sacro-iliac symphisis.

[There is some obscurity in the text; it is as follows:—" La rangêe des apophyses epineuses se dirige obliquement dans une ligne qui partant de la cavite cotyloide droite, irait se rendre a la symphise sacro-iliaque gauche jusque a' cette direction du rachis."—Translator.]

Operation. First Indication.—If the head is near the superior strait, as it is to the right of the pelvis, the left hand is introduced, it is returned to the left, and its vertex drawn to the centre of the pelvis, whilst with the right hand, the fundus uteri is inclined to the right. The position will be thus reduced to the fourth of the vertex, and will then terminate naturally.

If the breech is near the superior strait, as it is to the left of the pelvis, the right hand is introduced, it is returned to the right, and drawn to the centre of the pelvis, whilst with the left hand the fundus uteri is inclined to the right. The position is thus reduced to the second of the feet, which will terminate naturally,

Second Indication.—The left side of the fœtus being behind, the left hand is introduced: it is returned first above the pubis, then to the left of the mother, and the child is turned so as to bring the feet to the right side of the pelvis. The whole of the left side of the fœtus is then traversed as far as the feet, which are then disengaged, as we have already directed, and the labour is to be terminated, as in the second of the feet.

Third Position. Principal Relations.—The head corresponds to the right sacro-iliac symphisis, and the breech to the left cotyloid cavity. The back looks downwards, the abdomen upwards, the right side forwards and to the right, and the left side backwards and to the left.

Marks which characterize the Position.—The spine takes the direction of a line drawn from the right sacro-iliac symphisis, to the left cotyloid cavity. We find behind and to the right the characters proper to the superior parts of the fœtus, and forwards and to the left, those which appertain to the inferior parts.

Operation. First Indication.—If the head is near the superior strait, as it is to the right of the pelvis, the left hand is introduced: it is returned to the left of the mother, and the uterus inclined to the right. The labour then terminates naturally, as the first of the vertex.

If the breech is near the superior strait, as it is to the left of the pelvis, the right hand is introduced: it is returned to the right, and the uterus inclined to the left.

Second Indication.—The left side of the fœtus being behind, the left hand is introduced, and it is to be treated exactly as in the second position.

Fourth Position. Principal Relations.—The head corresponds with the left sacro-iliac symphisis, and the breech to the right cotyloid cavity. The back looks downwards, the abdomen upwards, the right side backwards and to the right, and the left side forwards and to the left.

Marks which characterize the Position.—The spine takes the direction of an oblique line, drawn from the left sacro-iliac symphisis, to the right cotyloid cavity. The characters proper to the superior parts of the child are found behind and to the left, and those which appertain to the inferior parts are met with forwards and to the right.

Operation. First Indication.—If the head is near the superior strait, we draw it to the centre of the pelvis with the right hand, and we incline the uterus to the left. The labour terminates naturally in the second of the vertex.

If the breech is near the superior strait, it is drawn to the centre of the pelvis with the left hand, and the uterus is inclined to the right. The labour then terminates naturally in the fourth position of the feet.

Second Indication.—The right side of the fœtus being behind, the right hand is introduced, and it is treated exactly as in the first position.

1. If the head corresponds directly with the left side of the pelvis, and the breech with the right side, the position will be characterized by the spine taking a transverse direction. We shall find the superior parts of the fœtus to the left of the pelvis, and the inferior on the opposite side.

Operation.—In regard to the two indications, they are to be treated exactly as in the first and fourth positions. Only, in fulfilling the first indication, we endeavour to replace the extremity which is drawn to the centre in the first diagonals of the vertex or of the feet.

2. If the head corresponds directly with the right side of the pelvis, and the breech with the left, the position will be characterized by the transverse direction of the spinous processes, and by the presence of the upper parts of the fœtus to the right, and of its inferior parts to the left.

Operation.—In regard to the two indications, they are to be treated exactly as in the second and third positions; except that, in fulfilling the first indication, we endeavour to replace the extremity in the first diagonals of the vertex or of the feet.

3. If the head corresponds directly to the pubis, and the breech to the sacrum, the trunk will take the direction from before backwards, and we shall find the superior parts of the fœtus forwards, the inferior backwards.

Operation. First Indication—The head.—Either hand is introduced; it is returned backwards, and converted into the third of the vertex, if with the right hand, or into the fourth with the left.

The Breech.—Either hand may be employed: it is to be returned forwards, and changed into the second of the feet, if the right hand was introduced into the first, if the left hand was used.

Second Indication.—Either hand may be introduced, and the labour changed into the first or the second diagonal, always taking care to direct backwards the side of the fœtus corresponding to the hand introduced.

4. If the head corresponds directly with the sacrum, and the breech with the pubis, the trunk will take the same direction as in the preceding position: but we shall find the upper parts of the fœtus behind, the inferior forwards.

Operation. First Indication.—If the head is near the strait, either hand may be introduced: it is returned forwards, and in bringing the extremity to the centre of the pelvis, it is changed into the second of the vertex, if with the right hand, or into the first, if with the left hand.

If the breech is near the superior strait, either hand may be introduced: it is returned backwards, and reduced into the third of the feet with the right hand, or into the fourth with the left.

Second Indication.—Either hand may be employed: it is reduced to the third or fourth diagonal, directing backwards the side of the fœtus which corresponds to the hand introduced.

Anterior Region of the Trunk.—It comprehends the face, properly so called, the throat, the chest, and the abdomen.

Characters which distinguish each of these Parts—The Face.—On the median line, we find the smaller coronal suture, the nose, the mouth, and the chin: and on the sides, the orbits, and cheek-bones. These characters are too deeply marked for the face to be mistaken, unless the soft parts are excessively swelled.

The Throat.—The neighbourhood of the chin and of the superior part of the chest, and the comparative narrowness of the throat, are commonly sufficient for this region to be recognised.

The Chest.—The distinguishing characteristics of the chest are, the presence of the sternum, clavicles, ribs, and intercostal spaces.

The Abdomen.—The abdomen is recognised as a soft tumor, bounded on one side by the last ribs, on the other by the pelvic bones, and having in its middle the insertion of the umbilical chord.

Positions of the anterior Region of the Trunk.—The anterior region of the fœtus can present in four principal positions, which correspond to the oblique diameters of the pelvis.

First Position. Principal Relations.—The head corresponds to the left cotyloid cavity, and the breech to the right sacro-iliac symphisis. The belly looks downwards, the back upwards, the left side behind and to the left, and the right side forwards and to the right.

Marks which characterize this Position.—The trunk takes the direction of a line drawn from the left cotyloid cavity, to the right sacro-iliac symphisis.

We find the superior parts of the fœtus forwards, and its inferior parts backwards.

Operation. First Indication.—If the head presents near the superior strait, as it is to the left of the pelvis, the right hand is introduced: it is returned to the right, and the uterus inclined to the left.

The position will be reduced to the first of the vertex, and terminate naturally.

If the breech is near the superior strait, as it is to the right of the pelvis, the left hand is introduced: it is returned to the left, and the fundus uteri inclined to the right. The position is reduced to the third of the feet, which terminates naturally.

Second Indication.—The left side of the fœtus being behind, we introduce the left hand, return to the left of the mother, and traverse then the whole of the side which is behind, to seek the feet, which are disengaged, according to the rules already laid down. The labour is terminated as in the second of the feet.

Second Position. Principal Relations.—The head corresponds to the right cotyloid cavity, and the breech to the left sacro-iliac symphisis. The belly looks downwards, the back upwards, the left side forwards and to the left, and the right side backwards and to the right.

Marks which characterize the Position.—The trunk takes the direction of a line drawn from the right cotyloid cavity to the left sacro-iliac symphisis; the upper parts of the fœtus are found forwards, and the inferior backwards.

Operation. First Indication.—If the head is near the superior strait, it is drawn to the centre of the pelvis with the left hand, and to the fundus uteri is inclined to the right. The position is converted to the second of the vertex, which is then terminated by the strength of the woman alone.

If the breech is near the superior strait, it is drawn to the centre with the right hand, and the uterus inclined to the left. The position is reduced to the fourth natural of the feet.

Second Indication.—The right side of the fœtus being behind, the right hand is introduced; we return it to the right, and traverse all the right side of the fœtus, to seek the feet, which are disengaged, as already directed; the latter is terminated as in the first of the feet.

Third Position. Principal Relations.—The head corresponds to the right sacro-iliac symphisis, and the breech to the left cotyloid cavity: the abdomen looks downwards, the back upwards, the left side forwards and to the right, and the right side backwards and to the left.

Marks characteristic of the Position.—The trunk takes the direction of a line drawn from the right sacro-iliac symphisis to the left cotyloid cavity. The superior parts of the fœtus are found behind, the inferior forwards.

Operation. First Indication.—If the head is near the superior strait, it must be brought to the centre with the left hand, and the uterus inclined to the right. The position is reduced to the third natural of the vertex.

If the breech presents near the superior strait, it must be brought to the centre with the right hand. The position is reduced to the first natural of the feet.

Second Indication.—The right side of the fœtus being behind, we ought to introduce the right hand, and treat it exactly as in the second position.

Fourth Position. Principal Relations.—The head corresponds to the left

sacro-iliac symphisis and the breech to the right cotyloid cavity: the abdomen looks downwards, the back upwards, the left side backwards and to the right, and the right side forwards and to the left.

Marks which characterize the Position.—The trunk takes the direction of a line drawn from the left sacro-iliac symphisis to the right cotyloid cavity. We find the upper parts behind, and the lower forwards.

Operation. First Indication.—The head being to the left of the pelvis, it is drawn to the centre with the right hand, and the uterus inclined to the left. The position is reduced to the fourth natural of the vertex.

If the breech is near the superior strait, it is drawn to the centre with the left hand, and the uterus inclined to the right. The position is the second natural of the feet.

Second Indication.—The left side of the fœtus being behind, the left hand is introduced, and it is treated as the first position.

1. If the head corresponds directly to the left side of the pelvis, and the breech to the right side, the position will be shewn by the transverse direction of the trunk, and by the presence of the upper parts of the fœtus to the left, the lower being to the right.

Operation.—In regard to the two indications, exactly the same as in the first and fourth, except that in fulfilling the first indication, we endeavour to replace the extremity, which is drawn to the centre of the pelvis, in one of the first diagonals of the vertex or the feet.

2. If the head corresponds directly to the right side of the pelvis, and the breech to the left side, we shall recognise the position by the transverse direction of the trunk, and the presence of the superior parts at the right side of the pelvis.

Operation.—Exactly the same in the two indications, as in the second and third: except that, in fulfilling the first indication, we ought to bring the extremity at once into one of the first diagonals of the vertex or feet.

3. If the head corresponds directly to the pubis, and the breech to the sacrum, the trunk will take a direction from before backwards, and we shall find the superior parts forwards.

Operation. First Indication.—If the head is near the superior strait, either hand may be used: we return it backwards, and change it into the first diagonal of the vertex, if we have employed the left hand, and into the second, if we have introduced the right hand.

If the breech is near the superior strait, we draw it to the centre with either hand, and change it into the first diagonal of the feet, if the right hand was used, and into the fourth, if the left hand.

Second Indication.—We introduce either hand, and we change it into the first or second diagonal: but always so as to direct backwards the side corresponding to the hand introduced.

4. If the head corresponds directly with the sacrum, and the breech with the pubis, the direction of the trunk will be the same as in the preceding position: but we shall find the superior parts behind.

Operation. First Indication—If the head is near the superior strait, either hand may be introduced: we return it forwards, and change it into the third diagonal of the vertex with the right hand, and into the fourth with the left hand.

If the breech ought to be drawn to the centre of the pelvis, we introduce either hand; we return it backwards, and change into the second diagonal of the feet with the right hand, and into the first with the left hand.

Second Indication.—We introduce either hand, and reduce it into the third or fourth diagonal, taking care to direct backwards the side of the fœtus corresponding to the hand introduced.

Lateral Regions of the Trunk.—The lateral regions of the trunk comprehend the side of the head, the side of the neck, the shoulder, the side of the chest, and the flank.

Characters which distinguish each of these parts. The side of the Head.—It is principally marked by the ear, the different relations of which, with the pelvis, point out not only which side presents, but also in what position it is placed. Thus we know the lobe corresponds with the feet, and the great convexity of the helix with the back.

Side of the Neck.—It is more difficult to recognise it by itself, than by the parts which are near it: thus the presence of the ear on one side, and the shoulder on the other, sufficiently indicate the lateral parts of the neck.

The Shoulder.—The shoulder is recognised by the round protuberance which it forms, by the clavicle in front, and the shoulder behind: the presence of the arm, and the hollow of the arm-pit aid yet more the diagnosis.

Side of the Chest.—This region is characterized by the ribs, and the intercostal spaces. Above, we find the hollow of the arm-pit, and below the side of the abdominal parietes: in front the sternum, behind the spinous apophyses of the vertebræ.

Flank.—This region is known by its softness, by the presence of the last ribs above, and the iliac bones below.

Positions of the right lateral Region.—The right lateral region of the fœtus presents itself in four principal positions, corresponding to the oblique diameters of the pelvis.

First Position—Principal Relations.—The head corresponds to the left cotyloid cavity, and the breech to the right sacro-iliac symphisis: the right side looks downwards, the left upwards, the back forwards and to the right, and the abdomen backwards and to the left.

Marks characteristic of this Position.—The trunk takes the direction of a line drawn from the left cotyloid cavity, to the right sacro-iliac symphisis. The superior parts of the trunk are forwards, the inferior backwards.

Operation. First Indication.—Exactly the same operation as in the positions of the back and abdomen.

Second Indication.—The right side of the fœtus being beneath, we introduce the right hand, return it to the right of the mother, and then turn the fœtus on its anterior surface, so as to bring its abdominal extremities to the left side of the pelvis. This being done, we traverse the whole of the right side of the fœtus, and we soon meet with the feet, which are disengaged as already directed. The labour is then terminated as the first of the feet.

Second Position. Principal Relations.—The head corresponds to the right cotyloid cavity, and the breech to the left sacro-iliac symphisis. The right side looks downwards, the left side upwards, the back backwards and to the right, the abdomen forwards and to the left.

Marks which characterize the Position.—The trunk takes the direction of a line drawn from the right cotyloid cavity, to the left sacro-iliac symphisis. The superior parts are forwards, the inferior backwards.

Operation. First Indication.—The same as in the positions of the back and abdomen.

Second Indication.—The right side being beneath, we introduce the right hand: we return it to the right, and traverse the whole of the right side of the fœtus to seek the feet, as already directed: the labour is terminated as the first of the feet.

Third Position. Principal Relations.—The head is to the right sacro-iliac symphisis, and the breech to the left cotyloid cavity. The right side is beneath, the left side above, the back backwards and to the left, and the abdomen forwards and to the right.

Marks which characterize the Position.—The trunk takes the direction of a line drawn from the right sacro-iliac symphisis, to the left cotyloid cavity. The superior parts of the trunk are behind, the inferior forwards.

Operation. First Indication.—The same operation as in the positions of the back and abdomen.

Second Indication.—It requires to be fulfilled exactly as in the second position.

Fourth Position. Principal Relations.—The head corresponds to the left sacro-iliac symphisis, and the breech to the right cotyloid cavity. The right side is beneath, the left side above, the back forwards and to the left, and the abdomen backwards and to the right.

Marks which characterize the Position.—The trunk takes the direction of a line drawn from the left sacro-iliac symphisis to the right cotyloid cavity. The superior parts of the trunk are backwards, the inferior forwards.

Operation. First Indication.—The same operation as in the position of the trunk and abdomen.

Second Indication.—The same operation as in the first position.

1. If the head corresponds directly to the left side of the pelvis, and the breech to the right side, the trunk will have a transverse direction, and we shall find the superior parts of the fœtus to the left, the inferior to the right.

Operation.—Exactly the same, in the two indications, as in the first and fourth positions; except that, in fulfilling the first indication, we must bring the extremity in the first diagonal of the vertex or of the feet.

2. If the head corresponds directly to the right side of the pelvis, and the breech to the left side, the trunk will take a transverse direction; but we shall find the superior parts of the fœtus to the right, and the inferior to the left.

Operation.—Exactly the same for the two indications as in the second and third positions. Only, in fulfilling the first indications, it must be treated as in the preceding position.

3. If the head corresponds directly to the pubis, and the breech to the sacrum, the trunk will take a direction from before backwards. We shall find the superior parts of the fœtus forwards, and the inferior backwards.

Operation. First Indication.—If the head is to be brought to the centre, either hand may be introduced, but, by preference, the right. We return it backwards, and change it into the second diagonal of the vertex. If the breech is to be brought to the centre, either hand may be introduced, but, in preference, the right. We return it forwards, and change it into the second diagonal of the feet.

Second Indication.—We introduce the right hand, since the right side is beneath; and we change it into the second diagonal, to treat it subsequently as in that position.

4. If the head corresponds directly to the sacrum and the breech to the pubis, the trunk will have the same direction as in the preceding instance; but we find the superior parts of the fœtus behind, the inferior forwards.

Operation. First Indication.—If the head is near the superior strait, either hand may be introduced, but the left in preference: we return it forwards, and bring the extremity to the first position of the vertex.

If the breech is near the superior strait, either hand is introduced, but, in preference, the left: we return it backwards, and in drawing the extremity to the centre of the pelvis, we change it to the first of the feet.

Positions of the left lateral Region of the Trunk.—The left lateral region of the trunk presents itself, as well as the right, in four principal positions, which correspond to the oblique diameters of the pelvis.

First Position. Principal Relations.—The head corresponds to the left cotyloid cavity, and the breech to the right sacro-iliac symphisis: the left side is beneath, the right above, the back backwards and to the left, and the abdomen forwards and to the right.

Marks which chracterize the position.—The same as for the first of the right side.

Operation. First Indication.—The same as for the right side.

Second Indication.—The left side being beneath, we introduce the left hand, return it to the left of the mother, traverse the whole left side of the fœtus as far as the feet, which are disengaged as already indicated. The labour is terminated in the second of the feet.

Second Position. Principal Relations.—The head corresponds to the right cotyloid cavity, and the breech to the left sacro-iliac symphisis. The left side of the fœtus looks downwards, the right upwards, the back forwards and to the left, and the abdomen backwards and to the right.

Marks characteristic of the Position.—The same as for the right side.

Operation. First Indication.—The same as for the second of the right side.

Second Indication.—The left side being beneath, we introduce the left hand, return it to the left of the mother, and turn the fœtus on its anterior surface, so as to bring the abdominal extremities to the right side of the pelvis. That being done, we traverse the whole of the left side of the fœtus, as far as the breech, where we find the feet, which are disengaged according to the rules already given. We terminate the labour in the second position of the feet.

Third Position. Principal Relations.—The head corresponds to the right sacro-iliac symphisis, and the breech to the left cotyloid cavity. The left side of the fœtus is beneath, the right above, the back forwards and to the right, and the abdomen backwards and to the left.

Marks which characterize the Position.—The same as for the right side.

Operation. First Indication.—The sacrum as for the third of the right side.

Second Indication.—The same as in the second position of the left lateral region.

Fourth Position. Principal Relations.—The head corresponds to the left sacro-iliac symphisis, and the breech to the right cotyloid cavity. The left side is beneath, the right above, the back backwards and to the right, and the abdomen forwards and to the left.

Marks which characterize the Position.—The same as for the right side.

Operation. First Indication.—The same as for the fourth of the right.

Second Indication.—The same as for the first of the left lateral region.

1. If the head corresponds directly to the left side of the pelvis, and the breech to the right, we shall recognise the position by the same signs as for the right lateral region.

Operation. First Indication.—The same rules as for the right side.

Second Indication.—The same operation as for the first and fourth diagonals of the left lateral region.

2. If the head corresponds directly to the right side of the pelvis, and the breech to the left side, the position will be characterized as for the right lateral region.

Operation. First Indication.—The same as in the corresponding position of the right side.

Second Indication.—The same as in the second and third diagonals of the left lateral regions.

3. If the head corresponds directly to the pubis, and the breech to the sacrum, we shall recognise the position by the same characters as for the right lateral region.

Operation. First Indication.—If the head is near the superior strait, we introduce either hand, but the left in preference: we return it backwards, and bring it to the first position of the vertex.

If the breech is near the strait, we introduce either hand, but prefer the left: we return it forwards, and bring the extremity to the first natural position of the feet.

Second Indication.—If the left side be beneath, we introduce the left hand: we return it to the left to change it into the first diagonal, and we then treat it as that position.

4. If the head is to the sacrum, and the breech to the pubis, we recognise the position by the same signs as for the right side.

Operation. First Indication.—If the head is near the strait, we introduce either hand, but prefer the right: we return it forwards, and change it into the second diagonal of the vertex.

If the breech is near the strait, we introduce either hand, but prefer the right: we return it backwards, and bring it to the second natural of the feet.

Second Indication.—Since the left side is beneath, we introduce the left hand; we return it to the left, so as to change it into the fourth diagonal, and we treat it then as in that position.

Of those Labours in which the Hand of the Infant presents first.—The presence of the hand in the parts of generation (supposing them always to be well formed) does not prevent the termination of the labour, either by the abdominal extremity, or by the head.

It is then wrong to advise the arm to be torn off, to be amputated, to diminish its volume by incisions, or to return it into the womb. Only, if we are called, when this extremity is still at the superior strait of the pelvis, we ought to return or to sustain it; until the head or the opposite extremity of the fœtus is engaged in the opening of the strait. When one of the arms of the infant is found in the vagina, or external to the parts of generation, we ought to terminate the labour exactly as if it yet remained in the womb: except that we must fix this arm by means of a fillet,

so that it may not return, and that it may remain applied to the trunk during the termination of the labour.

Let us give as an example, a position of the lateral regions of the fœtus, with one of the arms external to the parts of generation. Suppose the first position of the left side with exit of the left arm.

Operation.—The limb being fixed by means of a fillet placed in the form of a running knot around the wrist, the obstetrician will introduce the left hand along the arm which is in the parts: arrived at the trunk of the fœtus, he will return it to the left, and will act for the disengaging of the feet exactly as if the arm was still in the womb. When the two feet are extracted, he will terminate the labour exactly as in the second position of the feet; except that he will take care to keep the arm applied against the trunk, so that it may be disengaged at the same time with it.

Note.—The arm which presents itself in the parts of generation, not always belonging to the side of the fœtus, which is beneath, it is indispensable, before operating, to pass the hand along this link as far as its articulation with the trunk, in order to know decidedly to which side it belongs. In all cases, in order to terminate the labour, we ought to use the hand which corresponds to the side of the fœtus which presents.

The direction of the hand, when external, may guide in guessing the direction of the trunk at the superior strait of the pelvis; but we cannot have any certainty without an examination.

If the inspection is not sufficient to determine the hand, which is external, the obstetrician will remove all his doubts, by comparing it with that one of his hands which corresponds perfectly with it.

Review of the different Operations applicable to the Trunk.—Whatever region presents, each position offers two indications to fulfil.

The first, which consists in bringing to the centre of the pelvis, that extremity which is nearest, requires exactly the same operation in all the diagonals, and in all those in which the extremity of the fœtus corresponds, directly to one or the other side of the pelvis, whether it be the anterior, posterior, or lateral regions which present.

Let the extremity be whichever it may, is it to the left of the mother? We use the right hand, return it to the right, and incline the uterus to the left.

Is it to the right? We introduce the left hand, we return it to the left, and incline the uterus to the right.

In the direct positions, we introduce either hand, and return it to the side opposite that in which we find the extremity of the fœtus, which we wish to draw to the centre, and we change it always in diagonal.

The first indication once fulfilled, the labour will terminate naturally.

The second indication consists in traversing one of the sides of the fœtus to seek the feet. This side is always directed backwards in all the diagonal positions of the anterior and posterior regions, and in all those in which the extremities of the fœtus correspond directly to the lateral regions of the pelvis: it is beneath in the same positions of the lateral regions.

To fulfil this second indication, we must always introduce the hand which corresponds to the side of the fœtus to be traversed.

The direct positions ought always to be changed into diagonals, and they then require the same operation as those positions.

The presence of an arm externally does not change any thing in the operation for the positions of the trunk.

Of Manual Labour when there are two or more Infants in the Uterus.—When there are two or more infants in the womb, they ought to be extracted according to the rules already indicated.

1. If two infants present their feet, we ought to prefer commencing by the extraction of that one whose heels correspond to the hand introduced in the parts, and to seize with certainty the two feet of the same infant, we should pass the fingers as far as the hips.

2. If two infants present their heads, we ought in preference to return first that one whose side directed backwards, corresponds to the hand introduced. Of course, we should repulse the head of the second infant, if it should engage itself in the superior strait.

3. If one infant presents the head, and the other the feet, we ought to commence by the last, unless, as Dr. Capuron says, the head of the first infant, already deeply engaged, require the use of the forceps. [For a curious case of this kind, see our Number for March last.—Ed.]

4. If two infants are placed across the superior strait, and in the same direction, we should commence by extracting that one whose feet are the readiest to get at. If one has the head to the right, the other the head to the left, we prefer commencing by that one whose feet are to the left of the pelvis, if we have introduced the right hand, and vice versâ.

II.—*On the Treatment of Obstructions in the Lachrymal Passages by the Probes, and Syringe of Anel, and the Seton, as suggested by Mejan.*—(From Dublin Hospital Reports, Vol. V.)

The following paper, by Dr. Jacob, will be perused with advantage, as it supports a series of operations which have fallen into disuse in these countries. It is pleasing to reflect upon the great attention that is now paid to ophthalmic surgery, and that it is no longer confined to ignorant oculists. The medical student very properly considers his education incomplete unless it embraces this branch of science, and he has the satisfaction of prosecuting his studies under some of the most eminent surgeons of modern times. We need scarcely observe that Dr. Jacob has paid great attention to ophthalmology, and is in high esteem in the sister country.

"The treatment practised by Anel, Mejan, and many of their contemporaries, and subsequently by Mr. Ware and other British surgeons, for the removal of obstructions in the lachrymal passages, does not at present appear to receive the favourable consideration which I think it deserves. I am satisfied that the probe is as valuable an instrument in the hands of a surgeon, who has skill and leisure to use it, for the removal of an obstruction in the lachrymal passages, as the bougie or catheter is for the removal of a stricture of the urethra. On the present occasion I shall confine my observations to the simple case of what Mr. Ware denominated an epiphora, or watery eye: the eye is tender, the tears run over the

cheek, and on pressing the sac, tears, mixed with mucus or pus, regurgitate through the puncta. I make no pretensions to more than some modifications of the methods recommended by others. The first object of the surgeon should be to ascertain the degree of obstruction existing; this he can only do by mechanical means, and the syringe being the instrument least likely to produce injury, should be the first selected. The syringe and pipes should be carefully examined before using, the piston should be tight and working smoothly, and the tubes perfectly free, otherwise, when the surgeon has passed the point into the punctum, and forced down the handle, the water, in passing into the sac, returns by the side of the loose piston, and does not quit the syringe. The inferior punctum is most accessible, the circumstance of the lachrymal canal forming a smaller angle with the axis of the sac than the superior, does not increase the difficulty of the operation. If I operate on the right eye, I stand behind the patient, lay the thumb of my left hand on the cheek bone, and draw the lower lid downward and outward, thus bringing the punctum into view, and putting the lachrymal canal on the stretch. If I operate on the left eye, I also stand behind the patient, or rather to the left side, and draw the lid down in the same way with my left hand. With the punctum thus exposed, and the canal gently stretched, the surgeon should place the point of the tube of the syringe on the punctum, and gently press in the perpendicular direction until it enters, and then, with all the care the manœuvre requires, depress the syringe, carry the tube fairly into the canal, and inject the fluid. If the water return by the superior punctum, the operator may succeed in compressing the opening with the point of the finger, but this can seldom be accomplished, except in cases where the gape of the lids is naturally great. If the passage into the nostril be free, the contents of the syringe pass into the pharynx as the patient leans back, and the operator has evident proof that the fluid has passed. If, however, the fluid does not pass into the pharynx, but regurgitates by the other punctum, the surgeon must not at once conclude that the nasal duct is obstructed, but must repeat his efforts to force in the fluid and prevent its return. He may also lay aside the syringe, having filled the sac with water, and then firmly compress the sac with the point of his finger, by which he may force the contents through the opening in the nostril if the obstruction be not complete. I have successfully removed an obstruction by a repetition of this practice alone, in a case where the sac was enlarged by long continued distention. Although the fluid should not perceptibly pass into the pharynx, yet the nasal duct may not be completely obstructed: to ascertain this, coloured, odorous, or bitter infusions may be employed, as infusion of indigo, camphor mixture, infusion of gentian, or any thing else that will prove by its colour when discharged from the nose, its smell in the nostril, or disagreeable effect in the pharynx, that it has made its way through the duct.

" The surgeon having satisfied himself that the passage is obstructed, has now to ascertain the nature of the obstruction. Actual dissection has thrown little light on the subject, we must therefore form an opinion from our knowledge of the anatomical structure of the parts, and the effects we have observed from disease. I do not know any other obstruction than that caused by solid mucus plugging the narrow part of the nasal duct, true stricture complete or partial, or closure of the passage from tumefac-

tion of the mucous membrane produced by inflammatory action. Of the obstruction caused by a plug of mucus I cannot speak positively from experience, although I often act on the conviction of its existence; for example, if I find that water will not pass by syringing, but that I can pass a flexible probe, I again try the syringe, and if the water then flow, I look upon the case as one of this description. I direct the patient to compress the sac often with the point of the finger in the course of the day, to blow the nose frequently, and holding the nostrils to inspire strongly, thus exhausting the air from the nostril and the nasal duct opening into it, and consequently removing the contents. This simple auxiliary means of keeping the passage free is not to be dispised. I can state from experience, that if the lachrymal passages be perfectly free and the secretion of tears abundant, as in raw weather, inspiring suddenly and strongly, empties the sac and duct, and even causes a rush of air through the puncta into the sac. I have been assured by a practitioner, upon whose statement I can rely, that he saw an epiphora, or watery eye, in an infant cured by the nurse sucking the nose strongly, a practice not likely to be repeated, yet possibly as valuable as it is filthy. Any man acquainted with the mechanism of the lachrymal passages, and the effects of atmospheric pressure, can easily understand how the consequences which I have enumerated may follow the practice.

" The obstruction caused by the tumefaction of the sides of the sac from inflammatory action, being so different in its nature, requires an equally different treatment. It may not at all times be easy to distinguish this case, from the simple mechanical obstruction by firm mucus, because inflammatory action and its consequences may follow in the latter. I should suspect the case to be one of obstruction from inflammatory tumefaction if the conjunctiva of the lower lid be very vascular, with flocculi of mucus or pus between it and the eye-ball, if the sac, when compressed, be tender, and afford a considerable quantity of pus or mucus mixed with tears, and if the flow of tears down the cheek has been sometimes much greater than at others. We have no proof from dissection of the sac being thus obstructed, but we see that the passage is very narrow, that it is lined by mucous membrane, causes obstruction of much wider passages. I begin the treatment of a case of this kind by compressing the sac, and then throwing in some water with the syringe, to ascertain whether the passage be completely obstructed. If no fluid pass, I endeavour to pass a bristle or other elastic flexible probe without violence. If this probe pass, I have additional proof of the obstruction being from inflammatory tumefaction, but if there be a firm resistance to the passage of the probe, permanent stricture is to be suspected. Increased vascularity of the mucous membrane lining the sac, with purulent secretion, obstruction, and watery eye, is not of course to be cured by mechanical means. I cannot altogether agree with Scarpa, that this state of the lachrymal passages arises from the extension of a similar inflammatory condition of the conjunctiva, because we so frequently meet with the inflamed conjunctiva not followed by these consequences, but I believe that the state of the passages, which I have just described, will not be found unaccompanied by the increased vascularity of the conjunctiva of the lower lid. To reduce this vascularity, and correct the tendency to purulent secretion, I do not know of any other more effectual treatment, than the application of

leeches over or near the sac, if it be tender to the touch, and of astringent solutions to the surfaces. I have not much confidence in the general abstraction of blood in such a case, and still less in the practice of setting leeches to bite the inflamed conjunctiva of the lid. Astringent solutions, I am satisfied, are of value, not in the inefficient proportion of two or three grains to the ounce of water, but of at least ten grains: I use, if not with the effect of removing the disease, at least without injury, saturated solutions of acetate of lead or alum. I fill the sac from the syringe, and if the fluid does not pass into the nostril, I compress the sac to force, at least, a small quantity through; I then put a few drops of the same solution between the lids, and repeat this every day. I prefer the saturated solution of acetate of lead, because I think it is most effectual as an astringent, without acting as a stimulant, and I do not find that it causes the white deposit on the conjunctiva in this case; the saturated solution of alum may also be used with safety and advantage. I have tried saturated solutions of sulphate of zinc and sulphate of copper, in what is called chronic ophthalmia, but they acted much more as stimulants than the lead or alum, and not more powerfully as astringents. If the surgeon shall not have an Anel's syringe at hand, he may introduce the solution thus: having seated the patient in a chair with the head leaning back, he should firmly compress the sac with the point of his finger until it is emptied, and then fill the inner angle of the eye with the solution. After placing the solution thus in contact with the puncta, he should, keeping the head in the same position, draw open the lids, pulling the upper one outward and upward, and the lower downward and outward; thus, by their attachment through the palpebral ligament raising the sides of the sac which had previously been compressed, increasing its capacity, and consequently causing the influx of the fluid by atmospheric pressure, or in common, and perhaps to many more intelligible language, thus sucking it in. I have no doubt that it is thus that the orbicularis palpebrarum muscle acts, and not, as is generally supposed, by *compressing* the sac, an action which any one may see it cannot perform. This application of the saturated solution should be repeated every day, or every second day, and the patient directed to keep the parts cool by repeated sponging with cold water, or the occasional use of a light wet compress.

" If the obstruction in the nasal duct be a true stricture, partial or permanent, the treatment must obviously be very different from that recommended in the two preceding cases. The stricture is to be removed, and the passage re-established permanently; this I know, from experience, can be accomplished without cutting into the sac. The surgeon having satisfactorily ascertained by the syringe that there is no passage for fluids, should next sound the duct with a flexible probe; for this purpose a hog's bristle answers excellently, the largest size should be selected, as there are very few puncta which will not admit the largest; the bristle should be perfectly grown, the bulb at the extremity round and solid, such as are used by shoemakers, and if the punctum be large, the bulb may be enlarged by the addition of a speck of sealing wax. Such bristles should be carefully prepared beforehand; the bulbs freed from the particles of cuticle which adhere to them, and polished by oiling and rolling them between the finger and thumb: those headed with sealing wax should be neatly made, and care should be taken that the wax will not slip off, by

applying it sufficiently hot and burning it in. Other coarse hairs may also be used, and are often preferable to hog's bristles, being more flexible. I have the tail of an hippopotamus, which supplies me with this kind of probe of every size required. I take such a bristle as I have described, cut to a length of about three inches, apply the bulb perpendicularly to the punctum, and if it does not enter, press steadily until I see the resistance yield, and that the bulb has entered. I then pass it horizontally, as I before described, until I strike it against the opposite side of the sac, and then turn it into the perpendicular direction. This, however, can scarcely be accomplished, from the flexibility of the bristle, without catching a short hold of it, which cannot be done with the fingers; the operator must therefore seize it in the square nibbed forceps: the small one used for extracting eye-lashes answers well, or a common small sized dissecting forceps cut square at the point instead of being pointed. When, by this means, the bristle is turned up into the perpendicular direction, and the bulb down into the nasal duct, it should be pressed against the obstruction with as much force as the bristle will bear, turning, pressing, and relaxing, leaning sometimes to one side, sometimes to another, as a person would manage an elastic bougie against a stricture of the urethra. If after every effort the bristle cannot be passed, recourse must be had to the metallic probe. The surgeon should be provided with a number of silver probes the size of the bristles, and softened so as to admit of being easily bent without breaking; they may be cut to a length of an inch and a half, with a quarter of an inch of the hand-end turned at a right angle in order to be fitted to remain in the passage like a style if necessary, or they may be left of the usual length, which I prefer, the short probe or probe style, as it may be called, being less manageable. The silver probe, thus introduced, is raised, but can seldom be brought exactly into the line of the sac, in consequence of the prominence of the brow; I therefore here bend it by holding it against the margin of the orbit and depressing the hand end. Thus, having the probe in the duct, bent at a distance of about an inch and a half from its bulb, I push it firmly down, breaking through the resistance until it has sunk to the elbow which I bent upon it, and the patient feels it in the nostril. It may be questioned whether the passage thus made is in the proper direction, the probe may be forced between the bone and periosteum, or perhaps even into the antrum; I can only say that I have often practised what I now recommend, and the result has proved that the probe took the course of the duct. The passage having been thus artificially formed, it remains to preserve it; this can only be accomplished by keeping some foreign body in it until it is permanently re-established. If the style probe, an inch and a half in length, has been used, it will do well enough, the angle at which it had been bent near the hand end, preventing it from slipping into the punctum or sac: and this is the advantage of using this short one, which I have already said is not so manageable as a probe of three or four inches. I am myself in the habit of introducing the probe of full length, and when I have pushed it through the obstruction, I bend it at the punctum, and cut it off so as to leave an angle or hook head outside the punctum to prevent its slipping in. This bending and cutting soft silver wire is easily accomplished with a good pair of cutting pliers, such as are used by wire workers. After the probe has been once passed, the

surgeon may be unwilling to run the risk of withdrawing it, lest he should not be able to get a softer and more flexible one through the same passage. If the passage has been easily forced, I withdraw the silver and introduce a bristle probe; if there has been much difficulty in forcing it, it is better to secure the steps we have gained and leave the silver one in. If the silver one be retained it should be adjusted, so as to make the least possible pressure on the punctum or margin of the lid, and if the bristle be left in, the portion outside the passage should be bent and firmly secured to the cheek, or over the cheek bone, by court plaster. If the probe be allowed to stand perpendicularly, it drags the punctum towards the nose, and either causes it to be dilated, or ulcerated, and thus spoiled. The only dressing to the part should be a small light compress of old linen kept constantly wet with cold water. The probe should not be allowed to remain longer than forty-eight hours at the utmost, as it is liable to produce ulceration or dilatation of the punctum: it is to be replaced by catgut. The surgeon having provided catgut of the proper size, should soften the point between the teeth, to prevent it from catching against the side of the sac, and with the square nibbed forceps dexterously introduce it, and push it on until a sufficient length has passed. It must not be denied that this is often a matter of difficulty requiring much care and perfect use of the fingers, but it is no more to be abandoned on that account, than any other difficult surgical operation. If two or three inches of the gut have been passed into the nostril, the operator need not take any trouble to draw it out through the external nostril, as this will be accomplished by the patient when it has become soft. The portion of gut outside the punctum should be coiled up and secured by bandage on the forehead, and no more dressing than a light damp compress applied. The next day the part should be examined and cleaned, but the gut need not be disturbed; the day after that, however, the portion which hangs from the nostril should be gently pulled until an equal portion of fresh gut from the coil on the forehead is brought to replace that which has been withdrawn. The gut being mere animal membrane, softens and sometimes even dissolves before the second day, it should not therefore be allowed to remain unrenewed longer than forty-eight hours. About the fourth day from its introduction the gut should be withdrawn altogether, the part well cleaned with a sponge and warm water, the sac compressed, and the patient directed to clear the nostril by repeatedly blowing through it. A stream of water should then be sent through it with the syringe, and the patient should receive particular directions to sponge the part with luke-warm water frequently in the day, to compress the sac repeatedly with the point of the finger, and to make an effort to inspire often strongly with the nostrils closed. The next day it should be syringed again, and if there should be any difficulty to the passage of the water, a bristle probe, headed with sealing wax, should be passed and withdrawn, and the syringing repeated. The third or fourth day the astringent solution may be used, as directed in a former paragraph, with the occasional use of the bristle probe, until the flow of tears down the cheek ceases, and the eye resumes its natural appearance. It is scarcely necessary to say that the cure may be tedious, even after the passage is re-established, in consequence of the sac and lid retaining their vascular condition, and affording purulent secretion; but whatever difficulty or disappointment the practitioner may experience, he should

consider the syringe and probes of Anel, and this seton practice of Mejan, as valuable auxiliaries in the management of the disease of the lachrymal passages.

"In the observations which I have offered respecting the treatment of obstructed nasal duct, I do not mean to supersede or undervalue the labours of others who have written on the same subject, or arrogate to myself any originality. I wish what I have written to be read with the articles on the same subject published by others, especially the observations respecting the proposal of Mejan, in the second volume of the Memoires de l'Academie de Chirurgie, Mr. Ware's Papers on the Epiphora or Watery Eye, and Mr. Travers's directions in his Synopsis of Diseases of the Eye. The latter gentleman evidently describes what he had practised, and many of my observations will be found a repetition of his. To those who *abuse* this mode of treating the disease, without having practised it or seen it practised, I wish more experience; to those who *abuse* it because it has been badly and injuriously conducted by some, I recommend to lay aside catheters, sounds, and bougies, because urethras have been torn, false passages made, and prostrate glands transfixed."—p. 387

III.—*Elements of Pathology and Practice of Physic.* By John Mackintosh, M.D., Acting Surgeon to the Ordnance in North Britain, Lecturer on Practice of Physic in Edinburgh, &c. &c. Vol I. 8vo. pp. 484. Vol. II. pp. 467. Edinburgh, Carfrae and Son.

The author's object in publishing this work was to furnish his class with a text-book; and he has accomplished his task with very great credit to his reputation. He has deviated from the former track of systematic writers on the practice of physic, and has attempted to establish a system of medicine, founded upon pathology, which he has executed with great ability. Though his work contains a vast deal of the most important practical information, and a vast deal of originality, it is by no means a perfect system of practical medicine. The author has sacrificed every thing to morbid anatomy, and has entirely forgotten the immense, the innumerable disorders and diseases which cannot be explained by necroscopic examinations. The morbid appearances are the results of disease, they have occurred after a lapse of time, they had a beginning and an increase, during which numerous symptoms existed which required attention, and which cannot be indicated after death. It is not the lesions which are discovered on dissection, but the symptoms during the progress of disease, to which our therapeutic resources must be directed. Dr. Mackintosh has almost forgotten this axiom, for he ascribes nearly the causes of all diseases to lesions of tissue. This is a general but an erroneous impression, as a moment's reflection will convince every observant practitioner that an immense number of disorders exist without any lesion of structure, and upon which autopsic examinations throw no light whatever. The spasmodic affections afford unimpeachable evidence of this position. Who can deny that every organ in the body may be in a state of irritation or disordered function independently of change of structure? It therefore appears to us,

that the author before us has estimated pathological anatomy far beyond its value.

Another great defect in this production is the manner in which the author has treated the opinions of his predecessors and contemporaries. He has displayed an acrimony of feeling, an asperity of censure and a harshness of expression quite unprecedented in elementary works of modern times. His personal animadversions and his caustic criticisms upon the professors and dogmas of the Edinburgh school are exceedingly injudicious, to say the least of them. We applaud his independence, we condemn his intemperateness. His excuse and apology for these blemishes is, that " his only aim has been to advance science and to benefit his species."

Laudable motives no doubt, but such as cannot excuse violent and intemperate language in a text-book for students, and a work of science for the profession. Such are our charges against Dr. M. but they are almost compensated for by the ability and judgment that appear in every page of his work. He evinces much good sense, great candour, and a discriminating judgment. The tenour of the work in general reflects the highest honour on the author's talents and industry. It is an excellent compendium of the practice of medicine, and ought to have a place in every medical library.

Dr. Mackintosh adopts a peculiar arrangement of diseases, and one which appears to us to be the most natural. He commences with the pathological history of inflammation and fever, also the pathology and treatment of individual fevers." After a concise examination of the numerous theories of fever, he proposes his own, which is as follows:—

" It is now time that I should state the views which I have been myself led to form on this important subject. 1st, Fevers frequently depend on inflammation of an acute, but more frequently of a sub-acute nature, of every organ and tissue of the body. If the inflammation be acute, the febrile symptoms will be correspondingly high; but if sub-acute, they will assume a slighter form.

" 2d, Fevers very often depend upon mere functional derangement of some organ, having as yet no connexion with inflammation.

" 3d, Fevers sometimes depend on the mere loss of balance in the circulation, producing congestion; and fevers arising from these two last causes are generally called *idiopathic.*

" After having watched the progress and termination of fevers in various climates, I have been led to conclude, that the nature and seat of fever, (which may be called its essence,) is pretty much the same in all constitutions, in all climates, and under all circumstances, the only difference being in intensity, and the rapidity with which some run through their course; and I trust that the division of fevers which I have adopted, will be found to be simple and intelligible.

" Some have supposed, from the tenour of the papers which have been published by me, that I deny the influence of the nervous system in the production of fever; but this is far from being the case. It would as soon occur to me to question the laws of gravitation. I have always maintained the strict connexion between the vascular and nervous systems, in producing and keeping up febrile and inflammatory diseases.

"There can scarcely be a doubt that a disordered state of the functions of the brain, and other parts of the nervous system, occasionally gives rise

to febrile action. It is impossible to deny to the brain, as an organ, that it may be disordered, like other viscera, in function as well as in structure. My ideas of fever may be summed up in the words of Dr. Fordyce, one of the best and most original writers upon the subject. "A fever," says he, "is a disease that affects the whole system; it affects the head, the trunk of the body, and the extremities; it affects the circulation, the absorption, and the nervous system; it affects the skin, the muscular fibres, and the membranes; it affects the body, and affects likewise the mind. It is, therefore, a disease of the whole system in every kind of sense. *It does not, however, affect the various parts of the system uniformly and equally; but, on the contrary, sometimes one part is much affected in proportion to the affection of another part.*"

"It appears to me, that certain points closely touching this question are admitted by all those whose opinions are of any value, although they have been called by different names.

"1*st*, That the functions of almost all organs are embarrassed in fever from the very beginning, and often before the sense of cold is felt by the person himself.

"2*dly*, That the blood leaves the surface of the body, and becomes congested in internal organs, and that unless they are overwhelmed, the system makes an effort to relieve herself, which is called *re-action*, and certain combined phenomena take place, which are designated by the name of Fever. A question has arisen to determine by what means this is effected. There can be no doubt that it is owing to the principles of life. There are two circumstances, in following which investigators have bewildered themselves; one is, the vain attempt to ascertain the first link in the chain of diseased action; the other is, the still more hopeless endeavour to discover the principle of life, which perhaps no man will ever be able to unravel.

"3*dly*, That inflammation of all parts of the body will give rise to fever.

"4*thly*, That inflammation, although it has no share in the production of a fever, may become lighted up during its course.

"5*thly*, That the nervous system is involved as much as the vascular; and, if all these things be true, it follows as a consequence that the blood itself must be altered.

"This outline of my opinions must suffice at present,—it will be best filled up when treating of the pathology of individual fevers,—when an attempt will be made to account for the discrepant histories which have been given of fevers, and for the opposite practices which have been recommended by different authors."

This is a rational view of the nature and cause of fever, and one to which the scientific and experienced portion of the profession will readily subscribe. It will not suit the theorists of the day. The division of fevers is excellent; 1st, intermittent fever; 2d, remittent or yellow fever, infantile remittent; 3d, continued fever. This class is subdivided into, 1st, fever from simple functional derangement; 2d, fever from inflammation; 3d, from congestion; 4th, a mixed form of fevers between these last three, but in which congestion predominates at last, commonly denominated typhus and synochus; 5th, hectic fever; 6th, fevers attended with eruptions, as scarlet fever, measles, small-pox, chicken-pox, miliary fever, roseola, urticaria, and plague.

" We have the following remarks on Cullen's difinitions of fevers:

" After shivering, succeed a quick pulse, increased heat, with interruption and disorder of several functions, diminution of strength, particularly of the joints.

" After languor, lassitude, and other signs of debility, pyrexia, without any primary local affection.

" There are the strongest objections to all definitions. The following may be urged against the two above quoted; they are symptomatical definitions, and it is well known by physicans of experience that the symptoms vary much according to constitution, climate, and habits of living. They vary even in different individuals belonging to the same family, and during the same epidemic. The symptoms also develope themselves in various degrees; one, when exceedingly severe, frequently conceals or disguises the others. A definition, to be useful either to the student or the young practitioner, should embrace such phenomena as are peculiar only to that particular disease,—phenomena which may be said to be pathognomonic of the affection. As has been already stated, there is no case of fever, or indeed of any other disease, which has not some peculiarity that distinguishes it from another; in truth, the symptoms have a very wide range of character. A definition, giving a sketch, not of the symptoms, but of the *nature and seat of the disease,* would be a most useful introduction to the practice of physic; but pathology, unfortunately, is not yet sufficiently advanced to enable me to adopt such a plan in the course of this work.

" It may be asked why Cullen, in his definition of fever, has taken no notice of pain in the head, and in the loins, of oppression at the præcordia, of nausea, want of appetite, thirst, and the state of the tongue? The reason appears to me to be evident: the mention of these phenomena would have led to the suspicion of *local affection,* which was contrary to his own dogmas.

" Fever," says Dr. Fordyce, " of all other diseases, is that one in which a pathognomonic symptom is least to be depended upon; that is to say, an appearance which does not take place when there is no fever, or a fever does not take place when there is no such appearance."

" Febrile diseases sometimes commence without any rigour, and may go through their whole course without any unusual heat of skin, quickness of the pulse, or thirst. The rigour is not always followed by increased heat. Languor, lassitude, and other signs of debility, are symptoms common to almost all diseases, and therefore should not be ascribed to fevers in particular.

" It is impossible to give a good general account of the phenomena of fevers, because they vary every day in the course of the disease. The symptoms which appear in the accession of fever, differ from those which manifest themselves in its progress; and these again from those which are observed in the decline and termination. These differences have given rise to a division of every fever into stages:—

1*st*, That of accession.
2*dly*, ——— increase.
3*dly*, ——— declension.
4*thly*, ——— collapse.

These have been differently named; the first has also been called the stage of oppression and depression; the second, that of re-action: the symptoms

occurring in the third and fourth stages have too frequently been called typhoid.

"The symptoms also vary according to the organs chiefly affected. In some cases there are decided head symptoms, from the very beginning, indicated by headache, intolerance of light and sound, *tinnitus aurium* and delirium, or stupor, with low muttering delirium, &c. In other cases the viscera of the thorax are principally affected, indicated by dyspnœa, cough, expectoration, and tightness in the chest. In a third set of cases, some of the viscera of the abdomen are implicated, announced by nausea or vomiting, uneasines increased on pressure, diarrhœa, a foul state of the alvine evacuations, discovered both by the appearance and odour of the stools; a tympanitic state of the abdomen, and the peculiar appearances of the tongue. Sometimes there is a combination of these, and occasionally in the course of the fever there are evidences of sub-acute action in all the three great cavities, and this is what occurs in the worst forms of yellow and malignant fevers.

"In all fevers every organ is in general embarrassed in its actions, so that there is the best proof of universal functional disorder, and the appearances on dissection warrant the statement which has been given above. True it is, that we now and then, on examining the body of an individual, find no decided morbid appearance. This is by no means peculiar to the practice of physic; for, in that of surgery, people sometimes die after capital operations, where there has been no loss of blood, and no organic lesion found upon dissection, to explain the cause of death. They are said to die from the shock, by which term I understand that the principal functions of the body become suddenly impeded to such a degree that life can no longer be carried on. In the same way, in fevers, individuals die before any alteration of structure has taken place; from peculiarity of constitution, they cannot stand the shock produced by the embarrassment of so many organs in the performance of their functions; and farther, many individuals cannot bear the remedies which have been thought necessary for the subduction of the disease.

"Some cases of fever commence with shivering, quickly followed by increase of heat and other symptoms of pyrexia, and terminate in a few hours, after considerable suffering, by copious perspiration; that is the simplest form of fever, and is termed Ephemeral; but when there is a regular succession of paroxysms, it is called Intermittent.

"Other cases commence in the same manner, followed by heat of skin, &c.; continue for a day or two, when the symptoms decline; and there is sometimes a state of complete apyrexia, which continues only for a short time, when they recur with perhaps increased violence; this kind of fever has obtained the name of Remittent. When the skin becomes yellow in its course, it is called the Yellow Fever. When it occurs in infancy and childhood, it is called "Infantile Remittent."—p. 39.

From this specimen, the reader must agree with us in the favourable opinion we have expressed of this work. There is an originality in every page, and a mature judgment and a practice so efficient, that no man, however well informed, can peruse this production without great advantage and instruction.

IV.—*A Practical Treatise on Injuries of the Head.* 12mo. pp. 121. Dublin, July, 1831. Fannin and Co.

THIS little volume, though anonymous, embraces the received opinions upon a branch of surgery which has long received the attention of the most eminent surgeons of all civilized countries. The author explains his motives for undertaking the present production.

"The illustrious names of Pott and Dease stand pre-eminent in the list of authors who have written upon this branch of Surgery. In the works of these great men is found nearly all the information we possess, at the present day, on Injuries of the Head; and although some of their opinions may now be esteemed erroneous, and some of their practice may have become obsolete, yet to them is mainly attributable the approach to perfection at which modern surgeons have arrived in the treatment of those accidents.

"In our own time, Mr. Colles of this city and Mr. Abernethy of London, with a host of other surgeons, remarkable alike for talent and for industry, have contributed, by their writings and lectures, to the further extension of our knowledge, and the improvement of our practice in this class of injuries.

"The following little volume has been principally compiled from the works of the most eminent writers on injuries of the head. Thanks to the proverbial pugnacity of our warm-hearted and hot-headed countrymen, the hospitals of Dublin present ample opportunities of studying the subject in all its varieties. These opportunities, it will be found, have not been totally neglected.

"A treatise of the kind, adapted to the capacity of students, and combining the latest improvements, *with the present practice of hospital surgeons*, must obviously be esteemed a desideratum. The quantity of useful information on this subject, with which the surgeon should be acquainted, is distributed through a considerable number of volumes, some of which are inaccessible to the majority of students, either on account of their high price or their scarcity. Among the latter class may be mentioned Mr. Dease's 'Observations on Wounds of the Head,' and his 'Practical Remarks.'

"The publishers of this volume at first purposed to present the public with a reprint of the above valuable works; but, on consideration, it appeared advisable that those portions more especially deserving of notice, as being applicable to the present state of practice, should be selected; and, being incorporated with similar extracts from other approved works, the whole should be condensed into a small compass, so as to afford to students a cheap, concise, yet comprehensive manual on this important subject.

"How this task has been executed is for the public to decide. It has been a work of more labour than might be anticipated from the bulk of the volume; and, if it cannot be ranked amongst the highly-embellished works of modern surgeons, it should be recollected, that it is designed for a class of persons to whom simplicity of expression, and clearness of explanation, are of more importance than elegance of diction, or the decorations of art."—Preface, p. viii.

The compiler of this work is evidently a surgeon of considerable research and judgment, while he possesses the happy art of condensing the authorities he quotes without destroying the spirit of their meaning. The student will find an ample fund of knowledge in a concise form; and will be saved much time and trouble, by having all that is important on injuries of the head placed in one view before him.

The division of the subject is as follows:—the consequences of external violence on, 1st, the superficial parts; 2d, on the bones of the cranium; 3d, on the brain and its membranes. First division—effects of external violence on the integuments of the skull. Injuries of the scalp may be divided into wounds and contusions.

"*Wounds of the Scalp.*—2. Although wounds of the scalp closely resemble in their appearance wounds of other parts of the body, and do not require a local treatment materially different from the latter, yet from the proximity of the centre of the nervous system, and its liability to be injured by the same violence which caused the wound, they are, on this account, most deserving of particular attention.

"3. An important circumstance to be taken into account, and one in which wounds of the scalp differ from those elsewhere inflicted, is the communication that exists by vessels between the parts without, and those within the skull. Owing to this connection, injuries which, at first sight, appear to be trivial, may be productive of serious consequences.

"4. The scalp may be wounded, 1. by *incision*; 2. by *laceration*; 3. by *contusion*; and, 4. by *puncture*.

"*Incised Wounds of the Scalp.*—5. A simple incised wound of the scalp resembles, in all respects, a simple incised wound of similar structure in any other part, and is to be treated on precisely the same principles, even if the skull should be laid bare.

"6. Union by the first intention should in all cases be attempted. The edges should be immediately brought together by adhesive straps, and bandage if necessary, and retained in close apposition till union has taken place.

"7. An incised wound may sometimes be in the form of a flap, as when produced by an oblique cut of a sabre; and occasionally a portion of the external table of the skull may at the same time be detached, and adhere to the flap. A question here arises, whether we shall remove the detached piece of bone, or attempt its preservation. Our practice must be regulated by circumstances. If the portion of bone be of such a size as to induce us to suppose it will retain its vitality, we should replace it, and treat the whole wound as if this complication did not exist; and we will generally succeed in procuring its union. But if, on the other hand, the piece be small, a mere scale, we had better remove it (as its continuance would act as a foreign body), and lay the flap down, which very probably will adhere by the first intention.

"8. Le Dran found, in a church-yard, the skull of a person who had had a part cut off in this manner, but in this case a portion of *both* tables had been separated. The piece had firmly united, and he could distinguish, both on the external and internal surfaces, the callus which had cemented it.

"9. There is a case, however, in which it would not be good practice to lay down the flap, and attempt its union by the first intention. It is when

the sabre has cut through both tables of the skull, and a part of the bone is driven in on the brain; but this will more properly come under our consideration in speaking of fractures.

"*Lacerated Wounds of the Scalp.*—10. Lacerated wounds admit of division into, 1. Those which may be produced by any *rough or uneven instrument*, as a *saw*, forcibly drawn across the scalp; 2. Those in the form of a *flap*; and, 3. Those complicated with *contusion*.

"11. The first exactly resemble similar injuries of other parts, require the same treatment, and will heal more readily than if situated elsewhere, owing to the superior vascularity of the scalp, and the power we have of retaining the parts in close apposition, in consequence of the counter-resistance afforded by the cranium.

"12. The second division, or those in which a *flap* is detached *without contusion*, we are not often likely to meet with; yet such an accident is possible. A man, ascending a ladder, missed his footing, and slipped. His forehead came in contact with a sharp hook in the wall against which the ladder was placed: the hook entered his scalp, and detached a considerable portion of it in the form of a triangular flap. Such a case should be treated precisely as an *incised* flap wound, and, in general, it will heal as rapidly. In the case above alluded to, the flap was replaced, one point of the suture placed in the angle, and a few strips of adhesive plaster applied. Every particle of the wound united by the first intention.

"13. The third class shall be considered in treating of contused wounds, to the consideration of which I shall now proceed.

"*Contused Wounds of the Scalp.*—14. Contused wounds, like all wounds of the scalp, do not essentially differ from similar injuries situated in other parts of the body. A contused wound of the scalp has the same appearance, and requires the same local treatment, as a like wound of the integuments of the shin, or of any other part where the bone is covered only by skin and fascia. In the former case, however, as in other wounds of the head, a more rigid adherence to the antiphlogistic regimen will be required, than in the latter. The *principle* of treatment is precisely the same.

"15. Contused wounds may be either perpendicular to the skull, or in the form of a flap, attended with laceration.

"16. In the first case, as the edges are often much injured, and likely to slough, we must not bring them closely together, with a view to union by the first intention; as, confining the discharge, and making pressure on parts which must inevitably become considerably swollen, will very soon produce severe inflammation and symptomatic fever. Our local treatment, then, according to some practitioners, should be, after having cleared away as much dirt and extraneous matter as we can from the wound, without too much pain or inconvenience to the patient, and having ascertained that no farther injury has been done, to apply an emollient poultice, which should be repeated, or alternated with warm fomentations, till the violence of the inflammation has been subdued, and the sloughs have all separated. Others recommend a pledget of lint, wet with a little cold spirit and water, or any other evaporating lotion, to be laid loosely on the wound, and to be moistened with the lotion as often as it becomes dry, or gives uneasiness to the patient. We will find both of these methods of treatment useful, according to circumstances: we should be principally guided by the feel-

ings of the patient. Whichever treatment we pursue, as soon as the sloughs have come away, and granulations begin to appear, we may gently approximate the edges of the wound with adhesive plaster, and heal it as a simple ulcer.

" 17. But if the wound be of the flap kind, where a considerable portion of the scalp is often detached, as by the passing of a coach-wheel over a man's head, or by nearly similar violence, the method of treatment is of the greatest importance; for on it depends not only the ease or difficulty with which a cure may be accomplished, but the future health and well-being of the patient are involved, together with the character of the surgeon. These considerations should make us weigh well the line of practice we intend to adopt, and the more especially, as two very different modes of treatment are at the present day, and in this city, followed by surgeons, and each has its advocates among the most talented and best informed practitioners.

" 18. The whole difference between the two methods of treatment consists in the question, whether we shall attempt the union of such wounds by the first intention, or interpose a dressing between the separated scalp and the skull, and heal by granulation. The old practice of removing the flap, either wholly or in part, I look upon as entirely discarded from modern surgery.

" 19. The practice of Mr. Dease, and of many modern surgeons, is as follows: ' If, on examining, we have no reason to suspect any farther mischief, after freeing the wound from all extraneous matter, as dirt, gravel, &c., we should interpose a thin pledget of lint or soft piece of old holland, spread with some mild digestive, between the flap and cranium, and sustain the former in situ, but by no means in close contact. After some days dressing in this manner, when all contused and ragged parts are flung off in sloughs by suppuration, and the wound becomes quite clean, the flap should be kept in its natural situation by means of compress and bandage, or one or two points of the interrupted suture may be made, if it be deemed a securer means of holding the divided parts in situ.' The immediate return of the flap, *without* the interposed dressing, and retaining it in its situation by sutures, &c., as recommended by Pott, Mr. Dease says, ' will, in all probability, cause inflammation, erysipelatous swellings of the whole scalp and face, and smart fevers, that generally end in collections of matter.'

" 20. On the other hand, the opponents of this practice maintain, that the union of the flap by the first intention is a measure which should always be attempted, even though a part of the cranium should be completely denuded. Pott is an advocate for this mode of proceeding, in which he is followed by most British surgeons of the present day. According to them, after removing the gravel and other foreign bodies from the flap, we should replace it immediately, and maintain it in its former situation by means of adhesive plaster, bandage, and suture if necessary. Some surgeons object strongly to the use of sutures in tendinous structures, lest they should produce erysipelas, but I believe the danger is much exaggerated. They are not, however, often necessary, as *good* adhesive plaster, judiciously applied, with a double-headed roller, will generally suffice, unless the flap be very large and pendulous, or the patient delirious. If the flap be angular, one point of suture will be sufficient. Should any particles of gravel,

&c. be so impacted in the flap, as to render it difficult to remove them, without putting the patient to considerable pain and inconvenience, or should the flap itself be much contused, it is recommended only to wash away as much extraneous matter as will readily admit of removal, and then lay down the flap loosely, so as to leave room for the discharge of the foreign substances by suppuration or sloughing, which will often occur in such cases. As soon as the process of sloughing has been finished, the parts should be brought into the closest apposition, and retained by adhesive plaster and bandage. 'In some instances,' says Pott, 'the whole separated piece will unite perfectly, and give little or no trouble, especially in young and healthy persons; in some, the union will take place in some parts, and not in others; and consequently matter will be formed, and require to be discharged, perhaps at several different points; and in some particular cases, circumstances, and habits, there will be no union at all: the torn cellular membrane, or the naked aponeurosis, will inflame and become sloughy, a considerable quantity of matter will be collected, and perhaps the cranium will be denuded; but even in this state of things, which does not very often happen where proper care has been taken, and is almost the worst that can happen in the case of mere simple laceration and detachment,—I say, even then, if the surgeon will not be too soon, nor too much alarmed, nor in a hurry to cut, he will often find the cure much more feasible than he may at first imagine. Let him take care to keep the inflammation under by proper means,—let him have patience till the matter is fairly and fully formed, and the sloughs perfectly separated,—and, when this is accomplished, let him make a proper number of dependent openings for the discharge of them, and let him, by bandage and other proper management, keep the parts in constant contact with each other,—and he will often find, that, although he was foiled in his first intention of procuring immediate union, yet he will frequently succeed in this his second: he will still save the scalp, shorten the cure, and prevent the great deformity arising (particularly to women), not only from the scar, but from the total loss of hair.' This union may take place, even though the skull should have been stripped of its pericranium, or this membrane have been removed by sloughing. It does not on this account follow that the bone should exfoliate. If the skull itself has not been injured, but appears in a healthy state, granulations will spring from it, and unite the scalp to the bone underneath.

"21. I have now set before my readers a full statement of both modes of practice; and I must confess, that, from actual observation, and a comparison of the merits of each with the other, the latter appears to me the preferable plan, and that which should be adopted, no matter of what extent the wound may be. We shall constantly find, that, in those cases of flap wound which have been treated according to Mr. Dease's plan, the flap becomes shortened, thickened, and puckered; so that, when we wish (after the process of sloughing), to draw the flap over the surface from which it had been raised, it will leave more than one-third of that surface uncovered.

"22. It is truly astonishing what frightful injuries have been converted into seemingly trivial ones, by Pott's mode of treatment. I recollect one case, in particular, which will serve to elucidate this remark. A young man, whilst imprudently running backwards down a hill before a mail-coach,

suddenly fell, and before he had time to raise himself from the ground, the coach arrived at the spot. One of the horses struck him on the forehead with his shoe, and dreadfully lacerated his scalp. Fully two-thirds of the integuments of his head were stripped off, and the laceration extended half-way down the neck. A very skilful surgeon in the neighbourhood, after cleaning the wound, immediately replaced the scalp, and retained it with a few points of suture, adhesive straps, and bandage. About twenty ounces of blood were taken from the arm, and a strict antiphlogistic regimen observed. The whole of this extensive wound healed, with the formation of scarcely a drop of matter, and the man recovered without a single bad symptom.

" 23. It must be distinctly recollected, that all that has been said relative to the treatment of contused wounds of the scalp, has reference only to those *not complicated with fracture or any other injury.* Our attention *then* must be paid to the greater evil: it then becomes another kind of case, and all that need be said of it here is, that, although we should not attempt to unite the wound by the first intention, yet we should constantly bear in mind the propriety of saving as much of the scalp as possible, whether we consider it merely as skin, or as the seat of the hair.

" 24. Contused and lacerated wounds are more liable than simple incisions to be followed by erysipelas, which affection shall be considered in a future chapter.

" *Punctured wounds of the Scalp.*—25. These wounds are more likely than any we have as yet considered, to inflame and produce troublesome symptoms. This is generally true of all parts of the body, but in the scalp, particularly, they are sometimes attended with such a high degree of inflammation, and such dangerous symptoms, as to give cause for well-grounded alarm to both patient and surgeon. These symptoms, it is true, bear a close resemblance to those that occur from inflammation of any other part under fascia or aponeurotic structure; but, on account of the proximity of the inflammation to the brain and its membranes, they are peculiarly modified, and merit particular attention.

" 26. In this description of wounds, the inflammation which inevitably follows does not produce the same degree of tumefaction as we observe in erysipelas of the scalp; neither does it pit on pressure, which we shall presently see is another symptom of erysipelas. The swelling is generally of the natural colour of the skin, except in the immediate vicinity of the wound, where it is of a deep red colour, unmixed with the yellow hue which characterizes erysipelas. It is very tense, and extremely painful to the touch. In general the ears and eye-lids are not comprehended in the tumour, although they may sometimes partake of the general inflammation of the skin, which occasionally attends those injuries.

" 27. The constitutional symptoms are usually extremely violent. Acute pain in the head, hot skin, parched tongue, excessive thirst, constipated bowels, high-coloured urine, restlessness, total want of sleep, very frequently delirium, with all the other symptoms of high inflammatory fever, are the almost constant attendants on punctured wounds penetrating the aponeurosis of the occipito-frontalis muscle. If the cause of those symptoms be not suspected, or the proper treatment not adopted, the patient's life is placed in the most imminent danger from the continuance of the fever; or, if he should fortunately escape a fatal termination of his suffer-

ings, the injured aponeurosis and pericranium will become sloughy, abscesses will be produced, and the case rendered both tedious and troublesome.

" 28. How often do we see patients, under these formidable circumstances, ordered by their surgeons to have warm fomentations and emollient cataplasms applied to the wound, to the total neglect of the all-essential mode of practice! Do we not often see other surgeons, more considerate, prescribe the application of leeches to the tumor, or perhaps recommend a large quantity of blood to be taken from the arm, while the simplest and most efficient means of relieving the patient are entirely forgotten!

" 29. The mere enlargement of the wound, by a simple incision down to the bone, of an inch or less in length, will most commonly remove all the bad symptoms, and, if it be done in time, will render every thing else almost unnecessary. After having relieved the tension in this manner, if the inflammatory symptoms had previously run high, or if they should not be completely subdued by the operation, it will be proper to bleed from the arm, to an extent proportioned to the patient's age and strength, and to the violence of the symptoms; and afterwards make use of the other antiphlogistic remedies usually employed for the cure of inflammation, viz. purging, tartar emetic in nauseating doses, strictly low diet, absolute rest, and the application of cold evaporating lotions to the head, or warm poultices, according to the sensations of the patient.

" 30. Desault is of opinion that all those symptoms may generally be removed by the exhibition of tartar emetic. This is a dangerous error, and may lead to a fatal neglect of the practice here inculcated, which, by the greater number of intelligent surgeons, is considered indispensable in inflammation under the aponeurosis.

" 31. In punctured wounds of the scalp, perhaps the best practice would be, in all cases, even before the occurrence of inflammation, to enlarge the wound by a simple incision, and thus leave a free space for the tumefaction of the integuments and aponeurosis which almost always succeeds.

" 32. *Aphorisms.*—Wounds of the scalp do not essentially differ from wounds of similar parts situated elsewhere, and are to be treated on precisely the same principles.

" In the treatment of wounds of the scalp, you should have constantly in view its preservation.

" Union by the first intention is always to be attempted in incised and lacerated flap wounds, not combined with fractures, &c.

" If a scale of bone be cut off, and adhere to the flap, it makes no difference in the treatment. Proceed as if such complication did not exist.

" In contused wounds, if small, approximate the parts, but by no means bring them into very close apposition.

" Flap wounds which are much contused, are to be treated by laying down the flap, after washing clean the surfaces. After the process of sloughing has taken place, bring the parts into the closest apposition.

" Never interpose a dressing between the flap and skull.

" Treat punctured wounds of the scalp as similar wounds in other parts, and like structures.

" To remove the inflammatory tension of the aponeurosis produced by these wounds, and the consequent fever, dilate the puncture by incision.

" Erysipelas, with fever, is not an unfrequent consequence of wounds of the scalp.

" Always keep in mind the proximity of those wounds to the brain; the vascular connection between the pericranium and dura mater; and the necessity, on this account, of a strict attention to the antiphlogistic regimen in the treatment."—p. 15.

We have now given a specimen of this instructive production, and shall resume its notice in our next. In the mean time, we strongly recommend it as replete with practical information. It contains a faithful detail of the best practice in the diseases of which it treats, and will save the reader the trouble of referring to many ponderous volumes.

V.—*Dictionnaire de Medicine et de Chirurgie Pratiques. Dictionary of Practical Medicine and Surgery; 6th vol. May,* 1831. *Article, Cystotomy, Lithotomy.* By MM. Dupuytren and Begin.

M. Dupuytren prefers the name of *Cystotomy* for the operation for the stone, to the old unscientific term of " la taille," and to the more scientific term of lithotomy.

After describing the symptoms of stone, and the mode of ascertaining the size, weight and number of the calculi, M. Dupuytren states that, when a calculus is discovered in the bladder, its extraction is evidently indicated: and this may be done by lithotrity, cystotomy, or by extraction through the natural passages: he totally rejects the use of lithontriptics, in dissolving the stone in the bladder.

Cystotomy must be employed, when the foreign body cannot be broken up, or brought through the natural passages: this operation is however, a very serious one: of those who die, in consequence of this operation, half or two-fifths fall victims to inflammation, either of the bladder, adjacent cellular tissue, ureters, kidneys, rectum, small intestines, or even of the stomach: of the peritoneum, lungs, pleura, or liver. A fourth die of hæmorrhage, convulsions, and analogous affections. The rest expire from accidental diseases. M. D. believes that the inflammations are generally caused by the opening in the bladder being either too large or too small.

Cystotomy succeeds better in spring and autumn, than in summer and winter: children and women are sooner cured than adults and old men: irritable subjects bear this operation badly; the shorter and the less painful the operation, the more likely is it to be successful, and our prognostic must be guarded, when the patient has long suffered from the stone, and that there is extensive disease in the urinary or other organs.

M. D. then proceeds with the anatomy of the parts of the male and female concerned in this operation; we shall not follow him in this, but proceed at once to his description of the *operation of cystotomy*. This is at present performed in three ways: the high operation, the perineal, and the recto-vesical; which latter in the female, should take the name of vagino-vesical, the vagina being cut through, in order to extract the stone.

Before operating, all excitement of the urinary organs should be removed by the proper means; and a few hours before the operation an emollient glyster should be administered, in order to clear out the rectum.

Of the operation of Cystotomy in man. The high operation.—It was discovered by Franco, in the middle of the 16th century. In 1580, Rousset brought forward this operation, with some alterations; highly praised by Riolan and Nicholas Piètre, censured by F. Colot, and practised occasionally by Bonet and Probi; it was adopted in England towards the commencement of this last century, by the two Douglass, Middleton and Cheselden, and in France by Morand.

Our author condemns the practice of making an opening in the perineum, in this operation, as he says it augments the danger of inflammation; and adds that it is now given up by the majority of European surgeons, the sonde à dard being now introduced by the urethra: we beg leave to differ from this: we know that the perineal opening is still made, and we think with the greatest propriety; it affords a passage for the urine in the first instance, and thereby, instead of adding to the danger of inflammation, considerably diminishes it; of this fact we are entirely satisfied.

M. D. then proceeds with the operation, the description of which he uselessly divides into five parts; we say uselessly, because it cannot answer any useful purpose, and must confound the student, and the young practitioner: these divisions are "1st, *The Incision of the Integuments:* 2d, *Incision of the Linea Alba:* 3d, ENLARGING THE INCISION OF THE LINEA ALBA: 4thly, *Incision of the Bladder:* 5thly, *Introducing the instruments for extraction.*"

Surely if the "enlarging the incision of the linea alba" be worth a separate part, the extracting the stone itself is worthy one likewise? He heads his last article merely, the introducing the instruments—not the extraction of the stone.

The evils of this operation are, wounding the peritoneum, infiltration of urine, either in the abdomen or in the cellular tissue of the pelvis, rapid peritonitis, &c.: although these accidents have been much aggravated, yet it is certain that they occasionally occur. Sir E. Home and M. Roux have published several cases of these accidents.

When describing the perineal operation, we have a rapid sketch of the different kinds hitherto practised: this we shall pass over in silence, as they must be known in a great measure to the English surgeon, and indeed are but of little practical use, extracting however our author's opinion of the advantages of the lateral operation.

1st, It is more easily performed, and is more certain in its execution.

2dly, The incision is made in the largest part of the perineal strait of the pelvis, and consequently on the spot the most favourable for the extraction of calculi, as large as they may be.

3dly, It opens a more direct route to the bladder than either the lateral or the vertical, and therefore renders it easier to introduce and make use of the instruments for the extraction of the stone, as also for the urine to pass away.

4thly, It gives the power of making the incision in the bladder sufficient for the extraction of calculi without passing the limits, beyond which the incision would be dangerous, better than any incision made on one side.

5thly, It more assuredly avoids injuring the vesiculæ seminales.

And, 6thly, It can be performed on both sexes, and at all ages.

This operation has been performed seventy times in the Hotel Dieu, and in the city, and only ten patients died.

Baron Dupuytren prefers the *recto-vesical* to the lateral operation, over which it has many advantages, but it is still attended with many inconveniences. It is most advantageous in adults and old men, but is not so proper for children.

When, in the perinæal operation, the stone is very large, the Baron thinks that the instruments for lithotrity, made rather larger and shorter than those passed by the urethra, would be of service in breaking it up, and hopes that thus modified, they will form part of the instruments in use for the operation of lithotomy. We will take leave to add a desire of ours, that the horribly painful operation may be speedily superseded, and for ever, by the less dangerous and painful, and equally successful operation of lithotrity.

After a description of the various ways of extracting the stone or stones, in the different positions in which they are found, we proceed to cystotomy in woman, which, we find, admits of being performed in the three ways as in man—the first differs in nothing from that in man: in the perinæal, we have the following operations: — *Dilatation of the urethra, lateral incision of the urethra, and lateral incision, of Celsus,* and the *lateral operation*—the latter operation he entirely condemns.

The vagino-vesical operation was practised by Rousset, then, by accident, by Fabrice Hildanus; afterwards Dupuytren, Gooch, Clemot, Flaubert, Faure, and Rigal; it is now frequently employed. M. Clemot's operation is the best.

In the after-treatment, the sound passed through the opening causes great irritation, and hinders the cicatrization of the wound: it is of no use, and had better be omitted. A description of the disorders consequent on these operations closes the paper, without any allusion to the operation of lithotrity, further than we have mentioned. We expected, at the least, a parallel between lithotrity and lithotomy.

But the Baron's hostility to Civiale, and his patronage of Leroy as his rival, perhaps explains the cause of this omission.

This paper is at, the best, but a compilation: there is nothing new in it: it is well written, but partakes largely of the fault of almost all French writers—it is too diffuse. The article consists of one hundred pages, which might have been easily compressed into half that number. It shows research, containing an account of the different operations practised hitherto for the removal of the stone, which is, however, of no *practical* use, and should, we think, have been omitted in a dictionary of *practical* medicine and surgery. It will not detract from the well-earned reputation of the authors.

In an article on the teeth, written by M. Begin, we find the following analysis of the components of the "tartar," improperly so called, as recently analysed by MM. Vauquelin and Langiar:—

Phosphate of lime,	0,66
Carbonate of ——	0,09
Animal mucus	0,14
Oxide of iron and phosphate of magnesia	0,03
Water	0,07,

Its presence irritates the gums and increases their secretions. As it increases, it pushes away the gums, causes the necks of the teeth to be uncovered, and, accumulating more and more at their base, gradually draws them out of their sockets. Hence the dirty and hideous appearance of the mouth, the disagreeable and sometimes fœtid odour which exhales from it, the ulcerations of the gums, of the cheeks and tongue, and finally, the loosening and loss of the teeth. Such are the disorders produced by the accumulation of tartar. To these may be added indigestion, with all the various ills that it gives rise to. Indeed, a chief cause of dyspepsia, is a diseased state of the teeth, as it evidently must be the case, for if the first part of the digestive process (mastication) be ill performed, how can the assimilation of food and its conversion into chyle duly take place.

M. Begin says it is produced by the saliva, the mucous liquids which constantly flow into the mouth, and by a peculiar secretion from the gums.

Cleanliness, and even the action of solid food, is not sufficient to prevent the formation of salivary concretions on the teeth. When these concretions exist, they must be removed, by means of instruments. The operation is always delicate, and requires a lightness of hand, and a sure movement, to render it as little disagreeable to the patient as possible. The operation is called *scaling* by our dentists. It requires neat precautions, when the teeth are loosened. They must be supported by one or more fingers of the left hand, whilst the instrument is employed with great care, to avoid extracting the teeth, without intending it. Whilst the removal of the dental concretions gives the gums the liberty of spreading anew, and strengthening the teeth, there is almost always a salutary local bleeding resulting, which removes the irritation of the neighbouring parts, and which ought to be aided by the use of warm water gargles.

Of the Preservation of the Teeth.—A soft brush, passed first along the crowns from the base towards the summit, then across the length of the dental range, and finally over their surface, is sufficient, with fresh water every morning, to remove the light and slightly tenacious layer, which has been deposited during the night. The friction ought *never* to be so rough as to make the gums bleed. Occasionally, a tooth powder may be employed, such as charcoal, prepared halk, or any other inert powder. These preparations act as hard, foreign substances, and remove the solid concretions, which are too adherent for the brush and water alone. Some surgeons add a few grains of chloride of soda, to correct the fœtid breath. He condemns, altogether, the use of acids of any kind; they communicate a splendid whiteness to the teeth, but destroy the enamel, soften their substance, and cause their destruction. He thinks the sale of acid preparations for the teeth should be prevented by the police.

Every thing that destroys the tartar *chemically*, acts also on the teeth themselves.

The habitual use of tooth-picks irritates the gums and the alveolar membranes. They should be made of pens, wood, or horn—not of metal, as it may loosen the teeth, and create irritation.

In the pathological part, after treating of the loose tooth, fractures, dislocations, partial and complete, we have an account of a singular dis-

ease termed atrophy, by Messrs. Duval, Dumeriel, Marjolin and others, whilst MM. Bunon and Mahon term it erosion, which appears to us a more appropriate name, as the teeth do not become at all atrophied.

This disease consists of specks on the teeth, or sometimes irregular fossæ or depressions, more frequently observable on the canine and incisor teeth, than on the molar. It is attributed by the French and English dentists to diseases in infancy. Mr. Fay, the American dentist, attributes it likewise to the same cause. M. Bègin gives the following physiological reasoning to account for it:—The bulbs of the teeth sympathize powerfully with the viscera, especially those concerned in digestion, as proved by a multitude of facts, so that they are irritated, and become inflamed, and in consequence only partially developed, when these viscera are affected during childhood. This affection, as well as the real atrophy which sometimes attacks the teeth, is irremediable.

While speaking of the treatment of *caries* of the teeth, M. Bègin recommends the introduction of the watery extract of opium in the hollow, and renewed occasionally until the patient sleeps. Actual cautery is of equal efficacy, but few persons will allow of its employment. We have lately seen a case of tooth-ache of three weeks standing, instantly cured by its application. The mineral acids are not proper, as they may mingle with the saliva, and extend their influence to the neighbouring parts. We consider this danger as imaginary, with proper care.

In employing the nitric acid with a silver probe, as directed in our last number, we have found that a nitrate of silver is rapidly formed, which we believe is an occasional cause of its failure. One of gold or wood is preferable.

Of the Operations on the Teeth.

Of the File.—This is required, 1st, to remove superficial caries of the sides and angles of the incisors and molars; 2dly, to separate teeth that are so near, that their mutual pressure causes pain, &c.; 3dly, to remove the isolated, hurtful pressure of a tooth that is too long, or juts out too much from the arch, on the corresponding teeth of the other jaw; 4thly, and lastly, to remove the angular inequalities which are caused by fracture or caries, and which irritate and ulcerate the cheeks, tongue, and lips. The files ought to be carefully employed, and not used too rapidly.

The destruction of the nervous bulb may be performed by the actual cautery, by caustic, mineral acids, and by a sharp stylet, bent at the extremity, to tear away the nerve. This process is employed by some of our dentists, but we do not approve of it, so much as the actual cautery, or the acids, as it causes severe pain at the instant, which the others do not. M. Bègin prefers it to the caustics, but approves most of the actual cautery.

We have next a description of the different instruments employed for extraction, the operation, and its good and bad consequences, and the paper concludes with a notice of the formation of artificial teeth. This article occupies fifty-six pages of the Dictionary, and never, we think, were fifty-six pages better filled. It is an highly interesting paper, and extremely well written—it is full of valuable matter.

VI.—*A Description of the Nerves of the Human Body.* By G. D. Dermott, Esq. Lecturer on Anatomy and Surgery. pp. 45. Stitched.

THIS pamphlet is one of the best we have seen for some time on the anatomy and surgery of the nerves: it is concise and correct, two qualities rarely met with, while its low price will ensure a good sale among the medical students, to whom we confidently recommend it. At a time when *grinding*, as it is termed, has become almost a trade, and when the advertisements of grinders, modestly setting forth their abilities for preparing for Hall and College, meet our eye in every direction, a small work like the present cannot fail to be of great utility. With one extract we must close our notice of this work. It relates to the inferior cervical ganglion of the great sympathetic, the filaments from which are usually given as descending *behind*, and only behind the subclavian artery into the thorax.

"The nerve, at this ganglion, again assumes a filamentous form, and descending into the thorax, forms a *ring of filaments* round the subclavian artery—the larger ones pass *behind*—the smaller ones *before* the artery (for which reason the sympathetic is frequently described as passing *behind* the subclavian artery into the thorax); these filaments afterwards become reunited, under the subclavian artery, in the *first intercostal ganglion of the sympathetic.*"—p. 41.

VII.—*On the Materiality of the Mind, the Immateriality of the Soul, the Vital Principle, and the Nervous System.* By G. D. Dermott, Esq. Lecturer on Anatomy and Surgery. pp. 44. Stitched.

THE contents of the greater part of this pamphlet were originally published in the form of letters between Messrs. Dermott, M. D——s, Thomas and Forster, and it contains some comments on Dr. Wilson Philip's Enquiry into the Laws of the Vital Functions. They were published in this form, as the length of Mr. Dermott's replies prevented their insertion in the periodical in which the contest began.

It is evident from the nature of this pamphlet that a lengthened notice cannot be made, more especially as we have reason to believe, that, acting in that manner would be only transferring the debate from one journal to another, and however favourable we may be to professional debate on *professional subjects*, when conducted in a gentlemanly manner, we cannot approve of lengthened discussions on such abstruse arguments as that before us.

"In the most perfect animals, where the senses are the most numerous and perfect, we have nerves extending between them and certain medullary portions in the lower part of the cerebrum; and so that there is a medullary mass of the brain corresponding to, and continuous with (through the medium of the medullary part of the nerves) and individual sense: and we have the intellectual part, or the higher part of the brain, corresponding in size, so as to be commensurate in its development with the understanding, and with the necessities for these senses thus numerous and perfect. This is the state of man, whose brain and mind are most perfect. As we look through the inferior gradations, and as we are proceeding lower, we shall find that all, or most, of the senses become less perfect or less numerous;

here the correspondent parts of the brain are less developed, or as the senses become fewer, so the corresponding parts to the senses in the brain will be necessarily fewer; in a ratio to these defects, the intellectual or mental part of the brain, as it may be termed, will be less in size, because there are fewer agents, or fewer senses, to excite the sensitive mass into action, and its operations are proportionately more limited, bearing a parity with the senses, and the necessities of the animal. In animals still lower, we may have a very imperfect system of nerves, and a correspondingly imperfect brain surrounding the top of the œsophagus, in the form of a large ganglion, but this is only commensurate with the comparative non-complexity in the frame of the animal at large, and its less necessitous condition. If we go still lower, we find the sensitive or nervous essence pervading the polypus, like so many granules or spots; nay, if we go still lower, we have a symptom of this essence existing in a modified state, in close association with the organization of the sensitive plant. But to review the statement that I have just made, for the purpose of showing that *all these animals* have, more or less, a *mind*. The training of the dog, the breaking-in of the horse, and the laughable feats of the elephant, are the *education* of these animals, and no system of education could possibly be carried into effect, without a mind to work upon, or in which that is to be inculcated. A man strikes a horse, he feels the pain produced by the impression of the whip on his back, that impression is conveyed from the part, through the medium of the nerves, to the brain; the impression begets perception, perception excites thought, thought excites memory; he recollects what he has been taught, by the excitement of the whip; his judgment then teaches him to direct an impulse, through the medium of the moving nerves to the voluntary muscles, for the purpose of quickening his pace. A horse knows his way to his master's stable; this is by dint of memory, or what is the same thing, by his education. But I will ask any philosopher or divine, can this elephant, this horse, this dog—nay, we will say, a spider, a lizard, a snake, or a cockle, be possessed with an *immortal soul;* and if so, (for we have undeniable proofs that all nature is imperfect, and, consequently, that animals partook of the fall of Adam along with man,)—forsooth, by parity of reasoning, if we consider God just, which he certainly is,—these should all have a bible—a revelation—ministers—religions—and a future state; but such an economy would be an unmerciful extravagance in the Creator, and would be derogatory to all the attributes of the Deity, as well as the dignity of man, *who is asserted to be, "after his own image."*—p. 3.

This reasoning appears to us rather more specious than real. The author evidently mistakes the instinct of animals for reason, for mind. The lobster, when his claw is seized, knows no other means of freeing himself than by losing his claw: that this is instinct and nothing more is proved by the circumstance, that when the lobster seizes his own claw, he has recourse to the same expedient for freeing himself, and again sacrifices a claw. This cannot be mind evidently. Numerous other proofs might be given, but ex uno disce omnes.

"As long as organic life continues, so long, I maintain, the soul must remain dormant or inactive; but on the other hand, as soon as the life of the body ceases, so soon the soul enters into a state of development, or in a

state of actual (I may say, sensible) existence; because, as we are taught, it is intended for a spiritual world; material and spiritual things cannot be existing in a state of intimate association, because they must be as different in nature as two extremes can possibly be; and, consequently their state of *sensible co-existence* would be incompatible, and their union of function an impossibility; we know nothing of the spiritual world; let divines and philosophers say what they please, we only gather, and never shall gather any more, by researches into human knowledge, than that the works of nature are wonderful, and carried on by a concatenation of cause and effect, and that there must be a great and almighty first cause, or, in other words, an omnipotent creator,—a God. Man gathers his religion from other sources than the natural creation—the Bible and revelation, for faith is declared by our established church, to be the 'foundation of our religion;' —if the Bible is true—if revelation is true, as is acknowledged—if these are sent by the Almighty as our sources for religious information, and as means on which we are to place implicit dependence, it would be both unjust and irrational to seek out for sinister evidences, with the view of supporting the imagined deficiences of the former; in short, although it is for man's good to believe in the existence of a future spiritual world, and it would be daring folly in a person to deny it, because he cannot comprehend its nature, and impious, as well as ignorant, in the extreme, to treat such a thing with ridicule; yet he only knows the *existence* of such a thing upon the strength of the testimony of scripture, but we know nothing accurately as to the *nature* of a future state, nor have we any conception whatever as to the nature of spirits, nor can any human language convey to the mind any just idea as to their nature, or as to the properties with which they may be endowed, because our language is not calculated for a spiritual existence, but is appropriated precisely and solely to express our ideas of matter around us in this material world; and, therefore, I hold, as spirit and matter are so totally different; that even the widest extremes, or the most elaborate composition of our language, which refers to matter, should never be attempted to be used to express the *nature* of spiritual things, because we have neither language nor ideas so to do.

"We do every thing from breeding and education, and without which there would be neither conscience nor judgment; or, that is, a knowledge of knowing what is doing right, or what is doing wrong. For instance, suppose a man brought up in a barbarous state, and in a distant country, and supposing it were in accordance with the political and religious laws of that country, that a man, to prove himself valiant and virtuous, (for virtue, according to the notions of barbarians, consists of brutal courage,) should of necessity perpetrate a certain number of murders, and should be in possession of the heads of his victims, as trophies to testify his having consummated the commands held out by the doctrines of his barbarous religion; this man, till having performed these duties, will feel an inward dictation, from the knowledge of the known tenets of his religion, that he had not performed those things which rendered him, in the eyes of his surrounding fellow-barbarians, equal in virtue to most of the rest of them; or he would, perhaps, be regarded in an immoral point of view by his fellow-countrymen, more especially if he had not acted with his wonted bravery when certain opportunities offered; he would feel degraded, restless, unhappy; or, more decidedly speaking, his *conscience* (fashioned by his barbarous birth and

education,) would condemn him till he had fulfilled those duties. But, on the other hand, we, bred in a civilized and Christian nation, have our ideas of right and wrong—our judgment—that is to say, our *conscience*—fashioned altogether by the train of thinking our minds have been subject to in the course of this religious Christian education, we take the doctrines of our religion as a scale, as a means of judging between right and wrong, of determining the duties that ought to be performed by man; and the comparative merit which each man has for scrupulously adhering to the principles which have been taught him for the reputation of his character, and the comparative demerits also of others. *We* condemn a man for murder; but supposing a people existing possessed with such a religion as the one first alluded to, *they* would condemn a man for perpetrating NO murder, and both might be considered, (belonging to these two very different nations,) under these different circumstances of birth and education, equally guilty; both might feel *equally condemned in their minds*, and both might have entailed upon them, by the sentence of the laws of the two nations, a great punishment, in consequence of their supposed immorality.

"I only wish to prove, by the above-mentioned supposition, that *conscience is totally a relative term*, a sensibility of the mind, an impulse dictatory to the mind, as to what is right and what is wrong; which inward monitor is only the production of an accumulation of knowledge or known facts and doctrines, or entirely the effect of education: in fine, conscience is knowledge, knowledge is conscience. Conceive a man separated from the world altogether from the very moment of his birth, that he had a communication with no human being, that it was possible for him to be brought up and fed abstractedly from the world, that man would have no more knowledge, no more language, no more conscience than a beast: he would naturally, but unconsciously, possess all the powers of a man, but which powers had not been brought into action: 'it is education that forms the mind,' or, what is nearly the same thing, calls it into action.

"There is one more observation I would make, before I would close this paper, as to the constitutional or original capacity of men to attain different degrees of knowledge and mental excellence. I maintain that all men's brains are not born alike, any more than their hands, their feet, or other organs; *i. e.* as there are 'constitutional peculiarities' in men, speaking of their bodies in a general manner, so there are functional peculiarities of *particular* parts; one man's stomach may naturally digest better than another's; one man's liver may produce a greater secretion of bile than another's; one man's kidney may secrete a greater quantity of water than another's; one man's circulation may be naturally quicker than another's; some men's *nervous* sensibility may be more acute than others'; and some men's (for I believe that they are but one living principle under different modifications,) *cerebral* sensibility is greater than that of others. In other words, the powers of the mind, (the brain,) are greater; one man, where the animal functions are carried on constitutionally slow, shall, perhaps, naturally have a dull perception, and a slow succession of thoughts, indicated by a slowness of animal action, his thoughts never rising above the bounds of mediocrity, or scarcely equalling them; another man shall naturally have his functions carried on with a much greater celerity, he shall be quick in his perception, shall be the subject of

a rapid succession of thoughts, much more numerous, and much more vigorous in their creation, than in the preceding case; in fact the brain shall carry on its functions with twice the vigour, which shall open to the mind a boundless imagery, and which may be accompanied by the finest and most effective figures of speech.

"I believe, then, that although all men's *minds* or *methods* of thinking are *fashioned* by education, and communication with people around them; yet there are differences existing as to the *natural* powers of the mind. Thus, I believe that Sir Isaac Newton might have had originally, previous to his receiving any degree of education, a mind more adapted for the prosecution of his elaborate philosophical researches, than an ignorant clown who follows the plough. I believe also, that different degrees of intellect are observed in all classes, from the highest rank in society down to the lowest."—p. 4.

If this is not blasphemy, "it will go near to be thought so shortly:" it is in direct contradiction to scripture, and to the beneficence of that Saviour who died on the cross to save the *souls of men* for sins committed in the flesh; and it is directly contrary to the wisdom and justice of the ALL-WISE and THE JUST ONE, to suppose, that the souls of men could be jeoparded for sins committed in the flesh, if they had nothing to do with that flesh, and if they were not the directing power. If such were the case, the natural inference is, that the *expiation* of the SAVIOUR was unnecessary.

The rock our author has split on, is separating the mind and soul, and taking both to be distinct causes, whereas the mind is merely the operating of the soul. We do not declare the action of raising the arm to be distinct from the muscles of the arm; the one is the effect of the other.

We have been severe with Mr. Dermott, but it is because such doctrines we consider highly heterodox and injurious, nay subversive of the purity and simplicity of the Christian religion.

VIII.—*An Address to the Medical Profession on the Neglect of Physiology and Morbid Anatomy.* By R. Wade, Lecturer on Morbid Anatomy, &c. pp. 14.

IT is much to be regretted that the study of morbid anatomy is not enforced by our public boards. At the time that general anatomy is becoming a favourite study, it is but reasonable to expect that the knowledge of morbid structure will advance. We hope shortly to see the time when the medical man will be enabled to rank with the highest by the depth of his studies and gentlemanly demeanour, and that he will not be satisfied with a mere superficial knowledge. This little address is well written, and may advance the cause it advocates. The legislature supposes that every medical practitioner is competent to appreciate morbid appearances; and therefore reposes the utmost confidence in his opinions in courts of justice. We need scarcely observe, that a preponderating majority of the faculty are unacquainted with this branch of science.

ORIGINAL COMMUNICATIONS.

I.—*Treatment of Purulent Ophthalmia.*

To the Editor of the London Medical and Surgical Journal.

Sir,—It is not very easy to know what your correspondent, Mr. Foote, jun. meant, in his communication on *Purulent Ophthalmia,** by "the treatment at present pursued by medical men," and "the simple and inefficient means most frequently employed by practitioners" in that disease, and which he takes it upon him to blame so much. Mr. Ware treated that disease for more than thirty years, with a solution of varied strength, of the sulphate of copper; and for a space of years not much shorter, have I employed the same remedy, with invariable success. Clearing away the puriform mucus with some astringent solution, such as that of the sulphate of copper, the sulphate of alumina, or the nitrate of silver, has always appeared to me the essential point in the treatment of the purulent ophthalmia of infants. If this is done carefully several times a day from the beginning, the disease will neither last long nor leave any damage to the cornea. The safest way, however, of applying the astringent fluid selected, is not, I think, that recommended by your correspondent, viz. a syringe, but a small bit of soft sponge. A syringe might, perhaps, be trusted in the hands of a surgeon, but not in those of a nurse.

Your correspondent speaks highly of an ointment of the nitrate of silver, but neglects to tell us its strength, or rather the strength of it when first prepared, for he calls it the *black* ointment. Now an ointment of nitrate of silver is white when first prepared, and becomes black only as the nitrate is reduced, by the action of the lard or other animal matter to the state of oxide. The oxide of silver is black, and I should think inert. Your correspondent, when he applies to the conjunctiva a *black* ointment, prepared by triturating together nitrate of silver and lard, is not using an ointment of nitrate of silver but of oxide of silver, a very harmless substance, producing little other effect than mechanical irritation.

The cases quoted by Mr. Foote are but little satisfactory. For example, in his first case, the discharge is still very great two days after the black ointment is applied by himself, and probably six days after its first beginning to be employed. After four days more, the discharge is merely lessened, but next day, notwithstanding the continued use of the ointment, it is increased. His other cases prove no greater rapidity in the subsidence of the symptoms, than we find to attend the use of sulphate of copper or nitrate of silver in solution. I shall stick, then, to my old plan, which I believe to be as successful, and, so far as pharmacy is concerned, much more rational. I like always to know what I am using; but no one can tell the strength of the *black ointment*.

I remain, Sir, your constant reader,

A Country Surgeon of the Old School.

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* Number for June, p. 488.

II.—Mr. Foote *on Purulent Ophthalmia.*

To the Editor of the London Medical and Surgical Journal.

Sir,—I feel greatly indebted to your kindness in allowing me the perusal of the letter of your correspondent, the "Country Surgeon," before going to press with it, and the opportunity afforded me of replying to it in your present number.

He appears, Sir, to deem that a severe reprimand is due to me for writing against "*the treatment at present pursued by medical men,*" and "*the simple and inefficient means so often employed by practitioners,*" and "*which I have taken upon me to blame.*" Surely, I have as much right, nay more, to condemn that practice, the evil effects of which I have had ample opportunities of witnessing, as he has to attack me for what the whole tenor of his letter shews he knows nothing about? In thus speaking, I do not mean to impeach his skill and knowledge of this disease, but that he knows nothing of the plan of treatment I adopt, and of my intention, in publishing that notice of the present practice.

I deem myself fully justified in employing the words complained of, by the numerous cases which I have seen, in which the patients have lost their eyes in consequence. Three days have not elapsed since I heard it gravely stated by a medical practitioner, and one who has written several works, that *aqua fontana* would cure the disease in question!!! The case of Lydia Alderwood likewise exemplifies this: the *medical man* by whom she was previously attended, employed lotions composed of *half milk and half water*; such simple remedies as these, if remedies they can be called, are constantly employed, because the great mass of practitioners do not understand the disease. Surely "the Country Surgeon" will not attempt to defend such practice as this? I am perfectly convinced of Mr. Ware's skill, and have no doubt that he cured the patients, as stated by your correspondent; but must beg leave to doubt the invariable success of any practice, which depends on astringent lotions merely. I have made comparative trials with the *black ointment*, and lotions of the nitrate of silver of varied strength, (gr. iv, v, vi, viii, and xij to the ℥j.) as likewise the alum lotion, and solutions of sulphate of copper, and that the cases might be exactly similar, the subjects of these experiments have been patients, who have had both eyes affected, and I have invariably found that the *black ointment* cured it more speedily, and with more certainty than the solutions: nay, the mother has desired me to employ the *black ointment* to the eyes for which the solution was employed, and not to persist in using a drop, which appeared to have little efficacy. Such, Sir, has been my success with this potent remedy, and so well am I convinced of its efficacy, that had I a disease of the eye requiring it, I would have it applied at once. I have had it applied twice to my eyes for pustular inflammation, each application effecting a cure.*

Your correspondent states that, "clearing away the puriform mucus, with some astringent solution, such as that of the sulphate of copper, the sulphate of alumina, or the nitrate of silver, has always, it appeared to him the essential point in the treatment of the purulent opthalmia of infants,"

* If the "Country Surgeon" will look to the *Lancet* for July 23d, he will see a paper by Mr. M'Neil, in which this ointment is highly spoken of: in the opinion of that gentleman, at least, it is not altogether "very harmless."

I must here beg leave to differ from him: I conceive it is much more useful to clear away the discharge first, and then to apply the solution, otherwise the solution will be so diluted by the mucus as to lose partly its effect. He also criticises my recommendation of a syringe to remove the mucus, which he thinks not safe, except in the hand of a surgeon. I cannot see that any objection applies to the syringe, which does not weigh with more force against the employment of a sponge, which in the hand of a rude ignorant nurse, is calculated to do serious injury, if the cornea be at all diseased, and cannot be so applied under the eyelids as to remove effectually the discharge, which is a chief indication in the cure of this complaint.

We now come to a third count in the indictment, the concealing the composition of the black ointment: this is an accusation I never expected; at the same time I must aver, that the "Country Surgeon" has laid himself open to the same charge, by not stating the proportions in his solutions. My astonishment was extreme at finding that he signed himself "*a constant reader !!!*" of your Journal, and yet required information as to the composition of the black ointment. I most assuredly deemed it superfluous to give the formula for it, as it has been published in your Journal, vol. iv. page 60, by Dr. Tuthill, and likewise in the Medical and Physical Journal, the Medico-Chirurgical Review, the Medical Examiner, the Medical Gazette, and the Gazette of Health, besides being copied into some of the continental and American Journals. As the greater part of the *nonsense* he has written after this depends on his ignorance of its composition, I shall not notice it; but a chemical mistake he has fallen into I cannot pass by. He says the *nitrate of silver* is reduced to the state of oxide by the action of the lard, by what process I trow? I know that the lard can form a peculiar acid, *sebacic acid,* but I am yet to learn that this sebacic acid can expel the nitric from its combinations, and if it could, it would form a sebate of silver, and not leave it as an oxide.

Again, supposing it to be the oxide, he says it is a *very harmless substance, producing little more than mechanical irritation.* Why, what else could he expect, not a chemical effect, I hope? I should be sorry to see in a case to which I had applied it, that such an occurrence had happened. It must, doubtless, be a very *harmless substance* to produce *little more* than mechanical irritation.

In the case of Lydia Alderwood, your correspondent will have the kindness to recollect that the disease had continued upwards of three weeks, and could hardly be expected to yield at once, especially as great disorganization had ensued: the second case, I think on the the contrary, proves highly the advantage of the ointment: and the third can hardly be judged from, on account of the mal-attendance of the patient. The case of John Hawkins (Case 5, muco-purulent ophthalmia) exemplifies in a high degree the benefit accruing from the use of this ointment. In conclusion, I beg to refer your correspondent to the Journals already mentioned, and if he does not find FACTS there sufficient to remove his incredulity, I can only pity him for his perverseness. In the third volume of your Journal, p. 341, he will find several cases illustrative of the question in point. In the first, *three applications* cured the child; in the second, *one application* was sufficient. I should like to know if this success attends the use of the sol. cup. sulph. or arg. nitr. in your correspondent's practice: I think not.

Ere I conclude, Sir, allow me to state, that though I answer this anonymous letter, I never will answer another. When I write under my own name, and lay myself open to those who may wish to attack me, it is but fair that my critics should be as open.

I have, Sir, the honour to be

Your most humble and obedient Servant,

35, Tavistock-street, Covent Garden. JOHN FOOTE, Jun.

III.—DR. BLAKE *on Fistula Lachrymalis.*

A PAPER, on the nature of the obstruction which usually exists in the nasal duct, in the disease termed Fistula Lachrymalis, and on the modus operandi of the puncta probes and syringe in the cure of that affection.—By Andrew Blake, M. D. Member of the Royal College of Surgeons of London, late Surgeon to his Majesty's Seventh Regiment of Dragoon Guards, and author of a Treatise on Delirium Tremens, &c.

Mr. Travers begins that part of his work on Ophthalmic Surgery, which is dedicated to obstruction of the lachrymal passages,* by stating, that "The treatment of the disease improperly termed fistula lachrymalis, has occupied a large share of the labour and talent of the profession; yet, notwithstanding this advantage, the practice is to this day unsettled and unsatisfactory."

In support of the former assertion, this gentleman refers to the Memoirs of the French Academy, and to the works of Scarpa, Pott, Desault, and other eminent writers, and in reference to the latter opinion, he says, in a note—"In proof of this remark, I may observe, that nearly all the schemes hitherto suggested have been executed, within my knowledge, by different surgeons, viz. the small probe and injecting syringe of Anel, the sound and syringe for the nasal duct, the seton of silk or catgut, the bougie or nail-headed style, the metallic tube, &c. In Paris, M. Dubois employs the silk seton of Mejan, M. Dupuytren, the permanent tube of Wathen, M. Roux, the mesh seton, introduced by means of a watch-spring from the sac. M. Beer, of Vienna, uses for a seton a coil of catgut, such as is used for fiddle strings. Among the surgeons of London, Mr. Ware's style is chiefly in use, although the practice is evidently losing credit."

This justly celebrated surgeon then proceeds to criticise the doctrines of Scarpa, who opposed the opinion which he, Mr. Travers, in common with Messrs. Pott and Ware, appears to entertain; namely, that stricture of the nasal duct most commonly exists even at the commencement of this disease.

In contradiction to these sentiments, Staff Surgeon Cooper, the intelligent author of that useful work, the Surgical Dictionary, says†. "Now, obstruction of the nasal duct is an occasional consequence merely of

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* A Synopsis of the Diseases of the Eye, by Benj. Travers, F. R. S. 3d edit. p. 366.

† Vide Surgical Dictionary, 6th edit. p. 796.

inflammation of the excreting lachrymal organs, in most of their diseases, obstruction of the nasal duct has no part: and one might, with as much propriety, treat all the affections of the bladder and urethra, by the dilatation of the latter part, as treat all the diseases of the excreting lachrymal organs, by dilating the nasal duct. The false assumption in question has led to erroneous treatment; for instance, in blennorrhœa of the sac, and in hernia of the sac, though in both these diseases the nasal duct is free, the common treatment in this country, is to open the sac with a knife, and thrust down a style, or some other instrument into the nose; thus destroying the organization of the parts which are affected merely with a gleety secretion in the one case, and with extreme relaxation in the other. Suppose (says the same critical writer), that some charletan should make oath at the Mansion House, that he cured fifty or a hundred cases of gonorrhœa, by opening the urethra in the perinæum, and passing a bougie through that tube from behind forwards, who would approve of such an operation? Yet the laying open of the lachrymal sac, and thrusting a probe down into the nose, when the nasal duct is either perfectly free, or at the most, slightly tumid from inflammation, is neither less preposterous, nor less cruel. (See Quarterly Journal of Foreign Medicine, vol. i. p. 293). Indeed, it is somewhat surprizing that errors of this kind should have prevailed so long, particularly as experience had taught Mr. Pott, that slight cases might be benefited by the simple employment of a vitriolic collyrium; a fact which ought to thave convinced him that the disease did not always depend upon obstruction of the nasal duct."

Beer, the celebrated ophthalmic surgeon of Vienna, dwells also at considerable length on the necessity of constitutional treatment in these diseases, but, at the same time, he recommends the introduction of the catgut seton into the duct, through an opening made into the sac, and reprobates the use of the puncta probes and syringe, as calculated to "ruin for ever," the functions of the parts affected by their use.

Mr. Mackenzie, of Glasgow, who is the latest British writer on this subject, coincides with Beer in principle, but gives a decided preference to the style over the catgut as a dilator of the duct.

Such discrepancy of opinion amongst practitioners so deservedly celebrated, concerning a point of such import to society, led me to bestow more than ordinary attention on this subject, and the result of my reflections and researches, tends to convince me that few, if any authors, have taken a correct view of the nature of this disease, owing to what I would venture to call either a misconception, or a want of due consideration of the anatomical structure and functions of the parts concerned in it.

Mr. Travers, at page 379 of his work already alluded to, says, "It can hardly be required that I should occupy the time of the reader in shewing that the practice of restoring a passage partially closed, or even establishing an artificial passage, as nearly as possible in the same direction, when the natural channel is obliterated, commands a decided superiority over the practice of making an artificial opening. This applies to the treatment of the urethra, as well as of the ductus nasalis, and it is only in case of abscess, in which the distended and inflamed integument threatens to give way by ulceration, that in either case it becomes necessary to deviate from it."

However plausible this reasoning may appear, it is far from being correct, as it is decidedly drawing a parallel between the diseases of the urethra and those of the nasal duct, and hence implying a similarity of structure in both these parts. To erroneous doctrine, such as this, I attribute the "unsettled and unsatisfactory" practice hitherto recommended for the cure of disease in the lachrymal passages.

Thus we find the celebrated Scarpa differing from Mr. Travers, inasmuch as the former surgeon referred the principal cause of this complaint to a diseased condition of the linings and glands of the eyelids, and hence recommended such local and general means of cure as he thought the nature of the case required, while, on the contrary, the latter attributes the obstruction of the tears, even at the commencement of the complaint, to stricture of the duct, and, under that impression, has recourse to the puncta probes and syringe for its removal.

My object in writing the present paper, is not altogether to condemn the practice proposed by either of these writers, for that of each, as far as it goes, has its respective merits, and if employed at the proper stage of the disease, must prove eminently useful. I only wish to endeavour to correct the false pathological notions, which their too confined theories on the subject, appear to me likely to occasion. Those of the one being calculated to induce surgeons to disregard in toto the use of the puncta probes and syringe, while those of the other tend to lead them to place too much confidence in their sole use. With this view I shall, in the first instance, lay before my readers a short description of the anatomy of the lachrymal sac and nasal duct,* in order to enable them better to understand their structure, functions and diseases, as without such a previous knowledge, no rational methodus medendi can be devised in this oftentimes obstinate affection.†

In front of the internal angle of the eye, and beneath the orbicularis palpebrarum, the lachrymal sac is situated, a small membranous sac, of an ovoid form, placed vertically in the depression which exists between the edge of the orbit and the tendon of the orbicularis. It is formed externally by a firm, unyielding aponeurosis, fixed on every side to the edge of the lachrymal duct, with the periosteum of which it is continuous. The anterior surface of this aponeurosis is intimately united to the tendon of the orbicularis, some fibres of which are implanted into it; thus certain anatomists consider it as a reflected tendon of this muscle. Internally the sac is lined by a mucous membrane, of a reddish colour, and a soft and pulpy consistence, which adheres firmly to the bony parietes of the duct; between these two membranes there is a middle tunic, thin and cellular. It is at the middle part of the external side of this pouch where the lachrymal duct opens; posteriorly it corresponds to the caruncle and to the conjunctiva; its superior extremity is dilated and round, and forms as light prominence above the tendon of the orbicularis; lastly, its inferior extremity is continuous with the nasal duct. This duct is formed like the lachrymal

* I do not notice the anatomy of the puncta, or the affection called stilcicidium lachrymarum, arising from their obstruction, as their nature and the treatment of that disease is already so well understood.

† Vide a Manual of Surgical Anatomy, translated from the French of H. M. Edwards, D. M. P. By Wm. Coulson, 1825. p. 23. S. 18.

sac, of a cylindrical mucous membrane, which slightly adheres to the periosteum of the bony canal in which it is situated. It is formed by the os unguis, the ascending process of the superior maxillary bone, and the os spongiosum inferius. It is narrower in the centre than at its extremities, and descends from the depression which lodges the lachrymal sac to the inferior meatus of the nostrils, describing in its course a slight curvature, the convexity of which is situated forwards and outwards. When, by any cause, such as *enlargement* or *thickening* of the mucous membrane of the nasal duct, *concretion* of the *mucus secreted in the lachrymal passages*, pressure, exercised by a fungus of the maxillary sinuses, &c. the passage of the tears across the duct is stopped, their accumulation in the lachrymal sac causes the dilatation of the anterior parietes of this pouch, and the formation of a tumour, varying in size, soft, indolent, of an oblong form, situated below the angle of the eye."

We see from this anatomical description that the sac and nasal duct are, to all intents and purposes, passive conductors of the tears into the nose, that the duct is formed by a bony channel, which is lined with a red, spongy, mucous membrane, adhering to the periosteum through the medium of a cellular tunic, and that consequently it cannot be liable to stricture like the œsophagus or urethra, which are not adherent to a bony envelope, and the functions of which necessarily require contractile power. I wish to do away with the bugbear which the term stricture, in its true sense, is likely to occasion when applied to the obstruction of the nasal duct. Stricture means nothing, more nor less than "a contracted state of some part of a tube or duct."* This is a disease common to parts, to the functions of which contraction may be indispensable in the expulsion of their contents; but the lachrymal passages are incapable of being similarly affected, contractile power in the nasal duct would be superfluous. The puncta take up the tears by capillary attraction—the vis a tergo propels them into the sac, and having arrived there, gravitation is sufficient to carry them through the duct into the nose.

They are, however, liable to have their calibres lessened generally, by the thickening of their mucous lining membrane, owing to vascular congestion or swelling, similar to what is induced in the remainder of the nasal cavities during the existence of coryza, or what is commonly called a cold in the head. The bony tube which surrounds the nasal duct being unyielding, all tumefaction of its lining membrane must tend to diminish, if not to close altogether, so small a passage; but this obstruction is quite different in its nature from that which takes place when stricture exists in a part, inasmuch as the one is the result of a partial contraction, while the other depends on a general distention of the perenchyma of the membranous lining constituting the walls of this duct. The glutinous and adhesive nature, also, of the diseased secretions from these parts, when thus affected, cannot fail, if it be allowed to sojourn in them, to seal them almost hermetically. We are aware how very dry and hard the mucus of the nose will become by inspiration, and can thence form an idea of the tenacity of the union which may take place between the parietes of the nasal duct through such a medium.

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* Vide the word stricture in Cooper's Surgical Dictionary, p. 1048.

As long, however, as the obstruction is only produced by such a cause, the case is remediable by comparatively simple means, and fortunately for those who are disposed to be affected with this complaint, the nasal duct, in common with all passages having mucous linings, is very averse to assuming the adhesive action. Nature, by one of her many wise laws, opposes the adhesive process taking place between mucous surfaces, while she favours such an effect between serous membranes, and this for reasons which are too obvious to require repetition here. Permanent union between the sides of the nasal duct, therefore, can only take place when the action in these parts has changed from the inflammatory to the ulcerative, and thence into the processes of granulation and cicatrization. In which case the adhesion between the sides of the duct becomes so solid as to resist all means of cure, except those which are applied through an opening effected in the lachrymal sac, but this is an extremity to which the surgeon will seldom be obliged to have recourse, under ordinary states of the constitution, except in cases which have been either improperly treated or grossly neglected.

Having, I trust, made it appear sufficiently evident, from what I have said respecting the structure and functions of the lachrymal duct, that it is not liable to what is generally understood by the term stricture, but that obstructions may arise in it, under ordinary circumstances, from a thickening of its mucous lining, and that when thus diminished in calibre, it oftentimes becomes impervious to the tears, from a temporary agglutination of its sides by inspissated mucus.

The diseased or interstially thickened state of the mucous linings of these parts, may be induced by the same local or general causes, as those which effect other parts of similar structure, but functional derangement of the digestive organs, appears to me to be one of the most prevalent causes of this affection. It is a fact known to medical observers, that the healthy state of mucous membranes and of their secretions, depends materially on the due performance of the functions of the stomach, liver, kidneys, &c. and that when any deviation from this state exists, the mucous linings of the larynx, trachea, or other parts become sympathetically affected, and their secretions vitiated; even the conjunctivæ oftentimes become relaxed and bilious, and their surfaces bedewed with a mucopurulent discharge. In tropical climates, where the action of the liver is remarkably sluggish, and the blood, in consequence, becomes charged with bilious principles, the latter effect is particularly conspicuous, redness and relaxation of the linings of the eye-lids, are regarded, almost, as a criterion by which one may judge of the length of residence of an individual in these latitudes. It may, perhaps, be objected to this assertion, that permanent elevation of temperature, and the glare of a tropical sun, are sufficient to induce this effect; but in contradiction of this, I would observe, that at sea, heat, and particularly reflected heat, is more distressing to the eyes than that which is felt on shore, yet we see persons on their return from a cruise, less affected in this way than when they embarked, owing to the improvement which the sea voyage effects in the functions of the digestive organs, and through their instrumentality in the state of the mucous membranes generally.

Therefore, in the treatment of obstruction of the nasal duct, whether it be caused, in the first instance, by a diseased state of the mucous linings,

on the nasal, or lachrymal side of the sac, or of both, for such distinctions appear to me futile, the lining membrane of all being continuous, and their curative means ultimately the same.* My first object is to endeavour to allay the inflammatory action in these parts, should it be acute, by the aid of antiphlogistic measures, both topical and general, and should they not prove sufficient, I proceed to remove, by the use of the puncta syringe and probes, any glutinous matter which may close or obstruct the thickened duct. Having accomplished this, I continue the antiphlogistic plan of treatment as long as it may appear necessary, and then direct my attention to the improvement of the condition of the mucous membranes of the eyelids and lachrymal passages generally, by topical astringents, in the form of collyria and ophthalmic ointments; and, to the administration of such medicines constitutionally, as medical principles point out for the amelioration of general health. We all acquiesce in the truth of the adage, "Sublatâ causâ tollitur effectus," therefore, if we consider the diseased state of the mucous membranes to arise from general causes, we can have no hesitation in agreeing as to the propriety of general treatment for their removal, without which, indeed, our local efforts must prove empirical, and oftentimes fruitless. The mechanism of the eyelids and puncta affords an easy and effectual mode of making topical applications to the parts most immediately concerned, as collyria, or even unctuous substances, will be taken up by the puncta and transmitted as far as the obstructed point; position, such as laying on the back during their application, may assist this effect; but the action of the eyelids and puncta alone appear sufficient to attain this object. With regard to prescriptions for the restoration of general health, they must be devised with a view to correct the prevailing habit, whether it be strumous or bilious, &c. They are, however, so well understood by the profession in general, and so clearly laid down by Dr. James Johnson and other authors, as to render it unnecessary for me to say much on the subject; I shall, notwithstanding, take the liberty of recommending, in the treatment of cases depending on biliary derangements, the steady and long continued administration of purgative medicines in the smallest possible doses.

In all diseases in which the functions of the liver become impaired, the blood, as I before said, becomes loaded with those principles which were destined to be eliminated from it through the secretion of healthy bile; the consequence of this is, this vital and important fluid loses its stimulating properties, and ceases to impart to the system that energy which it was wont to do. In the various shades of jaundice, for example, we find the spirits more or less depressed, the pulse proportionately slow, and the bowels generally indolent. To counteract these effects, we must support the strength of the constitution by light tonics, a suitable diet, good air, moderate exercise, and cheerful society; but we should especially endeavour to rid the system of those noxious principles which have accumulated in the blood in consequence of the impaired action of the liver; the latter object will be best accomplished by the steady and continued use of small doses of purgative medicines. Brisk purging, if continued, under such circumstances, must weaken too much, and if only had recourse to occa-

* I am of a similar opinion with regard to the affections designated by the terms blenorrhœa, mucocele, &c.; they all appear to me to be similar in their nature and consequences, and to yield to and require the same plan of general and local treatment.

sionally, would be equally followed by increased atony of the bowels—we have all experienced the state of constipation which generally follows active purgation. The fibrillæ of the intestines may be compared to those of the muscles of other parts of the body, if they be exerted, fatigue and exhaustion are the effect; while if we exercise them gently, but at the same time regularly, increase of tone and muscularity follow; the same reasoning is applicable to the action of purgative medicines. Brisk purging will be followed by fatigue and exhaustion, while gentle but regular stimulation of the fibrillæ will be productive of increase of tone and muscularity. The success of a course of mineral waters, in what is termed bilious complaints, may be attributed to their action being in accordance with these principles, as they are generally taken with regularity, and contain a variety of salts in minute quantities.

For this purpose, then, as different medicinal substances appear to act on different parts of the intestinal canal, I have been induced, in the prescription of purgatives, to combine minute doses of variety of medicines, so as thereby to stimulate very gently, as great an extent of the mucous lining of the viscera as possible, owing to which means I have observed the quality and quantity of the evacuations improved and more effective than when the bowels were excited by a comparatively larger dose of any medicine taken alone. I do not wish, however, to insinuate that this practice, in the administration of purgative medicines, is peculiar to myself; on the contrary, it will be found fully detailed in page 88, of Dr. James Johnson's excellent little work on Morbid Sensibility of the Stomach, sixth edition. I only mean to add my humble testimony of its efficacy; having succeeded by this simple practice, in restoring general healthy action in the various secreting surfaces, and in relieving, in a marked manner, the disagreeable symptoms attendant on obstruction of the lachrymal passages, a result which, I am persuaded, could not have been attained had these general means been neglected.

The local and constitutional remedies recommended in this paper, will not only succeed, in almost every instance, in preserving a passage for the tears into the nose, but will restore the mucous lining of the lachrymal passages to a healthy state of action, and thus, by reducing the thickened walls of the duct to their natural size, induce a permanent cure.

Dr. Manson, a physician of considerable experience and practice at Nottingham, recommends the administration of iodine for the cure of fistula lachrymalis,* and, as far as my experience has gone, in cases having their origin in a general strumous habit, I perfectly coincide with him; in fact, nothing short of what may be termed anti-scrophulous treatment, will succeed in such cases, and iodine has established its reputation as an anti-scrophulous medicine of considerable power; but in subjects whose constitutional derangement depends on a defect of biliary secretion, the means already detailed must be those on which we are principally to rely.

We must not content ourselves, under any circumstances, with the employment of the puncta probes and syringe alone, in the treatment of this

* Vide Medical Researches on the Effects of Iodine in Bronchocele, &c.

affection. We might continue their use for ever unassisted, with no better effect than that of tranquillizing the natural anxious mind of the sufferer, by assuring him that his lachrymal duct was still pervious to these instruments; indeed, the hope of curing, what Mr. Travers calls a stricture of the duct, by "three or four introductions of the probe into the nostril, on the principle of dilatation," without other means, appears to me to be altogether out of the question, and calculated to lead to much mischief in practice.*

The idea of the existence of stricture induced this author, at one period, to introduce what he termed puncta styles into the nasal duct, and allow them to remain in it for twenty-four hours at a time, with a view to its dilatation; but in the third edition of his Synopsis, page 388, he states having discontinued the practice. We are all aware, that to cure strictures, properly so called, of mucous surfaces, we must dilate them to at least the natural extent of the passage in which they exist. Now, no one, with common sense, can imagine that a probe, of sufficient size, could find its way into the nasal duct, through the puncta, so as to dilate the duct to its natural calibre. It must, not, however, be supposed, from this manner of reasoning, that I do not duly appreciate the utility of Anel's probes and syringe, or that I wish to deprive them of their full meed of praise, for the important part they may be made to take in the cure of obstructions of the lachrymal passages. All I wish to inculcate is, that it is dangerous and bad practice to trust to their assistance as instruments of dilatation, but I would hope that ere this, I have succeeded in convincing my readers, not only of the great utility of these instruments in this peculiar state of disease, but also, of the true manner in which they act, which I beg leave to repeat, is by simply keeping the parietes of the duct from becoming agglutinated by inspissated or vitiated mucus, and thus affording time for the membranes of that canal, to be acted on by local and general remedies, so as to correct their thickened condition, and prevent the supervention of what is termed structural disease, as should this affection, from mismanagement or neglect, degenerate into a state of permanent obstruction, it can only then be relieved by a painful, and, at best, an uncertain operation.† I do not look upon abscess or ulceration of the sac as circumstances calculated to authorize any deviation from the simple practice recommended here for the treatment of obstruction in the duct, the abscess is accidental,

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* "Very many cases of recent origin and in which the *stricture* has no great degree of firmness, are completely cured by three or four introductions of the probe into the nostril, at intervals of one or two days." Vide Synopsis of Diseases of the Eyes. By Benjamin Travers, F. R. S. 3rd ed. p. 381.

A theory like this, cannot fail to prompt the surgeon, in the event of the "three or four introductions" not being attended with the expected success, to have recourse to more certain means of dilating what he would suppose to be the stricture, hence the frequent incisions into the sacs, with a view to the introduction of probes, canulas, catgut, setons, &c. into the nasal duct—the natural effect of which is to throw discredit on the use of the puncta probes, whereas, had their modus operandi been properly explained, their use would have been persisted in, and all those harsh measures avoided.

† "Although the relief obtained from this plan is great," *speaking of the style*, "yet it was in reference to it I said just now, that no plan of treatment had yet been decided on which generally proved successful; for this mode must be considered more in the light of a palliative than a curative remedy, the obstruction generally returning when the *style* is removed." Vide Lectures on Surgery, by Sir A. Cooper, 1829—p. 305.

and would not, in all probability, have arisen, had the probes been used early; it will also, in most cases, heal, with proper assistance, under their use. We should, therefore, treat an abscess in this part, abstractedly considered, as if it occurred in any other part of the body, at the same time persisting in the use of the puncta probes, &c.; but if, on passing these instruments, we should find the duct permanently obstructed, there is no alternative left save the operation already alluded to, for the description of which I must refer to the works of the various authors who have written on this subject. In fact, I see no necessity for any deviation from the general principles spoken of in this paper, except when the obstruction is complete, either from cohesion of the sides of the duct, from polypus, exostosis, or some extensive disease of the bony canal, in which the duct is lodged, when, under circumstances of the latter nature, it may become necessary to pierce the os unguis, so as to establish a new passage for the tears into the nose; but this, fortunately, is a very rare occurrence. It may be well, previous to our concluding this subject, to caution surgeons against the practice of using the syringe or probes in both puncta of each eye, as is generally recommended; for should their use be long continued, they must enlarge these openings very considerably, and thereby diminish their action, inasmuch as we are taught that, "capillary tubes possess the power of attraction in the inverse ratio of their diameters;" in accordance with this principle, then I would recommend their use to be confined to a single punctum in each side, so as to leave, at least, one to each eye in its natural state.

Having now submitted my opinions to the public, with regard to the nature and method of cure, of simple obstruction of the nasal duct, and in explanation of the modus operandi of the puncta probes and syringe, when used for its removal, I shall terminate this paper by taking the liberty of giving two extracts from a translation of Heister's surgery, published in 1757, which may not prove uninteresting to my readers, as they will show how very closely the principle of the practice, recommended more than a century back, for the treatment of this complaint, resembles what is now taught by Baron Dupuytren of Paris, and Mr. Travers of London. "But in consideration of the great difficulty there is to persuade timorous patients, especially those of higher rank, to undergo the severity and fatigue of the forementioned operations of incision, boring, cauterising, &c. Anelius, in the year 1712, endeavoured to contrive a more safe and easy method of curing these fistulæ, in favour of the Duke of Savoy, who was then troubled with the disorder, which method succeeded so well, as to cure, not only recent, but even inveterate fistulæ, if not accompanied with callus or caries, and that even without the severity of the knife, cautery, or compression, in the following manner:—

"He first provided himself with a slender probe, in the form of an arch, made of small silver wire, then placing the patient in a convenient posture against the light, he opens the upper eyelid with the fingers of one hand, while with those of the other he introduces the crooked probe through the upper punctum lachrymale into the sac; this may be done with more or less difficulty, according as the surgeon has before considered the figure or

* Vide Translation of Heister's Surgery, pub. in 1757, page 415.

position, and anatomical structure of the parts. After having introduced the probe into the sac, he gently agitates and passes it downwards, and towards the nose, with a certain slight into the obstructed canalis nasalis, which by this means opened. These ducts are much more easily opened by this artifice when they are only obstructed by matter, or some *glutinous humour*, than when they are totally closed or *concreted*, as is frequently observed in these fistulæ which are inveterate. For the last sometimes require the probe to be pressed into them so forcibly, as to excite some pain, and often set the nose a bleeding a little. But to prevent the newly opened duct from closing again, M. Anelius thinks it necessary to inject some liquor every night and morning or oftener; and then to repeat the introduction of the probe as often as may be found necessary, until no more matter issues from the puncta lachrymalia, which denotes the ulcer to be cleansed, and the ducts to have recovered their natural state."

In another part of this work, Heister says, " It now remains for me to acquaint the reader briefly with the method in which I myself usually treat these fistulæ, and first, in the beginning of the milder species, I approve of the method of probing and injecting, contrived by Anelius, which I usually continue for the space of several days or weeks, according to the nature of the disorder, and especially when I see it diminish by the practice, but when I find little benefit result from it, I have recourse to the knife, with which I carefully lay open the skin and lachrymal sac, by an oblique or semilunar incision; then waiting till the hæmorrhage ceases, the next day I perforate the os unguis into the nose, by the instrument for this purpose. In performing which, I observe the several necessary circumstances, as I have before directed; after washing the wound with warm wine, I first fill the new formed duct with a tent, and a day or two after with a piece of wax candle or a leaden plummet, dipped in some balsam or some mineral water till the canal is completely formed; to effect which the sooner, I now and then touch the surface with a stick of lap, infernal, after the tent or candle is extricated. And in this method I continue three or four weeks longer. I next insert a small canula of lead, silver, or gold, and heal up the wound over it.* The tube thus left in the new formed nasal canal, is generally so far from being uneasy to the patient, that I have known many who could not tell whether the tube was in or not after cure was completed."

Lenton, Nottingham,

July, 1831.

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* This practice differs from that of Dupuytren, inasmuch as the Baron endeavours to re-establish the nasal duct itself, and does not perforate the os-unguis; he likewise introduces the canula as soon as he has succeeded in opening the duct, and heals the parts as quickly as possible.

IV.—Mr. Rees *on Mental Imbecility.*

To the Editor of the London Medical and Surgical Journal.

Sir,—Should you consider the history of the following case sufficiently interesting to be published, you will greatly oblige me by inserting it in your highly scientific and really instructive Journal.

I am, Sir, yours respectfully,
John Rees.

Landilo, June 27th, 1831.

John Lewis, æt. 28 years, a respectable farmer, had the misfortune of falling off his horse in July, 1830, the consequence of which was, a very severe concussion of the brain. Under the course of proceeding usually adopted in such cases, he in about a fortnight recovered, with the exception of his experiencing giddiness, and noise in the head, with a considerable diminution of sight in the right eye. These symptoms, however, were removed in a little time by alterative medicines and the application of a seton in the neck. About the latter end of September, shortly after he had recovered from these affections of the head and eye, he went to see his sister, who lived about two miles distant, and since that time he has not once visited home, although he has been repeatedly entreated so to do by some of his best friends and nearest relations. He does not evince his usual concern in the affairs of his farm, indeed he appears to be wholly disinterested in his business.

I have not been able, although I have made minute enquiries, to discover any moral circumstance that would account for this *strange abhorrence of "dulce domum."* He lived in an exceedingly comfortable manner with his mother and sister, and had the whole controul of the farm business; his pecuniary affairs also were very satisfactory. He always appeared fond of his occupation, and was a very diligent man. It may be observed, that he never was particularly attached to the sister that he now lives with, or to her place of residence.

[This is a very singular case, and one for the detail of which we are much indebted to our esteemed correspondent. We wish our provincial contemporaries would oftener contribute to the medical literature of the day, many of whom are as competent to do so as the unjustly puffed lions of the Metropolis.—Ed.]

V.—*Acute Peritonitis, treated by Tobacco Injections, &c.*

To the Editor of the London Medical and Surgical Journal.

Sir,—If you think the following case worthy of insertion in your excellent Journal, I shall feel happy in vouching for its authority. I shall subjoin the names of the medical attendants, but I am not at liberty to publish them.

I am, Sir, yours, most obediently, Brito.

J. R. Esq. ætat. 19, of mean stature, spare habit, and of a lymphatic temperament, was attacked during the night of September 6th, 1829, with

severe pain extending over the whole abdominal region and greatly increased by moderate pressure; from this state of symptoms he soon experienced a remission, and abstained applying for relief until the following morning. The origin of this attack he attributes with very good reason to excesses committed during the week, while pursuing his favourite amusement, shooting. At 10, a. m. he was visited by Mr.———; at this period he considered the symptoms by no means urgent, therefore ordered the following only:—Hirudines xii. parti dolenti abdominis. ℞ Magnes. carbon. ʒi. mag. sulph. ʒvi. T. opii. ♏ xx. aquæ menth. pip. ʒvi. m ft. mistura. q. p. q. hor.

Three, p. m.—No relief obtained; his countenance indicates great suffering; pain about scrobiculus cordis, extending downwards—pressure slightly supportable; no great heat of skin; frequent vomiting of bilious matter; bowels constipated; pulse 75, hard, oppressed and resisting; urine scanty; tongue unnaturally expanded; thinly coated by a greyish fur.—Fiat. V. S. quampm. ad ʒxviij. et rep. vespere si opus.

7th.—Two bleedings were had recourse to yesterday evening, 36 oz. of blood withdrawn, buffed and cupped, with great relief. This morning the pain is greatly diminished; 38 leeches ordered to be applied to the abdomen; let him have also a domestic enema.

Three, p. m.—Symptoms greatly augmented; he now lies supine with extended arms; thighs drawn up; countenance shrunken with inexpressive eyes; abdomen tympanitic; slight sense of fluctuation above umbilicus; pain increased; obstinate constipation; pulse 120, small, and somewhat resisting; tongue broad, thinly coated; skin warm and moist; urine scarce. Dr. —— being now called in, prescribed the following:—℞ Hydrarg. submur. gr. v. in pilulâ statim et 3iis. horis repetenda. ℞. Ol. terebinth ʒij. mucilag. acaciæ ʒiss. aquæ ʒiv ♏ fiat enema quamprimum adhibendum.

Seven, p. m.—No relief; pulse 108, more firm; bowels unmoved:—V. S. ad ʒxviij. balneum tepidum—contin. pilulæ. ℞ Ol. croton gt. v. mucilag. acaciæ q. s. ut fiat enema statim injiciendum. ℞ Magnes sulph. ʒj. ex aqua menthæ quartis horis.

8th.—Has passed a tranquil night; much less suffering; pressure very supportable; intellectual faculties less oppressed; abdominal tumesance sensibly diminished; skin warm; pulse 110, compressible; tongue same; urine scanty; thighs extended; bilious vomiting continues; no action of bowels; the mixture could not be retained on the stomach; four pills have been taken:—Rep. Hirudines xxiv. abdomini: et balneum. ℞ Nicotianæ tabaci gr. xv. aquæ ferventis ʒx. infunde per horam et cola pro enemate.

Three, p. m.—The enema produced a severe shock on the system. He now feels exhausted; countenance improved; pulse 112, rather hard; tongue much less in volume, furred, clean at edges; urine copious and high coloured; skin profusely moist; scanty evacuation followed the injection:—℞ Magnes, sulph. ʒj. infusi sennæ ʒvj. ♏ ft. mistura. q. p. q. h.

Eleven, p. m.—Mixture no sooner taken than vomited; symptoms generally the same; no evacuation:—V. S. ad ʒxij. hirudines xx. abdomini: rep. balneum et restat per tertiam partem horæ.

9th.—Blood less cupped and buffy than the preceding; considerable restlessness during the night; pyrexia moderate; pulse 112, vibrating;

tongue cleaner; papillæ rough; urine copious; vomiting of bilious matter has recurred this morning; has had two scanty fæcal evacuations:—Rep. enema tabaci, haustus salinus q. hor. in statu efferv. rep. balneum. ℞ Opii gr. ss. antim tart, gr. ss. hyd. sub. g. iij. ft. pil. post balneum sumenda.

Nine, p. m.—Two enemas have been administered, effect trifling; no vomiting or nausea since he took the pill; features more acute; slight pain of abdomen; pulse more resisting; tongue pale and flabby:—Rep. haustus ad libitum, utatur balneo, haust. aperiens mane. ℞ Hydr. submurs: gr. iij. pulv. ipec. co. gr. vj. ɱ ft. pil. ij. h. som. enema é senna statim.

10th.—Has passed a restless night, owing to the numerous dejections, at least fourteen; of a good colour and fæcal odour; pulse 96, soft and compressible; tongue cleaner; skin warm and moist; urine abundant:—Rep. haustus, utatur balneo vespere. ℞ Misturæ cretæ ʒvj, cap. coch. amp. ij. post sing. dejectiones liquidas. Emp. vesicat reg. hypog. abdom.

11th.—Somewhat restless during the night, partly owing to the blister; the bowels have not been disturbed since yesterday evening; hence slight tension and pain complained of; countenance expressive; pulse 100, soft and free; tongue cleaner; urine free; continue to haustus:—Enema inf. sennæ ut antea missum est. ℞ Hydr. submur gr. ij. pulv. ipec co. gr. vj ft. pil. ij. h. s.s.

12th.—Going on favourably:—Pergat in usu haustus salin et anodyn.

14th.—The only medicine had recourse to since last report, is an aperient draught with an opiate at bed-time; the former, however, has been omitted in consequence of a diarrhœa supervening; his present state is very satisfactory; the stomachic irritation has ceased; the bowels are resuming their natural action; there is a complete absence of pain; the pulse is full, and he is almost in a state of apyrexia. Continue to haustus anodynus.

17th.—Debility much complained of, but he may be considered convalescent:—℞ Inf. aurantior. mist. camph. aa. ʒvi. m. ft. haustus sextis horis sumendus, haustus anodynus rep.

24th.—Going on well; bowels somewhat inactive:—℞ Hydrarg. c. creta gr. viij. pulv. ipecac. gr. j. ft. pulvis omni nocte si opus. To go into the country.

January 4th, 1830.—I have now to resume the history of a second attack which seized him to-day, without any premonitory signs; I shall not add without any assignable cause, for having progressively recovered from the foregoing attack, he imprudently of late has indulged in dancing, late hours, &c. but *not in drinking*. Since the former attack, his bowels have required the use of the hydrarg. c. creta and ipec. together with an occasional dose of castor oil.

I have stated that he was seized to-day: at noon he complained of slight griping pains; no remission taking place, Mr. —— was sent for by an urgent message, at six, p. m. His state is nearly as follows: countenance gloomy; face pallid; pulse 85, small, soft, vanishing on the slightest pressure; nausea and vomiting of frothy mucous matter persisting for some hours; rigors frequent; intense pain over whole abdominal region greatly increased by slight pressure:—℞ Hyd. sub. gr. iv. p. opii gr. ss. ft. pil. statim. enema commune statim injiciendum.

Eight, p. m.—No relief from enema. Dr. —— was now called in: re-action has taken place, and the heat of skin and pulse being augmented,

the following means were directed:—V. S. ad ℥xvi, ℞ Hydr. submur. gr. iij pulv. jacobi gr. iij. m. ft. pulvis 3iis horis. Blood withdrawn, *not the least cupped or buffy.*

5th.—During the evening the pulse increased in volume and frequency (120), Mr. ——, therefore, withdrew ℥xviii. more blood. This morning he states himself more free from pain, and he has passed a tolerably tranquil night; had one scanty stool this morning. Noon—pulse 90, soft and yielding; tongue broad, thick, and very little furred; countenance placid; skin warm and moist; pain still diffuse but less; no nausea or vomiting:—℞ Nicot. tabaci gr. x. inf. per semihoram et cola pro enemate. A tolerable stool immediately succeeded this glyster. Hirudines xviii. abdomini. Contin. pil. ol. ricini ℥i. 3iis. horis ex hoc. *Blood same as last evening*—much the same; rep. enema tabaci. ℞ Pulv. jacobi gr. vi. hydr. submur. gr. iv. m. ft. pil. hor. somni. Haustus è sennâ mane primo.

6th.—Restless during the night with intervals of increased pain; complains of a troublesome bronchial cough; pulse frequent; bowels relieved; fæculent stools; skin moist; urine free. ℞ Mist amygdalæ ℥vi. liq. ant. tart. ℥ss. guttæ nigræ m. xii. m. ft. mistura, coch. amplum. subinde. *Blood buffed and cupped.*

Evening—Pulse augmented:—Rep. V. S. ad ℥xvi. ℞ Hyd. sub. gr. v. pulv. ipec. co. gr. viii. ft. pil. ii. hor. som. haust é sennâ mane. *Blood more buffy than last.*

7th.—The last bleeding has been productive of considerable relief, and to this, no doubt, may be ascribed a better night than usual; his countenance to-day is tranquil; pulse 85, small, compressible; tongue smooth, less in volume, and more firm; abdominal pain mitigated; skin moist; urine natural; cough persisting:—℞ Pulv. rhei gr. xvi. sodæ sulph. ℥ij. aquæ menthæ ℥iss. m. ft. haustus quamp. et post horas duas. rep. enema.

Evening.—The usual feeling of deliquium followed the administration of the enema; also a scanty evacuation of a fæcal odour. Complains of distention of bowels from flatus:—℞ Ol ricini ℥j. statim et etiam habeat enem. domest. rep. pil. hor. som.

10th.—Since the 7th no material symptom has arisen to interrupt his progressive amendment; the only troublesome feeling present is one of uneasiness arising from distention of abdomen by flatus. This has been successfully combated by a common enema, containing sodæ muriat. ℥i. bis terve indie adhib. and an aperient composed of rhubarb and sulphate of magnesia. He sleeps well without an anodyne; the bowels act regularly and all the functions are performed with tolerable energy: perstet in usu haustûs si opus.

15th.—Continues to improve—convalescent.

30th.—His health is gradually being restored. Strict attention to diet and regimen having been enjoined.

VI.—Dr. Ryan *on Homicide by Poisoning.—(continued.)*

Irritative Vegetable Poisons.—This class of poisons seldom comes under the consideration of the medical jurist, and according to Dr. Beck, "vegetable poisons are seldom the instruments of murder." When death is produced by their operation, it generally is caused by suicide or accident, and the coroner's inquest is the only judicial investigation which takes place. Besides the greater portion of these poisons so seldom produces death, that the young jurist need not load his memory with most of them and he must necessarily be acquainted with the effects of several of them, from his study of the materia medica. A detail of these is evidently unimportant in a compendious work of this description. It is sufficient for our purpose to state that these poisons have an acrid, sharp, and bitter taste; that they produce nearly the same symptoms as arsenic, mercury, &c. and that the morbid appearances are nearly the same as those originating from the acrid mineral poisons. The symptoms produced by both classes cannot in many instances be distinguished from those arising from diseases.

Orfila's classification of irritative poisons is adopted in these countries and in the United States of America, and is decidedly the best hitherto proposed. He divides them into four classes;—1. the irritating, corrosive or acrid; 2. the narcotic or stupifying; 3. the narcotico-acrid; and 4, septic or putrefiant.

Irritative or acrid Poisons, are veratrum album, (white hellebore,) veratrum viride, (green hellebore,) helleborus niger, (black hellebore,) helleborus fœtidus, (fœtid hellebore,) bryonia disica, (bryony,) momordica elaterium, (wild cucumber,) cucumis colocynthis, (bitter apple,) stalagmitis cambogioides, (gamboge,) daphne gnidium, (spurge flax,) daphne mezereum, (mezereon,) ricinus communis, (castor oil plant,) euphorbia officinarum, (euphorbia) juniperus sabina, (savine,) rhus radicans et rhus toxicodendron, (poison oak,) rhus vernix, (poison sumach,) anemone pulsatilla, (wind flower, a—pratensis, sylvestris,) and nemorosa, œnanthe crocata, (hemlock dropwort,) ranunculus acris, (butter cups,) r—sceleratus (water crow-foot;) r—flammula, bulbosus, ficaria, alpestris, &c. colchicum autumnale (meadow saffron;) chelidonium majus (celandine;) delphinium staphisagria (stavesacre;) narcissus pseudonarcissus medow narcissus (daffodil;) gratiola officinalis (hedge hyssop;) jatropa curcas (Indian nut;) scilla maritima (squill;) sedum acre (houseleek, wall-pepper;) convolvulus scammonea (scammony;) some of the species of lobelia, croton tiglium, and arum maculatum (wake robbin;) there are several other plants included under this head, but which are so rarely administered criminally that they need not be mentioned. Among these are to be included a great number of the drastic purgatives.

The treatment of persons who have taken the poisons of this class, consists in evacuating the stomach by emetics, the exhibition of mucilaginous drinks, and should stupor supervene, the administration of coffee according to Orfila. Should inflammation arise, it is to be treated by the usual antiphlogistic measures.

Narcotic Poisons.—Narcotic poisons produce stupor, drowsiness, paralysis, apoplexy and convulsions, and most of them are employed as medicines. Their primitive action is on the brain and spinal marrow, to which parts they are transmitted with the blood, according to the general

opinion; but Morgan and Addison contend, that they act on the nerves of the blood vessels, or other parts to which they are applied, as mucous surfaces, and not through the blood. This evidence is the most correct and accurate. However they may be introduced into the system, whether through the stomach, rectum, cellular, serous or mucous tissues, they always produce the same symptoms. The aggregate of these symptoms is denominated narcotism.

Narcotism commences by a sense of weight in the head, giddiness, headache, obscurity of vision, stupor or perfect insensibility, soon followed by nausea, vomiting, profound sleep, which amounts to apoplexy, the respiration is stertorous or slow, the pulse full, slow, and strong, becoming small, frequent, irregular and intermittent. In some cases the imagination is vivid, there may be gay or furious delirium, followed by plaintive cries, violent pains, and convulsions. The extremities flexible, paralysis follows, impressions are unperceived, the pupil is contracted or dilated; and profound sleep or convulsions precede death.

Each poison has its peculiarities, the effects of each being generally the same from certain doses on different individuals.

Autopsy.—There is generally congestion in the vessels of the brain, its membranes and in the lungs, but such appearance may be absent. The heart is flaccid, and the blood black and fluid, though sometimes coagulated; the gastro-intestinal canal offers no trace of inflammation, and when there are signs of irritation in these parts, it is produced by the substances with which the poison was associated. The body remains a long time warm and flexible. It therefore appears that little reliance can be placed on the morbid appearances.

The diseases which may be confounded with poisoning by narcotics, are apoplexy, epilepsy, convulsions, inflammation of the brain, and syncopal asphyxia; the diagnosis of which will be found in the systematic works on Pathology and Practice of Medicine. This important information is also concisely detailed by Dr. Christison, in his work on Poisons, to which I refer the reader.

Opium.—Opium is the poison which most claims the attention of the physician and medical jurist, as there is scarcely any other so frequently employed. It is taken by suicides, it is sometimes mixed with porter and other inebriating liquors, and we often observe its poisonous effects as a medicine. After all that has been written on the effects of this medicine upon man and animals, our knowledge is still imperfect as to the phenomena it may produce in individual cases. This arises from peculiarity of habit, or what is technically called idiosyncrasy. In small doses it is said to act as a stimulant, but a single dose produces but a slight and transient effect. But every one knows that small and repeated doses may produce a sedative effect. Neither will the largest dose always act as a sedative. In a case of delirium tremens, I exhibited between laudanum, black drop and tincture of henbane, 960 minims in seventy-eight hours, without inducing the slightest sedative effect. In all painful diseases, a much larger dose than that laid down in books must be administered, and often a stimulating instead of a sedative effect will be produced. In tetanus and other spasmodic diseases, we fail to produce any by the largest doses.

The symptoms of poisoning by opium are generally the following:—giddiness, stupor without previous excitement, respiration slow and often

stertorous, insensibility to external impressions, power of motion completely lost, eyes closed, or half open, pupils contracted, countenance indicative of perfect repose; pulse slow and full, but may be frequent and small. In a short time the countenance becomes ghastly, the pulse small and imperceptible, and death ensues. If the person recover, he falls into a profound sleep, which may continue twenty-four or thirty-six hours. On awaking he complains of nausea or vomiting. Nothing, however, is more variable than the symptoms attributed by authors to poisoning by opium; even its medicinal effects are undetermined.

The length of time between taking the poison and the commencement of its effects varies. Sometimes the symptoms commence in a few minutes, at other times not sooner than an hour, or even five hours.

The sopor produced can be distinguished from that caused by apoplexy or epilepsy, as the patient can be roused by agitation, loud speaking, tickling the nostrils, &c. convulsions, though generally present in animals, seldom occur in the human subject. The ordinary duration of a fatal case of poisoning by opium, is from seven to twelve hours—most persons recover who survive twelve hours; though death may take place long after this period. The quantity of opium capable of causing death is not determined. It varies in different cases. A person has taken eight ounces of crude opium and recovered; and an opium eater has taken nine ounces of laudanum daily with impunity. The smallest dose which has been recorded as fatal, was half an ounce of laudanum, and four grains of opium in cases of adults. We almost daily see infants in this city poisoned by opium; but as this arises from the general practice of exhibiting "sleeping draughts" by nurses, and as these are quack nostrums, we can seldom discover the exact quantity that has been given, more especially as the publicans prepare their diacodium, and the druggists their composing cordials of very different degrees of strength.

The external application of opium to ulcers or wounds, or its injection into the rectum, will cause death.

Action of Morphine and Narcotine.—Many jurists maintain that the effects of morphiue on man are similar to those of opium: but others deny the validity of this opinion. Its effects in fatal doses are undetermined.—A Parisian graduate swallowed 22 grains of the acetate, received no assistance for ten hours, when Orfila was called to see him, who, by depletion, sinapisms, ammoniated frictions to the thighs, stimulating clysters, and acidulous drinks, improved him so much, that in six hours he recognised his physician. When morphine is taken into the stomach, it produces the same effects as the acetate, probably from its combination with the acids in the stomach. The same symptoms supervene as when opium is employed.—The cerebro-spinal system is chiefly affected. The morbid appearances are so trivial, that no reliance can be placed upon them. Deportes, Bailly, Chevallier, and Flourens state, that there is great congestion of the encephalic apparatus.

Narcotine.—Magendie, Orfila and Bailly have experimented with this substance, and disagree as to its properties. The last author has given 120 grains daily, without producing any accident. It is said to be a stimulant; but Dr. Whiting has lately related to the Medico-Botanical Society, the results of some experiments he made with this substance on his pupils, and in the dose of two grains, the action of the heart and arteries was not

increased. I have not discovered the report of any case of poisoning by this substance. Dr. Christison observes with respect to the detection of opium, " it may be laid down therefore as a general rule, that in poisoning with opium, the medical jurist, by the methods of analysis yet known, will often fail in procuring satisfactory evidence, and sometimes fail to obtain any evidence at all, of the existence of the poison in the contents of the stomach".

The best test for opium is the following proposed by Mr. Hare, of Philadelphia, but taught by Dr. Christison before the process was published. A solution of the acetate of lead is to be added to the suspected fluid in a conical glass vessel, and from six to twelve hours, a precipitate subsides, which is the meconate of lead. A few drops of sulphuric acid are to be poured through a tube on it. On the addition of a solution of permuriate of iron in the same manner, a cherry coloured meconate of iron appears. Philadelphia Journ. of the Med. and Physical Sciences, v. 77. Christison says, the superincumbent fluid after the precipitate has subsided, should be removed before the application of the sulphuric acid and permuriate of iron; and observes, that this test cannot be applied to deeply coloured fluids, or to complex organic mixtures.

Treatment of Poisoning by Opium.—The poison is to be removed from the stomach as speedily as possible, by the exhibition of ʒss. to ℈ij. of sulphate of zinc, or by the stomach pump. The zinc is the best emetic in these cases. Tartarized antimony is too uncertain. Should the zinc and stomach pump fail, the only other means of evacuating the stomach is by transfusing a grain of tartar emetic into a vein in the arm, great care being taken not to introduce air into the vein. This plan is in general successful, though very seldom resorted to. The patient should be roused and kept moving for six or twelve hours, by the unwearied exertions of strong men. After the stomach is evacuated by means of the emetic and pump already described, diluted vegetable acids, coffee and abstraction of blood, whenever there are signs of cerebral congestion, constitute the best remedies.

In a case of narcotism, induced by forty drops of landanum which were exhibited for intense pain in the stomach, the lady having long suffered from cerebral congestion; the respiration was slow, the breathing stertorous, the pupils contracted, the pulse rapid and small, and convulsions present for twelve hours; after the zinc had caused vomiting, venesection was employed three times; the pure liquor of ammonia was applied to the face, chest and thighs, sinapisms to the feet and legs, cupping on the temples, a blister to the neck and between the shoulders, lemonade and coffee freely used, and relief obtained in twelve hours from the commencement of the operation of the opium. Dr. Uwins also saw this case with me, and fully concurred in the treatment. The application of strong ammoniated oil to the inside of the thighs, with sinapisms to the feet, restored a child of four years of age, who had been thirteen hours in a state of stupor from opium. In extreme cases, artificial respiration may save life. There is no antidote for opium; our chief effort should be to remove it from the stomach as speedily as possible.

Hyosciamus.—The root of henbane has been mistaken for parsnip, and that of the wild chicory; and sometimes causes death. The symptoms induced are giddiness, loss of speech, pallidity of the countenance, excessive dilatation of the pupils, and so profound an insensibility of the retina, that

the corneæ may be touched, without the patient perceiving it—delirium and coma supervene, and sometimes nausea and vomiting; there are all the signs of cerebral congestion, and death speedily supervenes. Orfila says, that the root is inert in spring, but Mr. Wilmer relates six cases of poisoning, one of which proved fatal, by the root gathered in winter.—*(On the poisonous Vegetables of Great Britain.)* Mr. Houlton, late professor of botany to the Medico-Botanical Society, has stated that the hyosciamus is only fit for medical purposes in the second year of its duration. M. Runga, of Berlin, has indicated a new means of discovering poisoning by this plant, by belladonna and thorn-apple. It is to touch the conjunctiva of a cat with some of the liquid, which contains traces of these vegetables, when dilatation of the pupil will be effected, which cannot be induced by any other substance.—*(Sedillot.)* The appearances on dissection are inflammation of the digestive tube, and sanguineous injection of the cerebro-spinal apparatus.

Lactura virosa.—This plant, with the lettuce opium, is inferior to opium and henbane, and does not cause fatal effects, except in doses of two or more drachms.

Solanum.—The different species of this plant are said to be poisonous, and to resemble hyosciamus.

Hydrocyanic Acid.—The plants which afford this acid are, bitter almond, cherry-laurel, peach-blossom, and cluster-cherry. It is the most fatal and powerful poison known. When a few drops of pure hydrocyanic acid are injected into the jugular vein, they cause death with the rapidity of lightning, so that its action must be through the medium of the nerves. When a dose is not sufficient to cause instant death, the respiration becomes slow, convulsions, vomiting and frequent alvine dejections come on. When the dose is very large, death takes place without convulsions, the patient staggers, and dies in a few seconds. In a case which happened last year, in the borough of Southwark, the man swallowed an ounce of the medicinal acid: he staggered several paces, and walked but a few yards, before he fell and expired. The particulars of this case were detailed at the London Medical Society. It is decided that a large dose causes death in a few seconds, or in a very few minutes: The morbid appearances after death are equivocal. The tests for this acid are, its peculiar odour in the stomach or blood, the sulphate of copper, the salts of the protoxide of iron, and nitrate of silver. The odour must be perceived by different persons; and, according to Drs. Christison and Turner, the proto-sulphate of iron is a more delicate test than the sulphate of copper. The best mode of treating a case of poisoning by hydrocyanic acid is the application of cold affusion before or after the convulsions have commenced, and the inhalation of diluted ammonia or chlorine. The liquor ammonia should be diluted with twelve times its weight of water. It is always to be recollected that if a large dose, say three or more drachms, of the acid be taken, the effects are so sudden, that no treatment can save the patient.

The essential oils, or distilled waters of the plants named in this article, produce the same effects as prussic acid.

Narcotico-acrid Poisons.—This class of poisons possesses a double action—the one a narcotic, similar to those substances in the preceding classes—the other acrid or irritant, exciting inflammation in the part with which they come in contact, but many of them have very different properties, some

exciting tetanic spasms only. Inflammation is not an invariable result. This class is derived from the vegetable kingdom. Their characters are very similar to those of narcotics; but there are some exceptions, as for example, a single dose of some of them may cause narcotism for two or three days, though they seldom prove fatal after twelve hours as narcotics. The poisonous fungi are exceptions, as they may prove fatal as narcotics after the lapse of one, two, or three days. Digitalis has proved fatal as a narcotic, after two or three weeks; and the different species of strychnos have peculiar effects, which cannot be mistaken for the results of disease. The following are the principal species of this class:—colchicum, white hellebore, squill, digitalis, belladonna, stramonium, tobacco, nerium, œnanthe crocata or hemlock drop, black-wort hellebore, hemlock, monk's hood, strychnia, or nux vomica, St. Ignatius' bean, strychnia tieuté, which yields the Indian poison, the upas tieuté, the strychnia pseudo-kina, and S. potatorum, camphor, cocculus Indicus, upas antiar, poisonous mushrooms and fungi, many species of amanitæ and argaricæ. Orfila divides all these poisons into four groups.

1.—*Meadow Saffron, White Hellebore, Squill, Digitalis, Belladonna, Thorn-Apple, Tobacco, Hemlock, Hemlock Drop-Wort, Black Hellebore, and Monk's Hood.*

All the symptoms caused by these vegetables are indicative of irritation in the intestinal canal and cerebro-spinal system, and they are continued. After their injection into the stomach, we observe nausea and vomiting, numerous alvine dejections, and pain in the abdomen. The patients suffer great agitation, some degree of delirium, convulsive motions of the muscles of the face and limbs, the pupil contracted, the pulse small and irregular, and there are piercing cries. In some there is complete narcotism, the pupil dilated or natural, and insensibility and stupor supervene. The autopsy affords the same characters as produced by the preceding class of poisons. *Colchicum* and *squill* owe their properties to veratrine. The poisonous effects of colchicum are often seen in cases of gout and rheumatism. The root is most active in spring.

Digitalis, when pushed too far, or when it accumulates in the system, produces nausea, vomiting, giddiness, want of sleep, sense of heat throughout the body, pulsation in the head, general depression, sometimes diarrhœa, profuse sweating or salivation. In fatal cases convulsions occur. In using this medicine, the gastro-intestinal membrane ought to be healthy, for its poisonous effects produce manifest symptoms of gastro-encephalic irritation. Belladonna or deadly nightshade produces a train of symptoms that can scarcely be mistaken. No matter to what tissue it may be applied, whether to the skin round the eye, to the stomach, or to the surface of a wound, there is dilatation of the pupil, and if the dose is poisonous, there is a sense of dryness in the throat, delirium and coma. According to M. Barbier, of Amiens, the symptoms are dryness of the throat, thirst, efforts to vomit, cardialgia, colic, eyes haggard, pupils dilated, confused vision, gay delirium, difficulty of remaining standing, sardonic laugh, trismus or lock-jaw, difficult deglutition, continual agitation, convulsions, subsultus tendinum, rigidity of the back, convulsive motions of the heart, oppression, gangrenous spots on the skin, pulse small and contracted, perspirations, lipothymia or sudden cessation of the heart's action, coldness of the extremities and death. These symptoms depend more

upon the nervous system than on the digestive canal. M. Flourens concludes, from this semeiology, that the tubercula quadrigemina are affected, and become the seat of sanguineous effusion. It is right to mention that the delirium is in some cases accompanied with immoderate and uncontrollable laughter, at other times with incessant loquacity, and again with complete loss of voice. The sufferer may follow his ordinary vocation, as happens in somnambulism. The effects of this poison do not disappear so soon as those of opium. In one case the morbid appearances were rapid putrefaction, tumefaction of the abdomen, distention of the penis and scrotum, with fœtid serum, softness of the brain and dark vesicles on the skin. In another case, there was no unnatural appearance. The best proof of poisoning by this plant, is the detection of berries, husks or seeds in the alvine dejections. The berries are so tempting, that children and adults very often eat them; and their juice has been mixed with wine.

Stramonium or thorn apple is seldom used in this country as a poison; its effects are delirium, dilated pupil, stupor, and occasionally palsy. The physician should recollect these effects, when his patient has been smoking this plant for asthma. It has been used on the continent of Europe for the purpose of accomplishing female violation, and other atrocious crimes. Ardent spirits and opium are more generally exhibited for these purposes. In cases of poisoning by thorn-apple, there is great cerebral congestion, and hence venesection is necessary.

Tobacco.—Though this plant is almost universally employed as a luxury, either by smoking or snuff taking, it is a very potent poison, when too freely employed. Young smokers are affected with nausea, giddiness, sudden fainting, or disorder of the intellectual faculties, with quivering pulse. These effects are generally transient, but examples are recorded in which these symptoms were followed by stupor, somnolency and death. The usual symptoms may continue for twenty-four hours, and then gradually disappear. Death has been produced by a clyster, composed of two ounces of tobacco leaves, infused in eight ounces of water. The bad effects may be induced by the application of a leaf to an abraded surface. I have observed this fact in a case of ulcer of the leg, and in cases of excoriated nipples to which an ointment of the leaves was applied. It appears from reports made by several physicians in France, that the men employed in the manufacturing of snuff are in good health, and unaffected by their occupation.

Hemlock.—The root of this virulent poison has been often mistaken for parsley, fennel, asparagus, and most frequently for parsnip—the effects on man are similar to those of opium, belladonna, and thorn-apple, but its irritant action is not established. The aquatic hemlock is the most active. Giddiness, coma, and convulsions are the usual symptoms, the pulse may be reduced to thirty, and the recovery similar to that of the opium. The autopsic characters are, congestion in the head, fluidity of the blood, it often escaping at the nose, and much cadaverous lividity. Examples are detailed, which arose from persons mistaking the root for parsnip, and using the leaves with other herbs in making broths.

Œnanthe Crocata.—Hemlock dropwort, is often mistaken for common hemlock by herbalists, which is a matter of serious consequence, as a dose of the extract prepared from it may prove fatal. The bad symptoms induced by it are heat in the throat and stomach, delirium, stupor, hardly

ever proper coma, but generally convulsions, and death may take place from one to three hours. The root is often mistaken for water parsnip. Others affirm that its effects are little different from those of belladonna.

Æthusa cynapium, or fool's parsley, has been mistaken for common parsley, and has been mixed up in sallad, when it produced nausea, vomiting, headache, giddiness, somnolency, pungent heat in the mouth, throat and stomach, difficulty in swallowing, and numbness of the limbs.

Aconitum napellus or monk's head, is seldom used as a poison. The leaves are less poisonous than the root, and the resinous is more active than the watery extract. In some cases narcotism, and in others the characteristic effects of pure acrids are observed. Fatal effects have been caused in France by the spirituous infusion or tincture of the root, as will be seen in Christison's work on Poisons.

Helleborus niger, or black hellebore, was considered by the ancients as a specific for mental alienations. It is a violent narcotico-acrid poison. The symptoms are nausea, vomiting, the circulation is averted, the respiration constrained, the tongue is protruded and pendant from the mouth, vertigo and trembling seize the animal, which tumbles on its side and expires with tetanic convulsions, with opisthotonos or emprosthotonos.

The morbid appearances are inflammation in the digestive canal, especially in the large intestines, the lungs are gorged with blood, are hepatised and red.

2. *St. Ignatius' Bean, Nux Vomica, Upas Tieute, Strychnine, and False Angustura.*

St. Ignatius' bean is a species of strychnos, and contains three times as much strychnine as nux vomica, according to Pelletier and Caventou. The powder of half a bean, which is about the size of an olive, was taken in brandy, and induced tetanus of several hours duration.

Upas tieute is a species of strychnos, and is supposed to be the most active of the Japanese poisons. It is nearly as powerful as strychnia.

Nux vomica is another species of this genus, and causes death by prolonged spasms of the thoracic muscles of respiration. These muscles may be felt during the fits as hard as bone. These spasmodic fits extend to the whole muscles of the body, and death may occur in the space of one hour, or the person may be affected for twelve hours with milder spasms. The smallest dose which is said to have yet proved fatal, is three grains. The muscles remains rigid in some cases for five hours after death. This state of rigidity does not invariably occur. When the patient is not attacked with spasms for two hours, he is generally safe. Half a drachm of the powder may cause death. I have been lately asked by a wholesale and retail druggist, could half an ounce of nux vomica cause death, as he had sold that quantity to a female, who swallowed it, and died with the symptoms already described. When the powder is taken, we should use the stomach pump, or in its absence, emetics, and always recollect that the poison adheres with great obstinacy to the coats of the stomach. The sudden appearance of the spasms enables us to distinguish them from ordinary tetanus, which in general comes on slowly, and is preceded by some symptoms of constitutional derangement. The spasms from nux vomica come on within an hour, or even less. Poisoning by this substance, unless when given in the form of strychnine, is comparatively rare.

Strychnine is the active principle of the preceding poison. It is nearly as powerful a poison as hydrocyanic acid. A sixth of a grain injected in an alcoholic solution into the chest of a dog, has proved fatal in two minutes. (Christison.) In fifteen seconds it begins to act, the animal trembles, and is next seized with stiffness of the limbs. General spasm soon intervenes, the head is bent back, the spine stiffens, the limbs are extended and rigid, and the respiration is constrained by the fixing of the chest. The fit is succeeded by a calm, during which the senses are perfect, several fits take place, and the animal is destroyed by suffocation.

Brucea, or false angustura bark, produces the same symptoms as nux vomica.

3. *Camphor, Cocculus Indicus, its alkali, Picrotoxine, and Upas Antiar.*

Camphor —Two scruples of this medicine taken into the stomach in a dose, produced langour, giddiness, confusion, and forgetfulness, in the short space of twenty minutes. Loss of consciousness, convulsions and maniacal frenzy supervened, which were removed by an emetic, which caused the rejection of the drug, though taken three hours previously. In another case, half a drachm was used as a clyster, which was soon followed by indescribable uneasiness. The patient experienced a sensation as if his body was lighter than usual—he staggered, became pale and chilly, and felt a numbness of the scalp. On taking a glass of wine he became better, and for twenty-four hours his breath exhaled a camphorous odour. My friend, Mr. Matthews, of Hunter Street, consulted me in a case in which there was a sense of numbness of the scalp from the use of this medicine, which always occurred whenever the remedy was exhibited. A man had taken one hundred and sixty grains, and recovered without an emetic. The Italian physicians are of opinion that camphor acts specially on the genito-urinary organs, induces erection of the penis, voluptuous reveries, and a sense of heat in the urethra during the passage of the urine. That vertigo, vivid impression on the eye, headache, acceleration of the circulation, and excitation of the genito-urinary organs, announce its action on the brain, cerebellum, and great sympathetic, and that its action is increased by alcohol, and diminished by nitre. Annali Universali de Med. Juin. 1829. The morbid appearances are injection of the membranes of the brain, inflammation of the stomach and intestinal tube, of the ureters, urethra and spermatic cords; and every organ in the body exhaling a strong camphorous odour.

Cocculus indicus is sometimes used by brewers to economise hops, contrary to the laws of this country. It is seldom dangerous in the proportion used in manufacturing fermented liquors. It causes vertigo, pallidity of countenance, and tetanic spasm. It contains an alkaloid named picrotoxine.

Upas antiar is a Javanese poison, which is often mistaken for the upas tieuté. It acts like camphor and cocculus indicus. M. Andral states that it induces clonic convulsions with relaxations, inflammation of the stomach if injected into the veins; phenomena which are not observable from upas tieuté.

4. *The fourth group of narcotico-acrid poisons includes the poisonous Mushrooms or Fungi.*

Of these the most deleterious are—amanita muscaria, alba, citrina and viridis; the hypophyllum maculatum, album-citrinum, tricuspidatum

sanguineum, crux melitense, pudibundum and pellitum; the agaricus urens, necator, pyrogalus, stypticus annularus and semiglobatus. Such is the number mentioned by Orfila and Christison. Dr. Greville, of Edinburgh, describes twenty-six species of eatable mushrooms, but few of these are used. Richard informs us that as a general rule, we should reject those whose taste and smell are disagreeable, those that grow in shady and moist places, those whose taste is bitter and astringent. Poisonous fungi produce narcotico-acrid effects: sometimes they cause narcotism alone, and sometimes irritation, but most commonly both. The symptoms and morbid appearances have not been fully detailed. The sufferer complains in a few hours after his repast on these substances of nausea, heat in the abdomen, and severe continued pain. Frequent vomiting and purging supervene, there is insatiable thirst, the pulse small, hard and frequent. After some time, general or partial convulsions come on, cold perspiration, drowsiness, though the consciousness remains perfect in general to the time of death.

On the autopsy numerous spots, of a violet colour, are observed on the skin, the abdomen distended, the stomach and intestines in many places gangrenous, and affording marks of the most intense inflammation, the intestinal tube is very much contracted, the other viscera congested, presenting points of inflammation, the membranes of the brain, the pleura, the lungs and uterus are disorganised.

Secale cornutum, or spurred rye, when mixed with flour in large quantities, has caused violent spasmodic convulsions, and in others dry gangrene; and these effects do not occur at the same time, in the same individual.—Two drachms taken at once have caused giddiness, head-ache, flushed face, pain and spasm of the stomach, nausea, vomiting, colic, purging, weariness and weight in the limbs. The French writers divide the effects of this substance into convulsive, and gangrenous ergotism; in the latter the feet, hands, nose and ears are affected. It is now admitted by all scientific obstetricians, that the ergot possesses the power of exciting uterine contraction, and of accelerating labour. In my work on Midwifery I have given a full account of the circumstances under which it is useful. I am as satisfied of its power, as I am that of any medicine in use. It must be properly preserved, or it becomes inert; and inattention to this fact accounts for its repeated failures. I find one drachm sufficient in any case, and this should be given in three doses, either in decoction, infusion, or powder. We should not exceed a drachm and a half, under any circumstances.

5. *The last group of narcotico-acrid poisons includes Alcohol and Ether.*

The inebriating effects of these alcoholic liquors are so well known, as to require no elucidation. After death the brain will be found congested.

Septic or Putrefiant Poisons.—Under this head are included cantharides, poisonous fish, venomous serpents, decayed and diseased animal matter.

Cantharides, Blistering Fly.—This substance exerts a special influence on the genito-urinary organs. In large doses it may produce priapism, and excite the venereal appetite, though in some instances it affects the kidneys and the bladder, induces strangury and no sexual appetite. In some cases it produces no effect on the urinary organs; and whenever it does, such violent constitutional symptoms arise as endanger life. When swallowed in large doses it causes irritation and inflammation, along the gullet, stomach, and intestinal tube, and generally in the genito-urinary organs. The quantity of the powder or tincture which may prove fatal, is not accurately

determined. The treatment should consist in emetics, demulcent and oily injections into the bladder if that organ is affected, and antiphlogistic measures when indicated.

Poisonous Fish.—From idiosyncrasy, or peculiarity of constitution, several of the fishes are poisonous to certain individuals: as oysters, crabs, lobsters, mackerel, muscles, eels, salmon, &c. The symptoms are indicative of local or nervous irritation. In some persons there is an eruption like nettle rash, in others a coma or peculiar paralysis. In some there are epileptic convulsions and irritation of the stomach. The poisonous qualities of fishes are not determined.

Venomous snakes and insects inflict fatal injury on the human system, but such cases can seldom require attention from the medical jurist; they need no farther notice in a compendious work of this kind.

Poisoning by decayed or diseased Animal Matter.—Under this head, the medical jurist should consider the diseases caused by infection, contagion, and inoculation, but these subjects are excluded from toxicology, as they belong to state medicine. The flesh of certain animals is sometimes poisonous, as partridge at certain seasons; even honey is sometimes poisonous; and the danger arising from dissection wounds is too well known to require notice in this place. The adulteration of the different kinds of food claim the attention of medical men, and are to be learned from the systematic works on toxicology. Here we find an account of the sausage-poison, the poison of cheese, of milk, of bacon, wine, brandy, vinegar, bread, &c.

General Precepts with respect to medico-legal Research on Poisoning.—The first axiom laid down by the best jurists is, that we cannot affirm that poisoning has taken place unless we can demonstrate the poison. The questions are, 1st, has poisoning taken place? 2nd, what is the poison? When we answer the first question, the second presents itself as a natural consequence.

The greatest caution is required in giving evidence upon these points, as innocent persons have been executed, and the guilty have escaped by the conclusions of medical men. We should remember, that many diseases simulate poisoning, as cholera, spontaneous perforation of the stomach, ileus, strangulated hernia, and hæmatemesis.

In making the autopsy or post mortem examination, as it is absurdly denominated in this country, we should apply a ligature on the gullet and another on the rectum, besides one on each orifice of the stomach, so that in removing the whole digestive tube, its contents may be obtained; great care will be requisite in removing the parts, lest incisions or perforations should be made. The contents of the digestive tube should be placed in a glass or porcelain vessel; while the appearances both external and internal of this tube must be carefully noted, and then place the tube in alcohol. We have next to apply the chemical and physical tests, the latter afforded by physiology, pathology, and experiments on living animals. Many of the vegetable poisons may be detected by their physical properties, and we should refer to the special history of those which are most commonly employed by persons in the rank of life of the accused party, or the deceased. Our tests should be of the purest and best description, and we begin our experiments upon small quantities of the suspected matter, reiterate them and vary them, so as to justify our

conclusions in the most satisfactory manner. We should preserve the results of each experiment, in order to procure the quantity of poison, however small that may be, in each portion of the matter examined. We should never communicate our opinion to the magistrate or other persons until given in evidence, more especially if it is unfavourable to the accused.

In all cases of poisoning, we should endeavour to discover whether the act is one of suicide or homicide. The age of the deceased, his state of health and intelligence, will assist us in arriving at a safe conclusion. Moral evidence will often afford us assistance, and when the prisoner had been dabbling with poisons, conversing about them, though not conversant with them by profession; when he has purchased poison shortly before the death has taken place, and under false pretences for poisoning rats, for which purpose he has not applied it; when his conduct has been suspicious during the illness of the deceased, such as preventing medical aid being procured, not leaving the patient, attempting to remove or destroy articles of food or drink, or vomited matter; expressing a presentiment of the patient's speedy death; hastening the funeral, opposing the examination of the body, giving a false account of the illness, having quarrelled with deceased, or acquired property by his death or relieved from his support, or his knowing that the deceased was pregnant by him. We must collect phials, pill-boxes and papers, which are found in the apartment of the deceased. The symptoms in every case are to be ascertained, the indications from the autopsy, the chemical analysis, and the physical properties afforded, are to be duly considered, as also the diseases which stimulate the effects of the supposed poison; such are the leading points which deserve the greatest attention from the medical jurist in his investigation of cases of poisoning.

VII.—*Observations on Cholera Spasmodica, and on the use of Chloride of Lime in that and other Diseases.* By James Wilson, Esq. Surgeon to His Majesty's Ship Southampton.

To the Editor of the London Medical and Surgical Journal.

Sir,

Should you consider the accompanying papers worth your laying before the profession, I owe you, and those who may read them, some explanation for their appearance in this shape.

Reflection, on two cases of spasmodic cholera, which occurred in my practice in the West Indies, some years ago, which ran their fatal course in a few hours, first produced doubts in my mind respecting the received pathology and treatment of this disease. I had before seen many of these cases in South America, which some practitioners have designated cholera morbus, which ephemeral ailments, when confounded with the hydra to which my paper refers, become a stumbling block to both patient and practitioner.

In 1829, in the East Indies, I had under my care ten cases, which some considered spasmodic cholera; two of these were highly concentrated, one died, whose case, with remarks thereon, as copied from my journal, is herewith transmitted; my hopes of adding other dissections of the disease to my journal were unfortunately cut off, by my being attacked with enteritis, which compelled me to return to England, in which I arrived last October, in a very infirm state of health; from this cause my intention of following up the interesting inquiry has been delayed. My views of the disease were communicated to some of my friends in India, and the papers have been read by many of my professional friends in England, whose advice has prevailed upon me to submit them to the profession, as they stand on my journal, before I leave England, which I am to do on the 18th instant, being suddenly ordered to proceed to the Island of Ascension.

I have the honour to be, Sir,

Your most obedient, humble servant,

JAMES WILSON.

29, *Surrey Street, Strand,*
London, July 14, 1831.

His Majesty's Ship Southampton.

Cholera Spasmodica. William Stagg, ætatis 33, *private marine,*
27th September, 1829, *Madras Roads.*

A man much emaciated, one of a party of marines, who had done duty at Raffles Bay, on the coast of New Holland for two years, during the most of which time they lived on salt provisions, and were put on board of us on the 21st instant, by the ship which brought them thence. The sergeant of the party informs us that this man was much addicted to drinking spirits to excess; he has done his duty, and made no complaint since in the ship. The hammock in which he slept was hung upon the main deck. Went to bed last night in apparently perfect good health: this morning, at half-past three o'clock, I was called, and found him undressed, sitting on the deck under his hammock, with his knees drawn up towards the abdomen, the feet resting on deck, and he was rubbing both legs with his hands, and crying out in the most agonising manner: "Oh! the cramp, the cramp!" He informed us, that he had been purged and vomited for the last two hours; but as he had not any pain, he thought it would go off. Spasms are of the most rigid character, shifting from the muscles of the toes, to the muscles of the legs. The deck around him is completely wet with the fluid passed, per anum; this apparently without colour, and is free from smell, that vomited is a watery fluid of a whitish colour, as if it held albumen in solution; and contained small floculi like coagulated films of lymph floating in it; these fluids had nothing of bile in them. He made no complaint of pain in the epigastric region, but said he felt a burning heat all over him; was parching with thirst, and called or rather cried out for cold water to drink; an universal sweat covered the body, the solids were so collapsed as to leave the skin on both hands and feet shrivelled, and of a bluish colour; temperature of the body colder than any thing which I have felt in India, excepting what is cooled by a solution of the

nitrate of potass; eyes much sunk; features sharp and greatly collapsed; countenance expressive of an assembled and concentrated feeling of distress, which baffles any attempt of mine to describe. Tongue coated with a white glary mucus; lips deep blue; pulse at the wrist is scarcely to be felt; that of the carotids more distinct, but languid; jugular veins cannot be traced.

A vein was opened in each arm, but only about one ounce of blood was procured; and though the orifice was large, this small quantity dribbled away, and in colour and consistence had a nearer resemblance to coal-tar than blood. He was wiped dry and put to bed in a cot; flannel cloths wrung out of water as hot as could be borne were applied over the abdomen; he took two ounces of brandy in the same quantity of warm water, and expressed much dislike to its taste.

℞ Hydrarg. submuriatis gr. i.
Opii colat. gr. ij.
Confectionis aromat q. s.
Ft, Pilulæ iii. statim sumendæ.

℞ Liquoris ammoniæ ℥ss.
Ol. olivæ ℥i.
Tinct. opii ℥iii m.
Ft. embrocat cujus pauxillo illinantur musculi affecti sæpe.

Half-past four, a. m.—Stomach retained the brandy, and has not vomited since he took the pills; expressed great relief from the frictions; the little spasm of lower extremities remaining is of clonic character; superior extremities free from spasm; breathing seemed affected for two or three minutes, as if occasioned by some convulsive effort of the diaphragm; both eyes are so drawn up that the lucid cornea is nearly hid by the superior palpabræ; no stool; pulse still as imperceptible; and with the exception of his not being so very restless as he was, we cannot see any important alteration in the symptoms, although he says he is much better; a little hot brandy and water pressed upon him from time to time.—Continuentur frictiones et fotus.

Half-past five, a. m.—Stomach continues retentive; as yet no stool; pulse not improved; for the last half hour free from spasm; says he is much better. He is perfectly sensible of all that is said to him, but shews a great disinclination to speak: perspiration not near so profuse; and I think the body not quite so cold; still dislikes the brandy, although he takes it.—Repetantur pillulæ ut supra: continuentur frictiones et fotus.

Half-past six, a. m.—Has retained all the medicine and drink; no stool; this secretion, as well as that of the kidney and salivary glands, seems to be entirely suspended; no improvement in any of the symptoms; he lays quiet, and is inclined to sleep.—Continuentur frictiones et fotus.

Half-past seven, a. m.—Pulse is risen, but fluttering, so as not to be counted; temperature slightly increased; no sleep has been procured, and as yet no stool; is more restless, but says he is easier.—Repetantur pilulæ: continuentur omnia ut heri prescripta.

Half-past eight, a. m.—On my visiting him, he was laying on his back as if asleep; the eyes were more closed than I had hitherto seen them; the mouth was partly open, and the upper lip on one side slightly convulsed, breathing rather slower than natural. On my speaking, he started as if from sleep; and the next moment expressed his earnest gratitude to

God for having sent him into the ship, as he felt assured that what had been done had saved his life; pulse is evidently risen, but still fluttering; temperature considerably higher; a marked improvement of the countenance in being less depressed; he is inclined to be loquacious, is perfectly rational, and is in high spirits about his recovery. The breathing when roused seemed natural; now shews less aversion to the brandy; tongue white and very dry; took some tea with relish; as yet no stool. Says he will have a sleep as soon as I leave him.—Continuentur fotus et frictiones.

Half-past nine, a. m.—He lay tranquil as if asleep until a quarter before nine, when the breathing suddenly became oppressed and labouring; from this time he never spoke, the difficulty of respiration went on increasing until his death, which took place at half-past nine, a. m.

Sectio Cadaveris.—Apparently less collapse than during life; expression of countenance much more agreeable; skin of hands and feet greatly corrugated, and the surface much more livid than is usual so soon after death. On opening the abdomen, the peritoneum and omentum were natural, no fluid in the cavity; when the omentum was removed, the small intestines were seen externally to exhibit a very pale vermillion colour, that of the ilium rather darker than the other two, and its calibre somewhat contracted. This colour I could not reconcile to myself as being the effect of arterial excitement; handling gave no information of their coats being at all thickened, but very distinctly communicated a doughy feel in their contents. On their being laid open, the contents, a very considerable quantity of grey, pulpy matter; we could not detect any thing like arterial excitement having taken place in any part of the intestine, but all the veins were turgid with black blood, and to this alone any thickening of the intestine, which had taken place, seemed to be entirely owing; there was no destruction or ulceration of the villous coat, nor was there any ecchymosis. Large intestines, peritoneal coat of a higher colour than natural; colon distended at the arch; in other parts considerably contracted; no fæces in the large intestines, their only contents a small quantity of dark watery fluid, the only morbid appearance in their structure is venous congestion, not to the same extent as in the small intestines. Stomach much distended; colour of external coat natural; contained about a pint of dark-coloured watery fluid; inner coat slightly covered by a dark slimy looking mucus; this easily removed, when the morbid appearance exactly resembled that of the large intestines.

Liver of natural size, colour rather pale, substance perfectly natural.

Gall bladder contained about three ounces of very dark viscid bile; it required us to make very considerable pressure on the gall bladder to evacuate its contents into the duodenum, though there was no difficulty met with in passing a probe along the duct.

The left kidney was much enlarged and apparently of long standing, the other the natural size; the veins in both exceedingly turgid with black blood. Bladder in appearance healthy, greatly collapsed, and without urine.

Thorax, pleura perfectly healthy; lungs collapsed, I should suppose to the utmost extent; in fact, so shrunk down on each side as to rise very little above the spine; their colour externally white as if they had been bleached; the superficial veins moderately filled with a something in

colour black as ink, and in consistence resembling tar; the parenchyma in substance more like gland than lung, this, I apprehend, is owing to the effect of that complete state of collapse, which rendered the lung impermiable to either air or blood, by bringing in close contact the sides of those channels, whose office it is to convey their fluids, and the same supposition will go far in accounting for the lungs when so completely deprived of blood, approaching so nearly to the primitive whiteness of all animal substance.

Heart in size natural; right ventricle filled by blood which throughout had no coagulum, and in consistence and colour bore a close resemblance to coal-tar, numerous bubbles, on the surface of which attracted our attention, some as large nearly as the point of the little finger; all broke without any disturbance from us, and were rapidly succeeded by others, which as rapidly broke, and were as rapidly succeeded, so obvious and abundant were these crops of bubbles, as to satisfy my mind on the instant, that they were the outlets through which air was making its escape, and that too of air in very considerable quantity. Right auricle moderately filled with the same kind of tar looking matter, but without air bubbles. The left auricle and ventricle also contained a considerable quantity of the same kind of matter without air.

Head.—There was no unnatural adhesion any where between the dura mater and skull; the veins of dura mater turgid and longitudinal; sinus gorged with black blood; no adhesion between dura mater and tunica arachnoidea; superficial veins of the cerebrum had formed considerable adhesions between the hemispheres; on breaking which patches of coagulated lymph were to be seen; the medullary substance on being cut into shewed a few small points of blood, in colour more approaching to arterial than any we saw in the dissection; lateral ventricles contained a very small quantity of serum; vessels of choroid plexus exceedingly turgid, and of a brownish red colour; vessels of cerebellum greatly turgid, and of a dark brown colour; vessels of the pons varolii and medulla oblongata so turgid as to form a kind of coating, the colour very dark, approaching to black; no extravasation was detected; some trifling effusion was found at the top of the spine, but more in the cerebellic cavity.

General Remarks.—This case is one of that disease which is called cholera spasmodica; a disease of so destructive a character as to have engaged more attention and laudable investigation from many of the practitioners in India than any other disease known in that country, and it is to their writings the profession are indebted for any knowledge which they have of this hitherto almost unmanageable complaint; and when I look at the great ability which has been employed in this investigation, I feel as if I were exposing myself to be considered too presuming, in thus offering some observations, which have arisen in my mind respecting the pathology and therapeutics of this disease, and these I shall endeavour principally to confine to the phenomena of concentrated cases, and that when the disease is developed. The prominent symptoms which these present are vomiting and purging, of a watery fluid, sometimes of a whitish colour, containing white floculi, most painful cramps, first in the toes and legs, then in the abdomen and diaphragm, features sharp and greatly collapsed; countenance expressive of an assembled and concentrated feeling of distress, which baffles description; eyes sunk and cornea turned up; tongue coated with a

white glairy mucus, when wanting this, white as if deprived of blood; lips cold and blue: the whole solids so collapsed as to leave the skin on both hands and feet much shrivelled, and of a bluish colour, as if they had been soaked in water; temperature of the body excessively cold; pulse seldom to be felt at the wrist; respiration slow and difficult; considerable stupor and deafness; body bedewed with a clammy sweat; thirst insatiable; and the patient complains of a burning inward heat. Stagg never made any complaint of pain in epigastrium; contents of intestine ejected with force, as if from a syringe, and without pain; secretion of urine suspended; and as the disease advances to a fatal termination, vomiting and purging cease, and spasms leave the extremities.

In a report on epidemic cholera, by Mr. Scott, surgeon and secretary to the Medical Board at Madras, is the following statement:—

"Spasm may be generally present in one instance of invasion; in another it may not be distinguishable. A frequent variety the worst of all, is that which is noted for the very slight commotion in the system, in which there is no vomiting, hardly any purging, perhaps only one or two loose stools; no perceptible spasm; no pain of any kind; a mortal coldness, with arrest of the circulation, comes on from the beginning, and the patient dies without a struggle."

Mr. Ortin, in his report of the disease as it occurred at Bombay, says,

"In a large proportion, there is no appearance of spasm in any part of the system; in many there is no purging, in some no vomiting, and in others neither of these symptoms. I have already observed, that these last were by far the most dangerous cases, and that the patients died under them, often in an hour or two, the nervous power appearing to be exhausted almost instantaneously, like the electric fluid from a Leyden jar. Several instances are said to have occurred at Hobly and other places, of natives being struck with the disease whilst walking in the open air; and, who having fallen down, retched a little, complained of vertigo, deafness, and blindness, and expired in a few minutes."

Now I believe firmly in this, that if the symptoms in each case are strictly observed and recorded, as well as its dissection, that much if not all of that which appears at first sight as being descrepant, in many of the dissections which have taken place will disappear, and that the symptoms will clearly point out what extent of morbid appearances we are to expect on dissection. And I further firmly believe, that the more concentrated the disease, the less extensive or the less general will be congestion; and that in such cases there never will be found any morbid appearance which can warrant the supposition, that increased action or inflammatory excitement has existed in any part of the system. I further venture to assert, that in every such case it will be found, that both symptoms and morbid appearances of dissection will uniformly harmonize in demonstrating a want of excitement, or rather a diminution and want of diffusion of the vitality of the system, and that from the very commencement of the disease. And yet we are told to bleed. Now what are the diseases in which bleeding is indicated,—are they not those of either local or general excitement, or inflammatory action, or in which there is determination of blood to some particular organ? And my Report of February, 1824, on the ardent fever of the West Indies, shews that I carried bleeding to as great an extent as any man; but this was not done indiscriminately, but only to produce an

effect on the system, and for the doing of which blood letting is only allowable, which condition of system does not exist in that type, cholera, which I am now considering. But if we are to do as we are told without regarding symptoms or reasoning on them, I ask where are we to get the blood from? The only openings that I am aware of which have been made by the profession for this purpose, have been either in an artery or a vein seated near the surface; but in the cases I am speaking of the blood has left the surface, and he must be indeed clever who can abstract blood from that vessel which does not contain blood. But if we must get blood to look at, we must make an opening in that which contains it; and he must be indeed bold who will use an instrument to open the heart or vena cava; and bolder will be that man who submits himself to such an operation. And most fortunate it is, that in all our attempts in the ordinary way we cannot get blood, for the patient has none to spare. It is vital blood he wants, the little blood which is sometimes procured is always of a black colour, thick and ropy, more like coal-tar than blood; dissection shews no difference in appearance between the arterial and venous. Let it be borne in mind, I speak only of the concentrated disease, and in the most aggravated cases; the above condition of blood, collapsed lungs, turgescence of brain, are the prominent morbid appearances on dissection; there are no lesions produced by the disease, which will account for a fatal termination. In fine, when we attentively consider the whole phenomena of symptoms and dissection, we see that they all manifest an exhausted condition of all the vital functions.

This led me to the conclusion (and whether right or wrong further experience will soon demonstrate), that the organ primarily affected is the sensorium, the brain receives its impressions from the nerves of the skin, and their deranged communication, is occasioned by the sedative application of cold to the surface of the body when much heated, and I think this view will account for all the phenomena; and of this I am certain that the opinions of biliary derangement, or any inflammation of the intestines, never will account for the phenomena of this disease. What case of enteritis ever destroyed life on the instant, or in from one to six hours? And when it does destroy life, dissection gives abundant evidence that structural lesion was the cause of death; will either of these opinions account for the sunken state of the circulation—for the condition of blood—for air being found in the right ventricle of the heart—for the slow and difficult respiration—for the great collapse and white colour of the lungs—for the spasms—for the stupor and deafness—for the turned up eye, like hydrocephalus,—or for the morbid appearances of the brain, as seen on dissection? Now, let us consider the brain as being the seat of derangement, and we will find the whole phenomena of both symptoms, and dissection clearly accounted for; they have seen that the whole of the vital functions are depressed and deranged.

Anatomy has given names to the different parts of the brain; physiology has so far advanced, as to have demonstrated, by undeniable experiments, that the brain is the great agent, by the instrumentality of which, all the animal functions in man are performed. The functions of the brain cannot be interrupted, without the other functions being less or more disturbed. The slight commotion which the brain sustains, from a person turning round in a swing, or from the agitation, or rather motion

of a vessel at sea, produces vomiting. In concussion of the brain, and fracture of the skull, with depression, vomiting is produced, here the circulation is also affected. As the derangements of the brain increase in severity, the higher fuctions symphathize. In epilepsia we have convulsions, and disturbed respiration. In apoplexia we have the circulation and respiration greatly disturbed, with sometimes impaired motion, at other times instant death. In tetanus we have spasms, pain of epigastrium, and no secretion of urine; this, when consequent on a wound, has ended fatally in every instance which I have seen, to the number of nine, and all had the two remarkable circumstances attending them, of supervening within eight days of the infliction of the wound, and all died within forty-eight hours after the disease manifested. In injuries of the spinal marrow, we have paralysis of the lower extremities, and bladder, with priapism.

In what way does lightning kill? In what way does fear kill? In what way does the passion of anger or any other kill? Is it not by the sudden shock exhausting the whole nervous energy of the sensorium? And I think the history which has been given, and the analogies produced, will satisfy, that sudden or instant death, in the most concentrated cases of cholera, is produced in the same way; and that in the less concentrated cases, a want of sensorial energy can alone account for the phenomena of general depression of all the functions, which I need not recapitulate.

And the same theory will account for the vomiting and spasms being most violent, and continuing longest, in those where there is most reaction, and consequently where the disease is least concentrated; and in which last cases, blood may be extracted with advantage, and which, if I am right, I think it can never be employed, even if practicable, in the others without causing deadly mischief. I also entertain the hope that the above theory will be found satisfactory, to account for all the phenomena observed on dissection; and here I have much to say, but want of room in the limits of a journal, will not admit of my extending these observations, but should my health allow me, it is my intention to lay before the Board (and probably the profession), every particular of the history and treatment which I entertain of this, I think, wrongly named disease; and I shall then have the honour to submit, that to prevent the disease from being mistaken for others having some resemblance to it, we should give it another name.

Following up the view which I have taken, the treatment I would recommend is the most powerful and diffusible stimulus applied to the brain, the seat and centre of the whole chain of depression, and this agent I think we possess in galvanism; the prudent practitioner will ever bear in mind, whatever the disease may be called, even plague, that if symptoms, of either local or general excitement present, he is bound to subdue them, and in this disease I apprehend these will be confined to the head; and I think cupping, shaving the head, and cold applications, will be our best practice when these manifest. I would also recommend powerful auxiliaries, the inhaling of oxygen gas, and that of the chloride of lime should be given internally, and in enemata, with liberal dilution.

The following is a copy of a Report I was called upon to make when Surgeon of the Flag Ship in the East Indies:—

His Majesty's Ship Southampton, Trincomalee,
15th March, 1830.

Sir,

Being satisfied from trials which I had made of the advantages which are to be derived from the use of some of the chlorides on board of a ship, before leaving England I procured, on my own account, twenty-four pounds of the chloride of lime in powder, and five pounds of the concentrated fluid of the chloride of soda: and, by making a representation to the Admiral, he was pleased to move the Victualling Board, to supply H. M. Ship under your command, with twenty pounds of the chloride of lime in powder, and thirty pounds of the chloride of lime in fluid; and, in obedience to your directions, I have now to report, for the Commander-in-Chief's information, upon the uses which we have made of these agents, and to submit my opinion on their utility.

In England, we found the chloride of soda, when diluted, the best application for indolent ulcers which we had seen; its application had also a marked effect in facilitating the separation of slough, and cleaning a foul sore.

But in India, the application of this agent to our sores, has not been attended with the same happy results; this probably may be owing to the stimulus of high temperature increasing the secretions of the skin to such an extent, that they become a source of irritation to the breach of surface.

A boy had an extensive abscess in the legs, this was laid open throughout, soon after its whole surface became covered with maggots, the chloride of soda did not seem to affect them, but one washing of the sore with the fluid chloride of lime, in the proportion of one part to seven of water, not only destroyed those present, but prevented the formation of any others.

The fluid chloride of soda, in the proportion of one part to seven of water, is by far the best gargle for the mercurial sore mouth which I have met with.

The fluid chloride of lime diluted applied to scalds and superficial burns, immediately relieves the pain.

In a case of cholera spasmodica, which was fraught with the most imminent danger, we administered chloride of lime in enema, the patient said the enemata gave him more relief than any thing else (and he was ignorant of their constituent parts); he recovered, but as venesection, calomel, opiates, fomentations and stimulants, both internally and externally were employed, it is hard to say what or whether it had any share in his recovery: and as it was only cured in this case in accordance with a theory I have ventured to entertain of cholera, which is at variance with that of the profession of the day, lest I might be partial to my own child, I shall not venture an opinion of its effects until I have more experience.

Near the termination, in a fatal case of dysentery, we administered chloride of lime enemata, and gave internally, in two drachm doses, the fluid chloride of lime; these had the effect of destroying much of the fætor in the evacuations. This case was hopeless from the day of presentation to us. Sectio cadaveris shewed extensive ulceration.

Not being aware that these agents have ever been used by others in some of the above ways, it behoves me to speak with modesty and caution.

But of the great benefit which is to be derived from the use of the chloride of lime, in destroying fætor on board of ship, from repeated experience I can speak with some degree of confidence, the fluid chloride of lime diluted, in the proportion of one to seven of water; this sprinkled over an evacuation of either the healthy or sick, instantly destroys the offensive smell.

The Southampton being injected with coal tar, a high temperature renders a portion of the tar fluid; this gets to the most dependent parts of the ship, and there mixing with the bilge water, throws out a most disagreeable odour. Three ounces of the chloride of lime in powder mixed in a bucket full of water, thrown into the pump-well, not only instantly destroyed the disagreeable smell, but extended an influence for some days in keeping the hold sweet.

As to what influence these agents might have in either destroying or preventing the spread of contagion, not having had any experience, I cannot take upon me to offer an opinion. And as the opinions which are held by eminent members of the profession, regarding the nature of this invisible agent, are so very contradictory, it would be wrong in me to form an opinion on mere conjecture.

But from the experience which I have had, I am of opinion, that it would be for the benefit of the service, if quantities of chlorides were supplied to each of the ships in his Majesty's service.

To Captain Fisher,
His Majesty's Ship,
Southampton.

Signed JAMES WILSON, Surgeon.

BIBLIOGRAPHY.

ANATOMY.

1. A case of a malformed fœtus is described in the Archives Generales de Medicine, the subject of which survived for nine days, in whom the occipital bone was divided into two portions, through which the greater portion of the brain protruded.

2. In the same work, the autopsy of an idiot is given, in which the middle part of the corpus callosum was wanting, the optic thalami were uncovered, and the hemispheres of the brain were united only by the commissura nervorum opticorum by the tegmentum caudicis cerebri, by which name Burdach designates the crura cerebri; in front of the pons varolii, and lastly by the tubercula quadrigemina. Numerous other singular deformities existed.

PHYSIOLOGY.

3. Alexandrine Latrope was admitted in the Hospice des Orphelins, on the 12th January, 1830. She died on the 25th March. After her death, it was well ascertained that she was addicted to masturbation, and had several epileptic fits. On examination there was no cerebellum, merely a membrane in its place.

4. *Case of Spectral Illusions, with Observations.* By Robert I. N' Streeten, M.D. Worcester.—On the 20th of October, 1830, I was requested to see E. R. a child, eleven years of age, residing in Union Court,

Cripplegate, who had become blind on the morning of that day. I was informed that she had had severe inflammation of the gums, about a week before, which was attended with considerable swelling, and some redness of the face, together with a good deal of head-ache, at times. Plant leaves had been applied with the effect of relieving the inflammation and swelling, but the pain of the head increased, and she had some confusion of ideas with slight delirium. The fever, however, was said to have been trifling, and her bodily strength not affected. In the morning of the 18th, she lost the power of distinguishing colours, all objects appearing white, or black, or some intermediate shade. She continued in this state till the morning of the 20th, the day on which I saw her, when, on her awaking, it was found that she could see only portions of things placed before her eyes, and in about two hours after, was unable to distinguish light at all: a blister had been applied to the back of the neck the night before, and was then discharging.

Upon examination of the eyes, the pupils were found free from opacity or cloudiness; they were moderately dilated, even in the full light of day, and she said she could perceive no light; but upon exposing the eye suddenly to the action of a strong light, by closing, and afterwards quickly opening the lids, the pupils immediately contracted. The retina and the humours of the eye appeared therefore to be free from disease. She complained of pain across the forehead; the pulse was rather full and of good strength, though not quick; the skin cool; the tongue white. She had a costive evacuation since morning, which contained an ascaris lumbricoidis.

Upon enquiring further into the history of the case, I received the following extraordinary account:—About seven weeks before, on the 30th of last August, she was very much alarmed by the apparition of a man at the window, dressed in what she called a coffin dress, which apparition recurred the next day, and again after an interval of eight days. On the morning of the 13th of September, she saw most distinctly her father standing at the foot of the bed, with his arms folded across his breast. She immediately burst into tears, believing as she said, that her father, who was absent from home in America, was dead. He then spoke to her, saying, weep not,—weep not,—and shook his head; then, shortly after, calling upon the Saviour twice, he appeared to fall backwards, and, as she expressed herself, vanished into the air. A short time previous to the appearance of her father, she fancied she heard the looking-glass struck as with a stick, and then saw it fall into pieces, and yet, as she remarked to her mother, it could not be, as the glass still remained in its situation, and entire. From this time, she became the sport of spectral illusions of various descriptions. Upon one occasion, her mother being with her, she was getting out of bed, when, suddenly drawing her foot back again, she started with horror to the other side of the bed, asserting that she had been laid hold of by the cold hand of her dead father. At another time, she exclaimed, that the room was full of spirits, though, when questioned about them, she said, she neither heard nor saw any thing, but that she felt conscious of their presence. During the whole of this period, though unable to suppress her terror at the illusions, she was conscious that they had no real existence, and reasoned correctly about them with her friends. Her bodily health was very bad; she suffered much from head-aches, with

giddiness and beating in the temples, and, as was reported by the mother, more than once expressed her apprehensions that she should lose her sight.

Her observations were generally remarkably intelligent, and she was perfectly consistent in her accounts, though her recollection of many things which had occurred, was obviously impaired.

She was ordered four leeches to the temples, and directed to take a grain of calomel with four grains of jalap, every six hours.

On the 22d, I saw her again. The leeches had bled well, the sight returning almost immediately after. She could then distingnish colours and objects at a considerable distance, though some degree of head-ache was still felt at times. The bowels had been freely opened, the evacuations being very dark and green; the tongue was rather white; the pulse natural. The calomel and jalap powders were directed to be continued at intervals of eight hours.

On the 26th, the sight still remained imperfect, and she complained that there seemed to be a mist before her eyes; the pulse was natural; the bowels open, the stools still dark-coloured, green, and slimy. She complained also of pain across the forehead, and her memory was, in some respects, impaired. She had totally forgotten how to read, and mistook one letter for another; not that she was unable to see and distinguish the difference between them, but she had lost the power of connecting the proper sounds of the letters with the arbitrary character representing those sounds. Leeches were again applied to the temples, and as her mouth had become somewhat tender, the powders of calomel and jalap were omitted, and one compounded of jalap and the super-tartrate of potass was ordered to be taken every morning instead.

On the 28th, she could see nearly as well as ever, and her recollection had returned. She could now read distinctly; but the abdomen felt tense, and was prominent. She complained of gnawing pains of the bowels at times, and the motions were still dark-coloured and slimy.

From this time she rapidly improved, and soon recovered the perfect use of her eye-sight, together with her usual health and spirits. She experienced no return of the spectral illusions after the first application of leeches to the temples.

I was induced to trust this case chiefly to the action of purgatives, as, from the presence of a lumbricus in the stool voided on the morning of the 20th, I concluded that the amaurotic symptoms might, in a great measure at least, depend upon the irritation arising from worms in the intestinal canal; and I was subsequently induced to persevere in the practice, both by the relief afforded, and by the morbid nature of the excretions from the bowels, though no worms were afterwards observed to come from her.

The subject of the appearance of spectral illusions in certain states of disease, is one of great difficulty; and, notwithstanding the elaborate researches of Dr. Hibbert, still involved in considerable obscurity. The forms under which these illusions were presented to the mind of this child, may, perhaps, in part be accounted for. Thus, the first apparition of the man in a coffin dress, may probably have arisen from the strong impression made upon her by the funeral dress, and general appearance of a sister, who died early in the spring of last year. And afterwards, it was perhaps natural, that her illusions should be connected with the recollections of an absent parent; especially as considerable uncertainty existed in the minds

of his friends as to his welfare. Again, the exclamations which were heard by her as proceeding from him, were probably connected with the wishes expressed in his behalf by his wife; who, in consequence of the infidel tendency of his principles, was in great anxiety as to his spiritual state. Still, however, there remains to be accounted for, the vividness of these impressions, causing them to be mistaken, upon their first appearance at least, for actual occurrences; and that, notwithstanding reasoning powers of more than ordinary acuteness, for the age and station of life, in which the subject of them was placed.

There is a case in one of the early volumes of Nicholson's Journal, translated from the personal narration of the author in a foreign publication, and since made more generally known by the treatises of Drs. Ferriar and Hibbert, which, in many respects, resembles the present. I allude to that of Nicolai, the Prussian bookseller. It appears, that in consequence of great and repeated agitation of mind, occurring subsequently to the neglect of an habitual blood-letting, the apparition of a deceased person was presented to his view. This was afterwards followed, and for a length of time, by illusions of a most extraordinary description. The apparitions of persons, whether of departed friends, or of those living at a distance from him, sometimes singly, more frequently in considerable numbers, were of constant occurrence. The phantasms, however, were not always resemblances of friends, they were often entirely strange to him, and occasionally even animals presented themselves before him. After this had continued for some months, he began to hear them speak. Usually they addressed themselves to him in few words, such as those of consolation coming from the apparitions of his most intimate friends; but sometimes they appeared to carry on a conversation with one another. For a full account of the particulars of this extraordinary case, I must refer to the works beforementioned, confining the subsequent remarks to such points as more especially bear upon the case related above.

As far as appears from the narrative of Nicolai, the illusions, in both instances, were connected with a similar physical state of the cerebral organs. There was, in each, a preternatural fulness of the vessels of the head: thus, in Nicolai, the phantasms were excited by an agitating cause, following the neglect of an habitual blood-letting; while, as he afterwards states, they immediately disappeared under the use of leeches to the temples. In the case of E. R. they were obviously connected with that state of the cerebral circulation, which has been termed determination of blood to the head; evinced by the preceding head-ache, gradual loss of the memory, &c. terminating in the occurrence of the amaurosis; and also, by the immediate relief arising from the local abstraction of blood, by the same means which proved successful in the case of Nicolai. Her mind had likewise been much agitated by causes of distress before alluded to.

Some curious speculations connected with the subject of apparitions, naturally arise from a consideration of the phenomena in such cases as this. A very interesting one is, the liability of the nerves of sensation to become affected with false impressions, through the medium of the brain.

When, in the obscurity of twilight, a white post, or the stump of an old tree, is taken for a spectre, it is obvious that an erroneous idea of an existing object is formed in the mind, from a defective impression made upon the sense of sight. If, however, the object be approached, a nearer view,

or an examination by the sense of touch, corrects the previous impression, and tends to remove the erroneous nature of the idea which had been before excited. This is, in fact, merely and simply an example of the deceptio visûs, with which, at present, we have nothing to do. But when the illusion has its seat in the mind; when there is no primary external action in the deceived sense, it is obvious that the false impression made upon that sense, is to be accounted for altogether on different principles, and will also be regulated by different laws. To give any satisfactory explanation of the causes of illusions of this kind, is quite out of our power, but in some instances, they appear to be connected with fulness of the vessels of the brain, though as to the mode in which this vascular fulness acts in the production of phantasms, we are entirely in the dark.

It has been supposed, by some authors, that illusions of this description, are usually confined to the sense of sight, and that the sense of touch is rarely liable to be affected by them. "The ideas which have their origin in the affections of our muscular frame," observes Dr. Hibbert, "much less frequently delude us than those of vision or hearing;" and he goes on to say, that the ideas derived from an examination of the sense of touch, "often afford the very means by which we ascertain whether an apparition is true or false."—*Midland Medical Reporter.*

MEDICINE.

5. M. Montault details two cases of death by asphyxia, the result of spinal disease. In the reflections appended to the cases, M. Montault states that, a collection of pus formed around the first dorsal vertebra. This purulent matter, which is really here a morbific matter, of which nature endeavours to get rid, makes itself a passage by the inter-vertebral foramina. Hence compression of the spinal marrow, the origin of the abdominal nerve, and those which supply the rectum, bladder, and inferior extremities; and at the origin of the greater number of intercostal nerves; paralysis of these parts, in other words paraplegia; impossible to dilate the thorax: death by asphyxia. In a case recorded by Duprè, in which very violent erections took place some hours before death, and continued after death, and in which penis was enormously developed, the cerebellum was found considerably softened. How can this be explained by phrenology?

6. M. Casimir Perier, it appears, has addressed a circular to the Commissions Sanitaires, relative to the necessity of making vessels coming from those countries where the cholera is prevalent, submit to quarantine, and has accompained it with a copy of M. Moreau de Jonne's letter. The members of the Academy, in consequence, have deemed themselves *insulted,* inasmuch as the government did not wait for the return of the commission they had sent to examine the disease before they decided in taking such precautionary measures as they deemed proper. They have appointed a deputation to wait on, and remonstrate with the minister, on this weighty affair. Verily "there is a storm in the tea pot, and an insurrection in the Isle of Man."

This extract very forcibly reminds us of a terrific announcement which lately emanated from one of the physicians of the Westminster Hospital—that a case of "real cholera," thereby meaning Indian cholera, was successfully treated in that Institution. It is necessary to inform our asto-

nished readers, that this said "real cholera" arose from a very simple cause, namely, a pint of sour beer, which the patient had most unluckily taken. The symptoms were slight, and presented no feature different from the common cholera, so well described by the English and unpuffing Hippocrates, the illustrious Sydenham—a disease which always prevails among the poor of this country, at this season of the year. But cholera-phobia, that is to say, the probability of the importation of the Russian cholera having been unceasingly obtruded of late upon the British public, the motive which induced the proclamation of the formidable case under notice, is very obvious. The gullification of that strange animal, the public, is the order of the day, so that the faculty may be excused.

SURGERY.

7. *Fatuity from an accumulation of Ascarides.* By Dr. H.—Elizabeth Whittingham, a girl of 14 years of age, of a pale, gloomy, and vacant countenance, whose employments were sedentary, and who had never properly menstruated, was admitted an out-patient of the Bath United Hospital, Tuesday, October 28, 1828.

Her appearance and manner gave the strongest impressions of idiocy, or rather mania. The brow was contracted; the eyes restless, wandering, and betraying suspicion; and she made repeated attempts to escape from the room. She refused to answer, or did not comprehend the commonest questions, and betrayed the utmost reluctance to a protracted investigation. From the information of her mother, who accompanied her, it appeared that she suffered chiefly from drowsiness, pain of head, vertigo, syncope, and hiccup; that she had more than once fallen down, and was totally indifferent to every thing, and every person around her; her abdomen was large and tense; she had flatus, borborygmi, and costive bowels; the pulse was quick and sharp; and the tongue slightly furred.

To be bled immediately to 10 ounces. To have a three-grain calomel pill every other night, and a purgative draught every other morning.

31st.—Less drowsy and oppressed, but "memory entirely lost, calling one thing for another;" is freely purged, motions less dark, and has discharged a vast quantity of ascarides, collected and agglutinated into round masses; countenance and manner little altered.

Increase the dose of calomel to five grains every other night, and continue the cathartic mixture.

Nov. 4th.—Countenance dark and suspicious, but speaks rationally; the stools are more healthy, and fewer masses discharged.

Continue the medicines.

7th.—Countenance bright and cheerful, evacuations natural, expresses herself thankful for the attention shewn her, and is free from complaint.

1829.—This girl, when last heard of, remained in good health, and actively employed in her usual business, that of a sempstress, Her case is recorded, not on account of any thing very remarkable attached to it, but as capable, perhaps, of affording a hint as to prognosis. Her demeanour was so eccentric, and her whole appearance so decidedly maniacal, that it might, in some instances, have led to severe and improper measures of treatment or of coercion, and the unfortunate sufferer, it is possible, have been actually driven into that state, which was, at present, only simulated.

Nothing certainly could be more remarkable, or present a greater contrast, than the face of gloom in the commencement, and the cheerful and pleasing demeanour at the termination.—*Medical Gazette.*

MATERIA MEDICA.

8. *Chloride of Soda in Dropsy.* Mr. Hepworth, of Leeds, has published a case of ascites in the *Lancet,* the subject of which was a girl ætat. 14, who had not menstruated. The usual remedies were tried in vain. Having discovered by accident that the chloride of soda produced profuse perspiration, he ordered a tea spoonful of Beaufoy's concentrated chloride of soda in a cup of gruel to be taken three times a day; profuse perspiration took place in two days, the medicine was continued and a complete cure effected.

9. *Argent. Nitrat in Salivation.*—An esteemed correspondent informs us, that in a case of severe salivation, a solution of a scruple of argent. nitrat. in three ounces of distilled water, speedily relieved the patient. It was used as a gargle, on the recommendation of the late Mr. Abernethy.

CHEMISTRY.

10. *Crystallised Ioduret of Lead.*—M. Caventou, of Paris, has discovered the following simple method of obtaining this valuable medicine in a crystalline form. On adding any solution of lead to a solution of the hydriodate of potassa, a canary-coloured precipitate of a minutely crystalline texture is thrown down. This precipitate has hitherto been considered as insoluble in water. M. Caventou has found that it is abundantly dissolved in hot water, and from this solution it crystallizes on cooling in crystals of considerable size and of the utmost beauty. We have on repeating this process, been astonished at the singular splendour of the product thus obtained. It so strongly resembles highly-polished gold, that several persons have mistaken it for that metal. No satisfactory analysis has as yet been made of the respective quantities of iodine and lead in this pound. By calculation, it is believed to be composed of iodine 100, lead 85·5. M. Caventou's improvement is described in the *Lancette Francaise.*

The clinical experiments now performing by MM. Cottereau and Verdet de Lisle, at the Hopital de La Pitie, appear to indicate, that of all the preparations of iodine, this possesses, in the highest degree, the property of resolving scrofulous and scirrhous engorgements: at least this may be inferred from the remarkable and rapid improvement experienced by the patients on whom it has been tried, and who had all been previously using iodine and the hydriodate of potassa, both internally and externally, without success. M. Guernsent has also found it of the most signal advantage in several cases at the Hopital des Enfans.—*Journal Hebdomadaire.*

MEDICAL JURISPRUDENCE.

11. *Antidote for the Poisonous Mushroom.*—M. Druge, at Vienna, department de l'Isére, recommends a mixture of olive oil and powdered carbon as a very efficacious remedy against the poisonous mushroom.

12. *Analysis of different Specimens of common Salt.*—M. Serrullas, from analysis, has discovered iodine in it, but not arsenic. M. Guibourt has found a small quantity of arsenic in it. M. Serrullas has ascertained that

salt cannot be obtained from leathers brought from abroad, except it be the Polish; and that salt cannot be employed on account of its putrid odour.

MISCELLANIES.

13. *Apothecaries' Company* v. *Ryan.*—This was an action brought by the Apothecaries' Company against the defendant, a member of the Royal College of Surgeons, for practising as an apothecary without a licence. It appeared that this Worshipful Company lent themselves to a rival surgeon, and instituted a prosecution, which, for its tyranny and oppression, was never exceeded in the despotic acts of this body. This fact will appear in a much stronger light than we can place it, by the address of the defendant's counsel.

Gentlemen,—I should like to know where the Act of Parliament is, which prohibits a surgeon from compounding medicines. I deny that there is any such enactment. I would beg to ask also where is the Act of Parliament which states that an apothecary is to advise? not in the statute book, gentlemen, not a word of it, but the fact is, the apothecary has assumed to advise, besides carrying on his own business of a grocer scientifically, and making more. He has assumed to advise in latter days; therefore this worthy company are to say, now you surgeons who have a knowledge of the science of surgery, and who make some medicines that are useful to advance your operations, in that surgical department, which is clearly the higher walk of the profession, being classed with physicians, we the apothecaries, think it necessary to protect the public against ignorance: therefore take care you examine the Act of Parliament before you mix any of your drugs. You, the College, are empowered by no charter—no Act of Parliament—by nothing but your own usurpation to advise, and, though true it is, when surgeon you may advise, yet you have no right to mix rhubarb and magnesia: why, just see what condition you would be in, you may live in the country with not a medical man within five miles of you, perhaps—a child, or an old woman is taken ill, with a violent pain in the stomach, you have medicaments in your house, if you mix them the Apothecaries' Company may come, and make you pay 5*l.* You cure the patient, you don't kill, you are acting as a physician and an apothecary, and you ought to pay the penalty. Well, now if you could not be called upon to pay a penalty in that case, why is Mr. Ryan to pay in this. Has any bill been made out for apothecaries' medicines? because that is the test. My friends know it, and Mr. Edwards knew it, for he sent one of the witnesses to him to get his bill. If they once get an apothecaries' bill from us, we are apothecaries; but nothing of the kind. There never has been an apothecary's bill, for the best of all reasons, there has been no practice as an apothecary. True it is 8*s.* 6*d.* is paid on one occasion, I should like to know why the surgeon is not to be paid 8*s.* 6*d.* for his advice? But more, what was he paid for? He was paid for curing a poor child of an ailment it had behind its ear.

Mr. Baron Bayley.—That was a surgical case.

Mr. Platt.—Yes, my Lord, but which the physician did not call a surgical case; he said, from what he had heard, it was—at all events, I will assume that he did call it a surgical case. That is better for me. It is

clearly a surgical case, and it is the only case for which we have been paid, we had a right to be paid for it. Yet they have brought this before you as an instance of our practice—to fix us with the practice of an apothecary, which they themselves have admitted as a surgical case, admitted by both their scientific witnesses, they have actually brought before you my poor client, to defend himself as if he were practising as an apothecary; they make that as one of the acts of the practice of an apothecary by which he is to be charged. Now, gentlemen, is there a better test in the world than that? No man living can tell what the line of demarcation is between the two professions. Have they not pronounced judgment upon themselves? Have they not by their own evidence shewn you they don't know what they are about? When they are coming here they can't describe what is an apothecary's, and what is a surgeon's case. Is not that quite enough to dispose of this action? Why, good God, gentlemen, if Mr. Ryan is called in to a lady who imagines herself to be in the pangs of death, and who must be in torture, for nothing is more torturing than an inflammation of the liver, when it is going on; he must say, "Really I am very sorry, but I am only a surgeon, I must stop till a tumor is formed, till there is enough of matter for me to stick the lancet in." "Why," she would say, "good God, sir, I shall be dead before then." "Never mind ma'am you must die, for the Apothecaries' Company will not let me cure you." Now that really is so. Here is a lady who had been unsuccessfully treated by one medical man, and in her anxiety and misery goes for assistance to another; he is successful, he cures her, and then he is brought here as a criminal, to pay the penalty of the act. I say, that a more odious attempt I never knew, on the part of any company, a company to do such a thing as this is astonishing. One might imagine a little pettifogging lawyer; or a violent and quarrelsome farmer, who had a spite against his neighbour, might have made such an attempt as this; or a doctor in some little corner, whose practice was affected by the cures made by my client—but that a public company, that the Company of the Apothecaries, should single out this poor man, and bring this case before you, as an instance of infringement of the law, I do say, excites my astonishment, and must excite the astonishment of every one.

Even the Judge observed, "I dare say the Company will feel they ought not to lend themselves to *partial* views." It appeared, by the evidence for the prosecution, that the defendant was a most successful practitioner; that he cured cases in which others had failed; that he had not sent in a bill as an apothecary; and yet a verdict was given against him, by the direction of the Judge.

This verdict was subsequently set aside by the Court of King's Bench, and the Company left to use their discretion whether they will look for a new trial on "partial views"—on views condemned and despised by every scientific physician and surgeon in the kingdom. If they be really anxious to protect the public, why don't they commence prosecutions against the chemists and druggists in London?—against men, who, in general, have received no medical education, but are, virtually, the apothecaries, or, if you please, the general practitioners of the metropolis. These men prescribe and compound medicines, visit patients, and usurp the rights of the

educated apothecary; but no attempt is made by the Company to restrain them. No, it is only against regular surgeons and apprentices that this mighty body commence their tyrannical proceedings.

That this Company of retail druggists should have power to regulate the practice of physic and surgery, is only one of the gross absurdities which abound in the laws of this country. In no other nation in the world is such an absurdity to be found; in none is the mechanical, mercenary and trading pharmacopolist allowed to lord it over regularly educated and scientific physicians and surgeons; in none is the old adage reversed, "the apothecary before the physician." But, when the College of Physicians, that popular and paternal body, is appealed to by its insulted members, the reply is, tut, tut—"*Odi profanum vulgus et arceo*"—"they are only apothecaries."*

14. *Apothecaries' Company* v. *Fry, Kings Bench, July, 8th.*—This was a prosecution under the Apothecaries' Act 55 Geo. III. against the defendant Henry Fry, for obtaining a certificate to practise as an apothecary from the said company by fraudulent representation, the defendant not having served an apprenticeship of five years, pursuant to the above act.

The facts of the case were, that the defendant presented an indenture from a fictitious person named Leman, received his licence, and the prosecutors having been informed of the fraud, instituted the present proceeding. The only defence made was that Mr. Fry was ignorant of violating any act and had proved his competency before the examiners. The Chief Justice Tenterden told the jury, they must find him guilty. This was done, when the judge sentenced the prisoner to twelve months imprisonment in Ilchester goal.

It appears that the licence is irrevocable, and that Mr. Fry can practise after the expiration of the term of his confinement.

This is another of the several prosecutions instituted by the Apothecaries' Company. A variety of painful feelings arise on reflecting upon such prosecutions; the defendant who evinced sufficient information to obtain a licence, is persecuted as if he were an ignorant person. His prospects are blighted and his character ruined, for evading one of the most unjust and tyrannical acts that disgrace the statute book of this country. Every one knows that the manipulations of an apothecary may be learned in a few months, and that an apprenticeship of five years is an absolute loss of time, which scarcely one in a hundred submits to. The company knows this, and yet a prosecution is instituted. We ask this body, is it not notorious that apprentices in general, seldom serve the last two years, but devote that time to the attainment of a medical education? But the act, requires "the pound of flesh," and the company will have it.

That this unjust and impolitic statute should remain unrepealed in an age like the present, is absolutely astonishing. That a paltry, mercenary set of trading retail Apothecaries should have the power of converting the noble science of medicine into a sordid despicable trade, is an indelible disgrace to the Colleges of Physicians and Surgeons;—bodies that could readily procure the power of raising the dignity of the healing art to that

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* See Sir H. Halford's evidence in the trial of Collier *v.* Simpson, *Lancet*, July 23.

rank it has attained in every other nation in which medicine is cultivated. But the truth is, that all the medical corporations in these kingdoms are corrupt and rotten; all require reformation. Medicine is one and indivisible; there should be ONE FACULTY, the members of which should enjoy equal rights and privileges in every part of their common country. Why not imitate the profession in France and other countries, where there are doctors of medicine and surgery, where both are equally qualified and left to choose whichever branch either taste or inclination may suggest. In such countries neither physicians nor surgeons are allowed to convert their professions into a sordid trade, by vending penny-worths of medicaments, and by galloping from one end of the city to the other without remuneration, save that which is to be derived from the sale of medicines. The union of the surgeon and apothecary lowers the profession and injures both parties. It compels the scientific surgeon and apothecary to have recourse to the most pitiable shifts to obtain a competence, while it degrades the dignity of medicine. On these and many other grounds, the privileges of the Apothecaries' Company are a bane to the profession. It is idle to talk about the disinterestedness of this and all our medical corporations, all are selfish and insensible to the good of the faculty, and all must be reformed. The universal advancement of the age in literature and science loudly demands a radical change in the constitution of the legal heads of our profession in these kingdoms.

LIST OF BOOKS RECEIVED DURING THE MONTH.

1. A Lecture delivered before the American Institute of Instruction, on the Importance of Physical Education. By John C. Warren, M.D. Professor of Anatomy and Surgery, Harward University. Boston, 1830, 8vo. p. 27.

2. Report of the Select Committee of the House of Representatives, on the Governor's Speech, relating to Legalizing the Study of Anatomy. Boston, 1831, 8vo. p. 118.

*** We are happy to state that the Study of Anatomy is now legalised in America; an example worthy of our imitation.

3. History of the Epidemic Spasmodic Cholera of Russia, including a copious account of the disease which has prevailed in India, and which has travelled under that name from Asia to Europe, illustrated by numerous official documents, explanatory of the nature, treatment, and prevention of the malady. By Bisset Hawkins, M. D. Fellow of the Royal College of Physicians, Professor of Materia and Therapeutics, in King's College, &c. London, July, 1831, 12mo. p. 306. With a splendid Map. John Murray.

*** This is a concise and comprehensive account of the disease of which it treats, and will be perused with advantage by the public and profession.

4. A Practical Treatise on Injuries of the Head. Dublin, July, 1831, 12mo. p. 121. Fannin & Co.

*** This is a valuable compendium, as appears by our review in the present number.

5. The splendid quarto on the Horse's Foot by Mr. Bracy Clarke, has reached us too late for farther acknowledgment.

Several Communications are under consideration.

All Communications and Works for Review, are to be addressed to the care of Messrs, RENSHAW and RUSH, (near Exeter Hall) 356, Strand; or to the EDITOR, at his Residence. 61, Hatton Garden.

THE

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CRITICAL REVIEW.

I.—*La Manœuvre de tous les Accouchemens contre Nature reduite a la plus grande simplicite, et precedee du Mechanisme de l'Accouchement Naturel.* Par JULES HATIN, M. D. &c. Paris, 1829. 18mo. pp. 311.

The Management of all Preternatural Labours, reduced to the greatest simplicity, preceded by the Mechanism of Natural Labour. By JULES HATIN, M. D. &c. Paris, 1829. Henry Leclercq.—(*continued.*)

Labours terminated by the aid of Blunt Instruments.

Particular Causes for this species of Labours.—The same as for labours terminated by the hand only, as also certain vices of conformation, but not to such a degree as to prevent labour by the natural passages without a previous operation.

Instruments employed.—These are in number three, the *forceps*, the *lever*, and the *blunt hooks*.

Of the Application of the Forceps—Description of the Forceps.—The forceps, as it is at present, represents a kind of pincers, composed of two branches, united by an articulation. Each of these branches offers three distinct parts, that is to say, two extremities and a centre. The extremity, which is destined to seize the head, and which is named *cuiller*, offers two curvatures, one on its edges, the other on its surfaces. These are so disposed as to accommodate themselves at once to the form of the pelvis of the mother, and that of the head of the infant. This part of the forceps is pierced, and constituted by two cheeks, one anterior and the other posterior.

The second extremity constitutes the handle of the instrument. Each branch is terminated at this part, by a blunt hook, which encloses within itself, the one a perforator (perce crâne), and the other a sharp hook.*

The middle serves for the articulation. One of the branches presents a pivot moveable in every direction, the other a long opening called a joint. This opening is destined to receive the pivot, which by the transverse direction then given to it, serves to fix the two branches to each other. The pivot branch is the left, the right has the joint.†

The head of the fœtus is the only part to which the forceps can be

* The British forceps is terminated by a wooden handle.

† The blades of the forceps are called right and left, according to the position of the handle in the hand, and not of the point.—ED.

applied. This instrument is useful, not only when the head presents itself at first, but also when it is retained after the exit of the trunk.*

The forceps, to be properly applied, ought to seize the head on its lateal regions, and in the direction of the occipito-mental diameter. In this manner, in fact, the greatest diameter of the head presents always by one of its extremities. The forceps can be applied to the superior and inferior straits.

General Rules for the Application of the Forceps.

Forceps.—1. Each time that the head of the fœtus is placed in a direct position, we must first introduce the left branch with the left hand, and next the right branch with the right hand. Those positions are called direct in which the occipito-frontal diameter of the head is placed in the antero-posterior diameter of the pelvis.

2. Each time that the head is placed diagonally, we must pay attention to the extremity of its antero-posterior diameter which is forwards. When the occiput or the forehead corresponds to the left cotyloid cavity, we introduce first the right branch with the right hand, and then the left branch with the right hand also, for in all the diagonals we introduce both branches with the same hand.

3. When the occiput or forehead corresponds to the right cotyloid cavity, we introduce first, the left branch with the left hand, and then the right branch also with the left hand.

4. The branches ought to be so placed, that the curve of the edges may correspond by its convexity to the concavity of the pelvis, and by its concavity to the convexity of the head.

5. The hand, which remains free, ought always to serve as a guide to the branches, and to be directed backwards to the side of the sacro-iliac symphisis; besides it ought always to be placed between the womb and the head, whilst this latter is still in the uterus, and between the vagina and the head, when it is passed through the cervix uteri: in this manner we avoid injuring either the uterus or the vagina.

6. Each branch of the forceps ought not to be held as a pen, but firmly in the hand, with the thumb extended on the outside of the articulation.

7. The forceps ought to be warmed, and covered with some oleaginous matter, which facilitates its introduction.

8. The patient ought to be placed as for the manual labour.

9. The obstetrician to introduce the branches, ought to place himself between the thighs of the patient: he always directs, *first*, the branch behind the head, and it is only secondarily that he brings it on the lateral regions, by means of the hand introduced in the parts. Thus, to bring the branch to the place it ought to occupy, he glides the index behind the anterior cheek, the middle behind the posterior, and the thumb beneath this.

10. Once the instrument applied, the obstetrician places himself to the right or the left of the handle in the direct positions, and constantly behind it in the diagonal positions.

11. The hands of the obstetrician, in order to seize the instruments when applied, are placed differently in the positions of the inferior and superior straits.

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* The forceps may also be employed in breech presentations.—Ed.

At the inferior strait, the hand which holds the handle of the forceps ought to be first placed beneath the instrument, whilst that which is near the genitals ought to be applied above. At the superior strait, it is the contrary; and besides the index of the hand, which is near the genitals, ought to be applied to the head, so as to be assured that it follows the movements given by the forceps.

Positions of the Vertex at the inferior Strait of the Pelvis.—Relative to application of the forceps, we admit generally six principal positions of the head at the inferior strait, namely, *two direct and four diagonal.* Let us thus attend to the direct positions.

First direct Position of the Vertex at the Inferior Strait—Principal Relations.—The occiput corresponds to the pubis, and the forehead to the curve of the sacrum.

We shall not recall here the signs by which we can recognize these positions, having already given them fully when treating of manual labour.

Application of the Forceps.—The obstetrician takes the left branch with the left hand, inclines the handle towards the right groin of the woman, and causes the branch to glide along the right hand, which directs it to the side of the head corresponding to the left of the pelvis: when the branch begins to penetrate in the parts, it ought to be sustained by the thumb, applied behind the posterior cheek. When well placed, this branch is parallel to the axis of the inferior strait, and its pivot opposite the centre of the vagina. An assistant is then directed to keep this branch fixed firmly.

The obstetrician then takes the right branch with the right hand, inclines the handle towards the left groin of the woman, and causes it to glide on the side of the head corresponding to the right of the pelvis, directing it with the left hand previously placed in the parts. This being done, he articulates the instrument, and places himself to the right or the left. Seizing then the forceps as already indicated, he gives the head lateral motions, lowering it at first to disengage the occiput from beneath the pubis, then raising it, in order to follow the axis of the inferior strait. We must take care to push back, from time to time, the head into the pelvis, in order not to dilate the parts too rapidly. When the perineum is much distended, we support it with the hand, which is near the genitals, whilst with the other we elevate the forceps over on the abdomen of the mother. When the head is disengaged, we support the handle of the instrument, and after having disarticulated the branches, we withdraw them with precautions one after the other.

If, the head being extracted, the trunk is not disengaged naturally, we seize the infant by its two shoulders, and extract it, making it follow the axis of the inferior strait.*

If the fingers are not sufficient, we apply a hook in the arm-pit, which is behind, according to the rules which we shall indicate later, when speaking of the application of the hook.

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* It is a bad practice to follow this last advice, unless uterine action is excited, either by friction with the hand on the abdomen, or by the ergot of rye.—Ed.

Second direct Position—Principal Relations.—The occiput corresponds to the hollow of the sacrum, and the forehead to the symphisis of the pubis.

Application of the Forceps.—The application of the forceps is exactly the same as in the preceding position, except that the handle of the instrument ought to be held less elevated, in order to embrace better the head in the direction of its length.

The extraction of the head is performed according to the same rules as in the preceding position, except that the face being upwards, we must, after having extracted the occiput by giving the head lateral movements, and then raising it, pass the hand which holds the handle of the forceps above, and strongly depress the instrument, in order to disengage properly the face from beneath the pubes.

It is not necessary to disarticulate the forceps; it is sufficient to relax its branches to withdraw it easily, and without fear of injuring the parts of the mother.

Diagonal Positions of the Vertex.

First Diagonal Position—Principal Relations.—The occiput corresponds to the left cotyloid cavity, and the forehead to the right sacro-iliac symphisis.

Application of the Forceps.—The occiput corresponding to the left cotyloid cavity, the obstetrician will take the right branch with the right hand, and after having inclined the handle towards the left groin, he will make it slide by the aid of the left hand placed in the parts, on the side of the head which is forwards. The thumb ought to be placed under the posterior cheek as soon as the branch begins to enter. This branch being firmly held by an assistant, the obstetrician, without withdrawing his left hand from the vagina, will carry it backwards. Then taking the left branch with the right hand, he will make it glide under the branch first introduced, and will conduct it by the help of the left hand, on the side of the head which is behind.

The two branches being applied, the obstetrician will withdraw his left hand from the parts, and will attend to the articulation of the instrument, behind which he will place himself. Then seizing the forceps as we have directed for the inferior strait, he will rotate the head, and once the occiput is brought under the pubis, and the face in the sacrum, he will treat it exactly as in the first direct position.

Second Diagonal Position—Principal Relations.—The occiput corresponds to the right cotyloid cavity, and the forehead to the left sacro-iliac symphisis.

Application of the Forceps.—The occiput corresponding to the right cotyloid cavity, the obstetrician will take the left branch in the left hand, and after having inclined the handle towards the right hip, he will make it glide by the aid of the right hand placed in the parts, on the side of the head which is forwards, taking care to place under the posterior cheek as soon as the branch begins to enter. This branch being supported by an assistant, the obstetrician, without withdrawing his right hand from the vagina, will carry it backwards. Then taking the right branch with the left hand, he will make it glide in front of that which was first applied, and conduct it, by means of the hand left in the parts, on the side of the head which is behind.

The two branches being introduced, the obstetrician will withdraw his right hand from the parts, and after having articulated the instrument, he will place himself behind it. Then applying his hands as at the inferior strait, he will rotate the head, and will treat it afterwards as in the first direct position.

Third Diagonal Position—Principal Relations.—The occiput corresponds to the right sacro-iliac symphisis, and the forehead to the left cotyloid cavity.

Application of the Forceps.—The forehead corresponding to the left cotyloid cavity, the application of the forceps is practised according to the same rules as in the first diagonal, except that the face being above, the handle of the instrument ought to be held less elevated than in the preceding positions, in order that the head may be better seized according to its length.

The instrument being applied, the obstetrician will place himself behind it, will rotate the head, and after having brought the occiput into the hollow of the sacrum, and the face under the arch of the pubis, he will then treat it exactly as in the second direct position.

Fourth Diagonal Position—Principal Relations.—The occiput corresponds to the left sacro-iliac symphisis, and the forehead to the right cotyloid cavity.

Application of the Forceps.—The forehead corresponding to the right cotyloid cavity, the application of the forceps ought to be practised according to the same rules as in the second diagonal, except that the handle of the instrument ought to be kept less elevated. The obstetrician, standing behind the forceps, will rotate the head, and will then treat it as in the second direct position.

1. If the occiput corresponds directly to the left side of the pelvis, and the forehead to the right, we treat it exactly as in the first and third diagonals, except that one of the branches is placed under the pubis, and the other in front of the sacrum.

2. If the occiput corresponds directly to the right side of the pelvis, and the forehead to the left side, we shall treat it exactly as in the second and fourth diagonals.

Positions of the Vertex at the Superior Strait.—The head will take the same positions at the superior as at the inferior strait.

First direct Position—Principal Relations.—The occiput is above the symphisis of the pubis, and the forehead in front of the sacro-vertebral angle.

Application of the Forceps.—The branches of the forceps are applied exactly the same as in the first direct of the inferior strait, except that they penetrate farther, and the head which serves as a guide, ought to be placed between the womb and the head of the fœtus.

Once the forceps applied, the obstetrician seizes it, as has been directed for the superior strait, and according as he places himself to the left or the right, he reduces it to the first or the second diagonal of the superior strait.

To change it thus, it is frequently useful to return it a little above the superior strait. Once the head is placed in a diagonal, we draw it into the hollow, by making it follow the axis of the superior strait, and inclining the handle to the opposite thigh. The position is thus reduced to the first dia-

gonal of the inferior strait. The hands are then applied as for this strait, we rotate the head, and treat it then as in the first direct of the inferior strait.

Second direct Position—Principal Relations.—The occiput corresponds to the sacro-vertebral angle, and the forehead to the symphisis of the pubis.

Application of the Forceps.—Exactly the same as in the preceding position, except that the handle of the instrument ought to be held less elevated, in order that the head may be better seized in the direction of its length.

Once the instrument applied, we place ourselves to the left or to the right; we return it a little above the superior strait; and we change it into the third or fourth diagonal. We draw then the head into the hollow, making it follow the axis of the superior strait, and carrying the blade of the forceps to the side of the opposite thigh. We treat it then exactly as in the diagonals of the inferior strait.

First diagonal Position—Principal Relations.—The same as at the inferior strait, except that the head is less engaged.

Application of the Forceps.—Exactly the same as at the inferior strait, except that the branches, and the hand which conducts them ought to be carried within the womb. The instrument being applied, the obstetrician places himself behind it, he draws the head into the hollow of the pelvis, always following the axis of the superior strait, and carrying the handle of the forceps towards the left thigh. The position is thus reduced to the first diagonal of the inferior strait, he replaces his hands as for this strait, and treats it exactly as for the first diagonal.

Second Diagonal—Principal Relations.—The same as at the inferior strait, except that the head is less engaged.

Application of the Forceps.—The same as at the inferior strait, except that the branches, and the hand which conducts them, are to be carried further. We draw the head into the second diagonal of the inferior strait, in following the axis of the superior strait, and carrying the handle of the forceps towards the right thigh; changing then the positions of the hand, we convert it into the first direct, and terminate the labour as in this position.

Third Diagonal—Principal Relations.—The same as at the inferior strait.

Application of the Forceps.—As at the inferior strait, except that the instrument is to be carried within the womb. The obstetrician places himself behind it; and we draw the head into the third diagonal of the inferior strait; we rotate it, and then terminate it in the second direct position of that strait.

Fourth Diagonal—Principal Relations.—The same as at the inferior strait.

Application of the Forceps.—The same as at the corresponding position of the inferior strait. Once the instrument applied, the operator places himself behind it; we draw the head into the fourth diagonal of the inferior strait, and treat it exactly as in that position.

1. If the occiput corresponds directly to the left side of the pelvis, and the forehead to the right, it is treated as in the first and third diagonals, except that the first branch ought to be placed under the pubis, and the second in the hollow of the sacrum by rotating the head, we bring the occiput under the pubis, and the face into the sacrum.

2. If the occiput corresponds directly to the right side of the pelvis, and the forehead to the left, it is treated as in the second and fourth diagonals, except that the branches should be applied as in the preceding position, one before and the other behind. The occiput is then brought under the pubis, and the face in the hollow of the sacrum.

Impaction of the Head at the superior strait, vertex presenting.—Authors admit generally *two species of impaction* of the head at the superior strait of the pelvis.

In the first species.—The antero-posterior diameter of the superior strait has four inches in extent, and the head of the fœtus is impacted by its occipito-frontal diameter.

In the second species.—The antero-posterior diameter of the superior strait has less than three inches and a half in extent, and the head of the fœtus is impacted by its bi-parietal diameter.

First Species. Impaction of the head according to its length.—The head of the fœtus, according to its length, may be impacted in two different positions.

First Position. Relations.—The occiput corresponds to the pubis, and the fore-head to the sacrum.

Second Position. Relations.—The occiput corresponds to the sacrum, and the fore-head to the pubis,

Indications to fulfil.—We must return the head, which is always possible in these positions, and place it in diagonal.

Application of the Forceps.—The forceps, in these two positions, ought to be applied exactly in the same manner as in the first and second direct of the vertex at the superior strait, except that the branches ought to be passed a little less deeply. The obstetrician, placed to the right or to the left of the instrument, will return the head, giving it slight lateral movements, and will draw it into a diagonal of the superior strait, to treat it exactly as in that position.

Second Species. Impaction of the head according to its thickness.—The head may be impacted, according to its thickness, in two different positions.

First Position. Relations.—The occiput corresponds directly to the left side of the pelvis, and the fore-head to the right side.

Second Position. Relations.—The occiput corresponds with the right side of the pelvis, the fore-head with the left side.

Indications to fulfil.—1. If the infant is dead, it is better to open its cranium, in order to diminish its volume, and to extract it then by means of hooks.

2. If the child is living, we must extract it by means of the forceps. But on what part of the head are we to apply the branches ?

M. Capuron, convinced that we can always return the head, rejects the application of the forceps on the face and occiput, and advises in all cases to return it, and then to apply the branches on the lateral regions. He thinks that the instrument adds very little to the thickness of the head, which besides suffers a sufficient reduction for it to be afterwards possible to draw it into the hollow of the pelvis.

If we can return the head above the superior strait, we think, with M. Capuron, that we ought to apply the branches of the forceps on the lateral regions of the head, and we should attend for their introduction to the

relations of the occiput with the pelvis. If it corresponds to the left, we introduce the branches as for the first and third diagonals. If to the right, it is to be treated as the second and fourth diagonals. But if it should happen that we cannot return the head above the superior strait, we think, with the Professor Baudelocque, that we ought to place one of the branches on the face, and the other on the occciput.

We follow for the application of the forceps, the rules already laid down, on the occasion of the direct positions. We draw the head into the hollow of the pelvis, in following the axis of the superior strait, and we replace then the branches on the lateral regions of the head.

In order to simplify as much as possible this second application of the forceps, it is necessary to withdraw from the parts that branch only, which according to the relations of the occiput, ought to be applied behind: it being understood that for the replacing the branches, the rules laid down for the transverse positions are to be followed.

Positions of the Face.—The face of the fœtus can take six principal positions at the inferior and superior straits of the pelvis. Of these six positions, two are direct, the other four are diagonal.

Indications to fulfil.—The positions of the face present two indications to fulfil: the one consists in returning the infant to bring it down by the feet: the other to rectifying the head.

If the changing of the infant is possible, we would treat it as in the positions of the vertex; and in the contrary case, we must endeavour to bring the occiput, in order that the head may present by one extremity of its greatest diameter. We can rectify the occiput by the help of the hand only: we have described when on the anterior region of the trunk.

It can be rectified by means of the lever, as we shall shew when treating of the application of that instrument.

When we have rectified the head by one or other of these means, we abandon the labour to nature, unless any accident should oblige us to have recourse to the forceps, which ought then to be applied as in the positions of the vertex. But it may happen that the occiput cannot be lowered either by the hand alone, or by the lever: then we must have recourse to the forceps.

Positions of the Face at the inferior strait. First direct Position. Principal Relations.—The fore-head corresponds to the symphisis pubis, and the chin to the curve of the sacrum.

Marks which characterize the position.—We have already pointed them out, when on the anterior region of the trunk.

Application of the Forceps.—We introduce the branches, observing the rules prescribed for the direct positions: but here the head can be seized only in its occipito-frontal diameter. Once the forceps applied, the handle is seized with one hand, and the occiput lowered, whilst with the other hand placed beneath the branches, we return the face into the interior of the pelvis. When we have rectified the head, we separate the branches without disarticulating them, and we pass them into the direction of the occipito-mental diameter, by raising the handles of the instrument: we terminate then as in the first direct of the vertex.

Second direct Position. Principal Relations.—The fore-head corresponds to the curve of the sacrum, and the chin to the symphisis of the pubis.

Application of the Forceps.—The same as in the preceding position,

except that, as it is possible to seize at once the head in its occipito-mental diameter, by keeping the handle of the instrument much elevated, it would be quite useless to endeavour to bring down the occiput, since the chin can be first disengaged.

The obstetrician will place himself to the right or the left of the forceps, disposing of his hands, as has been already directed for the inferior strait. Then giving lateral movements to the head, he will first lower the handle of the instrument to disengage the chin from beneath the pubis; after which he will turn it back on the abdomen of the mother, in order to disengage the occiput which is behind.

First Diagonal. Principal Relations.—The fore-head corresponds to the left cotyloid cavity, and the chin to the right sacro-iliac symphisis.

Application of the Forceps.—The face being placed in diagonal, the two branches of the forceps ought to be introduced according to the rules established for such positions. But here, as in the first direct, the head can be seized only in its occipito-frontal diameter: then the obstetrician, after having brought the face into the first direct, ought to treat it as such a position.

Second Diagonal. Principal Relations.—The fore-head corresponds to the right cotyloid cavity, and the chin to the left sacro-iliac symphisis.

Application of the Forceps.—Exactly the same as in the second diagonal of the vertex: except the head, as in the preceding position, can be seized only in the occipito-frontal diameter. The obstetrician, placed behind the instrument, will bring the face into the first direct, and will treat it as such a position.

Third Diagonal. Principal Relations.—The fore-head corresponds with the right sacro-iliac symphisis, and the chin to the left cotyloid cavity.

Application of the Forceps.—The branches of the instrument ought to be applied according to the rules for the first diagonal: but here the head can be seized in the occipito-mental diameter, and to do this, it is sufficient to keep the handle well raised. The obstetrician, placed behind the instrument, will bring the face into the second direct, and terminate as in that position.

Fourth Diagonal. Principal Relations.—The fore-head is directed towards the left sacro-iliac symphisis, and the chin to the right cotyloid cavity.

Application of the Forceps.—The same as in the second diagonal: except that the head can be seized in its occipito-mental diameter.

The obstetrician, placed behind the instrument, will bring the face into the second direct, and terminate as in that position.

I. If the fore-head corresponds directly to the left side of the pelvis, and the chin to the right, it is treated as in the first and third diagonals.

II. If the fore-head corresponds directly to the right of the pelvis and the chin to the left, it is treated as in the second and fourth diagonals.

Positions of the Face at the Superior Strait.—The face presents at the superior strait, in the same positions as in the inferior.

The relations of the head with the pelvis being exactly the same as at the inferior strait, except that the parts are less engaged, we do not think it necessary to repeat them at each position.

First direct Position. Application of the Forceps.—The same exactly as in the corresponding position of the vertex. Here, as at the inferior strait, the

head can only be seized in its occipito-frontal diameter. The obstetrician, placed to the right or left of the instrument, will return the head a little above the superior strait, and change the position into the first or second diagonal of this strait. He will treat it then, as we shall speedily indicate, when speaking of these positions.

Second direct Position. Application of the Forceps.—The same as in the corresponding position of the vertex. Here the head can perhaps be seized in its occipito-mental diameter. We return it a little above the superior strait, and change it into the third or fourth diagonal, to be treated as such.

First and second Diagonals. Application of the Forceps.—The same as in the corresponding positions of the inferior strait: except that the branches and the hand which conducts them, ought to be passed deeper. Once the instrument applied, we draw the face into the first or second diagonal of the inferior strait, inclining the forceps towards the corresponding thigh, and it is treated exactly as in that position.

Third and fourth Diagonals. Applicaiion of the Forceps.—The same as in the corresponding positions of the inferior strait: except that the branches are carried further. When the forceps are applied, we draw the face to the inferior strait, and terminate exactly as in the positions of this strait.

1. If the forehead corresponds directly to the right, or to the left of the pelvis, we apply the forceps, and terminate exactly as in the corresponding positions of the inferior strait, after having drawn the head into the cavity.

Application of the Forceps, the trunk being external.—The head, after the birth of the trunk, may be stopped at the superior or the inferior strait of the pelvis. It may take at either strait, six principal positions: namely, two direct, and four diagonal.

In all these positions the principal relations of the head of the fœtus, with the pelvis of the mother, are the same as in the positions of the vertex: except that instead of the occiput, it is the chin which presents first. The forceps ought to be applied according to the same rules, since the positions are alike.

Positions of the head at the inferior strait, the body being born. First direct. Principal Relations.—The occiput corresponds to the arch of the pubis; the face is in the cavity of the sacrum.

Application of the Forceps.—An assistant raises the body and arms of the fœtus. During this time, the obstetrician introduces the branches of the forceps beneath, in order to seize the head in the direction of its length. When the instrument is articulated, he gives it lateral movements, and terminates the disengaging the head, by turning back the handle of the forceps on the abdomen of the mother. In this last part of labour one of the hands ought always to support strongly the perinæum.

Second direct Position. Principal Relations.—The occiput is in the cavity of the sacrum, and the fore-head under the arch of the pubis.

Application of the Forceps.—In this position, we must apply the forceps above, in order to seize the head in its occipito-mental diameter. An assistant supports the body of the fœtus. When the instrument is applied, the obstetrician supports strongly the perinæum with one hand, and with the other he lowers the handle of the forceps, to disengage the face from beneath the pubis.

First Diagonal. Principal Relations.—The occiput corresponds to the left cotyloid cavity, and the forehead to the right sacro-iliac symphisis.

Application of the Forceps.—The branches ought to be placed below the fœtus, which an assistant keeps raised. We then bring the head into the first direct, and terminate as in that position.

Second Diagonal. Principal Relations.—The occiput corresponds to the right cotyloid cavity, and the fore-head to the left sacro-iliac symphisis.

Application of the Forceps.—We must introduce the branches beneath the fœtus, and change it into the first direct, and terminate as in that position.

Third Diagonal. Principal Relations.—The occiput corresponds to the right sacro-iliac symphisis, and the fore-head to the left cotyloid cavity.

Application of the Forceps.—In this position we must introduce the branches above the fœtus, in order to seize the head in the direction of its length. We then rotate it, which brings the face under the pubis, and the occiput in the cavity of the sacrum, and we terminate as in the second direct. If we find too much difficulty in introducing the branches above the fœtus, we must introduce them below, and treat it, as we shall speedily direct, when speaking of the same positions at the superior strait.

Fourth Diagonal. Principal Relations.—The occiput corresponds to the left sacro-iliac symphisis, and the fore-head to the right cotyloid cavity.

Application of the Forceps.—We ought here to apply the forceps above the fœtus, in order to seize the head in its occipito-mental diameter. We then rotate it, and terminate it as in the second direct.

If we find too much difficulty in introducing the forceps above the fœtus, we must introduce it beneath.

1. If the occiput corresponds directly to the left of the pelvis, and the fore-head to the right, we should treat it in regard to the application of the forceps, as in the first and third diagonals.

2. If the head is in an inverse position, we should conduct it as in the second and fourth diagonals.

Positions at the superior Strait.—The relations of the head of the fœtus being the same as at the inferior strait, except that it is less engaged, we shall not repeat them at each position.

First direct Position. Application of the Forceps.—The branches ought to be introduced below the fœtus, which an assistant raises. When the forceps is applied, we return the head above the superior strait; we change it into the first or second diagonal, according as we place ourselves to the right or left of the instrument: we draw the head to the inferior strait, and terminate as in the positions of that strait.

Second direct Position. Application of the Forceps.—Here, although the face is forwards, we must apply the branches below the fœtus. In this manner the head is seized in its occipito-frontal diameter. We return it above the superior brim, and change position into the third or fourth diagonal. We draw the head to the inferior strait: we rotate it, and bring it thus to the second direct. But the head is badly seized for it to pass the inferior strait: we must then, unless the pelvis is very large, or the head small, disarticulate the forceps, without withdrawing them from the parts, raise the right branch, lower the left, and make the body of the fœtus to pass between them. We rearticulate the instrument in front

of it, and by this manœuvre, the head is found seized in the direction of its occipito-mental diameter. We terminate the labour then as in the second direct position.

First and Second Diagonals. Application of the Forceps—The forceps ought to be applied in the same manner as in the corresponding positions of the inferior strait: except that the branches, and the hand which conducts them, ought to be carried further. The obstetrician places himself behind the instrument, and draws the head to the inferior strait, carrying the handle of the forceps to the corresponding thigh. He then rotates the head, and terminates the labour, as in the first direct of the inferior strait.

Third and Fourth Diagonals. Application of the Forceps.—Here it is indispensable to place the branches beneath the fœtus. We draw the head to the inferior strait, carrying the handle of the forceps towards the corresponding thigh, and we rotate, which brings the face under the pubis, and the occiput in the cavity of the sacrum. We disarticulate the forceps then, without withdrawing it from the parts, we pass the fœtus between the branches, and we rearticulate the instrument above. The head is seized in the direction of the length, and we terminate the rest of the labour as the second direct of the inferior strait.

1. If the occiput corresponds directly to the left or the right side of the pelvis, we apply the forceps, and terminate it exactly as in the corresponding positions of the inferior strait, after having drawn the head into the hollow.

Review of the different Applications of the Forceps.—In whatever manner the head presents, whether it be by its vertex, by its face, or by its base; whether it be stopped at the inferior or superior strait, the application of the forceps is always performed according to the same rules. To be properly placed, the instrument ought to seize the head laterally, and in the direction of its length, so that the occiput and chin be extracted first.

Positions of the Inferior Strait. Direct Positions.—In all the direct positions of the inferior strait, whatever part of the head presents, we place first the left branch with the left hand, and then the right branch with the right hand. We articulate the instrument, the pivot or joint of which ought to correspond to the centre of the vulva, and we place ourselves indifferently to the right or the left. Then seizing the forceps with the two hands, placed one below the handle, the other above the branches near the genitals, we move the head laterally, and disengage by turning over the instrument on the abdomen of the mother, if the face is beneath; and in lowering it powerfully if it is above. The hand, which is near the genitals, ought to be carried in front of the perinæum, when the head is on the point of escaping.

Diagonal Positions.—In all the diagonal positions of the inferior strait, whatever part of the head presents, we are guided, for the application of the forceps, on the relation of the occiput or forehead with the cotyloid cavities of the pelvis.

Each time that the occiput or forehead corresponds to the left cotyloid cavity, we introduce the two branches with the right hand, beginning with the right branch.

Each time, on the contrary, that the occiput or the forehead corresponds with the right cotyloid cavity, we introduce the two branches with the left hand, beginning with the left branch. We articulate the instrument, and

we place ourselves constantly behind it. Seizing then the forceps with the two hands, placed, one under the handle, and the other above the branches, near the genitals, we rotate the head, and terminate as in the first or second direct, according to whether the occiput or the forehead is brought under the arch of the pubis.

1. If the occiput corresponds directly to the left side of the pelvis, we treat it as in the first diagonal.

2. If to the right side of the pelvis, we treat it as the second diagonal.

Positions of the superior strait. Direct Position.—In all the direct positions of the superior strait, whatever part of the head presents, we apply the forceps as at the inferior strait: except that the branches and the hand which conducts them are passed deeper. The instrument being applied, we seize it with the two hands, placed, one above the handle, and the other below the branches, the index extended as far as the head; we return this back, giving it slight lateral movements, and replace it in the diagonal of the superior strait. That being done, we draw it into a diagonal of the inferior strait, inclining the handle of the forceps towards the corresponding thigh, and we treat it then as in the positions of this strait.

Diagonal Positions.—In all the diagonals of the superior strait, whatever part of the head presents, we introduce the forceps in the same manner as at the inferior strait, except that the branches, and the hand which conducts them, ought to be carried farther. The instrument being articulated, we place ourselves behind it, and we seize it with the two hands, applied one above the handle, the other below the branches; the index extended in the parts. We draw the head into a diagonal of the inferior strait, and terminate then as in the positions of this strait.

1. If the occiput corresponds directly to the left side of the pelvis, we treat it as in the first diagonal.

2. If to the right of the pelvis, we treat it as in the second diagonal.

Of the Lever.—Obstetricians, says M. Desormeaux, designate by this name, an instrument intended by its inventors, to act as a lever on the head of the fœtus, and to oblige it to descend across the canal of the pelvis, and genital organs. The origin of this instrument is yet very obscure. Its invention is most commonly attributed to Roger Roonhuysen. The lever at present used resembles very much a branch of the forceps, not curved at the borders.

One of the extremities, which we may call "cuiller," is constituted as that of the forceps, by two cheeks, ("jumelles,") separated from one another by a long opening. These two cheeks are curved on their surfaces, so as to present on one side, a concavity to accommodate the convexity of the head of the fœtus, and on the other a convexity to accommodate itself to the concavity of the pelvis. The other extremity of the lever is furnished with a piece of wood, and constitutes the handle of the instrument.

Nota.—One of the branches of the forceps, in spite of its new curve, may very well replace the lever; nevertheless, as M. Desormeaux has judiciously observed, the lever, properly so called, is preferable when it is necessary to make direct traction on the occiput.

If we use a branch of the forceps, in the diagonal positions, we must use the right branch, when the occiput is to the right of the pelvis, and the left branch when to the left. In the direct positions we may use either: in all cases, that which is used ought to be introduced by the corresponding hand.

Use of the Lever.—The use of the lever is employed chiefly to rectify the occiput, and to exercise direct traction on it, to bring it to the centre of the pelvis, when it is turned on the back of the infant, as it happens in the positions of the face. The lever can be applied at the superior and inferior straits.

Positions of the Face at the inferior Strait. First direct Position.—The occiput, turned back, corresponds to the pubis.

Application of the Lever.—One of the hands being introduced into the vagina, we pass the lever on the side of the head, and then bring it with the fingers on the occiput, lowering strongly the handle of the instrument. Once the lever applied, we raise the handle, and seize it with one hand, whilst we place the other above, near the pubis. With the first, we draw to ourselves, in lowering: with the second, we press strongly the head from before backwards.

If we do not succeed in this manner in rectifying the occiput, we must, at the same time that we are acting on the lever, push the face backwards with some of the fingers of the hand placed near the pubis. Once this see-saw motion (movement de bascule) performed, the labour will terminate commonly by itself, or else we may have recourse to the forceps, if circumstances require it.

Second direct.—The occiput corresponds to the sacrum.

Application of the Lever.—In this position, we glide the lever in front of the sacrum, and as far as above the occiput; and when we are certain it is properly placed, we seize it near the perinæum with one of the hands, and with the other we draw on its extremity, raising it by degrees. If we find much difficulty in bringing down the occiput, we ought to assist the see-saw motion by pushing back the face with some fingers of the hand placed near the parts.

Nota.—In this position it is preferable to employ the forceps, since we can at once seize the head in the direction of its length, and bring out the chin first.

First and Second Diagonals.—In the first the reversed occiput corresponds to the left cotyloid cavity; in the second, to the right.

Application of the Lever.—One of the hands being introduced in the parts, we glide the lever on the side of the head, and bring it then behind the occiput, which is lowered as in the first direct. Once the head rectified, we abandon the labour to nature, or else we apply the forceps, if necessary.

Third and Fourth Diagonals.—In the first case, the reversed occiput corresponds to the right sacro-iliac symphisis, and in the second, to the left.

Application of the Lever.—In these positions we introduce the lever, and we treat it exactly as in the second direct.

Nota.—In these two last positions, the forceps is preferable to the lever, since we can seize the head in its occipito-mental diameter, and disengage the chin first.

1. If the reversed occiput corresponds directly to the right or the left of the pelvis, we treat it as in the third or fourth diagonals.

Positions at the superior Strait. First and Second Direct.—The same relations as at the inferior strait, but less engaged.

Application of the Lever.—Exactly as at the inferior strait: except that, as we lower the occiput, we must endeavour to bring the head to a diagonal.

Diagonals.—Same relations as at the inferior strait, except that the head is less engaged.

Application of the Lever.—To be treated exactly as at the inferior strait.

1. If the occiput corresponds directly to the right or the left of the pelvis, we treat it as in the third or fourth diagonals.

Nota.—The lever is less useful at the superior strait than at the inferior, and many obstetricians prefer the forceps.

Of the Blunt Hooks.—The blunt hooks used for the extraction of the fœtus have not all the same shape; some represent a curve more or less open; others form with the principal branch of the instrument almost a right angle.

The handle is commonly made of wood.

Nota.—The two blunt hooks at the end of the forceps will serve instead of these.

Use of the Blunt Hooks.—The hook, bent at an acute angle, is destined to be applied in the hollow of the arm-pit, when the shoulders being retained in the pelvis, the fingers cannot extract it. It will also serve to extract the knees at the inferior strait; and it may be applied in the mouth to finish the extraction of the head, after turning a dead child.

The rectangular hook is destined solely for the bend of the hip, in the breech positions at the inferior strait. M. Desormeaux thinks that the finger will frequently serve instead of the blunt hook.

Introduction of the Blunt Hook.—There are not any determined rules for its introduction: the only precaution necessary is to precede it with the finger, in order to know well the disposition of the place we intend to apply it to. Once introduced, if it embraces a limb, it ought to be seized by the hand corresponding to that limb; and in extracting the fœtus, we ought to take care to direct it in the different axes of the pelvis.

II.—*Physiologie Midicale et Philosoqhique.*--Par Alm. Pelletier, de la Sarthe, quatre volumes, vol. i. Paris, avec huit planches et des tableaux synoptiques.

Medical and Philosophical Physiology.—By Alm: Pelletier, *de la Sarthe.* Vol. 1. 8vo. pp. 495. Paris Feb. 1831, with eight engravings and *synoptic* tables. G. Bailliere, Regent Street.

A work from the pen of Pelletier leads us to expect something superior, and we must own that we have not been deceived. The study of physiology is now more attended to than formerly; and we are not without hope that *separate attendance* on lectures on physiology will be soon required by our corporate bodies, as it is impossible that any lecturer, teaching other branches of the medical science, can do justice, bare justice, to this highly interesting subject. It is so closely allied with the other sciences, which students are *required* to learn, that we have no hesitation in saying that they cannot be studied, well studied, without a knowledge of physiology: and, *vice versa*, neither can physiology be intimately known without an acquaintance with anatomy, medicine, pathology, &c. Since then, a

knowledge of physiology is necessary to make a good physician, or a good surgeon, is it not strange that the college has not yet required it to be duly attended to? We are far from intimating that every one, or any one should be so well acquainted with all these sciences, as to be able to lecture on them: not so, but each medical man should have a general knowledge, and he will find that the study of the one will materially aid him in acquiring the others, just as a knowledge of the Latin language assists greatly the French and Italian student.

M. Pelletier, although a chemist, does not allow himself to attribute every thing to chemistry, as many scientific gentlemen of the present day have done: *he does not ride a hobby.* Our author, in the historical part, comprised in the introduction, divides it into epochs, each marked by some peculiar theory; as the humoral, the al-chemical, the epoch of the animists, &c., &c.

While describing the epoch of chemistry, he thus speaks of those who make every thing subservient to their peculiar studies.

"They explain the theory of respiration enthusiastically, and yet very speciously, by the combustion of hydrogen and carbon in the venous blood, by means of the oxygen of the atmosphere: all the phenomena of life by electricity, galvanism, capillary attraction, attraction, affinity, cohesion, elasticity, weight, &c. Diseases are attributed to the relaxing or tension of fibres, to the development of an alkali, or of an anormal acid in the humours, to maceration, putrefaction, &c. Therapeutics are reduced by them to the simple results of analysis and synthesis: they see in the different organs only electric machines, voltaic piles, retorts, recipients, and they take the human frame for a real chemical laboratory.

These false inductions lead a second time to all the wanderings of animal magnetism, the fallacious applications of which gave an usurped reputation to D'Eslon and Mesmer, who were skilful only in the art of duping public credulity." Introduction, p. 20.

It is too true, that men of science and of the deepest acquirements, have allowed themselves to be led away by their enthusiasm in their pursuits, and have endeavoured to apply them in explaining phenomena, to which they are totally inapplicable. It is not many years since Dr. Thomson, the scientific chemist of Glasgow, attempted to explain the *theory of digestion by the disengaging muriatic acid from the muriate of soda taken at dinner.* Our author finally decides upon VITALISM as the true foundation of Physiology. In the article on *animism,* he gives the immortal Harvey due praise, and fairly concedes to him the discovery of the circulation of the blood: his words are, "before this celebrated physiologist, the circulation had doubtless been partially described by Vesalius, Hunter, Cesalpinus, &c., but it was not entirely appreciated, and we vainly endeavour to contest with the former (Harvey) the advantage of having made known the complete circulatory apparatus, of having fully exposed the natural course of the fluids in the living economy." We are sorry we cannot perceive a similar nobility of mind in the article on Vitalism; when speaking of physiology among the foreign eminent writers on that subject, he names only two English ones: his authors are, Hunter, Blumenbach, Monro, Spallanzani, Fontana, Moscati, Troja, Cotunni, Scarpa, &c. He then breaks out thus.

"Medical physiologists, returning to the principles of Hippocrates,

after more than twenty ages of wandering, have at last felt that experience and experiments are the only certain guides to conduct to truth. In ascending to this divine and always pure source, in meditating the writings, in following the precepts and example of the *old man of Cos*, they have rendered to the science of life the noble character that it ought never to have lost, and ignorance or bad faith seek in vain to contest it at present. Gratitude and honor to the authors of this precious renovation! Haller, Pinel, Bichat, Richerand, Dumas, Bordeu, Cabanis, Roussel, Chaussier, Dupuytren, Alibert, Cuvier, Dumeriel, Broussais, Roux, Pelletan, Magendie, Beclard, Marjolin, de Blainville, Adelon, &c.: your names are inscribed for ever on the base of this physiological monument. Honor and gratitude to the vast genius who served as your compass and helm on this ocean without coasts." p. 32.

We do not complain against our author for raising his own countrymen so high, it is perhaps a good, an honorable feeling which has induced him to do so, but justice should be done unto all; many of our own countrymen are well worth a niche in the temple, or of being sculptured on the monument he has raised. The names of Bell, Mayo, Elliotson, Bostock, Barry, Morgan, Addison, Wilson Philip, Milligan, Alison, &c., are not so insignificant, nor so little known in the medical world, as not to deserve being mentioned.

The conciseness of the following classification, and the excellence of the arrangement induce us to extract it:—

" *The Classification of Beings.*—Bodies are naturally divided into two principal classes: 1st. *Celestial bodies. Qy. Sublunary bodies.*

" *Celestial bodies,* which we mention only to give an idea of the whole, are designated collectively by the name of *stars.* These are divided into two orders: 1st. *luminous stars* offering their own light, the Sun, and the fixed stars: 2.—Stars not luminous, presenting only a refracted light: the different planets. The re-union of all these bodies, and the space which encloses them, constitute the *Heaven* or *firmament:* the power which puts them in motion is designated by the term *attraction:* the admirable equilibrium which presides over their phenomena, the marvellous order which reigns in all the parts of this imposing whole, receives the name of *celestial economy.*

" *The sublunary bodies,* which compose the air, earth, waters, and all the material beings enveloped in these different media, are divided into two principal orders, namely, *inorganic* and *organic* bodies.

" *Inorganic bodies* are all those, in which we do not meet with any texture proper to form instruments susceptible of aiding by their action in the increase or preservation of the individual, or the propagation of the species.

" *Organised bodies* are all those in which we observe tissues which, by their union, constitute organs, that, in grouping towards one common end, form apparatus, the principal functions of which have for object the increase of the individuals to repair their habitual losses, and to perpetuate the duration of the species. They are divided into *vegetables* and *animals.*

" *Vegetables,* reduced to nutritive and generative functions, possess only partial, very limited movements, never a general loco-motion.

" *Animals*, independantly of these functions, entertain with all that surrounds them, at least the greater part of them, relations of another kind; they enjoy the faculty of changing place by an action which is particular to them. Among them we find, *animals properly so called*, and *man*.

" *Animals properly so called*, are limited to instinct, and never possess a knowledge *of self*.

" *Man*, the especial object of our study, by the superiority of his organization, and still more by his intelligence, *morality*, his conscience, attributes peculiar to his species, leaves between animals and him an immense interval, that nothing can fill up.

" The *ensemble* of these bodies, the mutual connexion of their phenomena, the reciprocal counter-poising of the different laws which govern them, form *nature, natural economy:* this united, with *celestial economy*, constitutes *that infinite whole*, which we term *universe, universal economy*.

" All bodies, without exception, are formed of elements, the number of combinations of which vary according to the species.

" *Elements common to the inorganic and organic bodies. Essential to organized bodies*, oxygen; hydrogen, nitrogen, and carbon; *accessary to organized bodies*, phosphorus, sulphur, chlorine, iodine, silicium, aluminium, magnesium, calcium, sodium, potassium, manganese, iron, *copper*, (cuivre). Berzelius adds (pthore), which he says he has met in the bones: some old chemists assure us that they have found gold in the vegetable kingdom: these facts require new experiments.

" *Elements particular to inorganic bodies.*—They are very numerous, and comprehend all those which are not indicated in the series of elements, common to, inorganic and organic bodies.

" *Elements particular to organic bodies.*—We find in the organic kingdom a great number of compound matters, which are not met with in the inorganic. It is not so with the elements: all those of the first kingdom belong equally to the second.

" *Oxygen, Hydrogen*, and *Carbon*, essential principles of organic bodies, are common to animals and vegetables.

" *Nitrogen* is particular to the first, at least it is met with in very few of the vegetable families, and especially in that of the cruciferæ.

" *Nitrogen* constitutes the elementary base of animal substances: *carbon* forms that of vegetables.

" The elements we have just enumerated, are found very rarely in a state of simplicity in the living economy: they are almost always in a state of combination."

" *Vegetables* are always composed of at least three elements—*oxygen, hydrogen*, and *carbon:*" " *animals*, considered in a general manner, offer always at least four elements in their composition—*oxygen, hydrogen, carbon*, and *nitrogen*.

" Inorganic and organic bodies differ in their *origin;* the origin of inorganic bodies is fortuitous: that of organic bodies is the *result of generation:* they differ in the *product of the new formation:* the product of the inorganic bodies is frequently very different from the bodies producing it: of the organic bodies, it is the same body in miniature, *in figure;* in the inorganic kingdom, we perceive all these surfaces terminated in *straight lines*, forming triangles, squares, rhomboids, the different regular and

irregular polygons, &c.: in the organic kingdom, on the contrary, the *curved line* seems to be the exclusive direction of the figures, the round form being the most prevalent: *in the constituting elements,* the inorganic bodies offer very few elements in their composition; many of them are simple, as iron, copper, gold, sulphur, &c.; the organic are always composed of three—*oxygen ,hydrogen* and *carbon*; the animals possess a fourth, *azote: in unity of composition in the same species;* this also offers a remarkable difference: the composition being always the same in the inorganic, frequently very different in the organic bodies *in their natural state:* inorganic substances may, from a *solid* become *liquid, gaseous,* or *vapoury,* and return again to their natural or solid state, without undergoing destruction: organic bodies are composed of solids and liquids, which can never be brought to the gaseous state without undergoing an irreparable disorganization: *in homogeneousness,* and *structure,* they likewise differ considerably: so also in *increase of volume:* in the one, being increased by external means, owing to affinity: in the other, by internal means, by *intus-susception,* or the taking within proper nutrition: in the *mode of existence, in the temperature,* inorganic substance possesses latent heat only; when it becomes raised or lowered, it is in consequence of its borrowing or yielding caloric: organic bodies enjoy an independant, regulated temperature, particular to each species, not to say to each individual: in motion, inorganic bodies are *moveable,* but not *motile;* organic bodies are both *moveable* and *motile:* in *transmission of existence*—this power is possessed only by organic bodies: *in decrease,* in the one it is irregular, in the other, it takes place regularly and gradually: *duration;* the first may be indefinite in its duration; the last is always finite: they also differ materially in *chemical alterability and analysis:* we can decompose and recompose inorganic substances, but we cannot recompose organic substances after decomposition has taken place: we cannot restore the principle of life.

" In endeavouring to establish the differences between vegetables and animals, we experience greater difficulties than in ascertaining the distinction between inorganic and organic substances: in forming two pyramids of the animal and vegetable kingdoms, we find the bases comprehend organised substances the most simple in their structure and in their functions, so that these bases are confounded together, and we feel the impossibility of establishing any positive distinctions. What difference can we admit, in the actual state of science between the *algæ, fuci, fungi,* of the vegetable kingdom, and the unformed individuals *(in dividus amorphes)* such as, *sponge, corals,* &c. placed on the first step of the animal ladder?

" The chief differences are in their *origin,* the *product of fœcundation,* their *symmetry, constituent elements, proportions of solids and fluids,* the latter preponderating greatly in animals, *hermaphrodism,* there being no real hermaphrodite among animals, whether natural or monstrous, in *vitality, nutrition, respiration, increase, temperature, motion, decrease, death, and spontaneous decomposition. Of the distinctions between man and animals:* philosophers and materialists, have placed man at the highest step in the series of animals: many of them, in confounding him with these latter, have abused some superficial analogies, assuming them as essential characters of perfect identity." Without doubt, by the laws of his

organization, and by his physical wants, man presents some points of contact with animals: we will add that by his composition, he participates in some sort with the three kingdoms: *in the mineral*, by his bones: *in the vegetable*, by his fibrous tissues and *in the animal*, by his muscular, nervous apparatus, &c. But he belongs more to the third, than to the second; to the second than to the first." If man belongs to the three kingdoms, then almost all animals do the same: as by far the greater part possess *bones*, *fibrous tissue*, and a *muscular*, and *nervous apparatus*. If the word *animal* is derived from *anima*, a soul, it is, strictly speaking, applicable to man, and to man only: it is from animare, to breathe; it is applicable to vegetables likewise, as they have a kind of respiration. It is rather a vague term to found a philosophical system on.

Man differs from animals in his *origin*; animals copulate only at a certain season of the year, spring; man at all seasons. Animals possess copulative powers until a very late period of life; man only for a certain period, more or less long. *In existence*, animals can inhabit only certain parts of the globe: those which are peculiar to Africa, could not exist near the poles, and vice versâ; man can inhabit all regions alike. *In station and progression*, animals never present naturally the spine in a vertical position; man is, on the contrary, essentially vertical and biped. *In power: in animals*, power is always more or less limited. Has the subtle fox, the fatal rattlesnake, the royal lion, the colossal elephant, the mighty whale, ever vanquished man, when seconded by all the means which he can employ for attack or defence?

"*In intellectual faculties: among the most perfect animals*, we see all the intellectual faculties limited by the circle of physical wants. These animals think, judge, and reason: to seek to destroy this truth, would be at the same time to bring in doubt the most positive and evident facts; but what is the last, the unique end of these ideas, of this judgment, of this reasoning?—the preservation of the individual, the propagation of the species. After the conceptions relative to the means of procuring food, of assuring themselves of a peaceable refuge, of fecundating their companions, of raising their offspring, of conquering by force the weaker, by stratagem, the stronger animals: of repelling the aggressions of the one, and deceiving or avoiding the attacks of the others, &c.; where are the ideas of self, of justice, injustice, of truth, falsehood, evil, good, of the grand, of the sublime, &c.; finally, of something moral and superior to organic wants?

"*In man*, on the contrary, if we meet, on the one part, with ideas equally enclosed within the sphere of material necessities, do we not find others which are entirely strangers to them, which in their sudden transports raise him from the earth, to carry him into a new and almost divine sphere?—Laws of matter, corporeal phenomena, organic wants, ye disappear: belief in a Creator, of free will, of an independent existence, hatred of vice, love of virtue, traits of genius, conception of the most sublime truths, you become the celestial elements which constitute him; the sacred fire which warms, animates, and inflames him, in communicating to him that purely intellectual life which makes him exist in a world, for ever a stranger even to those animals, which seem to approach it the more nearly." Such is the language of one of the greatest chemists and best physiologists of the day: he shews by this, that he not only understands the laws of organic matter, as developed by chemistry,

but that he is equally conversant with the intellect of man; and by this has proved himself as good a physiologist and philosopher as chemist. This paragraph affords a splendid answer to materialism: we cannot conceive how any man can advocate such a doctrine. The very power of thinking, the voice, the hearing, the smell, the sight, must all become material, if the soul is material. The idea is repugnant throughout to the Christian religion. If the souls of men are material, where are they to exist during their separation from the bodies; there must be a material world to receive them? If they are material, at the separation from the body, they must be visible, as existing matter is tangible to the sight and to the touch, yet we never hear of such occurrences taking place. However, it is useless pursuing the subject further.

Man likewise differs from *animals* in his *passions*. In animals these consist merely of those caused by natural wants—such as *love, hatred, gaiety, sorrow, gratitude, resentment,* &c.: in man we find, in addition to mere animal passions, others which seem sometimes to conquer the re-actions of his organization. Thus benevolence and philanthropy cause injuries to be pardoned, resentment to be extinguished, and carry us sometimes even to load with favours those who expected only vengeance and reprobation. Thus the love of virtue, or of glory impose privations on man which he supports with courage: *man alone recognizes a Creator, man alone feels the need of a divine worship, because he alone conceives the idea of a future existence.*"

Passing over the fifth, sixth and seventh chapters, which contain *the alteration of bodies,* by the processes of *increase, diminution, perversion,* and *destruction:* the *properties of bodies, physical* and *vital,* and the *principal differences between physical and vital bodies,* we come to the eighth chapter on the *reciprocal influence of physical and vital bodies.* "*In regard to diseases:* during the course of morbid alterations especially characterized by a great weakening of the *vital powers,* we observe the *physical forces* acquiring gradually a more or less dangerous predominance, but offering always as their immediate effect the development of *anormal phenomena* in contradiction to the *phenomena of life.* This important consideration discovers to us the principle of a great number of vital anomalies, which would remain absolutely incomprehensible without it. We could cite the gases disengaged in abscesses of a bad character, the putrefaction of animal fluids in their own reservoirs, the alterations of tissues, intermediate to the healthy state, to gangrene, &c." The following fact may serve as a demonstration of the fundamental truths we have just established.

"In the month of August, 1824, Isidore L——, a child seven years old, of a weak constitution, a nervous temperament, suffered all the symptoms of an acute encephalitis, which became fatal, after having passed through all its periods, and presented towards the fifteenth day all the signs of a purulent effusion. During the last eight days, a retention of urine came on, owing to palsy of the bladder: a silver catheter, introduced in the bladder, caused the child to complain: the palsy was not then complete: the urine was thick, muddy, of a greyish colour; it exhaled a putrid odour: the catheter being withdrawn, that part which had been passed into the fluid, was found to be *as deeply blackened* as if it had been passed into a solution of the hydro-sulphate of potass: the catheter being passed several times a day, the same results ensued. Is it not evident that the putrefaction of the urine in the bladder had produced a hydro-sulphuric

acid, which formed an hydro-sulphate of silver on the catheter, and thus blackened it: is it not equally incontestable that this fermentation of the urine could not be established except at the time when the *vital powers* had no longer energy enough to counter-balance the action of *chemical affinity? These pathological phenomena* reconciled with the *natural living phenomena,* would be alone sufficient to demonstrate the presence of *the powers of life* in the organization actually endowed with active existence, if we could yet raise doubts on the reality of these powers."

Whether the ingenious explanation of M. Pelletier be just or not, we shall not pretend to say, but the pathological fact itself is curious: we think however, that our author did not shew his usual *chemical* acumen in this case: he should have tested the urine to ascertain whether or not it was the hydro-sulphuric acid which was present, and caused the blackening of the catheter. Hypothesis and surmise should *never* be admitted in medical science: all should be certainty.

The distinction between *physical* and *vital* functions, &c. is well pointed out in the tenth chapter on the phenomena and functions of bodies. The description is so clearly given, and the distinction so well shewn, that we feel tempted to extract it.

"By a necessary consequence of all that precedes, functions are naturally divided, like the *properties* and the *phenomena,* into two principal orders, *physical* and *vital.* The sun appears each day in our horizon with a regularity of movement, which allows its return to be calculated mathematically: it exercises a vivifying influence over the whole hemisphere, which it enlightens at the same time. This is a great compound action belonging to the universal economy, a *physical function.* The aliments introduced into the mouth are submitted to gustation, mastication, and insalivation, arrive in the stomach, are converted into chyme, pass into the duodenum, where the separation of the chyle and excrementitious matters is effected by the mixture of the biliary and pancreatic secretions; the chyle is absorbed in the duodenum, and carried into the circulating torrents, the excrements being expelled by the large intestines, assisted by accessory muscles. This is a very complicated action of the living economy, *an essentially vital function.*

"All actions, whether simple or compound, which remove from these normal dispositions, are no longer *phenomena and functions*; we call them *accidents.*

"Thus the seas under the lunar influence of attraction, are raised and depressed alternately, whence result the fluxes and refluxes, the succession of which is so regular, that we can foresee and calculate them. This complicated but regular action is again a *function of the physical economy.*

"A volcano makes an irruption, speading terror and devastation all around; this is an anormal action, which far from offering any connexion with the regular system of the physical world, on the contrary, deranges its harmony; such is *an accident.*

"The blood arrives in the kidneys; these glands draw from it the elements of their own nutrition, and those of a particular secretion: the urine thus formed passes into its reservoir by the ureters, and is then expelled through the urethra: this is a normal action of the living economy—*a function.*

"An inflammation developes itself in the cellular tissue; this draws

from the blood, with which it is abundantly supplied, the elements of a morbific secretion: pus is elaborated, the skin softens, thins, and ulcerates; the pus is evacuated by this factitious route. An action of this nature is completely out of the harmony of vital functions: it is a morbid action, *a real accident.*"

The next chapters are on the economies, their differences, and morbid alterations, and are highly interesting; but we must pass them in silence, from the great length to which our review already extends.

Some physiologists attribute all the phenomena of nature and life to *sympathy* or *antipathy*; others, again, deny the existence of either the one or the other. These exclusive opinions are equally erroneous; every thing must not be attributed to these two powers, but we think them indispensable to a great number of functions, and to the support of the order and harmony which reign in the living and physical world. "In the physical world, it is *sympathy*, which under the name of *affinity*, produces chemical combinations of *cohesion*, keeps similar moleculæ in contact of *attraction*, tends to bring towards each other the great celestial bodies which support themselves in the vast expanse: of *weight*, draws heavy bodies to the centre of the earth: of *opposite electricity*, brings towards each other two bodies which are in different states in this respect; and, finally, of *magnetism*, draws the iron to the loadstone, &c.

"It is *antipathy* which produces that indispensable antagonism, without which the succession of movements, the order and harmony of the universe could not exist.

"The re-union of these two essential and mysterious agents is evidently the *vis insita*, the *mens agitans molem* of the ancients, the *soul* of the general economy."

We come next to sympathies and antipathies between the tissues, organs, apparatus, properties, phenomena, and functions of the living economy.

"All parts which concur in forming the living economy, from the most simple organic element to the most complicated function, are mutually connected by the *sympathy* which draws them towards a common centre, or reciprocally separated by the *antipathy* which determines towards the circumference of movements absolutely opposite. Pleasure and pain are never long localised in any one organ—the others speedily take a more or less active part in them. The isolation of organs in the physiological world, is as far from nature as the isolation of individuals in the midst of the general world. Beings are made for society, to entertain mutual connexions with those who surround them: all are drawn towards one common centre by the magic power of *sympathy*. A thorn is driven into one of the tissues: local irritation ensues, and speedily a sympathetic action is set up, the action of the heart is increased, and traumatic fever is developed; the extraction of the foreign body, and the cure of the local inflammation, can alone remove this universal re-action. This is an example of *general and naturally reciprocal sympathy*.

"There is, besides, a more *especial sympathy*, which connects organs in groups, directed by a more individual interest towards a more particular object. An exciting powder is applied to the schneiderian membrane, and the diaphragm alone of all the muscles is thrown into sudden contractions, and sneezing is produced. Here we have an example of *special sympathy*,

the reciprocity of which positively exists only between organs destined to the same functions. The uterus and mammary glands, connected in the living economy by one common end, the *preservation of the species,* offers this *mutual sympathy.* Excite the nipples by frequent touching, or even by suction, a voluptuous feeling takes place immediately in the genital organs, and a sympathetic erection occurs: by coition, you determine, under the influence of reciprocal sympathy, a notable increase in the size and firmness of the nipples and breasts. Towards puberty, the uterus becomes considerably developed, and at the same time the breasts are so increased in size as even sometimes to cause pain. At the turn of life, the uterus suffers from repeated irritation from the anomalies of menstruation: the breasts are affected in a similar manner. The vital correspondence explains to us the frequency of scirrhus and cancer in these organs at the dangerous time we have just mentioned.

"If from the living organs we turn our attention to properties, phenomena, and functions, we still find, by a natural consequence, analogous sympathies and antipathies.

"Thus, in physiological economy, we see a constant antipathy manifesting its effects between vital and physical properties, whilst sympathy unites every where the appropriate modifications of *sensibility and contractility.*

"We equally meet with *antipathetic* and *sympathetic* functions: among the first, we have the impossibility of emitting the semen and urine at once, although the excretory canal be common to them; but the best example is furnished us by the brain and stomach. When the stomach is well filled, when digestion is actively going on, the brain is idle, as it were benumbed, the thoughts remain without development and without energy. On the contrary, when the brain is exercised with long continued and difficult intellectual labour, digestion languishes, and the stomach is retarded in its operations. Hence, this physiological principle, the truth of which appears to us incontestable, and the first part of which is so well exemplified by our city alderman—*the man who digests much food, digests few ideas; the man who digests many ideas, digests little food.*

"The sympathetic functions are very numerous; the simultaneous action of the rectum, bladder, of the womb, of the diaphragm and abdominal muscles, in the expulsion of the fæces, urine and fœtus, &c. furnishes us with good examples.

"*Synergia* is that species of *sympathy* in which the united functions operate at the same instant, as the muscles of one eye acting simultaneously with the muscles of the opposite eye; the limbs are naturally drawn in the same direction, and in the accomplishing of analogous movements. To conquer the resistance of *synergia,* very great efforts are indispensable. It is difficult for some time to strike with one hand and rub with the other at once."

After these general considerations on the sympathy and antipathy of the living economy, we shall now speak of the natural manner in which they are established between the different organs which they unite or separate; we shall call this *the sympathetic union.* This is not always appreciable, hence there are two varieties; the first *without sensible organic union,* and the second *with sensible organic union.* The first we shall notice will be *sympathy without sensible organic union.* We do not meet with any material communication between the organs, but the constant and palpable results

which we observe establish positively the reality of these connexions. Another name for this species is *sympathy by cerebral re-action.* The impression received by the organ directly excited is carried to the brain: the latter re-acts more especially on the organ which presents the more positive correlation of sensation or motion with the first. This sympathy, in some of its examples, is sufficiently powerful to conquer the will itself. We shall place a few examples before our readers :—

" Chronic phlegmasiæ of the stomach and intestines frequently cause muscular weakness, a feeling of contusion in the articulations; sometimes synovial inflammations, cutaneous eruptions, &c.

" The phlogoses of the skin are almost always complicated with sympathetic irritation in the gastro-intestinal mucous membrane.

" An injection of water in the veins excites rapid and continued movements of deglutition.

" The view of an errotic picture, provokes the erection of the whole of the genital apparatus.

" The sight of an agreeable and savory meat, excites the salivary secretion.

" The ingestion of belladonna and some other poisons, often causes immoderate laughter.

" In cases of wound of the diaphragm, we have a *bitter smile.*"

Numerous other examples may be cited, but these are surely sufficient.

Of sympathy by sensible organic union. This is of three kinds: *by the vessels, by the nerves, by continuity of tissues.*

A good example of *sympathy by the vessels* is afforded in those cases in which abscesses form in the armpit, in consequence, or irritation of disease in the hand, as whitlow, &c. the lymphatics running to the armpit being enlarged, reddened, and painful. It is by this means that blisters, moxa, setons, &c. act. Hence those should be chosen which act on the cellular tissues rather than on the skin itself.

By nervous communication: this may take place through the encephalic or the ganglionic systems. In the first, the subject may be aware of the impression; in the second, it takes place without his knowledge.

Nervous sympathy with knowledge of the impression.—If the skin, muscles, or any other system, receiving encephalic nerves, is torn or injured, a sympathetic impression is conveyed to the brain, which causes a very unpleasant sensation called *pain.*

By causing on the cutaneous surface that particular excitement termed *tickling,* we determine immediately contraction of the diaphragm, immoderate laughter, tumultuous movements, and sometimes even convulsions of the voluntary muscles; all these actions are so foreign to the consent of the subject, that he would hurl himself blindly into an abyss to avoid the insupportable torments of this impression, generalized by the nervous sympathy.

Nervous Sympathy, without Knowledge of the Impression.—In chronic inflammations of the stomach, we have frequently a dry cough, called *gastric cough,* which we explain by the connexions between that organ and the lungs through the pneumo-gastric nerves, and the filaments of the ganglionic.

In the renal phlegmasiæ we have vomiting, because the kidney is supplied by the solar plexus.

When the stomach is much excited, syncope may ensue, the action of the heart being suspended, owing to the ganglionic connexion.

The thousand and one symptoms elicited during pregnancy may be accounted for in the same manner: the vomiting in the early stages; the uterus being supplied by a branch from the renal plexus of the great sympathetic; the syncope, pain in the breast, ear-ache, tooth-ache, and all the other aches and pains of this interesting period, may be accounted for on the same grounds; the connexions of the organs by the great sympathetic.

Sympathy by continuity of Tissue.—Itching of the nares, in cases of worms, a savory morsel in the mouth, causing a flow of saliva, irritation of the external auditory canal producing tickling of the pharynx, and sometimes even cough, exemplify this sympathy. Stone in the bladder causing pain in the glans, penis, the state of the tongue in gastritis, are excellent examples.

The next section on the sympathies and antipathies of vegetables is highly curious; and to the French scholar will afford great amusement, and what is still more to the purpose, instruction; as likewise that on animals and their relations with vegetables, man, and animals of different species.

In regard to man *sympathy* or *antipathy* is differently named, according to what objects it is manifested, when it is shewn to actions, *attraction* or *repugnance*; to food, *appetite, disgust*; to vegetables, *florimania, indifference*; to animals, *affection, aversion*; to man, *friendship, hatred.*

The antipathies between some men and animals, &c. are well known. While describing the national antipathies between men, M. Le Pelletier says, that time and necessity of a perfect concord will *never* entirely destroy them. He then cites as examples, the Greeks and Turks, the Chinese and Tartars, the *French* and *English*. We firmly hope that our author is mistaken in his opinion; if, indeed, we look at olden times, and the present day, and see the great advances made by the two nations towards *perfect amity*, more especially after the part the British took in the grand struggle of July, we think we may reasonably indulge hopes that this national antipathy in a few years will entirely disappear.

We come next to the article on *habit*: this part of the work is highly interesting, and extremely well written. The different habits in regard to the *passions, sensations, customs, voice, accent, gestures, temperament, climate*, &c. are well described, and form a most interesting and beautiful subject; it is graphically written, and, were it not for our already very long extract, we should notice it more fully. We shall return to this subject in our next. In the mean time, we strongly recommend this valuable system of physiology to our readers. It will be complete in four volumes, and embrace human and comparative physiology. We sincerly wish it success, and must take this opportunity of thanking Mr. Balliere, for the pleasure and instruction we have derived from its perusal, and for the spirit and enterprize with which he affords the British public an opportunity of possessing the standard French works at the Paris prices.

III.—*First Lines of the Practice of Midwifery, to which are added, Remarks on the Forensic Evidence in Cases of Fœticide and Infanticide.* By Charles Severn, Surgeon. London, 1831: 8vo. pp. 131. Two Plates. S. Highley.

We cannot possibly conceive what could have induced the author of this production to publish an elementary work on obstetrics, as he must be very inattentive to the progress of medical literature, if he is ignorant of the many works of this kind which have recently appeared upon the subject. Whether he determined to eclipse them all, remains to be proved; and if he did not, he must have some motive which we cannot imagine, in rushing into print upon a topic which the world knows has been amply considered within a brief period. Be the author's object what it may, we must express our decided disapprobation of the tract before us, which is one of the most inaccurate that has yet appeared. How the author could seriously designate this "First Lines of the Practice of Midwifery," is really astonishing. The practice of midwifery, or rather of obstetrics, to be comprised in one hundred and thirty-one pages, is the shortest road as yet chalked out towards the temple of Lucina. But this road is by no means clear, it is full of serious impediments.

We find the following specimen of the author's competency as a guide to students:—

"The long axis of the brim, by which we understand a line drawn from side to side, in a standard pelvis, measures five inches and about a quarter; the short axis, or transverse diameter, four inches and a half: these measurements are adapted to the short and long axis of the fœtal head, and if they do not correspond, the child cannot pass without difficulty."—p. 7.

In this passage we have a lamentable proof of the author's unacquaintance with the ground works of practical midwifery; of the knowledge of the axes and diameters of the pelvis and fœtal head, without which the remaining part of the volume is worse than useless. Every man acquainted with the science of midwifery—in fact with the first principles of that science, must be aware, that the author mistakes the word *axis* for diameter, and that the long diameter of the pelvic brim, is not a line drawn from side to side (which is technically the transverse diameter), but a line drawn from the sacro-iliac symphisis to the opposite acetabulum, which is the oblique or long diameter (not axis) of the brim; the axis of the brim being a line passing through the umbilicus to the lower third of the sacrum, or to the sacro-coccygeal joint, according to others. There is no mention made of the short or sacro-pubic diameter; not a word about the diameters of the outlet, for here also they are called the long and short axes, and the real axis is thrown over-board. Here is a text book for students, replete with the grossest errors upon the very first principles of which it treats. Had the author perused any of our standard works, he could not have committed such formidable mistakes. We defy any man in existence to form a correct notion of the obstetric properties of the pelvis from this work, or an exact idea of the mechanism of parturition

and we need scarcely observe, that without accurate information upon this point, no man can practise midwifery scientifically, with either satisfaction to himself, or safety to his most unfortunate patients. This is an axiom which no well-informed obstetrician can deny.

The anatomical descriptions of the uterus and ovaries are superficial and inaccurate. There is no mention made of iodine in the treatment of the diseases of either organ. Leucorrhœa is defined a puriform discharge from the vagina and uterus; not a syllable is said about the various forms of this disease, so fully described by Dr. Clarke, and of course not a word on the use of the nitrate of silver.

Menstruation is said to be a discharge from the open extremities of the arteries on the surface of the uterus; it is not stated to be a secretion, but though blood, according to the preceding assertion, it never coagulates. The grand remedies for menorrhagia are infusion of roses, nitrate of potass, sulphate of magnesia, and tincture of digitalis. There is no account of dysmenorrhœa, or of vicarious menstruation. The descriptions of conception, of the growth of the fœtus, and the fœtal circulation, are not those of the present period. Among the diseases of pregnancy, are enumerated biliary and urinary calculi, maladies that are scarcely seen in one case in ten thousand; there is a page on uterine hæmorrhage, and half a page on abortion!!! The chapter on the management of pregnancy is the best in the book. The duties of the obstetrician or accoucheur, as our author continues to call him, are not sufficiently described; he has not stated what substance is to be used as a ligature on the navel string, or with what instrument it is to be incised; but perhaps the student is to learn these trifles by inspiration. After the description of the duties of the practitioner in the three stages, and after the birth of the infant, he is next informed how to make a vaginal examination! He is recommended to continue the usual methods for resuscitation of asphyxiated infants half an hour only. No rule is laid down as to the removal of the placenta, or as to the time when extraction is to be performed when necessary.

After labour has continued "many hours," the time indefinite, instruments are required, and when determined on in consultation, then the accoucheur should ascertain the presentation! He must be "one of the olden times," if he proposes instruments before he knows whether they are necessary. There is no account of the circumstances which justify the use of the forceps—the student is to guess them, and in using this instrument "pressure on the fœtal head is unnecessary, attended with danger, and must be avoided."—p. 74. From these opinions, it is manifest how well qualified is our author to write an elementary work on Practical Midwifery. His observations on the other operations are equally sound, and such as leave no doubt that he has a great deal to learn on the scientific practice of midwifery, before he publishes his work in "a larger form," a piece of intelligence with which we are favoured in the preface. We would strongly advise him, if he values his reputation as an obstetrician, to withdraw this work from circulation, as its defects are so glaring, and omissions so numerous, that no scientific lecturer can conscientiously recommend it to his pupils, as it is in direct opposition, on many most important points, to the best British and foreign works on

obstetric science, including those of Denman, Hamilton, Burns, Blundell, Velpeau, Capuron, Dewees, Duges, &c. &c.

He may consider this a severe sentence; but instead of feeling anger towards us, for declaring the truth of his production, let him calmly reflect upon the charges we have authenticated, and bear in mind that we might double them, if necessary. Let him peruse the smallest compendium of midwifery which has appeared within the last ten years, or any of the standard works, and then dispassionately ask himself, has he surpassed, or even equalled any one of them.

In coming before the medical public, at a period like the present, he should have acted on a similar suggestion, for he must, or ought to be aware, that no work on any medical subject has now the slightest chance of patronage, unless it excels its predecessors. It gives us great pain to censure any work, and indeed, so reluctant have we been on this point, that we have been accused of praising many that deserved utter condemnation. We always speak of books as we find them, perfectly unbiassed and impartial, grieved to censure even when the interests of humanity loudly demand it. Were we not convinced that the volume before us would be a bad and fatal guide to students, in a large proportion of cases, who would confine themselves exclusively to its precepts, and highly injurious to suffering humanity—we should allow it to remain still born, and deem it unworthy of notice.

IV.—*History of the Epidemic Spasmodic Cholera of Russia.* By Bisset Hawkins, M.D. Professor of Materia Medica and Therapeutics in King's College, &c. London, 1831: pp. 306, with a Map. Murray.

V.—*Cholera Morbus. Account of the Indian and Russian Cholera.* By John Austin, Surgeon. pp. 44. London, 1831.

VI.—*The Cholera of India.* By P. F. Keraudren, Lancet Office, Strand, 1831. pp. 40.

Cholera! cholera! cholera! nothing pervades the medical profession, nothing pervades the whole world like the cholera; or, we should rather say cholera-phobia, which is by a great deal the most severe form of the disease as far as we shall see it. We lately heard an excellent illustration of this cholera-phobia; a well known physician, whose name we shall conceal for obvious reasons, received in the course of the evening, a few nights ago, a dispatch from Russia. It related to the cholera at St. Petersburgh, of which it contained an ample account. After perusing this manuscript, and of course pondering some time on its contents, he felt rather sick at his stomach, and the bowels being well open, with some pain, he immediately knocked up a medical friend, declaring *he had caught the Russian Cholera from the manuscript.* He was relieved in a short time, and his friend departed: ere long, however, he was again roused to attend a renewal of the attack; the physician was well by the morning. Had these particulars reached the ears of any of the editors of newspapers, we

should probably have had a column and a half on the manifest contagion of the Russian cholera. We have now before us three monographs on this complaint; two of them *compilations*, and the third a *translation*; whilst at this moment works on cholera, original and others, are deluging the press, so that if the public is not duly and truly defended from this formidable epidemic, it will not be for want of knowledge on the part of the profession, as far as it can be gleaned from books. Two of the works before us are printed in such a form, and at such a price, that they are evidently intended for public circulation; the other is of a far superior cast.

The work of Dr. Hawkins contains a vast and select body of matter. The different questions treated of are handled in a manner that does the Doctor great credit; the work is well written, the quotations from the best works on the subject are well selected, and altogether it is a work which we recommend, as an abridgement, or rather a collection of the opinions of the various medical gentlemen who have written on the disease. The history of the invasion of the cholera, the different plans of treatment, the question of contagion, &c. are treated in a masterly manner. We need only mention, that the works of Annesley, Moreau de Jonnes, Keraudren, Joehnichen, Sir W. Crichton, Dr. Albers, Bontius, Mr. Jameson, Mr. Scott, Professor Lichtenstadt, Dr. Onifriew, and numerous others, are quoted to shew the great research of the author. We extract the following report of the death of Field-Marshal Diebitch, and with it close our review:—

"On the morning of 28th May (June 9) the Field-Marshal had felt himself unwell, but during the whole day he appeared in good health, had eaten, and seemed in good spirits, as usual, and there was nothing that excited any apprehension for his health. In the evening he went to bed at ten o'clock, as he had been used to do for some days past. He was soon called up to attend some business, and still appeared quite well. About two o'clock in the morning he suddenly felt indisposed, and called to his attendants, but forbade to awake any body, or even to fetch a physician. It was not till past three o'clock, that, finding himself grow worse, he ordered M. Schegel, Physician in Ordinary to the Emperor, to be called, but desired that nobody else should be disturbed. When the doctor came he saw symptoms of cholera, which soon became very violent. The severe attacks which usually accompany this disorder last several hours. The patient was immediately bled, leeches were applied, and very strong friction employed; in short, no means that might afford relief were neglected. The Field-Marshal, retaining all his presence of mind, ordered every person, except the medical attendants, to quit the room, for fear of their taking the contagion. About seven o'clock the physicians succeeded in producing perspiration, and the patient became rather more easy. Up to this moment the cramp had been but slight, and the patient suffered only from the alternate fits of shivering and burning heat. Between seven and eight o'clock cramp commenced in the legs and in the internal parts of the body, and the intermitting pains, which seemed insupportable, continued till near ten o'clock, when the groans of the patient became less frequent, but his vital powers evidently diminished; the breathing became more and more difficult, the patient soon fell into a kind of lethargy, scarcely interrupted by the unfrequent motions of the head; the eye-sight failed. At a quarter-past eleven the irreparable loss which we have sustained took place."

Mr. Austin's pamphlet, like Dr. Bisset Hawkins's larger work, is a mere compilation, and we cannot say much about it; it is well drawn up, but it is easily to be perceived that Mr. Austin has not been able to divest himself altogether of the medical way of writing, if we may so call it. It is rather too professional for the public; it is of the same piece as Keraudren's memoir, and we will say that it is worth double the translation of that author. Were it not for the astonishing mistake of inserting Dr. Roe's humbug case as one of real cholera, mere common English cholera, a greater mistake was never made. It is a *very cheap* and well written pamphlet.

We are told in the preface to Keraudren's work, that the translation has been performed with great care; such being the case, we shall anon point out a few curious prescriptions, which savour very much of haste.

Contrary to the usual practice in writing medical papers, cases are given previous to the description of the disease, or the method of treating it is detailed.

We find the history of seven cases given, one fatal: the latter occurring in a sailor, of weak broken-down constitution. The cases themselves are not more severe in degree, and differ little in form from the cases of English cholera, of which we have seen such numerous instances this autumn. The treatment may be easily gathered from the cases; in fact, it cannot fail to strike the eyes of the reader at once, as it is put in italics, even so far as those powerful remedies "*sago*, seasoned with *canella*, and a glass of *bitter wine* before going to rest." We even find that favourite remedy of the French, that all powerful medicine, their *anceps remedium, l'eau sucree*, in italics. We will lay before our readers a specimen of this kind of prescription, and if it does not astonish them, all we can say is, that their component parts have been put together very differently from ours.

A sailor, æt. 45, bilious temperament, became suddenly giddy; immediately after severe vomiting came on, with involuntary dejections; breathing quick, great pain in the stomach and belly, cramps of the gastrocnemii, hiccup, spasms of the pharyngei, and general convulsions, pulse full, accelerated and hard; the whole body bathed in sweat. This is a pretty fair example of a severe attack of cholera; it took place off Manilla; this happened at 2, p. m.

"A mixture, containing sixty drops of laudanum, 45 of ether, 33 of sugared water !!! to be taken in spoonsful every minute: dry frictions."

The next report is at 5, p. m. three hours after, so that at the rate of ʒss. of laudanum every minute, the poor devil had taken eleven ounces and two drachms of laudanum in three hours.

The patient at 5, p. m. was then *calm;* he ought to have enjoyed the *calm of death*. There is evidently a terrible mistake; we think it must be in the translation, otherwise, had it been in the original, the translator would have annotated it, as the memoir is evidently intended for the public, who would be dreadfully misled by this error. Should the pamphlet reach a second edition, which is not unlikely, as *cholera-phobia* prevails extensively, we would advise the correction of this error; it is fundamental; and we hope also to see that the italics will be used more sparingly.

M. Keraudren states the disease is in the first stage, spasmodic; and adds "that it will yield to the prompt administration of anti-spasmodic and anodyne medicines." We forbear to take notice of the great letters

in which this notice is printed; such a way of attracting notice is repeated usque ad nauseam; we remember reading many years ago, an old pamphlet, in which it was advised to print as much as possible in italics, as it would the readier catch the eye of the public, and sell the work: perhaps the gentleman who translated this work has seen this pamphlet.

M. K. appears undecided on the question of contagion, he leaves it where he found it; he thinks that "there is much to be said on both sides." With this notice we shall now leave the work, stating our opinion that, were the errors we have noticed corrected, the memoir would be useful; at the same time we do not entirely concur with M. K. in the opinion that the Indian cholera is essentially a spasmodic disease, and to be cured by ether; it is an affection of the nervous system, inducing spasmodic action, &c. in our opinion, and to be treated by dietetic stimulants and opium. The present epidemic, however, it appears, yields to neither, and therefore cannot be classed as the same disease, but its neighbourhood appears to induce belligerent dispositions among the doctors as well as the warriors, as they appear inclined to fight for their remedies, and to prove their power of curing disease by killing each other. Dr. Barry is of our opinion.

VII.—*Practical Observations on Prolapsus of the Rectum.* By Frederick Salmon, F.R.C.S. Senior Surgeon of the General Dispensary, Aldersgate Street. Whittaker, Treacher, and Co. 1831. pp. 105. Plates.

The complaint of which Mr. Salmon treats is generally, though improperly, termed prolapsus ani; whereas, if we thought for an instant, we would be aware that no such an accident could take place, the anus being merely the opening of the gut, and is a fixed point; the disease, is in fact, a prolapsus recti through the anus; as well might they talk of a prolapsus vulvæ, in case of a procidentia uteri; the one is as absurd as the other. The causes of this very unpleasant, disagreeable complaint, of which instances are more numerous than are in general supposed, may be freely divided into constitutional and local. Among the constitutional, we find the chief to be, protracted costiveness. This acts by irritation and distention, and their causing a permanent elongation of the mucous coat. The next most frequent cause is diarrhœa; in consequence of the violent straining which occurs in this complaint, chronic inflammation is occasionally induced, a gradual deposition between the coats ensues, thickening, and hence the disease. It may also arise from disease of the liver, and if so, the protrusion appears of a bluish hue, in consequence of the stagnation of the blood in the minute hæmorrhoidal veins. The other causes are indigestion, general relaxation, sedentary employments, and protracted and violent action of the abdominal muscles.

"Whatever circumstance prevents the free evacuation of the contents of the rectum, or opposes its natural function, may generate the disease." Hence we find it associated very frequently with piles, and with an enlarged prostate. It may follow calculus, or stricture of the urethra; in children, worms frequently cause it. Among the more frequent local causes, we have local injury, the sphincter being very weak, or very powerful,

contraction of the gut itself, &c. Owing to a false delicacy, patients, more especially females, rarely make mention of this complaint, until they have suffered from it for some time; the patient is subject to obstinate constipation; after evacuating the bowels, a feeling of distention just above the sphincter is perceived; in some time hæmorrhages may ensue, sometimes very severely, they are however salutary, as they lessen the bulk of the tumour; next pain in the hips, calves and feet, from irritation of the sciatic; then, on voiding the bowels, acute pain, sensation of protrusion; the part protruded at first retires of itself, but finally requires manual interference. These symptoms will frequently supervene, and sometimes go much further from that false delicacy we have mentioned, ere medical aid is sought.

" But before the prolapsus has attained the condition last mentioned, its effects are visible, not only on the constitution, but even in the countenance of the individual, which generally assumes that cadaverous appearance indicative of disease of the rectum."

It is but too certain that medical men, who have paid particular attention to any one disease, or to a set of diseases, have their minds so much occupied by it, that every thing they see is referred to this complaint. We are well aware that the more severe and the malignant internal diseases are accompanied by a sallow, cadaverous countenance, but until Mr. Salmon taught us, we knew not that this state of affairs pointed out disease of the rectum. It is not long since, that we heard a " gonorrhœal cast of countenance" spoken of; but on cross-examination, the gentleman could neither describe nor delineate the peculiar appearance of the countenance he spoke of; in the more malignant, we are able to ascertain from the countenance, that the patient is labouring under a severe, or perhaps fatal disease, but nothing more; we can neither particularize nor locate it, and neither can Mr. Salmon, we suspect, notwithstanding the cadaverous countenance; nor the gentleman of whom we have spoken. A patient being before us at the time with gonorrhœal ophthalmia, he said he suspected that the man had gonorrhœa as soon as he saw him; no doubt of it, and if he had seen the man with buboes and chancres, he might as fairly have suspected him of syphilis, or of the itch, if he saw the eruption between the fingers. In regard to the cure of this distressing affection, it may sometimes be effected without the aid of surgery: astringent and acid foods, fermented liquors and wine, should be avoided; costiveness should be prevented, by the smallest quantity of medicine of the mildest description possible; all drastic purgatives should be avoided: when the liver is affected, it should be properly attended to, and its bad secretions corrected, by occasional cupping, leeches, and alterative doses of mercury. When speaking of this last remedy, Mr. S. observes that he " has found it serviceable to unite this medicine with a grain or two of ipecacuanha, which, from its operation on the mucous coat of the intestines, promotes secretion, and thus lubricates their surface, and assists in rendering the evacuations less acrid and confined." We have frequently found ipecacuanha in small doses of great service, when combined with other aperients.

Attention to the digestive functions, and the employment of cane chairs, or hair cushions are also of great advantage. Mr. Salmon recommends " *air cushions*," but we believe that they are not easily to be obtained, and we think hair cushions to be fully as useful.

As preventive means, or even as remedial means, the use of mild enemata is recommended; the quantity of fluid should never exceed a pint, and two-thirds of this amount will generally be sufficient. If larger quantities are frequently used, they will distend the rectum and render it unsusceptible of its natural stimulus. In the early stages of the protrusion, astringent washes are of service. In the ulcerative form, injections of the chloride of lime, half a drachm of the solution to a pint of water, a third part three times a day, are valuable auxiliaries, they lessen local irritation, and correct the offensive odour. It is absolutely necessary to ascertain whether stricture exists, for if so, any attempt to cure prolapsus, more especially by operation, is but an useless employment of time.

When the sphincter muscle is preter-naturally strong, it is necessary to divide it, either by incision, or removal of a portion. Mr. S. has invented a dilator, a plate of which is given, something like a thimble, having a slit in one side; this is turned to the part to be divided, the handle removed, and the instrument kept in situ by an assistant, the sphincter is then divided with a sharp bistoury. The edges of the wound are to be kept separate by a tent, until healed from the bottom. In order to prevent any contraction afrer cicatrization of the part, it is best occasionally to introduce a plug.

When speaking of the comparative merits of the ligature and excision for the piles, our author states that—

" ' In the removal by ligature, we shall have to encounter much local irritation, and not unfrequently severe constitutional disturbance; over which, when it is once excited, we have but a limited control. Provided there are several tumours (a common occurrence), we shall be necessitated to perform several operations. The application of the ligature is usually extremely painful, its operation tedious, and not unfrequently incomplete, either from the ligature getting loose, or by reason of the base of the tumour being left, which forms a nidus for the return of the disease. The treatment, after the removal of the tumours, is likewise protracted; and, lastly, it is, I think, inapplicable where there is any material distention of the hemorrhoidal veins.

" ' The application of ligatures to veins is, I think, one of the most uncertain operations in surgery. I have so often seen fatal results follow their use, that I confess I am not a little prejudiced against the operation; and I believe that the failure of the removal of the excrescence by this plan is often referrible to the injudicious manner in which the ligature is placed upon the enlarged hemorrhoidal vessels.

" ' Now, the removal of the excrescence by excision is more expeditious, it is more complete, the pain is less, as is the danger either of local inflammation, or of constitutional disturbance; the parts heal more kindly, and, finally, when we are compelled to divide the enlarged hemorrhoidal veins, the probable danger from hemorrhage is not by any means so great as that which is to be apprehended from the constitutional and local disturbance, which almost invariably follows the including of them in a ligature.

" ' A reasonable objection may be advanced against the operation by excision, in the division of the mucous membrane of the part; but I would fearlessly ask, is the danger of inflammation from this cause greater than

that which is likely to ensue from the application of a ligature to the same part? I should think not. So far as my experience has gone, I can only say, that I have repeatedly performed the operation by excision with perfect success. Occasionally I have had to encounter hemorrhage; but never to such an extent as to endanger the life of the patient, or, indeed, even to be a source of serious apprehension. I am inclined, therefore, to believe, that when bleeding ensues to any considerable extent, it is in those cases where the tumours are accompanied with an enlarged or otherwise diseased condition of the liver, with stricture of the bowel, or such an unhealthy state of constitution as may give rise to an hemorrhagic disposition in the vessels at the lower part of the alimentary canal; and in the neglect of the due observance of any of which circumstances, not only the danger, but the unsuccessful issue of *either* description of operation is very likely to originate." '—p. 37.

To avoid hæmorrhage from excision of the prolapsus, Mr. S. devised a plan, which is well delineated at the end of the work.

" The patient having been prepared for its performance in the same manner as for the division of the sphincter, the prolapsus is to be brought in view by the efforts of the individual, promoted by the use of an enema. The sufferer being placed in a convenient position, an assistant separating the nates, one or more of the pins, as may be necessary, is to be passed from above downwards transversely through the basis of the tumour; these penetrating the muscular coat of the bowel, will prevent the return of the intestine after the diseased part is removed. The pain produced by this part of the operation is insignificant.

" The prolapsus being thus secured, the operator, with the hook or the forceps, is to lay hold of one of the prominent portions of the tumour, and to draw it gently towards the opposite side; with one stroke of the scissors he is then to remove the part as deep as the line of division between the mucous and muscular coats of the rectum, the latter of which should be left entire, otherwise a permanent difficulty of relieving the bowels will follow the operation. In like manner all the protruding portions of the prolapsus are in succession to be taken off."—p. 39.

The pins are left in situ for an hour, by which hæmorrhage is prevented. The after-treatment is exceedingly simple. Mr. Salmon condemns ligature of the prolapsus as " hazardous and painful in its performance, and uncertain and incomplete in its results."

A short esquisse of procidentia recti as occurring in infants is given: he recommends returning the gut, and employing astringent washes and anthelmintic medicines, if worms are the cause. Mr. Salmon has paid particular attention to the " diseases of the lower gut," and this monograph will not lower him in the opinion of his medical brethren. The plates are well executed.

VIII.—*A Lecture on Physical Education.* By JOHN C. WARREN, M. D. Professor of Anatomy and Surgery in the Medical School of the Harvard University. Boston, United States, 1830. Hilliard, Gray, Little, and Wilkins.

DR. WARREN considers the evils of a disordered constitution, the consequences of neglecting exercise, distortion of the spine, effects of that distortion, the action of the mind on the body, action of depressing passions, postures unfavourable to health, carriage of the body, healthful exercises, regulation of food, compression of the lungs, and preservation of the health. This lecture was delivered before the convention of teachers, and published at the request of the censors.

We believe it is a well known fact that American females bloom more rapidly than the European ladies, and that they fade as rapidly, being old at five and twenty; but we were not aware that they fade so rapidly as our author describes.

"A young female, at the age of twelve or fourteen, presents a beautiful figure, rosy cheeks, an airy step, and the fulness of life and happiness in every movement. As she advances, her vivacity naturally lessens; but, as if it would not be soon enough extinguished, it must be repressed by art. The lively motions of the body and limbs must be checked, the spirits must be restrained, and a sort of unnatural hypocrisy made to conceal every ingenuous movement. The activity of disposition is destroyed; by confinement she loses the inclination for exercise, and passes from her school to a state of listlessness at home, or to frivolous and useless amusements, or perhaps to fresh tasks. By this regular repression of the physical powers, their energy is at last broken. Various organs lose their tone and their healthy action. Even the most solid parts are gradually impaired, and, being unable to support their ordinary burden, they sink under its weight, and bring on unchangeable deformity. Perhaps the exterior of health may remain in a little longer, although the destroying principle is working in the heart. Should she be called on to be a mother, then comes the trial of her strength. The fruit, so fair without, is then found decayed within, when scarcely matured. Next, the roses of the countenance wither; the limbs are feeble and tottering; the vivacity is extinguished; the whole system undermined, and ready to fall on the first impulse. Of what use now are all the finery of accomplishment, and the rich stores of literature and of science, the fruits of so many years' labor? They are all wasted, and perish unemployed."—p. 6.

The Dr's. observations on distortion of the spine are very just and to the purpose, but, as he advances nothing that is new on the point, save the opinion that the thinness of the anterior part of the cervical inter-vertebral substance is not natural, but owing to compression, we shall refrain from quoting it. He speaks highly of exercise, both as a prophylactic and a remedial agent.

This lecture is very well written, and we hope it will make a due impression. We are sorry to perceive that the gymnasiæ, which were at one time formed in London, are falling to decay. This should not be.

IX.—*Report of the Select Committee of the House of Representatives on the Legalizing the Study of Anatomy.* Boston. U. S. Dutton and Wentworth, 1831. pp. 118.

The select committee, after examining the arguments for and against this question and ascertaining whether the advantages derived from dissection were sufficiently great to counterbalance the injury done to the feelings of the relatives, and after consulting the most eminent men on the question, came to the following resolutions:—

"1st. Anatomy is an important science, whose successful cultivation and improvement is of essential interest to all classes of the population of this Commonwealth.

"2d. Dissection for anatomical purposes is highly laudable, and deserving of public encouragement, so far as it can be done without violence to the feelings of surviving relatives or friends.

"3d. That the laws of the Commonwealth, which now act indirectly on the study of anatomy, require change, and that the study of anatomy should be legalized.

"1. For this purpose the committee propose so far to alter the statute of 1815, for the "protection of the sepulchres of the dead," as to authorize the proper municipal authorities, in the city of Boston, and in the several towns of the Commonwealth, to deliver to any physician, regularly licensed according to the laws of this Commonwealth, such bodies as may be required to be buried at the public expense, and which shall not be claimed by any one person, whether kin, or friend or acquaintance, within twenty-four hours from and after death. This permission should be accompanied with restrictions, that the physician so receiving a subject, after he had used it for scientific research, should be bound to have its remains properly interred, with the religious funeral rites, that a Christian people ought to require and must approve.

"2. The proviso, authorizing the courts to dispose of bodies of executed criminals for dissection should be repealed.

"3. That the penalty for disinterring dead bodies, or for receiving them, knowing them to have been so disinterred, should be increased, so as effectually to guard against any attempt to transcend those limits for the supply of anatomical subjects, which this enlightened legislature may designate."—p. 74.

These resolutions are somewhat similar to the bill thrown out lately by the Houses of Parliament, and which was so strongly opposed at the time and so unwittingly. Medical men should have first got the bill passed, and then have had the obnoxious parts repealed. First get a footing, and then make it sure. Would to heaven that the study of anatomy were legalized in this country. It is a disgrace to the legislature, that men whose sole desire is to improve and advance science should be subject to be dragged from their homes, fined and imprisoned, and their future prospects frequently ruined, for studying the only science which can form the basis of their professional knowledge. We are compelled to present certificates of dissections—we are compelled to dissect by the Apothecary's Act, or at least to know anatomy—we are punished by the laws if we practice, being ignorant of it; and yet, we are liable to be fined and imprisoned if we

venture to dissect: there is not an anatomical lecturer or student in England who is not liable to be seized by the police, and sent to prison, for qualifying himself to do his duty and to save life. It is high time that this state of affairs should change, and that England alone should not remain in the back ground of science, whilst all other nations are rapidly advancing. We hope that when the reform bill has passed the two Houses, this will likewise be *reformed.*

X.—*Memoire sur l'Amputation de la Jambe dans l'Articulation du Genou, et Description d'un nouveau procede, pour pratiquer cette Operation.* Par A. VELPEAU, Chirurgien à l'Hôpital de la Pitiè et Agrégé de la Faculté de Médicine de Paris.

A Memoir on the Amputation of the Leg in the Articulation of the Knee, and a Description of a new Proceeding for practising this Operation. By A. VELPEAU, Surgeon to the Hôpital de la Pitiè, and Agrégé to the Faculty of Medicine of Paris. (Extracted from Archivs Générales de Médicine.) pp. 35.

THIS operation was vaguely indicated by Hippocrates and Guy de Chauliac, and still more clearly described by Fabricius Hildanus. In the time of Galen, and even in the middle age, amputations of the joints were almost the only ones practised; but as practitioners became familiarized with amputating in the continuity itself, these were given up. Now, in spite of the efforts of J. L. Petit, Hoin, and Brasdor, it remains in disgrace. The works of Desault, Lassus, Pelletan, and Richerand, the great and abridged Dictionaries of Medical Sciences, Cooper's Dictionary, the Dictionary in twenty, and the Dictionary in one volume, scarcely mention it. Sabatier neither approves of it, nor improves it. M. Roche and Sanson say only two words of it, without advising it, in the third volume of their medico-chirurgical pathology. M. Maingault, who has not omitted it in his plates of operative medicine, is content with describing it in six lines, and without any reflections. M. Graefe, Scouttetten, and Guthrie, who have recently written on amputation, pass it entirely in silence, or blame it.

M. Gouraud de Tours, in his work published in 1815, formally rejects it. M. Coster, who evidently speaks after M. Lisfranc, goes further in his Manual, "In his advice, it would be worse than rashness to perform it, be the circumstances what they would." M. Boyer, whose opinion has long been the law in surgery in France, is contented with saying that, being proscribed by all the surgeons of the present day, he shall not say any thing about it. Larrey, Dupuytren, Roux, and Delpech, no where recommend it. In fact, among all the surgeons of the present day, M. Blandin is the only one who speaks well of it. M. Velpeau himself in his treatise of anatomy, published in 1826, also wrote against this operation, drawing his arguments from the structure of the articulation to be opened. It is therefore, in spite of himself as it were, that he has been led to adopt a doctrine opposed and principles repelled by all or almost all the cotemporary writers.

M. Velpeau cites nine cases from various writers, in which this operation was performed, eight of which were successful; to these he adds two cases,

in which he himself operated, and which succeeded. In the first of these cases he performed it, in consequence of finding that the disease for which he operated extended higher than he expected.

In the month of January, 1830, a young orphan, 19 years old, was received in the Hospital Saint Antoine: this young man, worn out with suffering and diarrhœa, was affected with a very severe necrosis of the right tibia, and eagerly required to be relieved from it. Hoping to find a healthy portion of bone, he divided the skin circularly, a little below the tuberosity of the tibia, and the flesh immediately below the condyles; he saw then that he had mistaken the limits of the disease. The lardaceous periosteum, resembling fibro-cartilage, forming a layer two lines thick, was no where adherent to the bone, the disease in which extended evidently to the articular surfaces. In such a juncture, what could be done? Amputate immediately above the knee? But, how announce such a resolution to the unfortunate patient? Besides, the articulation was entirely free; he was convinced that cutting through it, would be only following up, in some sort, the first operation. He therefore determined to do this, and in such a manner, that the young man is still ignorant that he has undergone two operations instead of one. The wound was perfectly cicatriced at the end of two months, although there was a space an inch wide which could not be covered by the flap.

Velpeau, after objecting to the operations described by J. L. Petit, Hoin, Láveillé, Monteggia, Blandin, Brasdor, and Smith, proceeds to describe his method of operating, which, he thinks, remedies all the objections to which the others are subject.

New proceeding.—The skin is to be divided circularly, about three or four fingers breadth below the patella, without touching the muscles. In dissecting this to raise it, and turn it back, we must take care to preserve the cellular tissue which covers its internal surface, and not to deprive it of its capillaries.

An assistant seizes it instantly, and draws it towards the knee, until, the ligamentum patellæ being cut, the instrument can fall on the interarticular line; the surgeon then divides the lateral ligaments, separates the osseous surfaces by bending the leg a little, detaches the semi-lunar cartilages, divides the crucial ligaments, cuts through the articulation, and terminates, by cutting at once, the vessels, nerves, and muscles of the bend, perpendicularly to their length, close to the retracted integuments. After having applied a ligature or the torsion to the popliteal artery and the less important branches which may require it, the operator brings forwards the skin which had been dissected back, cleans it, and if he wishes to unite immediately, approaches the two sides, so that one of the angles of the division be above, whilst the other, which receives the principal ligature, and which in case of need, may serve as an issue for the purulent matter, looks downwards.

We have thus fairly detailed our author's ideas, and his description of the operation, and we must add that we think this operation never will be popular: young surgeons will always prefer the more simple operation of amputating in the continuity of the limb itself. Messrs. Boyer, Dupuytren, and Larrey, who were appointed to examine this operation, have given an unfavourable opinion of it. *Nous faisons la meme.*

ORIGINAL COMMUNICATIONS.

I.—Mr. Greville Jones's *Sketch of Mr. Abernethy.*

To the Editor of the Medical & Surgical Journal.

Sir,—Many professional men are, I believe, much disappointed, that nothing like a good biographical sketch of this distinguished surgeon, has appeared in any of the medical periodicals: I trust this omission will in the end be supplied by a full and authentic biography. There are not a few capable of the task, who have had long and frequent opportunities of knowing him personally, and who are deeply indebted to his kindness and talents. Such a work would be alike interesting to the profession and the public; for although the life of one who has not been subjected to great vicissitudes, or to a variety of adventures, may be uninteresting to ordinary people, yet cultivated minds feel a deeper and more refined pleasure, in contemplating the trifling incidents that bear on the history or formation of the philosophical character, than in the exploits of the soldier, or the intrigues of the politician: that character belonged especially to Mr. Abernethy, who stamped it however with individuality by his humour, and was enabled by his position, to give it a more immediate influence on human happiness, than had occurred in any previous instance.

The cause of my troubling you with this expression of my anticipations, is the indignation I have felt, at a sort of review of Mr. Abernethy's character and conduct, in the last number of the Medico-chirurgical Review, in which, with a shew of much apparent respect, the reviewer gives the dead lion several sly and spiteful kicks. I am not presumptuous enough to suppose my feeble pen is required to defend his memory, but there is a natural pleasure in being one on the right side, and therefore, though many hundreds in the profession could perform it better, I shall attempt the exposition of the calumnious attack.

Let me premise that I am but lightly armed; I profess an intimacy with the gentleman whose character I defend; I was an inobtrusive, though constant attendant on his lectures and hospital practice; I have met him in consultation twice; he gave me the benefit of his professional advice, on several occasions when I was ill, with such attention as I can never forget, and with a degree of skill I have up to to this time reason to admire.

The reviewer's definition of the word *Abernethy*, is a "strange compound of talent and eccentricity, of enlightened observation, and hobby-horsical empiricism, of goodness of heart and rudeness of manner, of amiable feeling and irritable temper." I have nothing to say against this; when one meets with anything beyond us, anything our powers are unable to analyse or make out, the least annoying way of expressing our ignorance, is to call it a strange compound, and the antitheses which follow are prettily fabricated—"enlightened observation and hobby-horsical empiricism," i. e. quackery and science, humbug and the truth; they run well, so they may pass.

To pass to something of a graver method, the reviewer says " that Mr. Abernethy's roughness of manner was at first the result of some whim or humour, and continued afterwards from inclination, habit, or perhaps design, and he puts this base word DESIGN, in large letters, because, feeling conscious of the feebleness of his own powers of vituperation, he has no resource but to call to his aid the printer!

Now I appeal to all those who have entered to Mr. A. and to all who have consulted him, whether they ever witnessed the slightest tendency to cunning or artful design? I could answer this myself by some triumphant instances to the contrary, but I am aware you have no room for anecdotes.

A sly insinuation next follows, that Mr. Abernethy owed his practice to this very rudeness, which gained him notoriety, in the same way as chalking the walls has spread far and wide the fame of Dr. Eady, and has sold the blacking made by Warren and Hunt; the reviewer forgets that Mr. A. was in the zenith of practice, owing to his just celebrity in the eyes of the profession, long before his sayings and doings became matter of newspaper report or tea table chat; moreover, the reviewer should know, that this was a bungling method of chalking.

Leaving the designing part of his character, we come to the vicious charge of ignorance or negligence. This charge, the severest that can be made, is thus ushered in: " The failures, nay, even the blunders of such (noted) men are not merely soon forgotten, but they are seldom believed at all," and it is thus supported: " The routinism to which Mr. Abernethy gave way for many years before his death was generally ludicrous, but sometimes tragical. We have seen more than one instance where life was, in all human probability, *sacrifised to an obstinate disregard of all examination of the case,* and a *blind* perseverance in one system of treatment *totally inapplicable* to the existing disease."

Now I ask, is this the language for one professional man to use concerning another, still less against any one in the grave. Is it generous?—is it fair?—is it just? Does this reviewer pretend to infallibility, that he dares to say of another that he sacrifised life by a blind perseverance? Is there any man who can lay his hand on his heart, and say he is secure of never having lost patients by blind perseverance in the measures he thought right at the time? But that which raises most indignation is the cautious omission of all those bright and striking excellencies which distinguished the founder of St. Bartholomew's school. This is, perhaps, less to be forgiven than the direct attack. Neither his original discovery, his beautiful writings, his eloquent harangues, or his independent conduct call for a remark from the faithful chronicler of the errors of his infirm and declining years. But if I may venture to mention what I have conceived of the character of the late John Abernethy, I shall say—that he was one who in his stomach and bowel system, developed a great and constant principle of medical practice, and by inculcating it, effected a revolution in medicine greater than any that had occurred before his time, not excepting the change from mechanical to vital principles; from humoral pathology to solidism; from the Brunonian to the depletory practice in fever. And what he did in this respect was so excellent that he left nothing to his successors but to expound his ideas, and to make small modification of his practice. The works of Philip, Paris, Johnson, Uwins, &c. are works of merit in various

degrees; but they can never be compared with the work "On the Constitutional Origin of Local Diseases." Abernethy built the house and all its compartments, and put on the roof. His successors have ornamented the ceilings and painted the walls.

The effect he produced on medical practice has been of more extensive utility, but is not more indicative of his greatness of mind than the application of his leading principles to medical surgery, by which application he produced the direct effect of lessening the number of operations in the hospital to which he was attached, and by the emulation he excited among his contemporaries.

The originality of his mind was such, that it shewed itself even in the mechanical department of surgery which he so much undervalued. He introduced bold and well considered operations, which rendered him, perhaps, superior, but at all events equal to those brilliant competitors who claimed operative surgery as their peculiar province.

He was a fine writer: independently of the value of his speculations and the accuracy of his observations, his mode of stating them was remarkable for clearness, conciseness, and elegance.

But it was as a teacher that his merits were most evidently displayed. The learned and the unlearned alike admired his felicity of illustration and his matchless eloquence, I say matchless, for his discourses, as far as regards delivery, might have stood side by side with the grandest efforts of the law courts and senate. Not that he resembled our public orators in the slightest degree, except in their excellence—he never attempted artificial eloquence. He spoke always under, but clove to the full pitch of animation, in a truly English sort of way, plain and direct—his quotations few but select—his ornaments never sought for, but seeming to suggest themselves irresistibly. Those who remember his Hunterian Oration (and it is the only one worthy of the name) will never forget the noble effect of that passage, in which, turning towards the picture of Hunter the look of a worshipper, he exclaimed "there he is, and to me that picture always suggests the idea of a shrewd, a wise, and a good old man, in the act and attitude of habitual thought." There is something in the words, but the mode of their delivery has never been effaced from any of his auditors. Of his peculiarity of manner there may be something to be avoided. But we know little of its causes. It has been stated by a man I can believe, that when a student at the Hospital, he was remarkable for shyness and bashfulness, of an extreme kind. I believe that frequently when these qualities wear off with youth, they are very apt to be succeeded by haughtiness, or asperity of behaviour. However much more has been said on this subject than the truth; none could display the manner of a gentleman, in greater perfection than Mr. A. on ordinary occasions, and if his irritation at the nonsense of patients grew upon him till it exceeded reasonable bounds, let it be remembered that he never carried roughness or moroseness to the bed side of the poor and unfortunate. The rich had their remedy in their own hands.

I am sorry to have trespassed on you so long, and I conclude with hoping that some one will rescue the memory of one of the first men of this age, from the absurd notions popularly entertained of his character. As to his reputation as a man of science, he has taken care of himself.

One word at parting with the Med. Chir. Reviewer. When next he attempts to sit in judgment on a great man, let him reflect on the following observation in Goodwin's "Thoughts on Man:"—

"Hence it is that we shall find a hundred satirists sooner than one mind competent to the philosophical observation of the fair side of human nature. The natural attitude of inspection is *prone*; we do not often observe accurately any object that rises much above the level of the eye: the same is true of the moral sight: and it may be remarked, of those who profess to be observers of human nature, that their own feelings fix the *upper* limits of their power of discrimination: and that they rarely fail to fall into egregious mistakes, as often as they attempt to philosophize on any sample of excellence, that is above the rate of their personal character."

I am Sir,

Your's, &c.

GREVILLE JONES.

II.—Mr. Rees *on Spinal Irritation.*

To the Editor of the London Medical and Surgical Journal

Sir,—I have lately met with a case of paralysis, in which the practice so particularly recommended in your really scientific and practical lectures, of applying one's remedies to the origin of nerves, and not along their course, or to parts wherein they are distributed, has proved of signal service. If you should consider it worthy of publication, you will greatly oblige me, by inserting it in your excellent Journal.

I remain, Sir, your's most respectfully,

John Rees.

Landilo, Aug. 9, 1831.

William Jones, æt. two years and a half, a healthy, strong, and well-grown boy, had the misfortune of losing all command over his right lower extremity, in June, 1830. In the evening he was observed to be cheerful, and walking about in his usual manner, but when taken out of bed the following morning, he was discovered, to the no moderate grief of his parents, to be incapable of the slightest motion. In a few days after this happened, I was requested to attend him, and from my notes, I find that he was then very feverish, and that his stomach and bowels were in a very disordered state. I soon reinstated him in good general health, by the exhibition of purgative medicines; and as I then conceived the state of his limb to be, in a great degree, if not entirely, dependant on the disordered state of his digestive organs, I expected an improvement in the former, when the latter should be brought to execute their proper functions. But in this I was disappointed. The parents, not finding their boy's leg immediately beginning to improve, consulted (as is generally the case with the middle and lower class of this country) another surgeon. I therefore had no opportunity of trying other remedies, until I returned

from the metropolis in June last, when I was entreated to attend the boy again. The following are the notes I then took:—Cannot move his right leg in the slightest degree; sensibility much diminished in this limb; its muscles are very flaccid; it is smaller than the left leg in circumference; its temperature is below par. The fulness of the glutæi muscles of the right side, much less than the glutæi of the left. He seems to experience no pain when his leg is moved about, or when extended, and the sole of the foot, strongly tapped with the hand. Bowels regular, and general health very good.

In examining the spine, I discovered some tenderness on pressure in the lower part of the lumbar region and upper part of the sacrum. I immediately applied a cupping glass to the tender part of the back, and took away about an ounce and a half of blood. The following day he asked his mother to let him down, that he might walk; she indulged him in this, and to her great joy, he managed to limp along for some yards. Since then he has been again cupped, and counter-irritation has been kept up in the back for some weeks, by the ung. antim. tart. The boy was brought to me yesterday, when I had the gratification of seeing him walk about pretty well, but he is rather lame. He has for the last three weeks been affected with hooping cough, of no ordinary severity, and his mother, on this account, has suspended the application of the ointment. When he improves a little, I intend pursuing further the same course of treatment.

III.—*On the Cause of Inflammation.* By Charles Rolls, Esq.

Of the various theories, which at different times have been propagated, all having for their object the elucidation of the phenomena attendant on inflammation, the only ones which ever obtained much belief, were those which ascribed the proximate cause of the disease; either,

1st. To a preternatural lentor or viscidity of the blood.

2d. To an error loci; or,

3d. To a spasm of the extreme vessels.

At the present period, I believe neither of the theories constructed on these surmises obtain much credence. Indeed, at the time of their promulgation, they were so intermixed with technicalities, and so partially explained, that it is not to be wondered at, if they soon fell into disrepute. My present object is to lay down, as far as I am able, the manner in which inflammation is induced, and by reconciling these repugnant doctrines, as much as possible, endeavour to give a distinct account of the progress of a disease, the perfect knowledge of which is of so great importance in the practice of medicine.

We are aware that the most usual cause of inflammation, is the application of an irritating substance to some parts of the body. Internal heat will produce it in a violent degree: the application of a blister, a wound, and various other causes, will have the same effect. Now we all know that when irritating bodies, such as these, are applied to the muscular fibre, contraction (of the fibre) is produced, and that in a relative degree of intensity to the stimulus employed. Let us then suppose, for the sake

of rendering the subject as simple as possible, that there are only three arteries in the whole body (one of which carries red blood, the other two only serum), and that they arise from a common trunk. It appears to be very evident, that if the fibres of the larger artery (i. e. the one carrying red globules), be irritated by any stimulating body, and thus forced to contract, the blood must be thrown with greater impetuosity than usual in the traces of the other two arteries, the coats of which being weaker in texture than those of the larger, and being also utterly unable to resist the impetus directed towards them, it follows, as a matter of course, that they will be forced, and consequently made to yield admission to the red particles of this fluid. Thus far the vis a tergo prevails; but all further power over these vessels is at this moment lost; for now the blood has not only to oppose their elasticity, but also the obstruction caused by the red globules forced into them. The current must therefore find its way through the larger vessels, or again be thrown back on the heart. At this moment it is enabled to effect the former object, for the contractile force of the vessels being now lost, it returns to its former dimensions, and consequently presents a free passage.

Nevertheless it is quite apparent that these relative parts, cannot respectively present the same appearances they did previously, since now the flow in the minor arteries is retarded, and consequently a much greater quantity of fluid will be directed towards the larger vessel, which therefore will be more than ordinarily distended to admit of its passage. The consequence of this will be, that the action of the vessel shall become more violent, to enable it to impel forward the superabundant quantity of blood, thrown into it, at the same time that the action of the two smaller vessels will likewise be increased, to get rid of the particles which have been forced into them. The effects will of course be felt at some distance from the part primarily affected.

Let us now apply the foregoing case to all inflammations arising from the application of a stimulus, directly to the part affected. An irritating substance is applied to the body, it immediately affects one, two, three, or any number of the muscular arteries, in other words, those carrying red blood; they are violently contracted, and the course of the blood is directed towards the capillaries, which become injected with the red globules, the passage of which will of course be much slower than that of the serum. At this moment the effect produced on the larger arteries is at an end, and they return to their natural size. The red blood, therefore, resumes its former course, but as the serous part of it, which formerly passed through the capillaries, no longer finds admission there, and the passage of the red globules through them is much slower than the usual rate of the serous circulation, a larger quantity of blood (of which serum constitutes a part), is thrown into the great vessels, which in turn become dilated, and act with greater proportionate violence, in order to throw off the load into extreme branches. Hence arise the throbbing, tension, pain (from the stretch of the nerves), and tumour, which always accompany inflammation.

So far, then, I have accounted for the phenomena which this disease exhibits in the part immediately disordered. The next point is to explain how the whole system is made to partake, in a greater or less degree, of the same affection.

Let it but be kept in mind that the arteries have an inherent power in them to oppose distention, and I think this phenomenon may be easily explained. I have shewn that when the capillaries become injected with the red globules, the blood is, as it were, thrown back to the roots of the larger arteries, which at that moment returning to their former dimensions, allow of the passage of the usual quantity of blood, and by the distention effected in them, of much more than the usual quantity. But the passage of this additional sum can only be accomplished by the superiority of the propelling over the resisting force. When, therefore, these powers arrive at an equality (which they must at some time, so as the resisting force increases, the more the arterial coats become distended), the vessels will then effectually resist further distention. The consequence of this, in pretty considerable inflammation (in lesser, the effect is lost before reaching the heart) is, that the impetus of the blood will be thrown back on the trunks of the affected arteries, and from thence to the heart, which, in its turn, labouring to relieve itself, will throw out the blood in greater rapidity to the other (hitherto unaffected) parts of the body, thus increasing the frequency of the pulse, and increasing general pyrexia.

If it be asked why a larger quantity of blood than usual being thrown on the heart in a given space of time, excites universal fever, the same effect is not produced by repletion? I answer, because the heart and vessels are gradually distended, so as to admit of this overplus with impunity; wherefore its accustomed action is not increased; in the other case a larger quantity than ordinary is thrown into the heart in a given space of time, and the heart being unused to it, consequently acts with increased violence and rapidity. It appears to me, therefore, very clear, that the inflammation caused by the application of a stimulus immediately to any part of the body, depends in some measure both on an error loci and a preternatural lentor. The error loci consists in the presence of the red globules in the capillary vessels; the lentor is caused by the elasticity of these vessels which retards their passage. I am unaware whether or not I understand these terms in the extended senses of the promulgators of these doctrines, but after due consideration, I am unable to affix any other meaning.

We now come to Cullen's favourite theory. He supposes the proximate cause of inflammation to be a spasm of the extreme vessels. This spasm of the extreme vessels, as it is called, I conceive, with all due deference to so great an authority, can only be connected with inflammation when it is brought about through the medium of the system, and even then it is not the proximate but the exciting cause. Inflammations, I would say, are twofold. The one (which I have already described) is brought on by the application of a stimulus immediately to the part, and, consequently, the disease is generally external. Frequently, however, it is internal, as in the case of poisons applied to the stomach, intestines, &c. &c.

The other is brought about by the application of cold to the external parts of the body, and generally falls upon some internal part. This kind, therefore, is mediate.

Let us endeavour to explain how this occurs. Internal inflammation we shall most generally find to be preceded by what is commonly called a cold. This cold is nothing more nor less than the effect produced, either by a sudden change in the atmosphere, the application of cold, or what is the

same, the rapid abstraction of heat, moisture applied to the surface, and such like accidents.

Now all these causes can have but one immediate effect, and that is to constrict the skin. That this is the case we are all perfectly aware. But if the skin be constricted, the parts connected with it must be compressed, therefore the extreme capillary vessels and the excretory ducts will partake of this compression. Hence then we arrive at the desired explanation at once. These vessels which carry a certain quantity of fluid from the heart, become on a sudden partially or wholly closed. Consequently that part which should be carried off by them is retarded. Whence the impulse is thrown back on the heart, which being engorged, and acting violently to relieve itself, throws it off on some part which happens to be more vascular than the others, and which we usually find to be the lungs. The arteries in that particular part become distended to the utmost, but still are unable to carry all the additional quantity thrown into them. The capillaries consequently being unable to resist the additional impetus, are forced and become obstructed, the vis a tergo is additionally increased, and the whole phenomena of inflammation ensue.

I have thus given a short statement of my views upon this interesting subject. Before going further, I think it would be as well to recapitulate the foregoing matter as concisely as possible. My ideas are these. When a sufficiently powerful stimulus is applied to the body, its action is communicated to the muscular coats of those arteries carrying red blood; the consequence is, that they are violently contracted, and their calibre of course much diminished (if not closed) to the extent of the part where the stimulus has been applied. At this moment of time there is a certain quantity of blood ready to pass through these vessels; and if it cannot effect that object, it must find some other course. The only one which presents itself is through the capillaries, and here it consequently finds itself an entrance; thus distending the coats of these vessels, and injecting them, as it were, with a fluid whose passage, from the size of the particles, must necessarily be much slower than the circulation of the serous part of the blood. At this period the larger vessels return to their natural size, the effect of the stimulus being over. The blood then resumes, to a certain extent, its natural course; but meantime a new order of things having occurred, the relative state of the parts is quite altered. The same quantity of blood as usual, it is true, only arrives at the part, but there are not the same vessels to carry it off, the capillaries being obstructed. Hence then the blood must pass through the larger vessels, which of course must be distended, to admit of such passage. From such causes, as I before have explained, arise the whole phenomena of inflammation. As it is my wish to elucidate this subject as much as possible, I shall point out (before entering into any direct argument, to substantiate my own opinions), some points connected with it, which, if my ideas be fallacious, will serve as criteria by which to prove they are so.

1st. It is evident that I assume the arteries carrying red blood to be muscular, and the capillaries not so. If the former were not the case, these vessels could not contract on the application of a stimulus; if the latter were so, they would contract as well as the larger vessels, and thus prevent the entrance of the red globules. I am aware that there are some who do not allow of the muscularity of the larger arteries; these of course will at once reject my opinions; but I believe the greater portion of the profession are on the other side of the question.

2dly. If I am correct in my ideas, the propelling force is greater than the resisting force of the capillaries, but not greater than the resisting force of the muscular arteries, *while under the effect of the stimulus.* If such were not the case, the capillary vessels could not be forced.

3dly. The capillaries must be elastic; otherwise there would be no force opposed to the passage of the red globules through them, which would consequently be effected as rapidly as the circulation in other parts, and thus prevent repletion; and,

4thly. The propelling force must be greater than the resisting force of the muscular arteries (originally affected) when *not under the influence of stimulus*; otherwise these arteries would not be distended, and consequently the swelling, throbbing, and increased heat of an inflamed part could not be satisfactorily accounted for.

If it can be proved that either of the foregoing circumstances is not fact, why then these opinions at once fall to the ground; but if, on the contrary, the case be otherwise, I think they will add some weight to the arguments which I shall now endeavour to adduce in favour of them; and they are these.

We have one fact relating to inflammation which we can depend on, for it is apparent to the eye. I refer to the admission of red particles into the vessels which naturally carry only serum. Ophthalmia affords us an example; and since it is self-evident in this case, I think we may fairly conclude, that in all inflammations it is the same. Every theory, therefore, which would endeavour to explain the nature of this disease, must account for this fact. But inflammation (as I before have observed) is brought on by the application of a stimulus, as caloric (in burns), metallic bodies (in wounds), &c. &c.; and therefore it follows, that the application of a stimulus is capable of causing the capillary vessels to be filled with blood, but a stimulus can only act on nerves or muscles. If it acts on the nerves, its effects are communicated to the muscular fibre, and thus lost; consequently it may be said to act only on the muscle. The muscular structure is of two kinds, namely, the long and circular fibres. The first, appertaining to the muscles; the second, to the arteries. Hence the contraction of one or other of these must produce the effect before mentioned, i. e. the injection of the capillaries. The contraction of the whole muscle certainly cannot; otherwise in all violent actions, when the muscles are made tense, inflammation would ensue. Hence it follows, that the effect must be caused by the action of arteries. This fact once admitted, the various other phenomena must follow, as a matter of course, as I have before explained.

Now let us turn to the theories which ascribe inflammation to be produced by lentor of the blood, or spasm of the extreme vessels. How can they account for the attendant facts? Is the lentor of the blood or spasm of the extreme vessels caused by a stimulus, or even were it so, how is it even possible that the capillaries should be injected from such a cause? For my part, I should apprehend quite a contrary effect.

Again, it is found that bleeding will cure inflammation. What is bleeding? It is an operation by which a certain quantity of blood is extracted from the whole mass, thus reducing the sum total. What effect will it have upon the system? Of course it will reduce the frequency of the heart's action, because now less blood can arrive in a given time to the heart than before, consequently the action of the arteries will be rendered

less frequent, and consequently the impulse communicated to the blood by the vis a tergo, will be diminished. Now how can this affect inflammation? If my ideas on the subject be true it is easily accounted for. The impetus of the blood being decreased in every part of the system, is of course likewise decreased, in the neighbourhood of the inflamed region: the propelling force therefore being diminished, and the resisting force of the capillaries the same, it is evident that if these two powers can be brought to an equality, the red particles will cease to be injected into these vessels; which thus gaining time to get rid of these present incumbrances, return to their former state, readmit the serous part of the blood, the *increased* impetus is removed, the fulness destroyed, and the disease cured.

Hence we find why a large bleeding is much more efficacious than a small one, and more especially why blood rapidly taken away is better than either. In a small bleeding the two contending powers are often not brought to an equality, and consequently the disease, although for a time lessened, often returns again with full force. But in a rapid blood-letting, although small, the impetus is suddenly and so greatly diminished, that the capillaries gain time to free themselves, and the disease is arrested.

But more especially do we find that bleeding is useful in inflammatory disease if it produce syncope; and often is it instantaneously cured, if this effect follow, even although only an ounce or two of blood have been drawn. This proof, I think, is very strong. It shews that it is not the quantity of blood that is taken from the system that will cure, but evidently that it is the impetus of the blood being removed from the part for a time that effects the purpose; and in syncope we certainly have this impetus most effectually taken away. Would this be the case if spasm of the capillaries were the cause of the disease? I imagine if such were the case, it would be the loss of blood that would cure, and not fainting. Or would the loss of blood prove a remedy if preternatural lentor or viscidity were the cause? I should think, for my part, that it would increase rather than cure it.

There are other remedies for inflammation, such as digitalis, hyoscyamus, &c. &c. taken internally; the abstraction of blood topically, by leeches and other modes; but as they all have the same effect, viz. that of decreasing the impetus, I need not dwell on them.

As great a proof, perhaps, as either of the foregoing seems to me capable of being derived, from the easy explanation this theory admits of those phenomena attending all inflammatory diseases. We have heat, pain, redness, and swelling. The increase of heat may be easily accounted for, by the increased quantity of blood which flows through the part in a given space of time, and the action and attraction of the parts: that these are sufficient to cause an increased temperature is exemplified by the exercise of the whole body, the heat of which is so much augmented in that case by these causes. The pain as I have before said, is accounted for by the stretch placed on the nerves, which must always be the case where there is swelling. The redness arises from the presence of red particles in the capillaries, and the greater quantity of fluid which passes through the part in a given time, and the swelling is caused by the same means.

As regards my explanation of general pyrexia succeeding extensive topical inflammation, it will be needless to say much. If my opinions on the

latter subject be rightly founded, it appears to me very evident, that the former affection must follow on all serious cases of that description. If the blood be retarded in its progress when it arrives at the diseased part, the impulse, as it were, of this check, if considerable, must be communicated to the whole column of progressive blood, and at last to the heart, whose action of course it must excite in direct proportion. I think the best proof I can bring forward on this subject is the pyrexia, which always attends amputations of any extensive part, as the leg, arm, &c. &c. We often find these cases attended with general pyrexia, at the same time that topical inflammation is either very slight or altogether absent. Why? Because the parts are scarcely in a fit condition to admit of inflammation until an inosculation has been effected between the extreme arteries and veins in the stump, and before this takes place the irritating cause is removed. Hence we often find the stump to heal without any inflammation (except what Mr. Hunter terms the adhesive) supervening. But general pyrexia (or at least a great increase of pulse, which if long kept up is the same) always attends these operations; and it does so, because when the blood arrives at the stump it finds no egress, consequently it is retarded in its course, and the impulse is communicated, as I have already explained, to the heart. General pyrexia is the consequence.

The same arguments I have already used, apply also to cases of internal inflammation brought on by cold, damp, sudden checks to perspiration, &c. &c. I need not, therefore, repeat them.*

IV.—*Observations on Iritis.* By John Foote, Jun. Esq.

Iritis.—Inflammation of the iris may exist, independant of, and totally unconnected with, inflammation in any other membrane of the eye—such as sclerotitis, or corneitis. Such is the opinion of Mr. Mackenzie, of Glasgow. Yet it is more frequently accompanied with one or more of these inflammations. Many medical men have seen cases of iritis with corneitis or conjunctivitis, that have never seen a case of simple iritis, or one unattended with any other inflammation; from what I have seen of it, its more frequent accompaniment is the inflammation of the conjunctiva; and from this disease being occasionally severe, the iritis is sometimes overlooked. When the inflammation runs very high, it is liable to extend to the choroid and retina. The disease commences most frequently on the pupillary margin of the iris, and extends thence through the whole of the tunic; and so rapid is its progress, that we sometimes see effusion taking place on the pupillary margin, and the lymph even becoming organized, ere the rest of the iris is much engaged in the disease. It is from the extreme rapidity with which the adhesive process proceeds, that the iritis is so dangerous, and requires such energetic measures. The case of Ann

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* I do not mean by this that the larger arteries are the seat of inflammation—they are all supplied with numerous branches, through which the blood will flow, in case of their violent contraction. It is in the smaller vessels I apprehend the mischief to take place, to which the serous vessels are next in diameter.

Lawrence exemplifies the rapidity of this process, the pupil being irregular in the first attack, ten days after its commencement, though the disease was apparently proceeding slowly; and in the second, the pupil was irregular within three days after the commencement of the disease.

Semeiology.—The disease is characterized by certain symptoms in all its forms. We have a beautiful zone of pink hair-like vessels running towards the cornea, forming an appearance like the rays of the sun, as represented radiating from that body. A change of colour of the iris is also remarkably evident, owing to its increased vascularity. If blue, it becomes greenish; if dark-coloured, reddish. Contraction, irregularity, and immobility of the pupil speedily follow, unless prevented by proper treatment. Effusion of coagulable lymph nto the pupil; and posterior chamber, rarely into the anterior; adhesions of the iris; dimness of sight, and sometimes almost total blindness; pain in the eye, and nocturnal circumorbital pain.

This classification of symptoms is according to Mackenzie, in his splendid work on the Eye. All or the greater part of these symptoms exist in every case of iritis. The change of colour of the iris, the zonular appearance, irregularity of the pupil, &c. together with the pain, are the most frequent symptoms, and are those also which best indicate the nature of the complaint.

Iritis is frequently divided into idiopathic, traumatic, sympathetic, syphilitic, rheumatic, and arthritic. Besides these, there are various compound causes, as when the rheumatic and arthritic are combined, or the rheumatico-syphilitic, or else the arthritico-syphilitic. These distinctions depend more on the *causes*, than the *semeiology* or *treatment* of the disease. Thus, the idiopathic arises from cold, or some unknown cause. The traumatic from wounds—the sympathetic, when it supervenes on some other long-continued or very severe inflammation, as on sclerotitis, &c. are evident. The rheumatic or the arthritico-syphilitic, depends on syphilitic iritis appearing in persons with a rheumatic or arthritic taint in their constitutions.

General treatment.—In strong and plethoric subjects, and more especially in the traumatic, syphilitic, and occasionally the sympathetic, the patient should be bled freely from the arm, *pro ut ferant vires*: this will remove the pain for a time, or at the least, diminish it very considerably; if the pain return violently, the bleeding must be repeated—but it will generally be found sufficient in that case, to bleed locally, by *cupping*, in preference to *leeches*. The generality of cuppers open the temporal artery in cupping on the temples, and we thus obtain what we wanted, and which we could not get by leeches—*a rapid loss of blood from the part*. The cupper should always be desired to open the artery, or a branch of it. Next to blood-letting, or rather equal, and by some considered superior to it, ranks *Mercury*. This is frequently administered alone, without any other remedial agent, and has certainly, under such circumstances, cured the disease, of which I have seen several instances.

The best form for giving this medicine is the combination of calomel and opium: two grains of calomel and a quarter of a grain of opium, increased if purging come on; given every second, third, or fourth hour, according to the urgency of the case, so as to salivate rapidly. When the disease continues advancing, and it is not easy to produce that effect of

mercury, by which it manifests its action, inunction on the temple, either of the ung. hydrarg. alone or combined with belladonna, may be had recourse to with benefit. The power of mercury over this disease is so very great, that it has been considered as a specific, and yet, such is the strange anomaly of medical facts, it is supposed that mercury can produce the disease. I have never seen an instance which I could fairly attribute to mercury; and numerous instances are recorded in which iritis appeared, although no mercury had been given. There is not one in the whole list in which the remedy had either been employed for a long time, or affected the system severely.

In the rheumatic and arthritic, and in the syphilitic, when combined with these diatheses, it will be necessary to adjoin colchicum or some of its preparations with the mercury. In such a case, if calomel is given, it should be administered in conjunction with the extract of colchicum and opium, but the better way of prescribing it is by inunction, and the internal use of the vin. colchici. Such subjects do not bear bleeding well; and it is apt, sometimes, more especially in bad constitutions, to prove injurious, by inducing a chronic form, which is difficult to cure.

In some persons, owing to idiosyncrasy, mercury cannot be administered, from the distressing effects it produces. Again, when patients have undergone lately one, two, or more courses of mercury, they are unwilling and sometimes unable to bear another course of this powerful remedy; in such cases *turpentine* should be had recourse to. This remedy was introduced by Hugh Carmichael, Esq. of Dublin.* I quote his words on the occasion, as I find them given in Mr. Lawrence's work.

"I use the turpentine in this complaint in drachm doses, given three times a day. Its disagreeable flavour and nauseating effects I have found best obviated by almond emulsion. This circumstance it is very necessary to attend to, the medicine being so unpleasant, that if its taste be not in some way disguised, it is difficult to depend on patients taking it with the necessary regularity. In the formation of the emulsion, if double the quantity of confection directed in the London Pharmacopæia be employed, that is, two ounces to the half pint of water, it answers the above objects much better; the residuum may be removed by straining.

"With an emulsion so made, the following is the formula I now generally adopt:—

"℞ Olei terebinth rectificat. ʒ viitellum unius ovi; tere simul, et adde gradatim, emulsionis amygdalarum ℥iv. syrupi corticis aurantii ℥ij. Spiritus Lavendulæ compositi ʒiv. olei cinnamomi guttas tres vel quatuor. misce, sumat cochlearia larga duo ter de die.

"In a few cases, it has been necessary to increase the quantity of turpentine to an ounce and a half or two ounces in the above mixture, the other ingredients being proportionally diminished, so that a drachm and a half or two drachms of it may be taken each time; but in general, when administered to the extent directed in this formula, it has very seldom indeed failed, though extensively tried, and in very urgent cases: the instances of its failure shall be presently noticed. The stranguary, so frequently induced

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* Observations on the efficacy of Turpentine in the Venereal and other deep-seated inflammations of the Eye. 1829.

by the internal use of the turpentine, is obviated by the usual means, flaxseed tea and camphor julep; when very urgent, the medicine may be suspended for a time. The tendency to acidity in the stomach, which it sometimes causes, is relieved by the addition of carbonate of soda to the mixture: ten or fifteen grains to the eight ounces will be sufficient. Some patients have said, the taste was further disguised by this addition.

"When the local inflammation is high, and acute pain is present in the eye and side of the head, the abstraction of blood from the temple, by cupping, or the more immediate seat of the disease, by leeching, may be resorted to; the same practice is adopted when mercury is used. Nevertheless I have frequently, when these symptoms were very urgent, relied solely on the turpentine mixture, and with the most decided and expeditious relief; indeed, in some instances, where the pain and hemicranium existed as acutely as they are, perhaps, at any time to be met with, patients have declared they were considerably relieved after they had taken it once or twice, and that its subsequent exacerbations were lessened in a remarkable degree. It is in the former cases I have generally found it necessary to follow up the bleeding by increasing the quantity of the turpentine.

"It is highly necessary to observe, that the condition of the bowels will require attention; the beneficial effects of the medicine appear to be in certain cases suspended when constipation is present, and are called forth, as it were, when this is removed."

It was from the acknowledged influence of turpentine in peritonitis, and the analogy in point of morbid effects between inflammation of the peritoneum, and that of the iris; in both cases a serous membrane being engaged, and in both, adhesions being produced between surfaces intended to be free, that Mr. C. was led to make use of it in iritis; he deems that it acts in the same manner that mercury does, by exciting the absorbents.

Mr. Guthrie, who has given it an ample trial, finds that, "in some cases it has succeeded admirably; in others it has been of little service; and in some, unequal to the cure of the complaint."* Mr. Lawrence has not yet tried this remedy.†

From several cases which I have seen, I am inclined to think, that turpentine acts by exciting irritation in the intestinal canal, and urinary apparatus: the cases which have been most successful, of those which I have seen at least, have been those in which severe strangury has been excited. The degree of counter-irritation thus set up, will readily account for the removal of the original disease. I have likewise seen cases, in which I found it impossible to excite this irritation (notwithstanding the violet odour was so powerful, that it was complained of throughout the house, in which the patient resided, and he was obliged to quit his lodgings accordingly), and in these no benefit was experienced from its use.

If the following cases should induce any one to try this remedy, in those cases where mercury is inapplicable, I shall deem myself fully rewarded, for the time spent in inditing them.

35, *Tavistock Street, Covent Garden.*

[Mr. Foote has detailed four cases, in which the turpentine effected a cure. We regret that want of space precludes their insertion in this number.—Ed.]

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* London Med. Gaz. Vol. iv. p. 509.

† Lawrence on the Syphilitic Diseases of the Eye, p. 207.

V.—*Tests for Opium, Oxalic, and Prussic Acids.* By Mr. H. Myers.

To the Editor of the London Medical and Surgical Journal.

Sir,—If you think the following worth inserting in your scientific and valuable Journal, so much in repute for conveying practical facts and information to the profession, you will oblige, by so doing,

Yours respectfully,

H. Myers.

Newington Causeway.

Opium.—Morphia exists in opium combined with meconic acid, and may be thus known. Take either a spirituous or aqueous solution of opium, and add to it a solution of subacetate of lead, a precipitate is obtained, the meconate of lead; decompose this with sulphuric acid, which forms an insoluble sulphate of lead; meconic acid remains, and is characterized by affording a brownish red coloured solution, with peroxide of iron in muriatic acid, (tinctura ferri muriatis.)

Hydrocianic Acid.—Add first a solution of potass, then tinctura ferri muriatis, and to that, nitric or muriatic acid, and Prussian blue will be produced, known by its peculiar colour.

Oxalic acid may be known from others, by its entirely burning away, without leaving any carbonaceous residue.

VI.—*Observations on Cholera.* By Mr. Curtis

To the Editor of the London Medical and Surgical Journal.

Sir,

While the general attention is directed to the subject of cholera, I beg, through the medium of your widely circulated Journal, to offer to the notice of the profession a remedy which has, I believe, been very little used in this disease: I mean the hydrocyanic acid. I have had upwards of forty cases of cholera during the present summer, and have invariably prescribed the hydrocianic acid, in doses, to adults, of from three to five minims, combined with a mild aperient, to be repeated every three or four hours. If the first dose return, the second to be taken half an hour afterwards. In general the first dose has checked the vomiting, and, in a great measure, relieved the pain, which commonly ceases after the second or third dose. The purging I am not anxious to stop for the first twenty-four hours, as the bowels generally contain vitiated secretions, which would do mischief if allowed to remain. After this time the purging ceases if the hydrocianic acid be continued without the aperients, and sometimes before the aperient is discontinued. Under this mode of treatment severe cases are frequently relieved in two days, leaving the patient of course in a very weak state; this, however, soon goes off under the use of quinine. As a further recom-

mendation of this plan, I should add, that I have not lost a single patient. I subjoin a brief outline of one or two cases in illustration, and am,

Sir,

Your most obedient Servant,

JOSEPH CURTIS.

Camden Town,
August 23, 1831.

CASE I.—Mr. H——, æt. about 30. I was first called in on the 7th August, in the evening, and was informed he had been confined to his bed for four days with distressing vomiting and purging, and great weakness, which still continued. When I saw him, he was so weak he could hardly sit up in bed.

℞ Acid. hydroc. m. xx.
Mucil. acaciæ ʒii.
Mist. cathart. ʒi.*
Aq. menthæ vir. ʒv. ɱ
Sumat quartam partem, quartis horis.

August 8th.—The first dose of the medicine stopped the vomiting, and the pain soon ceased; has passed a good night. When I called he was at his desk looking over some papers; but in a very weak state: bowels gently open.

℞ Quininæ sulph gr. xii.
Acid. sulph. D. m. xii.
Tinct. calumbæ ʒi.
Mist. cath. ʒiss.
Syrup. croci ʒss.
Aq. menthæ P. ʒiii. ɱ
Sumat quartam partem, quartis horis.

The following morning he returned to his work, that of a tailor, and I have not seen him since; but was informed, that he felt better than he had been for some time previous.

CASE II.——— Cross, æt. about 30, a labouring man. About midnight a man came to request my immediate attendance on the patient, and by the time I got down stairs, the wife had arrived to hurry me. On the way to the house, which was not above two hundred yards from my residence, we met two more men on the way to seek me. I was informed the patient had taken his supper as usual at nine o'clock, and felt quite well; and as far as I could ascertain, had taken nothing deleterious. About two hours afterwards, he was seized with violent pain in the abdomen, vomiting and purging; and although not in general an impatient man, had struggled so

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* The following is my mode of preparing the cathartic mixture:—

℞ Rad jalapæ concis. ʒi.
Magn. sulphatis lbj
Aq. puræ lb. ij. decoque per horas duas et cola.

violently, that four or five persons could scarcely hold him; in fact, they thought him mad.

℞ Acid. hydroc. m. xx
Mucil. acaciæ ʒij.
Magn. sulph. ℥ss.
Aq. menthæ V. ℥vss. ɱ
Sumat quartam partem, quartis horis.

August 12th.—Was walking in the garden when I called this morning. The purging still continues, and he feels very weak; no pain or vomiting.

Rept. mist. sine magn. sulph.

13th.—Was out when I called this morning; however, I sent him a mixture, containing quinine, and he completely recovered in a day or two.

VII.—On Adulterations of Alimentary Matters.

(From Dr. Ryan's Manual of Medical Jurisprudence.)

Mr. Accum, in his meritorious work on Culinary Poisons, gives a comprehensive account of the adulterations of the various foods and drinks which are used by every class of society; and to this production I must refer the reader for the author's details of the sophistication of the necessaries of life. He justly observes, "the traffic in adulterated commodities, finds its way through so many circuitous channels, as to defy the most scrutinizing endeavours of individual exertion to trace it to its source." It can, however, be traced to the wine merchant, the distiller, the brewer, the publican, the druggist, the baker, the tea-dealer, the butcher, the dairyman, and every one who adulterates an article of food. I shall notice the most common adulterations.

Wines are adulterated with bitter almonds, or leaves of cherry-laurel, in order to impart to them a nutty flavour; with sweet briar, orris-root, clary and cherry-laurel water, and elder flowers, to give a high flavour; with alum, to render young and meagre wines bright; with cake of pressed elder-berries and bilberries, to render faint coloured port pale; with red sumach, to colour white wines red; with oak sawdust or sloes, or husks of filberts, to give astringency to unripe wines; with tincture of raisin-seeds, to flavour factitious port; and with a variety of spices to render wine pungent.—*The Vintner's and Licensed Victualler's Guide*, p. 259.

It need not be stated, that most of these substances are poisonous. Acetate of lead, or sugar of lead, is added, for fining or clearing cloudy or muddy white wine; the dangerous and fatal effects of which have been described in the article on mineral poisons.

According to *The Mechanic's Magazine*, the analysis of a bottle of cheap port wine was as follows:—spirits of wine, three ounces; cider, fourteen ounces; sugar, one ounce and a half; alum, two scruples; tartaric acid, one scruple: strong decoction of log-wood, four ounces.

The Cape wine generally sold, is composed of drippings of the cocks of the various casks, the filtering of the lees of the different wines in the adulterator's cellars, or from any description of spoiled white wines, with the addition of brandy or spoiled cider.

Champagne, Burgundy, Barsac, Sauterne, &c. are poisonous trash, manufactured in London. It appears, by a trial which lately took place in

the Court of King's Bench, that the scarce and costly Tokay, the Lachryma Christi, and La Crême Divine, are Sicilian wines of an inferior description. Wines are adulterated in the docks; inferior articles, false descriptions, substitutions for the one selected, take place there as frequently as elsewhere.

Potass and lime are added to wine for the purpose of arresting fermentation. These are detected by evaporating the fluid, treating it with alcohol, and adding the hydro-chlorate of platina, which causes a yellow precipitate; and oxalic acid forms a white precipitate when lime is present. It is to be recollected, however, that most wines contain a small portion of potass and lime. The salts of lead are detected by adding chlorine, and then succesively sulphuric acid, which causes a white precipitate (*sulphate of lead*), hydro-sulphuric acid (*black sulphuret of lead*), chromic acid, or a soluble chromate (*yellow chromate of lead*). When sulphuric acid is added without chlorine, the precipitate being dried and calcined with caustic potass, a small portion of metallic lead will be obtained. If one part of water, saturated with sulphuretted hydrogen gas, and acidulated with a small portion of muriatic acid, is added to two parts of wine, a blackish precipitate is thrown down, which being dried and fused by the blowpipe, yields a globule of metallic lead.

When white wines are sweet, and their use or that of red wines is followed by colic or pain in the stomach or bowels, it may be concluded that they have been adulterated with lead.

Alum is detected by dropping a solution of subcarbonate of potass into the wine, which will cause a violet coloured precipitate, or a cloudiness, which will disappear by the addition of muriatic acid or liquor potassæ. If equal parts of lime water and wine are mixed, a slimy or muddy precipitate occurs when alum is present; and when the wine is genuine, crystals will be deposited in twenty-four hours.

The colouring matters are detected by acetate of lead; when a blue precipitate takes place on its addition, we may suspect the juice of elderberries, bilberries, or Campeachy wood to be the adulteration; and when a red precipitate, red Sander's wood, beet or Fernambouk wood. When the wine is pure, a greenish grey precipitate is produced. According to Dr. Prout, ammonia causes an olive green precipitate, when wine is adulterated.

Tannin will be discovered by adding a solution of isinglass, when a gelatinous precipitate occurs, whether the wine be Port, Claret, or Burgundy.

Brandy and British Spirits.—Cogniac brandy is imitated by mixing Spanish or Bordeaux brandy, rum, British brandy, British brandy-bitters, cherry-laurel water, almond cake, capsicums, grains of Paradise, burnt sugar, or other colouring matter.

British brandy is a compound of gin, oil of vitriol (*sulphuric acid*), nitrum dulce, or nitrous ether. The gin, rum, or whisky, is first distilled, and then the deleterious ingredients are added.—*(The Wine and Spirit Adulterators Unmasked).*

Jamaica rum is manufactured in "Modern Babylon," by a bad Leeward Island rum, ale, porter, shrub, orris-root, cherry-laurel water, grains of Paradise, or capsicums. The ripe taste of old rum or brandy is imparted

to new liquor by oak sawdust, or tincture of raisins. The poisonous cherry-laurel water gives a cordial flavour, and sugar of lead may be included among the ingredients.

Gin, "the real comfort," "the liquid fire," alias "blue ruin," is patronized by the poor of "the queen of cities," for its genuineness. The ingredients in this compound are whisky, water, oils of vitriol, turpentine, juniper, cassia, carraways, and almonds, sulphuric ether, orris and angelica roots, capsicums, grains of Paradise, sugar, lime water, spirits of wine, and heading.—(See a work entitled, "*Deadly Adulteration and Slow Poison, or Disease and Death in the Pot and in the Bottle, &c.* 1830.")

Brandy is adulterated with pepper, long pepper, capsicum, and stramonium. On evaporating the fluid, the taste of these ingredients becomes more evident. When cherry-laurel leaves have been steeped in brandy, the proto-sulphate of iron, causes a blue precipitate (*Prussian blue*), or the material from which prussic acid is obtained. When alum is present, chlorine is to be passed through the fluid, then filter and evaporate to a third, and a reddish deposit takes place. When water and alcohol are added to brandy, litmus paper is not reddened, which always takes place when the liquor is genuine.

The adulteration and false strength of spirituous liquors, as brandy, rum, or malt spirits, are detected by diluting the liquor with water, when the acrimony of the capsicum, pepper, or grains of Paradise may be easily discovered by the taste.

If we distil a quart of the suspected liquor, the residuum, if capsicum or grains of Paradise are present, will retain a hot pungent taste. If chalk is dropped into adulterated liquor, and a milkiness appears, either sulphuric or nitric acid is present, for in genuine spirit the chalk will lie at the bottom. The purity of spirits may be ascertained by igniting a quantity of the fluid in a spoon, when, if unadulterated, the whole will burn away without leaving any moisture. Lead may be detected in the same manner, as mentioned when mixed with wine.

Cider and *Perry* often contain lead, which will be precipitated, however small the quantity, by a solution of molybdate of potass. A white deposit takes place.

Vinegar, when prepared from wine, gives an abundant precipitate with acetate of lead; and when reduced by evaporation to a fourth or sixth of its volume, deposits crystals of supertartrate of potass, or cream of tartar. When vinegar is prepared from cider, it does not possess these characters; it gives a copious precipitate with oxalic acid and nutgalls; and if evaporated to the consistence of syrup, it affords a residue slightly acid, glutinous, of the odour of apple. When adulterated with sulphuric or muriatic acid, baryta detects the former, and nitrate of silver the latter. But as all vinegars contain sulphates and hydrochlorates, we should experiment upon a quantity of suspected and pure fluid, and compare the results.

Beer and *ale* are adulterated with the following poisonous ingredients, according to the evidence laid before the Committee of the House of Commons in 1819:—

Cocculus Indicus, a powerfully narcotic and intoxicating drug, hard multum, a compound of a poisonous Indian berry, opium, &c. nux vomica, and Ignatius' bean, two of the most powerful poisons, tobacco, extract of poppies, henbane, Bohemian rosemary, burnt sugar, and heading, which

is green copperas, or sulphate of iron. In the possession of one adulterator, 310lbs. of copperas, and 560lbs. of hard multum, were found and condemned. Capsicums, grains of Paradise, molasses, liquorice-root, wormwood, aloes, bitter oranges, quassia, lime, marble-dust, oyster-shells, hartshorn, &c. (*Lardner's Cyclopedia—Domestic Economy.*—By Mr. Donovan).

Mr. Child, in his Treatise on Brewing, recommends " a dash of vitriol for making new beer old; and also alum."

Bread and *flour* are sophisticated by powdered gypsum, or plaster of Paris, whiting, slacked lime, chalk, finely powdered granite, pipe clay, particularly white Cornwall clay, flour of garden peas and horse beans, potatoes, bone ashes, alum, sulphuric acid, sulphate of copper, subcarbonates of ammonia, potass, and magnesia, alum, mixed with salt is one of the commonest ingredients.

The subcarbonate of potass is used to cause the bread to swell or rise. It is detected by steeping the bread in distilled water for twenty-four hours; the solution is then to be filtered, and will turn syrup of violets green, and give a yellow precipitate, with hydrochlorate of platina, and effervesce with nitric acid. When we wish to discover alum, the preceding solution will give a precipitate with ammonia and potass, the sulphuric acid will unite with baryta, and if the solution be evaporated, crystals of alum will appear. Sulphate of copper, or blue vitriol, is obtained by burning the bread to a cinder, and heating it with diluted sulphuric acid. It becomes of a sky-blue by the addition of ammonia, and affords a black precipitate by hydrosulphuric acid, a red one by sulphate of potass, and it deposits a coat of metallic copper on a polished piece of iron. Flour is always mixed with sand, occasioned by the friction of millstones during grinding; and the quantity which each individual swallows annually is estimated at 6 lbs.—(*History of Inventions.*) Good bread is spongy, and will keep for some days, whereas the adulterated description crumbles and becomes mouldy in a few days. If bread be sliced and boiled slowly, a deposition of the earthy ingredients will be found in the form of a white powder on the bottom of the vessel.

Tea is imitated and manufactured in this country with the dried leaves of the white and black thorn, elder, birch, ash, &c. and the colouring is effected with catechu, logwood, verdigris, copperas, Prussian blue, carbonate of copper, and Dutch pink. The leaves are boiled, then pressed, and baked on plates of iron, or of copper, and lastly coloured. So far back as 1783, it is stated, in a Report of the House of Commons, that " the quantity of fictitious tea manufactured from sloe and ash leaves, in the different parts of England, to be mixed with genuine teas, was computed at more than four millions of pounds weight." This computation was made when the East India Company sold six millions of pounds annually, and what must it be now, when the Company's sales are about thirty million of pounds annually? To detect adulterations, a cup of infusion of the article is to be taken, and a grain of sulphate of copper, or blue vitriol, added; when, if it be genuine green tea, a fine blue colour will be produced; if pure bohea, a deep blue, next to black, and if adulterated, a variety of colours, as green, black, yellow, &c. will take place. If on adding a piece of nutgall, a black colour is produced, we have direct evidence of the existence of vitriol or copperas.

Coffee is imitated by commixing ground acorns, horse chesnuts, horse beans, peas, nuts, barley, rice, wheat, parsnips and carrots, and especially by roasting blue succory or rye with a few almonds. All these substances are torrified or roasted.

Chocolate is often adulterated with varilla and castile soap.

Sugar is sophisticated by mixture with lime, chalk, gypsum, plaster of Paris, and various other white materials. Soft sugar is generally mixed with sand.

Milk and *cream* are sophisticated; the former is mixed with water, or the common cheese dye (annatto), which occasions the mixture to assume the colour and consistence of cream. Skimmed milk and arrow root, boiled together, are added to cream. Chalk and whiting cannot be added to milk, without precipitation. Molasses and salt are often substituted for the cheese-dye, but do not answer so well. The practice of placing milk in leaden pans to increase the cream, is highly injurious. Milk is often adulterated with starchy fæculent matters, which render it thick, oily and creamy. Tincture of iodine will cause a yellow precipitate, when the milk is not boiled, but the colour may be bluish or lilac-blue in proportion as the adulteration is considerable. When the fluid is boiled, the precipitate will be blue.

Subcarbonate of potass is added, to prevent coagulation. The alkaline taste and effervescence with acids, and a yellow precipitate with hydrochlorate of platina, enable us to detect this fraud.

Oxide of zinc is added to thicken milk, and is detected by adding sulphuric acid, which causes a coagulation; the fluid is to be strained, and will give a white precipitate by the addition of the alkalies and hydrosulphates; this is to be calcined with caustic potass, and powdered carbon, when a small portion of metallic zinc will be found on the bottom of the crucible.

Confectionery and *pastry* are so much adulterated as to excite the abhorrence of the faculty: Dr. Paris designates them "an abomination."—*(Work on Diet.)* The white comfits, called sugar peas, are composed of sugar, starch, and Cornish clay, a species of pipe clay; the red sugar drops are coloured with vermillion or sap green, red lead and copper. The chromate of lead is used as a yellow colour, and prussiate of iron as a blue. To the deleterious properties of these substances, I refer the reader to the article on Mineral Poisons, as also for the modes of their detection. There is a valuable paper on Poisoned Confectionary, in the *Lancet*, No. 402, 1831, by Dr. O'Shaughnessy, which will be read with advantage by all who desire information on this point. It is well known that the almond kernel flavour of custards, blanc-mange, &c. is communicated by the poisonous cherry-laurel, which affords so much prussic acid. For further information on the poisonous effects of the adulterations mentioned in this paragraph, I beg to refer the reader to the chapter on Poisons.

Adulteration of Medicines.—There is no country in the world in which medicines are so much adulterated as in this; in fact, it is almost impossible to procure a single article in the Pharmacopœia in a genuine form. I lately attended a patient labouring under a severe disease in the chest, and was greatly surprised that blisters failed to produce any effect. These were procured from a most respectable chemist. On recommending a change to a general practitioner, the blisters acted efficiently. The most powerful medicines produce no effects, and the physician is disappointed

almost hourly, and the patient's health or life sacrifised. This monstrous state of things is to be ascribed to the supineness or apathy of the Royal College of Physicians and Company of Apothecaries, who are empowered by law to destroy all bad drugs, and to fine all who vend them. But these bodies, unmindful of the solemn duty they owe the public, neglect to exert that salutary power which was confided to them by the legislature, and carelessly witness the incalculable sacrifice of human life, from adulteration of those ample agents which a beneficent Providence has bounteously afforded for the alleviation and cure of the " many ills which flesh is heir to." If there was no other charge, and there are many, against these bodies but this, it ought to be more than sufficient to transfer their powers into other hands. The farcical inspection of shops, so well described by one of the Fellows of the College, has excited the sorrow and contempt of every genuine friend to medical science.

Let us next turn to the state of charlatanism in this empire, " the land of the good and the wise," where the most ignorant and illiterate persons are allowed, with reckless indifference, to assume the titles and privileges of educated medical men, to the destruction of human health and life. The College of Physicians, the guardians of public health, are too much inflated with pride and vanity, to interfere to prevent wicked and inhuman impostors from deluding and ensnaring the giddy multitude, the *ingens turba stultorum*, that constitutes the public. Nay, we have even a Fellow of the College defending an ignorant, rash and daring empiric, a convicted felon, and arguing that this nostrum-monger is a more successful practitioner than the most eminent physicians and surgeons of this metropolis. What encouragement exists for the regular physician and surgeon, who have sacrifised their lives, health and property to the study of their profession, when they find themselves superseded by some inspired pretender —some villainous quack? The sanction given to quacks and quackery in this country, has long and loudly been stigmatized by foreign writers, and is a disgrace to the College of Physicians. Most of the vermin that infest this intellectual city are " the lowest of the low" — cobblers, tailors, weavers, painters, footmen, pensioners, &c. &c. generally the most notorious vagabonds in their respective districts. " But unhappily," says an able writer, " it appears that poor John Bull and his hopeful family, are not gifted with the power of being aware of hypocrisy, of advertising charlatans and empirical nostrums; but through their proneness to gullability and love of the marvellous, the trade of quackery is daily increasing, and that hundreds of quacks swarm in every corner of the metropolis, and fatten on the murders which they are constantly perpetrating with their poisons." Recent examples attest the truth of these remarks. My limits prevent me from prosecuting this ample theme, but I console myself with the conviction, that the time has at length arrived when medical reform, like parliamentary reform, can no longer be withheld, when the stupid and inane corruptionists, the medical boroughmongers, if I may be allowed the phrase, will, like their prototypes, be completely annihilated, or compelled to conform to the wants and wishes of the medical public.

Medico-Legal Questions relating to Mental Alienation.

The medico-legal questions relating to mental alienations are, according to Professor Amos, of the London University, three in number;

1, whether a person be competent to manage his affairs; 2, whether he ought to be discharged from criminal responsibility; 3, whether his will and testament be a good will and testament. "Insanity means a very different thing in the English language, according as it is spoken of with reference to these different inquiries.

1. *Whether the Person be competent to manage his Affairs?*

Lord Chancellor Hardwicke held, that "unsound mind was understood by courts of law, importing not weakness of understanding, but a total deprivation of sense."—*Collinson on Lunacy.*

Lord Eldon held the opposite opinion. "Of late," says his lordship, "the question has not been, whether the party is insane; but the court has thought itself authorized (though certainly many difficult and delicate cases, with regard to the subject occur upon that), to issue the commission *(de lunatico inquirendo)*, provided it is made out that the party is unable to act with any proper and provident management, liable to be robbed by any one, under imbecility of mind, not strictly insanity, but, as the mischief, calling for as much protection as actual insanity."—8 *Vesey.* Lord Lyndhurst reversed this verdict, "that the party was not a lunatic, but partly from paralysis, and partly from old age, his memory was so much impaired as to render him incompetent to the management of his affairs; and consequently that he was of unsound mind, and has been so for the term of two years."—4 *Russell's Rep.* 183.

"In these cases of commissions of lunacy," says Mr. Amos, "the jury are to find the party either of sound or unsound mind." But this state of soundness of mind, in the legal sense of the present day, is perhaps not very easy to define, for it is neither lunacy, idiocy, imbecility, or incompetency to manage affairs. It however always involves the idea of unfitness to manage a person's affairs. The term unsoundness of mind, therefore, in its legal sense, seems to involve the idea of morbid condition of intellect, or loss of reason, coupled with an incompetency of the person to manage his own affairs. "Soundness of mind is a legal term, the definition has varied, and cannot, even in the present day, be stated with any thing like scientific precision."—*Lectures on Medical Jurisprudence, Med. Gaz. July,* 1831, v. 8, p. 419.

2. *Whether a Person ought to be discharged from Criminal Responsibility?*

To determine this question, the medical witness is usually asked, "whether the person has a sense of *right* and *wrong?*" Mr. Amos thinks this a question for the jury, and not for the medical jurist, who in general confines his investigation to the discovery of the sanity or insanity of the person. This is generally true, though in the course of examination of the supposed lunatic or maniac, the medical jurist may learn from his conversation his opinions on good and evil—right and wrong. "The kind and degree of insanity," continues Mr. Amos, "which renders a person irresponsible for criminal acts, is a subject upon which it is impossible to give you any precise and scientific notions."—*Op. cit.*

3. *Competency of Insane Persons in Civil Cases.*

I shall next consider the liability of lunatics for their civil contracts. Lord Tenterden decided that a lunatic (Lord Portsmouth) was responsible for goods sold him by a tradesman, such goods being suitable to his condition, and his insanity being unknown to the plaintiff.—5 *Barn. and Cresw.* 172; and in a similar case, 1 *Moody and Malkin*, 105. The Ecclesiastical court have allowed a person who was a lunatic, and had contracted marriage in that state, to have a divorce on his recovery.—1 *Haggard*, 414.

The following lucid exposition of the difference between the responsibility of lunatics or insane persons in civil and criminal cases, by Sir John Nicholl, Judge of the Prerogative Court, fully accords with the received opinions of medical writers :—

"As far as my own observation and experience can direct me, aided by opinions and statements I have heard expressed in society, guided also by what has occurred in these and other courts of justice, or has been laid down by medical and legal writers, the true criterion is—where there is delusion of mind there is insanity; that is, when persons believe things to exist, which exist only, or, at least, in that degree exist only, in their own imagination, and of the non-existence of which neither argument nor proof can convince them, they are of unsound mind; or, as one of the counsel accurately expressed it, 'it is only the belief of facts, which no rational person would have believed, that is insane delusion.' This delusion may sometimes exist on one or two particular subjects, though, generally, there are other concomitant circumstances—such as eccentricity, irritability, violence, suspicion, exaggeration, inconsistency, and other marks and symptoms which may tend to confirm the existence of delusion, and to establish its insane character. The law then does recognize partial insanity in the sense already stated; and, in civil cases, this partial insanity —if existing at the time the act is done, if there be no clear, lucid interval—invalidates the act, though not directly connected with the act itself; but, in criminal acts, it does not excuse from responsibility, unless the insanity is proved to be the very cause of the act."—(See p. 291.)

A man deranged upon some or many subjects may execute a bond, which the solicitor and witnesses proved to have been executed with caution and competency, though the person so doing acted on other points in the most insane and extravagant manner. The jury found that the bond was valid. —*Law Magazine.* No. vii.

A person habitually insane may have intermissions or lucid intervals, during which he may make his last will and testament, which will be valid. The principal judicial decision upon this point is the judgment of Sir W. Wynne. "Now I think the strongest and best proof that can arise of a lucid interval, is that which arises from the act itself (the making of a will), that I look upon as the thing to be first examined; and if it can be proved as established that it is a rational act, rationally done, the whole case is proved. Because suppose you are able to shew that the party did that which appears to be a rational act, and it is his own act entirely, nothing is left to presumption in order to prove a lucid interval."—1 *Phillimore*, 100.

It is however extremely difficult to prove the existence of a lucid interval. According to Dr. Willis, the man is not of sane mind until he acknowledges

his delusion, the validity of which opinion is fully proved by reference to works on Insanity and Medical Jurisprudence.

The medical jurist should recollect that the states of health and of mind of a person making a will, are often to be proved by him, in the event of such will being disputed. He should always note in writing his opinions on these points as soon after his return as possible. I have witnessed men in articulo mortis, in a state of slight stupor, from which they were roused by being spoken to in a strong voice, called upon to sign their wills, cases in which the patient relapsed into his stupor at the interval of five or ten seconds, and I have known one man sign his name under such circumstances. The will was not read to him, but he was told by his nephew and the solicitor that it was prepared according to his instuctions. He certainly was not in a disposing mind, for he would sign any document presented to him; in a word, I should have considered him incompetent, for he was not of "sound mind, memory or recollection."

The law respecting certificates for the confinement of insane persons has been stated, but it is necessary to add a recent decision upon that point. A medical man is not warranted in granting a certificate for the confinement of an insane person, on the representation of relations, without having examined such person according to the statute, unless he is satisfied upon such statements that such a step is necessary, to prevent some *immediate injury* from being done by the individual either to himself or to other persons; and if access cannot be had for the purpose of examination, application should be made to the Lord Chancellor, that the party may be taken up under his authority.—*Anderson v. Burrows*, 4. *Carrington and Payne*, 210. In this case the plaintiff was confined on the certificate of Dr. Burrows, who had not visited him, according to the statute, and he had damages £500.

The symptoms of mania and the various shades of mental alienation are so minutely descibed in monographs, that we need not detail them in this place. The general opinion of physicians is that the following mental affections exonerate individuals from responsibility:—delirium, epilepsy, loss of self-consciousness, idiocy,dementia, mania, monomania, and somnambulism; inebriety produces delirium, but intoxication will not be received in palliation of a criminal act, as it is a voluntary act of the party. Monomania is a palliation, as exemplified in the case of Martin, the incendiary of the York Cathedral; and also in the case of the individuals who attempted to assassinate King George III. and the Duke of Wellington when prime minister.

It behoves the medical jurist to be well acquainted with the symptoms of mental alienation, as this condition is often feigned for the purpose of evading punishment. In such cases we should learn the history of the individual, hold frequent conversations with him, have him watched when alone, for if he feigns his malady, there will be no signs when the pretender is alone; the real lunatic denies his condition during a lucid interval; the person who assumes disease never wishes to conceal it. The pretender cannot prevent sleep for any length of time, the maniac is unaffected by watchfulness. There is a kind of reflection and hesitation in the discourse of the pretender, his wild ideas do not succeed each other with such rapidity as in a maniac. The threat of severe punishment, as flogging, the application of red iron, unless the patient is better next day, will have no

effect upon the maniac, but will cure the pretender.—*(Zacchias, Fodere, Beck.)*

On the other hand, insane persons *conceal* their condition to escape confinement; the cunning and dissimulation practised on such occasions are really surprising.

Some remarkable cases of this kind are narrated in the systematic works on Forensic Medicine. In one case, a maniac was silent on his hallucination, notwithstanding the severest examination of counsel; and hence the public could not be persuaded that such a person was insane. When he is watched closely by his ordinary or medical attendants, he will, in general, be easily detected.

BIBLIOGRAPHY.

MEDICINE.

1. *Rheumatism.*—Dr. J. K. Mitchell has published several cases of rheumatism, cured by treating the spine, with cupping, blisters, leeches, and setons. We shall all be spine-doctors by and bye.

2. *Catalepsy.*—Osward H——, now about twenty-two, has been subject to this disease from puberty. In one of his fits, he fell against a hot iron, and burnt his head severely. *While the wound was open the fits ceased,* but recurred when it had healed. This affords a valuable hint.—*North American Medical and Surgical Journal.*

3. *New Herniary Truss.*—" It consists of a body-belt, to which is attached a thigh-strap, and a compress of hard wood. The body-belt should be about four inches in breadth, and furnished with three straps and buckles: those sold by the dealers in braces answer very well. The compress is a circular piece of hard wood, three or four inches in diameter, flat on the back, convex in front, about three-fourths of an inch thick in the centre, and gradually turned down to one-fourth of an inch at the edge. It is fastened to the body-belt by nails, so that fully one-half of the flat back of the compress is covered by the belt: a screw-nail must also be fixed in the compress for the adaptation of the thigh-strap, which should be about fourteen inches long, furnished with a number of pie-holes one-half inch or less apart, and sewed to the body-belt about nine or eleven inches from the centre of the compress. When put on, great care must be taken to place the compress immediately over the situation of the hernia, then make the thigh-strap as tight as you can, without giving pain in the *bone;** the lowest buckle of the belt must then be tightened, so as to produce a proper degree of pressure." The inventor has used this truss on himself, and finds it gives him more ease than the ordinary trusses.—*Glasgow Med. Journ.*

4. *Cachexia Africana.*—Dr. Gregory seems to think this disease peculiar to negroes; but he is mistaken. The Royal West India Rangers and the Royal York Rangers, European regiments, suffered severely from it.

* Query—What bone?—Ed.

" The preparation herewith transmitted, is the heart of a man who died, a most marked case of that disease, which has been called in this island, *mal d'estomac*, but which may be more properly considered the effect of a complication of disorders, inducing a cachectic habit, and a broken constitution. A soldier at this station, after having had several attacks of fever, remittent and intermittent, and probably several attacks of dysentery, after each of which his constitution had been visibly impaired, becomes of a pale and sallow complexion; his feet and legs swell, particularly in the evening; his stomach and bowels are generally out of order; he has frequent palpitation, and walking up an ascent, occasions a sense of suffocation. In the more advanced stages, his stomach rejects food; the cellular membrane over the body is distended with fluid, and being almost transparent, exposes to view a peculiar white adipose substance, deposited in the cells of the cellular membrane. The breathing, at length, becomes more difficult, and the slightest exertion occasions a sense of faintness; the face becomes bloated, and the eyes haggard and ghastly; the pulse small and unequal. These aggravated symptoms are not present, until a patient has already suffered from several attacks of disease; but a certain approximation to this state is observable after each imperfect recovery, and the constitution appears, after each successive attack, to be rendered less capable of effecting its own cure.

" Intemperance may be considered one of the principal causes of this disease, or rather, of this complication of diseases; and when this change has taken place, the unfortunate sufferer becomes more infatuated than ever with the love of ardent spirits. The uncomfortable sensation which he experiences in his stomach, he imagines, is relieved by the stimulus of spirits; and as it probably produces some alleviation both of his mental and corporeal suffering, no consequences can deter or prevent him from indulging in the most dangerous excesses.

" The most remarkable circumstance that presents itself with regard to this preparation, is its great want of muscularity; and the quantity of fat deposited about its base. The ventricles, instead of being firm and muscular, yield on pressure, and their sides close together like a pouch or membranous bag. The great want of muscularity is not now so evident in the preparation, as it was in the subject at the time of dissection. It has now been preserved during several months, in strong spirits, or what has been called by the planters, " high wines." The corrugating effect of the spirit, has now given to the preparation an appearance of muscularity, of which, at the time of taking it out of the subject, it was entirely destitute.

" The following were the appearances on dissection of the subject, to which this morbid preparation belonged. Surface of the body white; cellular membrane distended with fluid, and almost transparent; an incision, made along the inner side of the thigh with a scalpel, was followed by a copious discharge of a watery fluid; the cells of the cellular membrane filled with fat; a quantity of fluid between the dura and pia-mater; a preternatural quantity in the ventricles of the brain and base of the skull; the whole cavity of the chest filled with water; the heart deprived of its muscularity; about an ounce of a yellow substance, of the consistence and appearance of jelly, in the right auricle; a quantity of dark-coloured

coagulated blood in the same auricle; the liver indurated, and of the colour and consistence of new cheese."

"To deduce any consequences from this remarkable state of the heart, connected with cachectic disease, appears difficult. It may not, however, be uninteresting, to consider some of the principal causes which are supposed to occasion this deranged state of the system, and to see how far they are capable of producing the morbid changes above mentioned.

"The stimulus of spirits taken into the stomach, occasions an increased action of the heart and arterial system, by which the blood is propelled into the extreme vessels, producing a diaphoresis on the surface. The soldier, while under the influence of excesses, frequently exposes himself to the damp and cold chills of the night. The difference of temperature is very considerable at this station, at different periods of the day and night. A soldier, under the circumstances here mentioned, who has been exposed during the day, to a temperature of about 86 degrees, is particularly liable to be chilled by exposure to a damp atmosphere of about 62, to which the thermometer generally sinks here at night, or about gun-fire in the morning. The impression of this cold air on the surface of the body, causes the blood to retire from the extreme vessels, to the heart and other internal organs. The blood, driven on these organs, occasions a local re-action, and the watery part of it being carried off by the exhalents, a more inflammatory diathesis is occasioned. Is it not probable that this excessive action of the heart, occasioned and continued by the causes already mentioned, and directed on itself by the re-action on the surface, is the cause of the destruction or absorption of its own muscular structure?

"I have seen in some subjects, that had died of this disease, a layer of coagulable lymph, connecting the surface of the heart to the pericardium, so firmly, that it required a considerable degree of force to separate them. This circumstance would appear to afford a proof of the previous existence of inflammation of the heart; for, although, this lymph might have been effused from the vessels of the pericardium, we can scarcely suppose the existence of inflammation of the pericardium, without its having extended to the organ which it surrounds.

"By whatever process the muscularity of the heart is destroyed, the fact of its being so, is proved by this preparation. The first impression suggested by its appearance, on dissection, was surprize, that a heart so destitute of muscularity, could have given to the blood the impetus necessary to carry on the circulation. The heart thus deprived of its muscularity, is capable of propelling the coloured part of the blood into the extreme vessels; the consequence of which is, that transparency of the skin and cellular substance, so remarkable to this disease. The languid circulation is probably the cause of the great deposition of fat which takes place in the cellular membrane, over the whole surface of the body, and gives to the skin the white and flabby appearance.

"With respect to the gelatinous substance and coagulated blood found in the right auricle, I can only hazard a conjecture. From the languid action of the heart, in the last stages of the disease, it is probable that, during its dilatation, the auricle could not completely empty itself of the whole of the blood received from the cavæ, but that a certain portion of it remained in contact with its sides, which was afterwards increased by

the accession of more, as the circulation became more languid; and that the gelatinous substance was formed by the decomposition of the stagnant blood; or, by the natural heat of the heart, occasioning decomposition."—*Mid. Med. and Surg. Rep. Aug.*

5. *Cholera.*—The dispatches sent by Drs. Barry and Russell announce the identity of the disease with the Indian epidemic.—*Medical Gazette.*

This fact we never doubted: we always considered it as the same disease although it may be modified somewhat by climate. We likewise consider that the plague, typhus, yellow fever, and cholera are all belonging to one family; the symptoms nearly resemble in each complaint, more especially at the accession. As we declared in our last number, numerous cases are now to be met with of the common cholera, aggravated by the dread of the Russian epidemic. Medical men of note, we are grieved to say, add to the panic produced, by the absolutely useless precautions they employ. In one case, arising from drinking sour beer, the patient's bed was covered with cloths soaked in solutions of the chlorurets, the *emanations* from which were so powerful as to effect the breathing: at the same time the chlorine was diffused through the ward by pouring mineral acids on the chlorurets in basons; *to correct the emanations and prevent contagion*, fudge! We are astonished that the other patients were not attacked with the disease, not from contagion, for until this scientific physician's time, it was never suspected that common cholera was contagious, but through fear. This *splendid* case, cured by the bye, has been published in a weekly newspaper, with the prescriptions Anglicised, and the physician's *name and address attached.* Proh pudor!

The publishing this case in such a way, has made both medical and surgical patients shy of entering the hospital, so that the Doctor may say, "I've done the state some service, and they know it." The surgeons of the hospital, we understand, intend to publish a bulletin, to signify that the cholera has left them. They will probably find ere long, that it is easier to destroy than to create confidence.—Ed.

SURGERY.

6. *Chronic Inflammation of the Sub-maxillary Gland, from a Bristle in the Whartonian Duct.*—The patient was a shoemaker, and in his business was in the habit of biting off the ends of the hog's bristles he employed. The sub-maxillary gland was enlarged to twice its size, but was not very painful, and was attended with a frequent discharge of muco-purulent fluid. At the end of three months, a bristle projected from the duct, and was extracted. The swelling, pain, and discharge ceased in a week afterwards. The bristle was about two inches long.—*Revue Medicale.*

7. *Case of the bite of a Rattlesnake,* (*Crotalus durissus,* Linn.)—Dr. Richard Harlan of this city, has sent us the following relation of this case. The extreme danger to which the patient was exposed, in the present instance, and the success of the curative measures resorted to, appear to me to render it worthy of the notice of the profession.

On Monday, the 13th of September, 1830, Daniel Steel, a showman of living animals in this city, was severely bitten by a large male rattlesnake, immediately below and on the metacarpal joint of the index finger of the left hand: the accident occurred about four o'clock, p. m. on a warm day, whilst he incautiously seized the reptile by the neck, not so

close to the head but that the animal was able to turn upon him. Immediately after the bite the blood flowed freely from both the fang-punctures: the parts in the immediate vicinity of the punctures became tumid and livid, notwithstanding the efforts of the patient at suction with his mouth—which faintness obliged him soon to relinquish. On my arrival, about half an hour after the accident, I found him extremely pale and faint, and was informed that he had fainted several times: the whole of the back of the hand was puffy and tumid, with infused non-coagulable blood, which appeared to have infiltrated from the vessels, and forced its way through the cellular tissue; a ligature had been previously applied on the wrist; another was now placed on the arm, the fore-arm having already commenced swelling.

The situation of the wound rendered the use of cups inapplicable, and the flow of blood was so rapid as to make their application expedient. The punctures were separated some distance from each other, which rendered it requisite to excise two large portions of integument, the incisions extending down to the tendinous fascia; the blood, which flowed freely after the operation, did not appear disposed to coagulate; cold water was now poured on the wounds, in a continued stream, from the mouth of a pitcher, held at a considerable elevation, and the swollen parts in the vicinity of the wounds were forcibly pressed, in order to expel the effused blood. The patient again became very faint, and was laid in a recumbent posture. The wounds were next washed with spirits of hartshorn, several doses of which were administered internally; but being now informed that the patient had drunk freely of sweet oil, the hartshorn was omitted, until the stomach could be evacuated by drinking warm water. A poultice of bread and water was next applied, to encourage the bleeding, and the patient put to bed. At ten, p. m. I was sent for in haste; the patient was thought by attendants to be dying. The bleeding from the wounds had been extensive, the tumefaction had extended up to the arm, the inner and inferior portions of which were discoloured by effused blood: the patient vomited incessantly; he complained of insatiable thirst, and drank cold water every few minutes: he had pain and stricture at the pit of the stomach, great restlessness and anxiety, cold skin, with the exception of the wounded arm, which was very painful: add to which, there existed delirium, singultus, difficulty of breathing, and pulse at the wrist scarcely perceptible. The poultice, bandages, and all ligatures, were immediately removed; the back of the hand was blacker and more swollen, and the skin of the fore-arm was hot and tense. As a substitute for the poultice, and in order to suppress the bleeding, which appeared to endanger the life of the patient by the debility it occasioned, large flat pieces of fresh meat were bound on the wounds, hand, and fore-arm; before this operation was completed, the patient exclaimed, "that feels comfortable." The indications arising from the present symptoms were, 1st, to allay irritation and thirst; 2d, to arrest the vomiting; 3d, to procure sleep; and 4th, to excite the sanguineous system to resist the depressing power of the poison, which had so emphatically manifested itself on the system in general.

A mustard plaster was directed to be applied to the pit of the stomach; sixty drops of laudanum to be administered every half hour, until the vomiting be arrested; after which the following bolus, to be taken every two hours until sleep should be induced: R. Pulv. opii, six grains. Pulv. gum. camph. eighteen grains. Pulv. carb. ammonii, thirty grains. Divide into

three boluses. Sig. as directed. Of these pills he took three before the effects desired were manifested. On the morning of the second day his pulse was raised; the extreme thirst and irritability of the stomach were allayed, and reaction of the system in several respects was manifested, but the tumefaction of the arm had extended to the shoulder, with broad black streaks up to the axilla: stricture at the breast, and great local pain were now the chief complaints. The application of raw meat was renewed, as it afforded comfort to the patient, and appeared to reduce the swelling of the hand, and, by pressure, had nearly suppressed the hemorrhage. In order to allay the pain and tension of the whole arm, he was directed to expose it naked to the *fumes of burnt wool,* in a convenient apparatus; which was attended by such marked alleviation of symptoms, that the patient himself was desirous to have the operation frequently repeated, and continued for two or three days; the swelling always diminishing after each application: it caused the arm to perspire profusely, and covered it with a blackish soot impregnated with ammonia, resulting from the decomposition of the wool. During the intervals, the arm was rubbed with volatile liniment. The raw meat having become offensive from its disposition to ferment and putrefy, was omitted, and flaxseed poultices substituted; the anodyne boluses were continued in half doses through the day, and the quantity increased at night to produce sleep. The system again became depressed, and appeared to struggle with the effects of the poison; as the patient had been somewhat addicted to intemperance, he was allowed milk-punch to support his strength. On the third day, a greater degree of reaction was obvious; the bowels were evacuated by castor oil; the dose of the anodyne was diminished, and by carefully nursing the arm, in less than a week, suppuration supervened, and the patient was able to leave his bed. —*North Amer. Med. and Surg. Journ. Jan.* 1831.

8. In the number of the *Edinburgh Med. and Surg. Journ.* for July, 1831, Mr. Nevison relates a case. A soldier debilitated by previous disease, afflicted at the time with herpes and buboes, which had just burst when he first saw him. The right bubo became sinuous,and in spite of the most active treatment, hæmorrhage, at first venous, then arterial, came on, and finally terminated the patient's life. On examination, the external iliac artery was found ulcerated through: the right iliac region was one mass of disease.

9. *Hernia Cerebri.*—From some experiments which he has performed on this interesting subject, M. Flourens concludes, that "the hernia cerebri is only the expansion of a given point of the cerebrum; that it is caused by the cerebrum being no longer contained by its membranes at that given point; that any alteration or lesion of the substance of the brain increases the hernia; and that, finally, the *total removal of the membranes would prevent the hernia, by substituting a general for a partial expansion.* We firmly believe that it would prevent the hernia, but it must be by *causing death,* and not the general expansion of the cerebrum: it is rather an Utopian scheme."—*Annales des Sciences Naturelles, March,* 1831.

10. *Acupuncturation of the Arteries.*—At the meeting of the Academie des Sciences of the 14th February, M. Velpeau suggested the acupuncturation of arteries as a means, which might, in general, be advantageously substituted for the ligature. This idea is not new; we have heard it recommended before. It can only be applicable in cases of aneurism, and then, even, we should not like to try it.

11. *Nitrate of Silver in Purulent Ophthalmia.*—Mr. Walker, of Manchester, recommends, in the *Lancet*, the passing a stick of *nitrate* of silver over the palpebral conjunctiva in this formidable complaint. "It is merely necessary to draw it lightly over the conjunctiva of the lids." Where it cannot be easily applied, he recommends a solution, or the ointment of Mr. Guthrie. He appears to labour under the same mistake as the "Country Surgeon," in our last, and which was so *ably* pointed out by our correspondent, Mr. Foote, jun. The mistake appears to originate with Mr. Mackenzie, of Glasgow. He relates two cases in illustration.

12. *Ung Argent Nitrat.*—Mr. Middlemore has found this ointment in the proportion of five grains to the drachm, with the liq. p. acet gtt. xv. of great advantage in diseases of the cornea, particularly leucoma. He relates two cases of its success.—*Midland Reporter.*

In a late number of the *Lancet*, Mr. Neil adds his testimony to the utility of this ointment, more especially in purulent ophthalmia. It is beginning to be appreciated.—Ed.

13. *Apparent Magnitude of the Eye-ball.*—"The comparative magnitude of the eye in different persons, is very often incorrectly estimated; and it appears to me that the following circumstances, which materially modify the apparent magnitude of this organ, are frequently overlooked, on a superficial examination, particularly by students. 1st. The deposition of fat within the orbit, or the structure of the orbit and surrounding parts, by which the eye is thrust forward, so as to be more prominently situated than usual. 2d. The length of the intertarsal slit; if the opening between the lids be smaller than ordinary, in consequence of the shortness of the intertarsal slit, the eye will appear to be diminutive, owing to a small portion of its sphere being exposed to view. 3d. The extent to which the conjunctiva proceeds along the tarsus, before it is reflected upon the globe of the eye; if it pass far backwards before it is reflected upon the globe, a large portion of the eye-ball will be seen in its ordinary movements, and on separating the lids, a great part of its sphere may be exposed to view, yielding an appearance to those unacquainted with this fact, of greater comparative magnitude than the organ actually possesses. 4th. The size of the cornea compared with that of the globe, for although the magnitude of these parts is generally relatively equal, yet, in some instances, there is a considerable disproportion in this respect, and if in such case we were to infer the magnitude of the eye-ball from the dimensions of the cornea, our estimate would be extremely inaccurate."—*Midland Reporter.*

14. *Glutæal Abscess.*—Jan. 29, 1831.—H. C. æt. 21, had the small-pox rather severely, nine weeks ago, from which she recovered slowly. About six weeks ago, when first getting about, she felt frequent shooting pains in the left hip, which were worse when she was in an erect posture than when lying down; she could not sit at all. She soon perceived it began to appear larger than the opposite hip, with a sensible diminution of the pains. There is, at present, an abscess under the lower portion of the glutæi muscles, and extending half way down the outside of the thigh; it projects most, just below and anterior to the greater trochanter. She was a strong girl before the attack of the small-pox, but is now very much emaciated. Tongue white, with morbidly red edges; alvine evacuations pretty healthy, both in regard to quantity and quality; pulse quick and sharp, but weak; urine scanty, and almost of a red hue.

February 1st.—A small incision made with a lancet, on the most projecting point of the abscess, and about a quart of fætid pus, with clots of blood intermingled, was let out. To quiet the irritation, and strengthen her system, she was ordered ℞ Tinct. opii gtt. x. Quin. sulph. gr. ij. Mist. ros. acid (nosocomii) ʒi. M. ft. haust. 4tis hŏris sumendus. To have nourishing diet, with Port wine and malt liquor. Edges of the wound brought closely together.

5th.—Edges of the wound not united; oozing of pus from under the plasters, which being removed, about twelve ounces of pus, of the same kind as the last, were evacuated, and the edges of the wound, which had small granulations on them, were brought into close contact. General health much improved: appetite better; gaining flesh.

7th.—Feels much better, but complains that the medicines make her sick, so she is to omit them, and go on with her good diet.

11th.—Abscess re-opened, and about 12 oz. of fluid let out. The sides of the cyst were pressed together by a roller passed round the thigh and lower part of the body.

15th.—The abscess burst last night, and about 14 oz. of inodorous pus came away. She is not quite so well as she was, her appetite having left her.

25th.—Cyst filled again, and re-opened, and about 11 oz. of "laudable pus" let out. A poultice to be applied to the part.

April 1st.—A smaller and smaller quantity of pus has continued to ooze from the last opening, consequently there has been no accumulation. There is now but very little discharge from the part, and she is getting stronger and gaining flesh daily.

27th.—Walks about the ward with a little assistance.

May 15th.—There has not been any discharge from the wound for the last fortnight, and she feels quite well. A person to see her now, who had seen her when she came to the hospital, would with great difficulty recognize the invalid, in the fine red faced girl who left the infirmary to-day."

15. *Cure of Cancer.*—Dr. Leonard Pierce has published in our esteemed cotemporary, *the American Journal of the Medical Sciences*, a case of cancer, *cured by repeated excisions and a diet of Indian corn, Zea mays, Linn.* If it be true that this will cure cancer, and it should be worthy a trial in this intractable disease, from Dr. Pierce's case, it will add a new value to the Indian corn, which Mr. Cobbett praises so much.

The patient was Dr. Pierce's mother. The disease in the right breast. It was discovered in September, 1825, she being then in her sixty-second year. In the following March Dr. Pierce was consulted, who recommended its removal; but Dr. Smith advised the use of iodine. He commenced with *fifteen drops* of the tincture, three times a day, and gradually increased it to *eleven*. The iodine ointment was also employed. The tumour increased with lancinating pain in the breast and axilla, and it was accordingly removed. The wound healed in the usual time.

In the winter of 1826-27 another tumour appeared in the cicatrix, with pains darting into the axilla. Similar pains were felt in the neck of the uterus. This was removed in April, 1827. The wound did not heal, luxuriant granulations shot up, and very little purulent matter was discharged. Within a few weeks two other tumours arose, increased rapidly, ulcerated, united with the granulations, and formed a tumour, slightly elevated above the skin. The edges were inverted, the surface jagged and

angry. It bled on the slightest injury, and often without any hurt. The discharge not purulent but watery. Pain in the tumour and axilla severe, and almost uninterrupted: less constant in the neck of the uterus. At this instant, the dreadful opinion that death was the inevitable consequence of the disease was given, and apparently with reason. Had we such a case, we should undoubtedly expect the rapid and painful dissolution of our patient. But it seems that it was not to be so. Dr. Smith, of Yale College, (the gentleman whose operation for the disarticulation of the leg is mentioned by Velpeau) being consulted, recommended a fresh excision, and vegetable diet, such as green corn and water, and the red oxide of iron with conium were also to be used. Before the operation was performed she was seized with dysentery, during which the discharge from the cancer was greatly diminished. The operation was successfully performed, although from all the circumstances it was supposed that she would not be able to survive the operation. The skin was brought together, and it finally healed. The diet was persisted in, the pains in the axilla and uterus entirely subsided, *although they recurred on attempting to use an animal diet again.* She still employs this diet.

Should this prove a perfect cure, it will be a valuable addition to our pharmacopœias. As it is, Dr. Pierce deserves our thanks for stating the case. We know not which to admire most, the extraordinary fortitude of the patient, or the extraordinary success of the treatment. We doubt the continuance of the cure.

16. *Amputation at the Hip-joint.*—Dr. Bryce records a case of this amputation, which terminated successfully. The patient, a Greek soldier, 23 years of age, was wounded by a six-pound shot, at the disastrous battle of the Pirœus Bay, Athens, on the 6th of May, 1827. The ball struck the posterior and lateral part of the left thigh, immediately below the trochanter. The integuments and muscles of the hip and thigh were very extensively torn and removed. The trochanter, neck, and four inches of femur were broken into minute pieces, but the femoral vessels were untouched, and the mass of flesh on the inside, formed by the adductors, vastus internus, and gracilis, was uninjured. The patient complained of pain, but was little depressed. Bleeding trifling. He was conveyed on board an hospital ship, and the operation speedily determined on. The operation was as follows:—

"Firm pressure being made by the cross-piece of the screw of a tourniquet and a pad on the external iliac, immediately above Poupart's ligament, a convex incision was made across the highest part of the thigh and hip, passing from the inside of the sulcus of the blood vessels to an inch and a half behind the trochanter, including in this convexity and extent the torn superior circumference of the wound, and exposing the capsular ligament of the joint.

"The femoral artery was now secured above the branching off of the circumflex and profunda. The capsule and round ligament were next divided, the acetabulum exposed, and the head of the bone drawn out. The amputating knife was again taken, and, observing the particular shape of the upper incision, a corresponding flap was formed, by a double stroke of the knife, from the inner and under part of the thigh, in which the fractured portions of the bone, and the contused and lacerated soft parts were in-

cluded. The arteries were now secured, and the wound cleared of blood. Notwithstanding frequent ablutions of the wound with cold water, there existed a troublesome oozing of blood, without our being able to detect its sources, by which, and the fatigue of the operation, the patient became exhausted. Wine and assuring language restored him somewhat. It was evidently dangerous to dress the wound immediately: and leaving therefore its surface uncovered exposed to the air, we proceeded to another amputation. By this management the wound became so dry, after a few minutes, as to allow the operation to be satisfactorily finished. The flap covered very well the face of the wound, and was easily retained in proper contact by strips of adhesive plaster. The common dressings were applied, and a double-headed roller was carefully adapted to the peculiar form of the hip."

Notwithstanding the irregular movements of the army and navy, in consequence of the melancholy event of this battle, this man perfectly recovered. He was quite well in six weeks.—*Glasgow Med. Journ.*

This operation reflects great credit on Dr. Bryce, both for the manner in which it was performed, and the manner in which it is detailed.—Ed.

MATERIA MEDICA.

17. *Oil of Sassafras.*—This oil, exposed to the temperature of forty degrees of Fahrenheit, for twelve or fourteen hours, formed crystals, which on being exposed to the heat, melted, and again became pure oil, without undergoing any decomposition.—*American Journal of Sciences and Arts.*

18. *Asbestos impregnated with Platinum.*—I find that if asbestos or charcoal be soaked under an exhausted receiver in muriate of platinum, then dried in an evaporating oven for twenty-four hours, and afterwards ignited, the property of ignition in the gaseous element of water is acquired.—*From a Letter of Dr. Hare.—Opus supra cit.*

19. *Secale Cornutum.*—Mr. Henderson has published some cases illustrative of the use of this remedy. He considers it to be "a powerful uterine stimulant." We would suggest to him, that he employs it in too large a dose. Two drachms in powder for a dose is large if it be good. His remarks are good, but having been given so often in this journal, we shall pass them over.—*Edin. Med. and Sur. Journ.*

20. *Tartar-emetic in Mania and Delirium Tremens.*—Mr. Spence has published the result of his experience in these diseases, and recommends the exhibition of large doses of tartar-emetic nearly in the solid form, so as not to produce emesis. In one instance he gave the following formula as a dose:—

Antim tart. gr. xxx.
Aq. puræ ℥j.
Mt. haust statim sumendus.

The dose must be regulated by circumstances.—*Opus supra cit.* Such practice must be rather dangerous.

21. *Wine of Colchicum.*—In reviewing the *New York Pharmacopœia,* one of our American cotemporaries, the "North American Medical and Surgical Journal," speaks thus of the *wine of colchicum.* "*The wine of colchicum* is made with two ounces of the *fresh bulb* to a pint of wine. We were not aware that the recent bulb was to be had in this country, and if it were

imported, it would not arrive in a state fit for use. The proportion, moreever, of colchicum is much too small. We venture to predict that little good or harm will be done by the wine prepared according to this process," (and we add, we would not willingly take two drachms of it without illness justifying us; we should expect severe nausea, and all the various ills that it gives rise to, would attack us, and that right speedily). "We prefer greatly the proportion ordered in the 'United States Pharmacopœia,' viz. one part of the bulb to two of the wine. A saturated solution is on every account highly desirable. Wine prepared in this manner, in our city, has been found highly efficacious, while that imported from England, or made according to the directions of the *London Pharmacopœia*, has often proved nearly inert." Here's contradiction with a vengeance! *A saturated solution is on every account desirable;* and yet the English wine, or the wine made according to the English directions, *is nearly inert.* Why the London wine is stronger than the American: their's is, "*one part of the bulb to two of wine,* and ours (we copy and condense not) is as follows:— ℞ *Colchici radicis recentis concisæ lb; spir. ten. f.* ʒ*iv. aquæ distillatæ oj. macerate for fourteen days and strain.* It cannot be urged that the greater quantity of the colchicum renders it *inert,* as the menstruum will not take up more than will saturate it. We disapprove as much as they do of that formula, but because there is too much, not too little colchicum: we think two ounces to the pint a better formula. We must also add, and it is with great pleasure that we do so, that our cotemporary had made us the *amende honorable* afterwards. He says in the same review, "We will briefly enumerate the processes extracted from the *London Pharmacopœia, at the same time stating our serious conviction* that this is decidedly *the best part* of the work accomplished by the New York convention."

MIDWIFERY.

22. *Treatment of Abortion by Cantharides.*—Dr. R. Lee Fearn, of Alabama, has reported the following curious case in the *North American Medical and Surgical Journal.* A negro servant, married in her thirteenth year, aborted frequently at the fifth or sixth month. A separation from her husband was recommended, and carried into effect for two years: this, however, was without avail, the abortions still recurred. Drs. Chapman, Dewees, Jackson, and others were consulted without avail. She was at last delivered on the 25th of December, 1830, of a full grown boy, after ten or eleven abortions in nine years. Treatment, venesection, laxatives, absolute rest, *and the internal use of the tincture of cantharides, so as to keep up continual strangury, and a terebinthinate decoction of cantharides to the lumbar region.*

CHEMISTRY.

23. *Chemical distinction of the different Rhubarbs.*—Ioduetted hydriodic acid tinges the Russian rhubarb *green,* the Chinese *brown,* the English *deep-red,* and the French *blue.—Journal de Chemie Medicale, September,* 1830.

24. *New Metal Vanadium.*—M. Sefstrom, director of the mines of Fahlun, in Dalecarlia, has discovered a new metal, which he calls *vanadium,* in some iron ore. It is the same as the *Erythronium* of M. Del Rio, which he discovered in the brown lead mines of Zimamssas, in Mexico. Magnesium may be obtained by decomposing chloride of magnesium by potassium.

Magnesium is a brilliant metal, of a silvery whiteness, perfectly ductile and malleable, fusible at a comparatively low temperature, and, like zinc, capable of sublimation, at a temperature very little higher than that of its fusibility, and condensing in the form of small globules.—*Journal of the Royal Institution of Great Britain, May,* 1831.

25. *Vanadium.*—It is very remarkable that this metal should be discovered almost at once in three parts of the world. By M. Del Rio in Mexico; M. Sefstrom in Dalecarlia; and Mr. Johnston in Scotland, who has discovered it in the mines at Watlockhead.—*Edinburgh Journal of Sciences.*

MISCELLANIES.

26. *Tweedie v. Ramadge.*—Dr. Ramadge was in attendance on a case of typhus; the patient, a young lady, was bled from the arm on a Friday, and *eight dozen* (96) *leeches* applied to the head and neck. On Saturday, both temporal arteries were opened: the patient fainted, and the apothecary, who was likewise in attendance, *left* her; the nurse brought her round with wine and water. On the Sunday, *another dozen leeches* were applied, and immediately she became delirious, when Dr. Tweedie's advice was requested by the relatives.

Dr. Tweedie having spoken apart with Dr. Ramadge, addressed Mrs. Reynolds, the sister of the patient, and said, " *That having attended the family before, he should be happy now to give his assistance to the young lady,* BUT THAT DR. RAMADGE'S CONDUCT IN A LATE CORRESPONDENCE WITH JOHN LONG, HAD BEEN SUCH, THAT NO MEDICAL MAN OF RESPECTABILITY COULD CALL HIM IN OR CONSULT WITH HIM, WITHOUT INJURING HIMSELF IN THE EYES OF HIS BRETHREN. *That he (Dr. Tweedie) bore no private pique against Dr. Ramadge; he believed him, indeed, to be clever, but his character, as regarded the above transaction, rendered it imperative for all medical men to decline acting with him, and Mrs. Reynolds must, therefore, choose which she would entrust.* Dr. Ramadge replied in great anger, " *that he was a gentleman by birth, education, and profession, but that Dr. Tweedie was neither* * * *. Dr. Tweedie answered him by turning coolly on his heel, and walking out of the room. Dr. Tweedie was retained, and cured the patient by *exactly opposite treatment.* Dr. Ramadge, it is said, is frequently at supper with John Long.—*Lancet.*

Dr. Tweedie has honourably and faithfully discharged his duty to his medical brethren, and we hope every one else will do the same. We are well aware who it is, and a medical man to boot, that makes the trio in these *family suppers.* Let him be warned in time: he takes upon him to defend this nefarious quack and man-slaughterer in the face of the whole profession; let him take warning, or we will not spare him.—ED.

27. *Elevation of the Morea.*—In a paper communicated to the Academie des Sciences, on the 31st of January, containing a series of geological observations made by M. Boblays, in the Morea and in Egina, it is stated that there are positive proofs of the whole soil having risen considerably, not in a gradual or continuous manner, but by sudden starts, so that the grounds abandoned by the sea are marked out in steps or layers in irregular gradation.

We should like to know on what grounds such an assumption is formed: It is more likely that the appearance of rising is owing to the retiring or sinking of the sea, numerous instances of which are on record.—ED.

28. *Literary Honours for the highest Bidder in England:—*

Societies.	Fee of Admission, including Composition for Annual Payments.	Appended Letters.
Royal Society	£ 50 0	F.R.S.
——— of Edinburgh	25 4	F.R.S.E.
——— Academy of Dublin	26 5	M.R.I.A.
——— Society of Literature	36 15	F.R.S. Lit.
Antiquarian	50 8	F.A.S.
Linnæan	36 0	F.L.S.
Geological	34 13	F.G.S.
Astronomical	25 4	M.A.S.
Zoological	26 5	F.Z.S.
Royal Institution	50 0	M.R.I.
Royal Asiatic	31 10	F.R.A.S.
Horticultural	48 6	F.H.S.
Medico-Botanical	21 0	F.M.B.S.

Prof. Babbage on the Decline of Science in England.

29. *Grand National Cemetery.*—We are happy to perceive that the project for forming a national cemetery is now advancing to its execution. We hope that shortly the unhealthy practice of inhumation in large towns will be abandoned. The company have purchased fifty-four acres of land on the Harrow road, two miles from town. The site is a good one. It will be a Pére-la-Chaise in miniature. The plan that we have seen is very superb; and we hope, as a French farmer-general once said, on the erection of a chapel in his castle, "*That we shall all be buried there, if God grants us life.*"

30. *Collier v. Simpson.*—An action in the Court of King's Bench took place about a month ago, between the above parties; since then letters and recriminations have appeared weekly in the *Lancet* from the parties concerned and from others. Without entering into the merits of the affair at all, we must *de toto* condemn such proceedings; they are derogatory to the profession, and inimical to the writers; and we cannot but add that, had both parties attended to *medical ethics*, the cause for the action would not have occurred, and the profession would have been spared the humiliation of such a proceeding. Had Dr. Collier, the *physician*, condescended to meet Mr. Simpson, the *apothecary*, at the time, as according to ethics, he should have done, Mr. S. would not probably have been irritated, and have vented his anger in the unseemly manner he did, in condemning the physician's prescription, though, we must say, it was a prescription which, we would not have written under all the circumstances. The blame, however, we consider, rests mainly with Dr. Collier, for having acted primarily in an uncourteous manner, for it is not to be doubted, however much it may be concealed, that that was the "fons et origo mali;" and that Mr. Simpson would not have expressed himself so severely, were it not that he deemed himself illtreated. We are sorry to observe, that the letters are written in a spirit we would fain see disappear. We dare not trust ourselves with any comments on Sir H. Halford's speech to the opposing attorney, on the subject of the subordinate members of the profession censuring their superiors.

31. *Hydrophobia.*—Mr. Dewhurst thinks that, "First, it may occur spontaneously without inoculation. Secondly, it may be *confounded* with inflammatory diseases, particularly of the viscera; and thirdly, it may arise from a *non-gratification* of the animal passions, particularly sexual intercourse.—*Observations on Hydrophobia.*

32. *Royal Authority for the Study of Anatomy.*—"When the studies of the Dauphin, only son of Louis XIV. were nearly completed, the King complained one day to Bossuet, that his own education had been very much neglected by Cardinal Mazarin, who dreaded that he would become too learned under the direction of his preceptor, M. Péréfixe de Beaumont. The King said that, *he had never had the slightest idea of the organization of the human frame given him,* and that having been desirous of acquiring some notion of it, in a riper age, he had been repelled by the nomenclature of anatomy, and that despair of ever fixing it in his memory had diverted his attention from a study repulsive enough in itself; but he desired that his son, brought up with more care, should attend an abridged course of this science before the completion of his education. Bossuet, by whom alone the young prince was instructed, followed courses of anatomy in the amphi-theatre of Sténon, and composed himself an abridgement of this science in thirty-two pages for his pupil."—*Essai sur l'Eloquence de la Chaire.*

33. Peter the Great studied anatomy and physiology at Amsterdam, under the celebrated Ruysch, and performed several surgical operations: being desirous, as he said, "before all other sciences, to know that of man, and to render assistance, with his own hands, to his officers wounded on the field of battle.—*Le Pelletier.*

34. *Habit.*—The power of habit is well known; *use is second nature.* The case of the Turk, who, after having accustomed himself to take great quantities of opium, no longer deriving any excitement from it, gradually accustomed himself to take corrosive sublimate until he took the enormous quantity of two drachms a day, must still be fresh in our readers' recollections. Mithridates, who accustomed himself to large doses of the most violent poisons, so that in the end not even the severest had any effect on him, is "a case in point." But the following, recorded by *Le Pelletier* in his Physiology, we think has never been excelled. "The druggist, Buquet, who died at Paris towards the commencement of the present century, after having successively used *cider, wine, brandy, alkohol, finally drank each day a quart of ether.*" "Le pharmacien Buquet, mort à Paris vers le commencement du siècle, après avoir successivèment usè du *cidre, du vin, de l'eau-de vie, de l'alkohol,* parvint à boire chaque jour un LITRE D'ETHER."

35. *Professorship of Anatomy in the London University.*—It affords us much pleasure to inform our readers that Dr. Quain is appointed professor of anatomy in the London University. The zeal and indefatigable industry of this gentleman for his pupils, have been long the subject of just praise, and eminently qualify him, in conjunction with his high talents and great eloquence, for the important station in which he is most properly placed. The Council of the University have shewn much discrimination and judgment in this appointment.

36. *Professorship of Surgery.*—Among the numerous candidates for this office, Mr. Samuel Cooper is entitled to the first place. As an author and a practical surgeon, his fame is known throughout the civilized world; and

is such as must be properly estimated by the Council of the London University. The celebrated works of Mr. Cooper, as well as his great experience as a staff surgeon and attendant on the Fleet and King's Bench prisons, are qualifications, which cannot be surpassed, or perhaps equalled by any of his rivals. His appointment affords complete satisfaction to the profession; and most materially contributes to raise the fame of the Medical School of the University.

37. *Professor Pattison's Statement of his Connexion with the University of London.*—As independent journalists, we published some of the charges against Professor Pattison, and as such, we now publish his defence.

The facts detailed in the statement before us, are said to be altogether "remarkably free from exaggeration" by Dr. Birkbeck, one of the council of the London University; and this induces us to place the substance of them before our readers. No comment is necessary.

It appears that Mr. Pattison was Professor of Anatomy in the University of Maryland, from which he derived, with his practice, over £2000 a-year, when he joined the University of London. His pupils had increased from sixty to three hundred, though a stranger, and of course exposed to opposition.

He had previously a large class in Glasgow, though his rival was Dr. Jeffery, "one of the most eloquent and popular anatomical teachers, who has ever delivered lectures in these countries." The fame of the narrator, however, was so great, that he was invited to become professor in Pennsylvania, and afterwards in Maryland.

After his appointment in London, he was promised a salary of £.300 a-year, and requested by the Council to visit Germany, and incurred an expense of £.130. On his return, he was complimented by the Council for his exertions, yet that body refused to pay his salary or expenses. His next ground of complaint is the appointment of the late Mr. Bennet, whose conduct, on the occasion of the distribution of prizes, was pronounced by Dr. Turner to have been "*exceedingly indecorous.*" It conveyed the idea that Mr. P. was ignorant of anatomy. Our author cited authority of Bichat, Cloquet, and lastly, Mr. W. Bennet's translation of Bayle's Anatomy, in support of his opinion. Yet Mr. Bennet maintained his position in a letter to the Council.

The next ground of complaint is against the Warden, for having offered Mr. Pattison's chair to Mr. Bell, without any authority from the Council or Mr. P. The Warden now addressed a recommendation to the Council to have Mr. P. removed from his professorship. Charges were now urged by a nameless slanderer, which were, "that of neglecting the business of my class by lecturing in a desultory manner, and irregular, and by failing to supply subjects sufficient for the purpose of effective teaching."

These were investigated by Lord Brougham, the Attorney-General, Mr. Mill, and Mr. Warburton, and pronounced to be without foundation. Drs. Conolly, Thomson, Turner, and Davis, were of the same opinion; but no notice whatever was taken of their communication. Mr. P. observes, "Drs. Thomson and Turner have since used their endeavours to drive me from the University."

The next part of the narrative is contained in No. 29 of this Journal, Vol. v. and relates to the charges of the students, which were encouraged by the Council.

" Such letters were certainly never received by any judicial body; yet the Council of the University of London required a gentleman, who for twenty years had been distinguished as a teacher of anatomy and surgery, to answer them. To my amazement, the letters of the complaints were sent me; and such letters! In one I am accused of not lecturing on a particular organ; in another I am charged with lecturing too long on the very same organ! One student says I was not minute enough in the demonstration of the bones, and another blames me for not spending too much of the session in the description of the skeleton: in a word, the contradictions which the letters contained would have convicted their writers, in any court in Christendom, of the most barefaced misrepresentation and malevolence. But *I was required to reply to them*, and I condescended to do so. I proved their falsehood by the gross contradictions in which they abounded; and I disproved the charge of neglecting to teach the anatomy of certain organs, by bringing forward notes taken in my class-room by other pupils, which proved that the subjects, which it was asserted had not been taught, had been fully demonstrated! The Council, at last, having no ground to rest their charges on, were *compelled* to come to a decision that my character as their Professor was completely vindicated, and that all the charges which had been brought against me were *utterly groundless.*"

It is stated that Lord Aucland and the Council were at length convinced that the appointment of Mr. Bennet, as an independent demonstrator, was a greater error, but the appointment could not be rescinded, and therefore they requested Professor Pattison to devise some plan to relieve them from the difficulty, which he did, by forgetting Mr. Bennett's conduct, and giving him, voluntarily, one half of his Professorship. He then relates the immediate expulsion of Dr. Alexander Thomson, his restoration through the influence of the Warden, and " on the very day," his abuse of our author in his own class-room.

He next alludes to the proceedings of the pupils, already fully detailed in the number of this periodical before mentioned; and openly accuses the Warden of having written a letter for the insubordinate pupils to lay before the Council, for the purpose of having an inquiry instituted against him. The Warden offers an excuse—that he wrote the letter to prevent the students from meeting in a tavern; but this excuse our author declares to be unsatisfactory. The Council now recommend the enforcement of discipline, and empowers the narrator to command obedience by a constabulary force, which he declines, and the Council require the students to apologize to the Warden, whom they had not offended, thus setting Mr. Pattison's authority at nought. The dissensions proceed, and the Professor is told by a student, to whom he refused a certificate, on account of his irregular attendance, " that he is no gentleman." The Council command the Professor to grant the certificate. The insubordination increases—the Professor is prevented from lecturing—a deputation of the Council attends, and all are set at defiance.

Meetings are held daily by the refractory students, to decide whether or not the Professor should be allowed to lecture. The young gentlemen of the general school attend to " *see the fun*"—" THE FUN," says the author, " OF SEEING A PROFESSOR OF THE UNIVERSITY OF LONDON INSULTED." The lectures are suspended for more than a month, by order

of the *Standing Committee of the Students*, with which the Council instistitute a correspondence.

New charges of incompetency are urged, and the Professor requested a reporter may be appointed to take down his lectures, which request is refused. "Lord King, Mr. W. Marshall, aad Mr. Merrivale, not one of whom knew a nerve from an artery, constituted themselves the judges of my anatomical pretensions!"

"The proceedings of this Committee became too ridiculous for even the students to stand it. The anatomical engravings belonging to the medical library were carried into the Council-room; and with these before them, and with the assistance of anatomical dictionaries to explain technical terms, these gentlemen gravely deliberated on the amount and correctness of the anatomical knowledge possessed by the Professor of Anatomy!

"I have never been able to learn precisely what was the result of the deliberations of this committee. I believe they could not make out a single charge, and getting tired, in about three weeks, of the study of anatomy, they terminated their labours.

"The session of lectures had now concluded; but the Council, who had by their proceedings of last summer kept me in a state of anxiety and vexation during the whole of the vacation, seemed determined, although my sufferings in the class-room had concluded, that their persecutions should continue. I accordingly, early in May, received a notice from the Warden, that Mr. Thomas Wilson had given notice that, on a day specified, he would move that "*It be recommended to Professor Pattison to retire from his Professorships of Anatomy and Surgery.*"

Our author now appeals in the most feeling and forcible language to the Council, and beseeches them not to reduce him to "beggary and ruin," and reminds them of his acquittal from the various charges brought against him. The Council are unreasonable, and refuse to supply a copy of the charges on which they were about to decide. They are memorialized by Professors Morgan, Key, Long, Lardner, Macculloch, Rosen, and Conolly; and the trial is postponed for a month. A proposition is now made by the medical professors to give their colleague £200. a year, which he refuses. A Select Committee is next appointed by the Council, which consists of the friends of the Warden; and it determined, "not to enter on the merits of the question between me and my class." And next day sent a communication to the Council, that "the continuance of Mr. Pattison is incompatible with the welfare of the University."

"They perhaps thought that, as the object of their appointment was to carry a vote of Council for my expulsion, the only safe way in which they could do so was not to inquire into the merits of my case. Indeed their consciences seem to have been very tender on this head, and most resolutely did they shut their ears and their report against everything which could tend to vindicate my character. In fact they positively refused to allow a member of the Committee to put any question which might have the effect of showing that I had been treated most unjustly, and that the miserable position in which the University was placed had originated solely in the conduct of the Council and their officer.

"I am at a loss to understand how gentlemen of character could suffer

themselves to be made the "cat's paw" of a party, to consummate a most unjust act.

"Having no idea of what had already taken place in the Select Committee, and having been invited, like the other Professors, to wait on them, I cheerfully complied with the invitation, in the hope that I should have had an opportunity to state my case, and therefore, when introduced, begged of the Chairman to do so. He told me it was quite unnecessary, as the Committee had already disposed of it. I started with amazement, and exclaimed—"*It is impossible for you, Sir, to have disposed of a case, the facts of which you have not investigated.*" To remove my incredulity, Mr. Greenough read me their resolution, addressed to the Council, recommending my removal, and had then the good taste and good feeling to remark to me, that if I had any suggestion to offer, which might promote the interests of the University (from which they recommended my dismissal), the Committee would be happy to hear me. My reader will not be surprised when I inform him, that I did not avail myself of this *indulgence.* I immediately retired, and sent into the Select Committee the following protest, with a request that it should be transmitted to the Council along with their resolution.

"The Chairman of the Special Committee appointed to inquire into the affairs of the University, having this day read me a resolution by which a majority of the Committee recommend to the Council my removal from the University, I now enter my solemn protest against that resolution, as being an act of the most flagrant injustice, and that for the following reasons:—

"First, Because it was resolved on, by the Committee's own acknowledgment, *without any investigation whatever* of the merits of the case.

"Secondly, Because the Committee acknowledge that they have received no charges against me, and that this their decision has been come to, merely on hearsay statements, which they pretend make it appear expedient that I should be removed from the University.

"Thirdly, Because the Committee have refused to listen to the statement, which I not only offered to make them, but pressed them to hear, and which, I assert, if listened to without prejudice, must have established in the clearest manner my competency, and vindicated my character from the false and calumnious charges made against me.

"Fourthly, Because by a note received last Tuesday from the Secretary of the Committee, I was officially informed that it was *not their intention to inquire into my case.*

"Fifthly, Because, whatever may be the motives of the Committee in coming to such a decision, it is in the last degree prejudicial to my character and interests, and will be as injurious to me as it is manifestly unjust.

"GRANVILLE S. PATTISON.

"*University of London, July 9th,* 1831."

Captain Gowan, a member of the Select Committee, a gentleman whom I did not before know, but whose noble and manly conduct I shall ever gratefully acknowledge and remember, disgusted at the gross injustice with which the "Select Committee" had acted, sent into the Council at the

same time, a memorial, of which he afterwards sent me a copy. It is as follows :—

"*London University, July 6th,* 1831."

"PROTEST BY CAPTAIN GOWAN.

"Viewing the nature of the charges (of incompetency alone) preferred against Professor Pattison by his pupils, and which have been, after a patient investigation by the Council, declared futile and groundless;

"Viewing the omission of the Council to follow up that decision with the adoption of vigorous and adequate measures, to prevent the recurrence of similar unwarrantable complaints, and thereby virtually encouraging his pupils, by such impunity, to repeat their misconduct and insolence towards Professor Pattison;

"Seeing that the Council did likewise, on several subsequent occasions, not proceed to act with due promptitude and vigour to correct the insubordination when it remanifested itself in Professor Pattison's class;

"Viewing also the numerous and highly favourable testimonials presented by Professor Pattison, signed by many of the most eminent and celebrated members of the medical profession, both in Europe and America, as well as from several of his colleagues in the London University, and other able and distinguished literary gentlemen;

"And finally, viewing the fact that Professor Pattison has not been heard by the Select Committee at all, but virtually refused, by being by letter told that 'it is their present intention *not* to enter into the merits of the question between him and his class,' notwithstanding this, that the Select Committee do proceed to recommend to the Council arbitrarily to remove him from the Professorship, guilty or not guilty; at the same time, giving him no notice thereof, or any opportunity of vindicating his conduct or character, or even of explaining the causes of the evils attributed to him, as operating to the prejudice of the interests of the London University; thereby rendering the impartlality, candour, and justice of the Select Committee's proceedings liable to be questioned:

"For the foregoing reasons, I do most earnestly deprecate and protest against the proposed communication by the Committee to the Council, recommending Professor Pattison's removal from his situation in the University, as premature at least; as inflicting a monstrous and irreparable injury on his professional reputation; as presenting a cruel instance of mere expediency being preferred to reason and justice, and therefore bringing discredit on the character of the University, and inspiring disrespect and distrust not only in the public mind, but in the minds of the Professors themselves, as has been already strongly stated in a memorial signed by six of them, who will necessarily feel the complete insecurity of their offices, held, as it were, at the pleasure or caprice of their pupils; whence the success of the University will be obstructed, and its very existence brought into jeopardy.

"WM. GOWAN, Member of the Select Committee.

"*To the Council of the University of London.*"

"'Resolved,—That Professor Pattison be, and he is hereby removed from his situations of Professor of Anatomy and Surgery in this University.

"'Resolved,—That, in taking this step, the Council feel it due to Professor Pattison to state, that nothing which has come to their knowledge

with respect to his conduct has in any way tended to impeach either his general character or his professional skill and knowledge.'

" I am, my dear Sir, with great regard, yours,

" THOMAS COATES.

" *To Professor Pattison, &c. &c.*"

" I have now laid before the Proprietors and the public a history of my connexion with the University of London; and of this I feel confident, that whatever verdict they may pronounce on the conduct of the Council, they will allow that I was fully entitled to receive the following resolution transmitted to me by that body, along with their sentence for my expulsion.

" Resolved, that in taking this step (my dismissal), the Council feel it due to Professor Pattison to state, that nothing which has come to their knowledge with respect to his conduct has in any way tended to impeach either his general character or his professional skill and knowledge."

" In the foregoing statement, I have endeavoured to avoid as much as possible comment and observations. I have confined myself to a simple narrative of the facts, leaving my readers to make their own reflections upon it; and in the concluding remarks I shall be very brief.

" I have proved, first, that in every investigation undertaken by the Council into the question of my competency and conduct as a professor (and these in number and character are unparalleled in the history of any academical institution in the world), my reputation has, by *their own decisions*, been most completely vindicated. Secondly, that the Council were fully informed that a party existed amongst certain of my colleagues and the Warden, who had " *conspired with one another to gain an end,*" (my removal from the University). Thirdly, that the acts of insubordination and riot which have disgraced the University of London during the present session, were encouraged by the conduct of the Council. That, in fact, their proceedings, as must have been apparent to any person at all conversant with the discipline of a University, could not fail to produce all the disturbances which have occurred.

" Yet, with a knowledge of all these facts, the Council, for the purpose of remedying the evils which have arisen from their own misconduct, have in violation of every principle of honour and justice, pronounced sentence of expulsion against a gentleman, declaring at the same moment, that " *nothing which has come to their knowledge, with respect to his conduct, has in any way tended to impeach either his general character or his professional skill and knowledge.*" I repeat the fact, that without charge or impeachment, they have pronounced the sentence of expulsion, which as an academical penalty, corresponds to capital punishment in the penal code, and is therefore never resorted to except in cases of the utmost delinquency against one of their professors.

" I now address myself to the Proprietors of the University, and ask if this act of injustice perpetrated by the Council is to receive thir sanction? If a gentleman who has sacrifised an income of above 2000*l. per annum* to engage in their service, whose conduct and character has been triumphantly vindicated from every charge, is to be reduced from a state of independence to one of absolute ruin and beggary?

" If the Council thought that my retirement from the University had become desirable, from the disturbances which had occurred, convinced,

as they must have been, that these had risen from no misconduct on my part, but from the intrigues of their officer and certain of my colleagues, and from their own indecision, imbecility, and *mala fides* in the management of the discipline of the Institution, surely every principle of equity and good feeling demanded that they should have taken care, that in retiring I should have done so with a character on which no suspicion could rest, and with ample compensation for the loss I had sustained. The Council knew well enough that I am not a man of fortune, for I have not concealed from them my circumstances; they know that, from the proceedings they have for the last three years been pursuing in relation to me, they have completely ruined my practice as a Surgeon, which, when I commenced my lectures in the University, was considerable, and was in a fair way of increasing most rapidly—*for I had then a high reputation.* Instead, however, of doing so, they, in so far as they had the power, blast my reputation, and send me from the Uuniversity an EXPELLED PROFESSOR; and they reject a proposal made by Dr. Birkbeck for compensation to me, which could have been secured without encroaching on the funds of the University. Nothing, it would seem, but my absolute ruin would satisfy the Warden and certain members of the Council. I say of certain members of the Council; for it affords me pleasure to state, that there are a considerable number of its members who have invariably acted in a manner the most honourable to me, and have done all in their power, but in vain, to induce their colleagues to pursue a correct line of conduct.

"Lastly, I would call the attention of the Proprietors to the ruinous operation which the mismanagement of the Council has exerted on the interest and prosperity of the University. No Institution ever commenced under fairer prospects, and no body of Professors ever engaged in the service of a University with a warmer devotion to its interests. The enthusiasm and zeal of its Professors have, however, been met with the most chilling suspicion. Instead of receiving the treatment to which their acquirements, as men of science and literature, entitled them, they have been treated like a set of menials and hirelings, their suggestions treated with neglect and contempt, and their best services rarely rewarded even with the meed of approbation. In the University of London, the system pursued has been to degrade the character and authority of the Professors, and to court, by the most contemptible compliances, the favour of the Students. As might have been expected, the effect of this system has been completely to alienate the affections of the Professors from the Institution; and, alarming as the fact is, it is nevertheless true, that those Professors whose talents are the most valuable to the University are so disgusted with the manner in which its affairs have been administered, that they are now most anxious to leave it, and many of them are actually engaged in making arrangements to do so.

"This statement is not exaggerated; and I would therefore call on the Proprietors to come forward, and, by a complete revolution in their government, rescue from the ruin which awaits it, the magnificent Institution of which they were the founders, which, on its foundation, promised, and which may even yet confer, the most exalted benefits on their country."

A meeting of Proprietors of the University has since met, and refused to hear Mr. Pattison, or to grant him the slightest compensation for his

blighted reputation, and thus inflict the severest punishment and injury upon him. Since the preceding was written a general meeting is called, to consider the case of Mr. Pattison.

38. *Mr. Costello on Lithotrity.*—At the annual public sitting of the Academy of Medicine, which has just taken place, " honourable mention" (according to academic phraseology) was accorded to the memoir of our countryman, Mr. Costello, on the comparative merits, difficulties, &c. of the lithontritic and section operations. Mr. Costello was the only foreigner who received this compliment.

39. *Separation with Dissension. Observations addressed to General Practitioners on the best Means of Maintaining their Privileges and Respectability.* By William Cooke, M.R.C.S. Editor of an Abridgement of Morgagni, &c. &c. There is a spirit of independence in this work which proves the author to be a writer of judgment, and one who has maturely considered the advantages of the different orders of the profession. He argues that the surgeon-apothecary of these times is much better informed than heretofore, and is well qualified to practise medicine, surgery, obstetricy, and pharmacy; and that he cannot fail of success when he demeans himself honourably in the practice of his profession. He expatiates on the moral duties of the general practitioner, and strongly impresses upon him the absolute necessity of studying ethics. He alludes to the prevalence of hostile feelings between him and the physician and surgeon, which he has stated, we think erroneously " with encroachments likely to be made upon him by the overwhelming augmentation of physicians and surgeons." We are greatly surprised that the author should entertain this opinion; as every medical man must admit, that the overwhelming augmentation of general practitioners is so great as almost to pauperize the majority of the profession. Mr. Cooke must have forgotten the weekly augmentations issuing from the Company of Apothecaries and College of Surgeons; while the College of Physicians scarcely admit six members in the course of the year. In a work on the state of the medical profession, published a few years ago, it was stated that the physicians and surgeons did not form a tenth part of the profession in this section of the empire. The truth is, that ten times more general practitioners are annually qualified than society requires; and that the majority of these are obliged, in self-defence, to become chemists and druggists, to vend perfumery, quack nostrums, cattle medicine, &c. which our author very justly admits in another paragraph, is highly derogatory to the character of the profession.

His observations on consultations between physicians, surgeons, and general practitioners are sensible and judicious, and he clearly proves the utter impossibility of tracing the boundaries of medicine and surgery. He maintains, that the general practitioner who merely compounds his own prescriptions, is a highly respectable member of the profession, and one in whom the public may repose great confidence. No man can deny this position.

He loudly condemns the practice of sending in too much medicine, and says, "the medical man should withdraw from his employers every notion of traffic, and lead them to regard the exercise of his judgment, as that only for which they offer their compensation. It is both detrimental and degrading to him to connive at the supposition, that the fee for services demands the intervention of physic. I wish to see general practice conducted on efficient and honourable principles; but it cannot be so until this

disgraceful custom is abandoned." We are with our author on this point; but regret that under the existing state of things there is no remedy.

The general practitioner cannot go from one end of the town to the other, without remuneration, and this while he is struggling up the arduous path to eminence, is only to be derived in general, from the practice in question. He is not entitled to fees, nor will he, so long as the trading druggists, the worthy Company of Apothecaries, acquire their wealth by the sale and consumption of medicines. They will oppose the sanction of fees to the general practitioner, and we state positively, that this company, when the amended act of 1825 was about to be passed, opposed the clause introduced by Mr. Hume, which entitled the general practitioner to fees; and had it absolutely removed by a lawyer of the greatest eminence who was then employed by them. The cause of this hostility is very obvious, for if the general practitioner was remunerated by fees, he would not order a twentieth part of the medicines he is now compelled to do, and consequently the sales of Rhubarb Row would be marvellously diminished. This is only a slight effect of the Apothecaries' act, but one that badly accords with their boastings and unceasing puffing about promoting the interests of the public and the profession. It is a singular mode of promoting the interests of either, by poisoning the one by too much physic, and pauperising the other by sanctioning chemists and druggists, and converting the profession into a common traffic. We cannot prosecute the analysis of this able pamphlet any further, and take leave of its author with every sentiment of respect. It is an able defence of the respectability, importance and utility, of the surgeon-apothecary, and will be perused with interest and advantage by every order of the faculty.

40. *Dr. Macleod on Cajeput Oil in Cholera; (condensed from the Medical Gazette.)*—The *Cajeput, cajuputi,* or *kyaputty* oil, it has lately been asserted, has proved efficacious in the formidable disease of Indian cholera, which is now ravaging over great part of Europe: a quantity of it has been sent to Russia, to try its effects: we therefore expect to hear shortly that a report has been made on this subject to Government. Meanwhile Dr. Macleod has tried this remedy in two cases of English cholera.

On Wednesday, August the 3d, the Doctor was sent for to Mrs. ——, a delicate woman, about 30, in the neighbourhood of Cavendish-square. She felt very faint, her countenance pale and anxious. She complained of severe pain across the brows, and a stupidness. Skin cool and perspiring; pulse 90, small and soft; tongue clean; thirst urgent. The attack commenced three or four hours previous, having vomited several times since. The bowels had been freely opened the preceding day with laxative pills: she was ordered 15 drops of laudanum, and double that quantity of sulphuric ether, to be taken directly, and repeated in an hour, if the vomiting continued. Scarcely had the Doctor got home, when he was again summoned. He saw her in half an hour; she was then in a state approaching to syncope: she had again vomited; and had been seized with cramp in the limbs and stomach. Her attendant states, that "she was hard and stiff all over." Thirty drops of laudanum and ʒj. of the sulphuric ether were immediately given: the first dose being rejected, a second was administered. Soap liniment and laudanum to the limbs and abdomen. Half the medicine at the end of an hour. For three hours she had a respite, except from exhaustion; at the end of this time, the vomiting and cramps

were renewed for half an hour. The muscles about the chest participated in the cramp. Medicine repeated: and half to be taken should these symptoms recur: at all events, every two hours. Frictions as before, and a sinapism to the part of the stomach. Slight returns every two or three hours, until the next morning, when the medicine having been omitted, the symptoms returned with violence. The medicines were vigorously resumed, but without the same result; and a very violent return of general cramp with vomiting having come on, twenty drops of oil of cajeput in cinnamon water, were given; to be repeated in an hour if necessary. The medicine was retained, and the symptoms did not return: however the second dose was taken. From this time she went on well; the cramps which she had afterwards, were slight and partial. The convalescence has been rapid and uninterrupted.

The second case was very similar: the oil effected speedy relief. "As in the preceding case, both doses were taken, though no return either of cramp or vomiting had occurred; but the patient, finding it grateful in its effects, had begged for its repetition; she described the relief as being instantaneous."

"These facts appear to show that the cajeput oil has some power in allaying the kind of disturbance above described: whether it has more efficacy in this way, than certain of the other volatile oils, remains to be proved. The cases related differ from what in this country we are accustomed to call cholera, in as much as there was no purging, and the matter vomited was not "bilious," they differ from the India Russian cholera in the absence of those symptoms of asphyxia which appear to constitute the chief peculiarity of that deadly and perplexing disease."

LIST OF BOOKS RECEIVED DURING THE MONTH.

1. Medico-Chirurgical Notes and Illustrations. Part I. On Dangerous Affections of the Throat, which induce sudden death, by suffocation; Strictures of the Œsophagus and dangers of the Bougie; on Prolapsus, Hernia, &c. By R. Fletcher, Esq. Surgeon to the General Infirmary at Gloucester, &c. London, 1831, 4to. pp. 146. Coloured Plates. Longman and Co.

*** The author of this work is evidently a surgeon of great experience and ability.

2. A Practical and Pathological Inquiry into the Sources and Effects of Derangements of the Digestive Organs, embracing Dejection and some other Affections of the Mind. By William Cooke, M.R.C.S. &c. London, 1831, 8vo. pp. 290. Longman and Co. and Renshaw and Rush.

*** This is a valuable work, one replete with practical information.

3. Separation without Dissension.—Observations addressed to General Practitioners on the best Means of Maintaining their Privileges and Respectability. By William Cooke, Esq. *** Reviewed in our present number.

4. Practical Observations on Prolapsus or Protrusion of the Lower Bowel. By Frederick Salmon, Esq. F.R.C.S. *** See our reviews.

5. Aur. Cor. Celsus on Medicine. In Eight Books, Latin and English. Translated from L. Targa's edition; the words in the Text being arranged in the order of construction. To which are prefixed, a Life of the Author, Tables of Weights and Measures, with Explanatory Notes, &c. Designed to facilitate the Progress of Medical Students. By Alexander Lee, A.M. Surgeon, in Two Volumes. Vol. I. London, 1831, 8vo. pp. 318. With a Plate. E. Cox, Borough.

*** This is an exceedingly accurate edition of the Celsus, and arranged with an *ordo and translation*, which render it invaluable to medical students.

Dr. Alexander Thomson's communications will appear in our next.

All Communications and Works for Review, are to be addressed to the care of Messrs. Renshaw and Rush, (near Exeter Hall) 356, Strand; or to the Editor, at his Residence, 61, Hatton Garden.

THE

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CRITICAL REVIEW.

I.—*La Manœuvre de tous les Accouchemens contre Nature reduite a la plus grande simplicite, et precedee du Mechanisme de l'Accouchement Naturel.* Par JULES HATIN, M. D. &c. Paris, 1829. 18mo. pp. 311.

The Management of all Preternatural Labours, reduced to the greatest simplicity, preceded by the Mechanism of Natural Labour. By JULES HATIN, M. D. &c. Paris, 1829. Henry Leclercq.—(*continued.*)

THIRD SECTION.

Labours which can be terminated only by the aid of sharp Instruments.—Particular Causes for this Interference.—Of those labours which require the employment of sharp instruments, some are caused by diseases or malformations of the fœtus, which render its volume to be so considerable, that the labour cannot be finished without an operation. Others are caused by the narrowness of the pelvis of the mother and certain malformations of the genitals.

Before examining these different species of labours, we will make some observations on the different instruments employed for their termination.

Of the Perforator.—We denominate thus every instrument, by the aid of which we can divide the walls of the cranium. Mauriceau, Smellie, Deventer, and others, have described particular perforators, but all these instruments may be very well replaced by a common scalpel, a bistoury, a trocar, or else by a kind of blade, inclosed in a branch of the forceps, its handle being at right angles.

Choice of the Perforator.—The scalpel, or bistoury, are preferred in France, when we intend making a large angular opening in the cranium, by which we can break and extract the brain. The trocar will serve very well, when it is necessary to make merely a puncture, to let out a fluid effused, as in the case of hydrocephalus.

Place of Election for the Operation.—When the head presents first, we ought to push the perforator in at the superior fontanel, or the sagittal suture. When, however, it presents after the extraction of the trunk, we must pass the perforator in the occipital region, in the lambdoidal suture, or, if it be possible, in the coronal suture.

Introduction of the Perforator.—The instrument, whichever it may be, ought always to be directed by the fingers introduced in the parts of the woman.

Of the sharp Hook.—The ancients invented several sharp hooks of different kinds; but they may be all advantageously replaced by that which we find in the handle of the French or American forceps. In fact, this hook has all the advantages required, and has not the inconveniencies of those formerly employed. [In this country, the crotchet is fixed in a handle, and is a distinct instrument.—Ed.]

Use of the sharp Hook.—As the sharp hook cannot diminish the volume of the parts on which it is applied, it is evident that it should be employed only when these parts do not exceed the width of the pelvis of the mother.

Place of Election for the Application of the sharp Hook.—The sharp hook can be applied on all places which offer resistance; as the head, the chest, the pelvis, &c.; but of all these, the head requires its use the most frequently.

When we use the hook to extract the head, we must always apply it so as to bring out first one of the extremities of its greatest diameter. Thus, when it presents first, the hook ought to be applied on the occiput; and when it presents only after the trunk has been extracted, the hook should be applied on the upper jaw or forehead, or mastoid process.

Application of the sharp Hook.—Whenever an obstetrician carries a hook into the womb, says Professor Désormeaux, he should guide it with his fingers; he covers its point, to protect the parts of the mother from injury. We ought then to act exactly as if it were a blade of forceps. Thus, one of the hands being placed in the vagina, or even in the womb, we glide the hook over it, and when it has reached the head, we incline it so as to make it penetrate.

Labours which require the use of cutting Instruments on the Infant. Causes.—The fœtus may be affected by diseases or mal-conformations, which give it a volume so considerable, that the labour cannot be terminated without the aid of cutting instruments. The most frequent diseases are, *hydrocephalus, hydrothorax,* and *ascites.* The most common mal-conformations are, *preternatural union of twins,* and *the presence of certain fungoid or steatomatous* tumours on some part of the surface of the fœtus.

Of Hydrocephalus. Principal Symptoms.—When hydrocephalus requires the use of cutting instruments, we recognize by the great size of the fontanels and sutures, by the general softness of the head, the very manifest fluctuation that we find, &c.

Indications to fulfil.—Whether the child be dead or alive, the cranium must be opened to give exit to the fluid contained, and thus obtain such a reduction, that the labour can be terminated by the natural passages. Some obstetricians have not feared to say, that we must operate on the mother, when the child is alive; but would it not be a proof of ignorance to expose thus the life of the mother, to save that of a child, which is, besides, devoted to certain death?

Once the cranium opened, the fluid flows out, the head closes on itself, and the labour is terminated alone, or with the assistance of the hook, or forceps, if necessary.

Of Hydrothorax and Ascites. Principal Symptoms.—The size and fluctuation are the only signs by which we can recognize dropsy of the chest and abdomen.

Indications to fulfil.—We must make a puncture with a trocar, to let out the extravasated fluid, and then terminate the labour by the forceps or hooks, if it cannot terminate naturally.

Of Detruncation.—When the head alone remains in the womb, we must, with the hand, endeavour to bring it to a good position, and then extract it with the fingers applied on the lower jaw. If we cannot succeed thus, and the size of the head exceeds the width of the pelvis of the mother, we must, after having fixed it at the opening of the superior strait, by means of a hand introduced in the womb, pierce the cranium, empty its contents, and terminate them with the sharp hook. Professor Désormeaux says, that in such a case, we have to fear that the head, rolling on itself, and in consequence of the tractions made on it, may escape from the hook; and to avoid this accident, advises the use of the forceps.

Of the Separation of the Infant.—(Du dècollement).—When the trunk remains alone in the womb, we can extract it in different methods:—1st, by applying blunt hooks in the arm-pits; 2dly, by disengaging the arms first, to draw on them afterwards; 3dly, by fixing sharp hooks on the upper part of the spine, or between two ribs. Desormeaux prefers the spinal column, as the ribs breaking successively, the hook may slip; and, 4thly, by turning, and delivering by the feet.

In whatever manner we operate, we must take care to bring the greatest diameters of the fœtus, in relation with those of the mother, and to carry it in the direction of the axes of the pelvis.

Of the Extraction of Monsters.—1st, Living twins can be united together at some parts, and only by integuments. In this case, we must separate them by the aid of a cutting instrument, and extract them according to the rules of art; 2dly, twins may be united by the top of the head, as Baudelocque and Capuron cite examples from Ambroise Parè. In this case, we must bring down one by the feet; the other will necessarily present the head; or if it remains too long in the pelvis, extract it with the forceps; 3dly, two heads, belonging to the same trunk, can present at once at the superior strait. In this case, we think with Dr. Gardien, that we must diminish their volume by opening them, and extract them afterwards by the hooks; 4thly, two trunks having only one head, may present at once at the superior strait. Here we must separate the trunks, and extract them one after the other; 5thly, voluminous tumours may arise from any part of the surface of the fœtus, and oppose the termination of the labour. In this case, according to the advice of the greater number of obstetricians, we must reduce their volume, or remove them, and abstain from any operation on the mother.

Labours which require the use of cutting Instruments on the Mother. General Causes.—We shall give these, with Baudelocque; 1st, a malformation of the soft parts of the woman, destined to form the passage; 2dly, malformation of the pelvis; 3dly, rupture of the womb and vagina; and, 4thly, extra-uterine pregnancy.

Of Malformations of the soft Parts.—These may be *natural* or *accidental.* "In the first case," says Baudelocque, "they are caused by adhesion of the labia, narrowness of the vulva, caused by the shape and

hardness of the hymen, narrowness of the vagina, or membranous bands intersecting it, incomplete closure of the neck of the womb; finally, the non-existence of the external parts which form the vulva.

Accidental malformation of all these parts may be the effect of the presence of a tumour, or in consequence of ulcerations which give rise to preternatural adhesions.

Indications which these different Malformations present.—1st, We can, says the same author, without much danger to the mother, and without much difficulty, separate the labia when they are united; incise the hymen when it prevents the labour, as well as the bands which are sometimes met with in the vagina or cervix uteri, and which prevent this canal dilating; 2dly, when the os uteri is too narrow, or completely obliterated; when it is scirrhous or cartilaginous, we must cut it in different directions, by means of a bistoury, covered with linen, to within half an inch of its point, and conducted on the finger; 3dly, when the woman is imperforate, or without vulva, we must make, in the direction of the raphe, an opening, which extends from the pubis to an inch and a half in front of the anus; 4thly, œdema of the genitals ought to be treated by scarifications at the inferior and inner parts of the labia; the liquid flows out, and the passage becomes free; 5thly, varicose tumours, which are developed in the parts of generation, acquire sometimes a very considerable volume, and nevertheless, do not prevent the termination of labour; but they are liable to rupture, and cause more or less sanguineous infiltrations. To avoid this accident, it is generally advised to open one of the external varices; 6thly, if the external genitals are the seat of a large abscess, it must be opened; 7thly, the vagina is sometimes filled with polypi or scirrhous tumours; when they are pediculated, it is, in general, easy to remove them; but when they have a large base, the Cæsarian section is sometimes preferable to their extirpation; 8thly, the bladder may contain a large stone; if called in time, we may push it back, and support above the superior strait, until the head is engaged; but if the tumour formed by the stone is at the vulva, and the head has been long in the hollow, we must at once incise the vagina and bladder, to extract the stone, and allow the labour to terminate.

Of Malformations of the Pelvis of the Mother, and of their Effects on the Termination of Labour.—The pelvis of the mother can be vitiated in all its parts; but as the obstacles to labour are met with the more frequently at the superior strait, and in the direction of the sacro-pubic *(antero-posterior)* diameter, it is on the different degrees of extent of this diameter that we shall base the method of terminating applicable to each kind of labour. However, we shall treat especially in this article of those labours, which require the use of cutting instruments on the mother, having spoken elsewhere of those which oblige us to apply them to the fœtus.

Principal degrees of vitiation, of the sacro-pubic Diameter; Indications which they present. Natural extent of the sacro-pubic Diameter, four inches; first degree of vitiation, from four inches to three inches and a half.—In this first degree of vitiation, natural labour is still possible, since the head of the fœtus presents, from one parietal protuberance to another, only three inches and a quarter, at most three inches and a half.

Second degree of vitiation, from three inches and a half to three inches.—In this second degree of vitiation, natural labour is impossible; but it

can be successfully terminated by the forceps. The version of the fœtus, proposed by some obstetricians, has not the same advantages, and may give rise to serious accidents, such as distention of the spine, luxation of the head, detruncation, &c.

Third degree of vitiation, from three inches to two and a half.—The application of the forceps cannot be practised in this degree. Symphyseotomy, if the child be living, or if dead, craniotomy, must be performed.

Fourth degree of vitiation, from two inches and a half to two inches.—Whenever we have a living child to extract, we must employ the Cæsarean section. But if the child is dead, embryotomy may still be employed.

Fifth degree of vitiation, less than two inches.—Whether the fœtus be dead or alive, the Cæsarean section must be performed; for, at such a degree of vitiation, the dismembering the fœtus in the womb would be more dangerous to the mother than the Cæsarean section itself.

Symphyseotomy. Definition.—The name of symphyseotomy is given to the operation, which consists of the section of the fibro-cartilage uniting the pubes.

Necessary Instruments.—A catheter and a bistoury are sufficient for this operation; the bistoury ought to be convex on the cutting side, and blunt at the extremity.

Time of Election.—We must wait to practise symphyseotomy, until the neck of the uterus is dilated sufficiently to allow of the easy introduction of the hand, and that the pains are sufficiently strong to expel the fœtus.

Position of the Woman.—The woman ought to be placed on the edge of the bed, or on a table of sufficient height, the breech raised by rather firm pillows, the thighs bent on the pelvis and somewhat separated from each other. The legs ought to be supported on chairs.

Position of the Assistants: their Duties.—Two assistants are placed on the outside of each abdominal extremity, which they are charged with maintaining in the position already indicated. They ought, more especially when the operation is nearly finished, to sustain the thighs well, so that the separation of the pubes may not take place suddenly. A third assistant is needed to present the instruments to the operator, and to assist him when necessary.

Operation.—We first shave the pubis, introduce the catheter in the bladder to evacuate the urine, and then depress the canal of the urethra to the right of the woman, to save it from the cutting instrument. An assistant keeps the catheter in its place.

The operator then raising up the integuments at the side of the umbilicus, commences his incision at the superior edge of the pubis, and prolongs it as far as the clitoris, without injuring the anterior commissure of the vulva. He then slowly divides the fibro-cartilage, carrying the bistoury from above downwards, or from before backwards, according to Plenck; in the first case we ought to cover the point of the bistoury with the nail of the left index, in order not to injure the bladder or the urethra. The section of the cartilage being performed, we divide the superior and inferior ligaments, and a separation then occurs, which we ought always to moderate, in order to avoid the serious accidents which might happen to the sacro-iliac symphyses. We then abandon the labour to nature, or else, if the case requires it, we terminate it with the help of the hand or the forceps.

Once the labour terminated, the bones are brought together and held in immediate contact, by a bandage applied around the pelvis. Experience has proved that a linen cloth bandage, doubled in flannel, from six to seven inches wide, and furnished at one extremity with buckles, and at the other with straps, is the most convenient means that can be adopted.

The woman ought to be kept quite quiet, until they are perfectly consolidated; and although the bones are usually united at the end of a month or six weeks, we ought not to permit her to walk, until after two months.

The external wound easily heals under simple dressing. Alphonse Leroy advises lint (charpie) steeped in white of egg, mixed with spirits of wine, to be applied.

Separation possible without Lesion of the sacro-iliac Symphyses.—Generally the separation of the pubis can be carried to two inches, without any rupture of the sacro-iliac symphyses; but beyond this point, the ruptures are constant, according to Baudelocque, and most serious symptoms ensue. The most frequent are, inflammation, abscesses, &c.; nevertheless, if we believe M. Gardien, who founds his opinion on the experience of Messrs. Giraud and Ansiaux, the separation of the pubes can be carried as far as four inches, without any lesion of the posterior articulations of the pelvis.

Benefits of the Operation in regard to Labour.

One *inch of separation* between the pubes, gives to the sacro-pubic diameter	2 lines.
Two *inches of separation* give	4 do.
Two *inches and a half* give, according to Baudelocque	6 do.
Three *inches* give, according to M. Giraud	8 do.
Four *inches* give, according to the same author	12 do.

Results of the Operation relative to the Mother and Child.—Among forty-one women operated on, says Baudelocque, fourteen have died, and twenty-seven only have been saved.

Among forty-one children, thirteen were born living, and twenty-eight born dead.

Among the women who died, some appeared to have fallen victims, solely because they were operated on too late.

Among those who survived, many had had one or more children previously; which proves at least that the pelvis was not much diseased.

Symphyseotomy is then a very serious operation, and must not be performed except in case of absolute necessity.

The Cæsarean Section, or Gastro-hysterotomy. Definition.—Professor Desormeaux defines the Cæsarean section to be an incision made in the parietes of the abdomen and uterus, to extract the fœtus.

The Cæsarean section can be carried so far back, that it is impossible to determine its origin. For a long while, it was practised only on the dead. In 1500, it was performed for the first time on a living woman.

Instruments and the necessary Apparatus—Two bistouries, one a common convex and the other straight and blunt, an artery forceps, and some needles threaded, are sufficient for this operation.

The remaining apparatus that will be required is, a fine sponge, lint, (charpie), long and square compresses, body and scapulary bandages, and vessels of cold water, with a few drops of vinegar in them.

Place of Election for the Operation.—The most ancient method consists

in opening the abdomen on one or the other side; but the side to which the fundus uteri is inclined, is to be preferred.

Obstetricians are not agreed as to the direction to be given to the incision: some desire it to be oblique, in the direction of a line drawn from the cartilaginous extremity of the third false rib to the pubis; others propose a semi-lunar incision; Levret will have it parallel to the external edge of the rectus; and lastly, Lauverjat has advised a transverse direction.

Inconveniencies of the lateral Method.—The lateral method has the inconvenience, 1st, of dividing three sets of muscles, whose different directions will be a great obstacle to cicatrization; 2dly, of injuring branches of the epigastric, and the principal arteries of the womb, which are incised on its edge; 3dly, and lastly, the fibres of the uterus being divided obliquely or transversely, they cannot contract without rendering the wound gaping, and consequently causing an effusion of the lochia into the abdomen.

Well aware of the inconveniencies of the lateral method, the moderns, such as Mauriceau, Platner, Solayrès, and others, have preferred making their incision on the Linea Alba. This method has also its inconveniencies, but it is generally preferred, and we shall speak here only of what regards it.

The proper time for performing the Operation.—This time, says the Professor Désormeaux, is either of *necessity* or *election*; of necessity, when we are called after a labour more or less long, and that the life of the mother or child would be compromised by greater delay; of election, when, during the pregnancy, we have been enabled to ascertain the existence of obstacles, which oppose labour, and to determine the steps we will take. We have generally agreed that in these cases, we will wait until labour has really commenced, the cervix effaced, and the orifice sufficiently dilated to give passage to the blood, which will come from the surface of the uterus, to the clots which may form in its cavity, and finally to the lochia; it being well understood, besides, that the operation ought to be performed before the breaking of the waters; so that, by the retraction of the womb, the incisions may be reduced to a very small extent, and also to avoid injuring the infant.

Preliminary Measures.—If the woman is robust, plethoric, we must bleed her by way of precaution. If she is exceedingly nervous and irritable, we must give her baths, and antispasmodic medicines.

The bladder ought to be emptied of its contents; the rectum ought to be evacuated by means of lavements or gentle purgatives; the region of the pubis ought to be shaved.

Position of the Woman.—The woman ought to be placed at the edge of her bed, protected by folded napkins; lying on her back, the head and chest slightly raised; the abdominal extremities elongated during the time of making the incisions, and half bent during the extraction of the fœtus. In order to render the abdomen more prominent, a cushion is placed under the loins.

Position of the Assistants.—Two assistants are charged to circumscribe the uterus with their hands, and to keep the intestines from the place of operation. Other assistants are destined to present the instruments to the operator, and to assist him when necessary. Others are charged to keep the patient in the position assigned her.

Operation.—The obstetrician, with the convex bistoury, makes in the direction of the Linea Alba, an incision, which, according to Baudelocque,

ought to extend from the umbilicus, and even above it, to within an inch and a half of the pubis. Désormeaux observes that when the incision is commenced above the umbilicus, it should be carried to the left side of it.

By making the incision so high up, it becomes possible to incise the uterus in its most elevated parts, and thus to prevent the effusion of the lochia in the abdomen. This first incision ought to comprehend only the skin and subcutaneous cellular tissue. The linea alba is then cautiously divided near its inferior parts; and by means of the blunt bistoury conducted on the left index, slit up from below upwards as far as the superior angle of the wound of the integuments. The peritonæum is then to be opened with the same precautions, and in exactly the same manner. The abdominal parietes being divided, one of the assistants charged to circumscribe the womb, depresses it as much as possible, in order to bring its fundus near the superior angle of the wound: we then incise its anterior parietes, as far as within an inch of the inferior angle of the abdominal wound, that is to say, an extent of about six inches.

This incision comprehends the parietes of the organ as far as the membranes. It is begun with the convex bistoury, but terminated with the blunt, which is used from within outwards, and from above downwards. We then pierce the membranes with great precaution, and we divide them exactly as the parietes of the uterus.

If the placenta corresponds to the opening in the womb, we must, as Baudelocque advises, detach it, and pierce the membranes near its circumference. But, as Désormeaux observes, it is not possible to know previously the place where this body is inserted, unless the new application of the stethescope, made by M. Kergaradec, be of some use; and when we know it, we cannot avoid it. Once the operation ended, we seize the feet with one hand, and terminate the extraction of the fœtus exactly as in a labour by the natural passages.

If the head presents naturally at the wound of the womb, and is not expelled by the contractions of that organ, we must favour its expulsion, by pressing gently on each side of the abdomen, at a distance from the wound, only insinuating the fingers under the lower jaw. We act in the same manner if the breech presents.

In regard to the after-birth, it comes away by the efforts of nature through the wound, or we extract it by drawing on the umbilical chord, or what is more certain, by seizing its edge with the fingers, to lessen its volume.

After the labour is terminated, the womb is cleared of the clots within it, and a finger is passed through the neck, to favour the exit of any which may be there. Gentle injections of a warm emollient decoction may be also useful.

If the womb is inert, or if hæmorrhage comes on, we must, to oblige the uterus to act, touch it externally, stimulate the edges of the wound with the ends of the fingers, and by bathing them with oxiérat. We must also inject cold water, water and vinegar, or pure vinegar into the womb.

Treatment after the Operation.—The treatment required for the woman after the Cæsarean section, may be divided into *local* and *general.*

Local Treatment.—The local treatment consists in covering the wound with a proper dressing; but before all, we must take care to free the

abdomen from the clots of blood and the waters which may have been effused. For this, it is sufficient to place the woman in a proper position, to use gentle pressure on the sides of the abdomen, or better still to make some warm injections.

The wound of the uterus requires little care; it is reduced to a very small extent by the retraction of the organ, and cicatrizes itself.

In regard to the external wound, Désormeaux advises it to be united by two or three points of suture (enchevillée), taking care to leave at the lower part a free space, which may give exit to any liquids effused in the abdomen. Some persons place even here a bandage of threaded linen, to serve as a filter to these liquids. Baudelocque concurs with Désormeaux, and advises, besides, to place a second threaded bandage in the neck of the womb, to favour the flowing of the lochia by the natural passages.

The use of the suture has not obtained the general assent. M. Capuron regards it as injurious, in as much as it ought to add to the causes, already so powerful, of inflammation of the peritonæum; and as useless, in as much as distention, the effect of a peritonitis which soon developes itself, forces almost always the points of suture to relax, and even to separate. It has been proposed to replace them by the use of the agglutinative bandages, or even to employ no other means than the uniting bandage; but, as Désormeaux observes, these means are insufficient to maintain in apposition the lips of so large a wound made in weak and moveable parietes, as those of the abdomen are after labour.

Dressing.—The whole dressing consists in placing a long compress on each side of the wound, and in covering them with a compress (fenestré), then with lint, and square compresses. The whole is sustained in position by a body bandage and a scapulary.

The dressing ought to be renewed several times during the first four and twenty hours; then every day, or even morning and evening, if we have reason to fear any effusion. If the womb contracts adhesions to the edges of the wound, we must, according to Bacqua, Capuron, Gardien, &c. carefully destroy them; for, on the one hand, they prevent the exit of matters effused in the abdomen, and on the other, they expose the woman to painful draggings, uterine pains, (resembling labour-pains) hæmorrhages, &c.

General Treatment.—It ought to be the same as in all great operations. Thus, bleedings more or less repeated, according to the strength of the patient and the intensity of the symptoms, the most absolute quiet, absolute diet, the use of diluting (déleyantes) drinks, such as nitrated veal broth, chicken broth, infusions of dog grass, pellitory of the wall, linseed; lavements to keep the bowels open; such are the general means to be employed.

The woman ought, as much as possible, to nourish her infant, or at least have her breasts drawn during the first week, in order, as Baudelocque says, to draw the milky humour towards the breasts, to divert it from the womb, and to dry as soon as possible the source of the discharges, which pass through the wound.

Results of the Cæsarean section, relative to the Mother and Child.

Relative to the Mother.—Inflammation of the womb, peritonæum, and of the intestines; suppuration, gangrene, effusion into the abdomen, such are

the accidents which the more frequently render the operation fatal to the mother.* Nevertheless, authors relate numerous instances of success. Baudelocque says that of one hundred and eleven women operated on, forty-eight were saved.

Relative to the Child.—The Cæsarean section is the most gentle and most certain means that can be adopted for the extraction of the child; that is to say, that it does not run any danger by the operation.

Of Rupture of the Womb and Vagina, relative to Labour.—When by the effect of labour, the uterus is ruptured in one of its points, the fœtus passes the more frequently, in part or in whole, into the abdominal cavity. We shall occupy ourselves here with those cases only in which the child, not being able to be brought down by the natural passages, we are obliged to employ cutting instruments on the mother. These cases may be reduced to the following: 1st, when the head of the fœtus alone has passed through the rupture, the uterus being strongly contracted around its neck; 2dly, when the head and superior part of the trunk have penetrated into the abdomen, unless the uterus, being inert allow the fœtus to be returned by the natural passages; 3dly, when the infant is entirely in the abdomen.

Note.—If the abdominal extremities and the inferior part of the trunk have penetrated alone in the abdomen, we terminate the labour by the forceps; or else, by hooks, if the infant is dead, supposing always that the pelvis allows of the child being brought down by the natural passages.

Signs which indicate the Rupture of the Womb, and the Passages of the Infant, and its Appendages into the Abdomen. Rational Signs.—Professor Deneux thus expresses himself—" The noise of the tearing is sometimes heard by the assistants; a fixed and lively pain is felt in the place where the rupture occurs, this pain is particular, as it is poignant and numbing, (engourdissante.) Those who have felt it, call it the cramp. A feeling of gentle heat spreads all over the abdomen, the pulse weakens, the face becomes pale, syncope supervenes, a cold sweat spreads all over the body, &c.

Sensible Signs.—These are discovered by the touch. If the infant has passed entirely with its appendages into the abdomen, we recognize, by the finger carried into the vagina, that the presenting part of the fœtus has disappeared, that os uteri has closed, and that the whole organ has contracted, as after a natural labour. The fœtus can easily be distinguished through the abdominal parietes; and if it still moves, the woman feels the motions in a different place than before.

Indications to fulfil.—As soon as we have recognized that the infant and its appendages have passed into the abdomen, we must hasten to perform *gastrotomy;* and to extract all these parts, unless the uterus being inert, it were possible to seek for the feet of the infant, and to bring them through the rupture, as in the case related by M. Gardien, and of which Professors Déneux and Roux were witnesses. This precept of performing gastrotomy as soon as the infant has passed into the abdomen, cannot be invalidated by some observations, which prove that in certain cases, nature has made an artificial route for the fœtus, and that in others, it has remained for twenty years in the abdomen.

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* Another much more frequent cause, at least in these countries, is a total sinking without rallying; the patient never recovering from the operation. Trans.

Rupture of the Vagina.—Rupture of the vagina, says Professor Dubois, is certainly more frequent than that of the womb, with which it is frequently confounded, although it is easy to distinguish them. In fact, the rupture of the uterus diminishes as the organ contracts, while that of the vagina retains the same form and extent.

The vagina is the more frequently ruptured at the place where it unites with the womb. Its rupture is generally transverse.

If the fœtus passes through this opening into the abdomen, we may, as the opening is always the same, introduce the hand into the cavity of the peritonæum, return the infant, and bring down the feet.

Of extra-uterine Pregnancies. Definition.—The name of extra-uterine pregnancy is given to those which take place out of the cavity of the uterus.

Species.—Three species are generally recognized, namely, that of the tubes, that of the ovaries, and that of the abdominal cavity. Désormeaux admits a fourth, that which takes place in the tissue of the uterus itself.

Symptoms of extra-uterine Pregnancy.—They are divided into *rational* and *sensible.*

The first are far from being certain, as they are very frequently the same as in uterine pregnancy.

The second can be perceived only in the fourth and fifth months: they are discovered by the touch, and are principally drawn, 1st, from the development of the abdomen, which presents sometimes particular appearances; it is more elevated towards one of the iliac fossa than the umbilicus; its distention is unequal; 2dly, from the motions of the fœtus, which are felt through its parietes; 3dly, and especially from the little volume the womb presents, relative to the presumed epoque of the pregnancy.

Can we distinguish between the extra-uterine Pregnancies ?—Desormeaux thinks it impossible to distinguish whether the fœtus is in the tube, the ovary, or the peritonæum. Happily this distinction is of little importance, since the conduct to pursue is the same in all cases.

Termination.—Nature is sometimes sufficient to disembarrass a woman from an extra-uterine pregnancy; but, for some few happy examples, how many are they not, which attest that extra-uterine pregnancy the most frequently terminates fatally for mother and child.

Indications to fulfil.—Some surgeons, among whom are Sabatier and Levret, in fear of hæmorrhage, which is the inevitable consequence of separating the placenta, have advised abandoning the woman to the resources of nature. But is it not more reasonable to have recourse to *gastrotomy,* since numerous observations prove, that by this operation we have been able to save both mother and child ?

Of Gastrotomy. Definition.—The name gastrotomy is generally given to an incision of the abdominal parietes in a part of their extent.

Instruments and necessary Apparatus.—The same as for the Cæsarean section.

Place of Election for the Operation.—The place where gastrotomy ought to be practised is determined by the species of extra-uterine pregnancy. Is the child developed in the abdominal cavity? We must divide, says M. Capuron, the Linea Alba. Is it developed in the tubes or ovaries? We must cut on the side where the extra-uterine tumour is found. But if the head, after engaging itself in the pelvis, makes a protuberance in

the vagina, we must divide on it, the corresponding paries of the canal, and extract the fœtus by the natural route.

Of the proper time for practising this Operation. Time of Necessity.—The sudden passage of an infant into the abdomen, through a rupture of the uterus, its death, and the accidents which may supervene, oblige us to operate immediately.

Time of Election.—If nothing of that we have just described takes place, what time shall we choose for the operation? Must we wait for the efforts nature makes at a certain period, or must we prevent them? Opinions are contrary on this point. Nevertheless, it seems to us more rational to operate before the accidents, which the efforts of nature cause, supervene.

Operation.—Exactly the same as the Cæsarean section, except that instead of opening the womb, we penetrate in a species of kyst, which contains the product of conception. The fœtus ought to be extracted, as in the Cæsarean section. The removal of the placenta is, without contradiction, the most difficult and most dangerous part of the whole operation; for the detaching the placenta necessarily gives rise to an hæmorrhage, which cannot be stopped like that of the womb, by the contraction of the part on which this body was implanted. Nevertheless, if we consider, as Désormeaux observes, that in some cases we have found the placenta so thin, that we would take it for a membrane, and its vessels so small, that we could hardly trace them with a scalpel, we shall perceive that this detachment is not always so dangerous as we think; and besides, nothing prevents us leaving this body, and waiting, till having detached itself, it presents itself at the wound of the abdominal parietes.

Treatment after the Operation.—When we have performed this operation, it is very important, M. Gardien says, to engage the mother to suckle; by this means we counter-balance the irritation, which is almost always established in the peritonæum, in consequence of this section; and this phlogosis is one of the most dangerous symptoms we have to combat. We take care to keep the wound open, that the effusions which take place into the abdomen may flow out, and to inject from time to time into this cavity, in order to draw them out, and prevent their absorption,

The general Treatment is the same as after the Cæsarean section.

Fourth Section.

Of the Extraction of the Placenta by the aid of art.—To facilitate the comprehension of all relative to the extraction, we will say a few words on the natural mechanism of natural expulsion.

The mechanism of expulsion, according to Désormeaux, presents three very distinct times. In the first, the placenta is detached from the internal surface of the uterus; in the second, it is pushed from the cavity of this organ into the vagina; and in the third, it is expelled altogether.

Mechanism of Expulsion—In the most fortunate cases, as the placenta detaches itself, it rolls itself in the form of a rolled wafer (cornet d' oublie), and presents at the os uteri the top of the cone it represents. Pressed on by the uterine contractions, it soon passes the neck, following the axis of the superior strait. Arrived in the vagina, it is soon expelled through the vulva, following the axis of the inferior strait. Here it is no longer the contractions of the womb which force the placenta to pass out, but, as

Désormeaux observes, the lowering of that organ. The membranes appear last. Sometimes the placenta, instead of offering its edge, presents by its fœtal surface; in this case, its expulsion is more difficult.

Of Extraction. General Causes.—Hæmorrhage, convulsions, syncope, inertia of the womb, spasmodic contraction of the neck, preternatural adherence of the placenta, hour-glass contraction, its insertion on the neck of the womb, abortion, compound pregnancy.

Among all these causes, some of them, such as hæmorrhage, convulsions, and syncope require prompt delivery: others, such as inertia of the womb, unless hæmorrhage accompanies it, spasmodic contraction of the neck, preternatural adherence of the placenta, permit or oblige it to be retarded.

Of the manner of effecting Extraction.—Of two things, one, either the placenta is detached, or it is still adherent to the womb.

In the first place, if the umbilical cord still exists, and is sufficiently strong, delivery is generally easy enough. In fact, it is sufficient to employ traction on the cord in the direction of the axes of the pelvis: to do this, it is necessary, whilst we are drawing with one hand on the external portion of the cord, to place in the vagina, above the cord, the index and medius of the other hand, in order to establish there a species of pulley (poulie de renvoi), which carries the first tractions in the direction of the axis of the superior strait.

When the placenta is in the vagina, we must carry it in the direction of the axis of the inferior strait, by rotating it from side to side. When it presents at the vulva, the obstetrician ought to bring one of his hands in front of the perinæum, to sustain it, and to receive the after-birth, which he turns round on itself several times, before withdrawing it from the parts of generation. By this means he rolls the membranes round on themselves into the form of a cord, and by that their extraction is more certain.

In the second case, that is to say when the placenta is still adherent to the surface of the womb, if traction on the cord is not sufficient, we must introduce a hand into the organ, in order to detach it. If the cord still exists, it serves as a guide to the hand which ought to be introduced after the same rules and with the same precautions as in the preternatural labours.

When we have got in the uterus, if part of the placenta is detached, we glide the hand between this part and the internal surface of the womb, until the separation is completed. If the placenta is entirely adherent, we must begin by detaching one of the points of its surface, and proceed as before. When it is adherent only by the circumference, its centre being detached, Désormeaux advises, after Baudelocque, to pierce the centre and to pass in the fingers through the hole, to separate the circumference more easily.

When a portion or even the whole of the after-birth is too adherent to be thus detached, it is better to leave it in situ, than obstinately to endeavour to extract it.

When we have detached the placenta, we draw it externally with the hand, taking care to bring away at the same time what isolated portions there may be, and the clots which are found in the uterus. (Désormeaux.)

Note.—In the delivery which follows abortion, as it is impossible to introduce the hand into the uterus, we must, in case of accidents, seize the placenta, by means of two fingers, or the forceps "à faux germes de Levret."

We have now completed the work of M. Hatin, and think we have conferred a great benefit upon our junior readers. We have submitted to them

a comprehensive and perfect detail of French Obstetricy, and have afforded an opportunity of comparing it with our own. Each of the articles we inserted was worth five times the price of our number, on account of the extensive and highly important information it contained. We take leave of M. Hatin with every sentiment of respect, and wish him that eminence which his high scientific acquirements deserve. We take this opportunity to state that we shall continue our reviews of the best French works, which are neglected by all other British periodicals.

II.—*A practical and pathological Inquiry into the Sources and Effects of Derangements of the Digestive Organs, embracing Dejection and some other Affections of the Mind.* By William Cooke, Member of the Royal College of Surgeons, Secretary to the Hunterian Society, Editor of an Abridgment of Morgagni, &c. &c. London, 1831. pp. 290. Longman and Co. and Renshaw and Rush.

Though many works on disorders and diseases of the digestive organs have emanated from the press of late years, among which are those of Abernethy, Philip, Paris, Uwins, Johnson, Law, Mayo and others, yet the production before us is one replete with valuable and original information. Mr. Cooke is favourably known to the profession by his Abridgment of Morgagni, his Defence of General Practitioners, and the work before us. He is evidently a practitioner of high scientific acquirements, and of sound practical observation. His work evinces the most accurate pathology, and the most efficient therapeutics. It ought to have a place in every medical library, for no medical practitioner, however well informed, can peruse it without interest and instruction. It differs from all British works on derangements of the digestive organs, and is decidedly second to none. It is divided into two parts. The first contains an account " of the various sources of dyspeptic symptoms," and this is illustrated by numerous interesting cases, including diseases of the abdominal thoracic, cerebral and pelvic viscera. We must remind the reader in this place, that former gastrologists considered the stomach and digestive organs the source of almost all diseases, adopting, though unconsciously, the maxim of the immortal founder of medicine, " ut terra est arboribus, ita sit ventriculus animalibus;" while our author improves upon this position by illustrating the maxim of a genius whose name will be ever remembered with pride and gratitude by the cultivators of medicine—John Hunter, " the stomach sympathises with every part of the animal, and every part sympathises with the stomach." Mr. Cooke takes this for his theme, and expatiates upon it to great extent, and with complete success. He relates numerous diseases of remote parts which produced what is called dyspepsia, and his descriptions are so accurate and graphic that we almost think we have witnessed the cases with him. These occupy nearly half the volume and are exceedingly interesting and valuable. The second part of the work is " on the effects produced upon remote parts of the body and upon the mind by derangement of the digestive organs." This part is also ably executed.

In order to substantiate the truth of our opinion we must cite some evi-

dence from the work. After some general observations on the causes of derangement of the digestive organs our author observes —

"Owing to defective mastication, the food, when received into the stomach, may not be in a proper condition to undergo, within due time, the change to be effected by the gastric juice; and by being delayed in this viscus, it becomes itself a source of irritation, fetid gases are extricated, and pain induced. These effects are not attributable to the mere agency of an indigestible substance, for the stomach possesses great power of resistance. This has been exemplified on many occasions. An idiot at Ostend, was addicted to swallowing iron. He died at the age of thirty-three, when his stomach was found to contain two or three pounds of the metal in various forms, as nails, screws, knives, &c. and yet was uninjured. But, notwithstanding this, alimentary substances which have long remained in the stomach, and been but partially digested, not only produce the annoyances alluded to, but may at length cause the stomach to eject its contents by vomiting. Particles of undigested aliment escaping from the stomach into the duodenum often produce a bilious attack. The mucous coat is irritated; the irritation is propagated along the biliary ducts, redundant secretion is excited, and diarrhœa, sometimes connected with vomiting, results. It is probable, also, that the undigested particles assist in the production of this purging by the continued irritation of the mucous coat of the jejunum and ileum. Food may not only be the source of dyspepsia from defective mastication, but also from its indigestible quality, from its redundance, from its being too frequently taken, and from over-dilution of the gastric juice by an excess of the fluids drank. Some general principles may be adopted as to the digestibility of aliments, but their effects must be specially watched; for it will often happen that by idiosyncrasy the admitted rules will be totally subverted. When all circumstances regarding the food itself are appropriate, the causes of indigestion may, nevertheless, exist in the stomach. Irrespective of sympathetic derangements in the functions of this organ, like every other part of the body, it may be the seat of idiopathic disease. The symptoms comprised under the term dyspepsia, may not only indicate the milder forms of morbid action; but the incipient stage, and in some cases even the advanced progress, of organic lesion, is indicated by signs liable to be mistaken for indigestion.

"In many instances of functional derangement no trace of diseases may be discoverable after death; but in others this is not the case. Unhealthy actions, long continued, effect disorganization more or less important."— p. 3.

The force and truth of the tenets defended in this extract cannot be disputed, and deserve remembrance. Our author next describes affections of the intestinal mucous membrane. He informs us that in persons who had died of other diseases after a long continuance of dyspepsia, he often found the mucous glands enlarged, but more frequently a state of vascular plethora in the mucous coat of the stomach only, or in that of the stomach and intestines. There may be this appearance in the mucous membrane of the intestines giving rise to indigestion, and causing great irregularity in the alvine discharges. The erythematous condition of the intestinal mucous membrane not only deranges digestion, but many remote organs.

" This is particularly exemplified in reference to the liver. Inflammatory action in the duodenum, even when only in a slight degree—so slight as to elude observation, unless the mind be very attentively directed to the circumstance—or irritation of this membrane from any other cause, may excite the liver to excessive and unhealthy secretion, from which a state of erythysm of the whole canal might ensue. These effects of irritation of the duodenum I have repeatedly seen confirmed by dissection, and believe that I have often detected them in practice.

" Under other considerations, indeed, attention to the state of the duodenum in dyspeptic cases is highly momentous, and generally its affections may be distinguished. When there is much uneasiness and tenderness in the epigastrium, extending rather towards the left side, augmented soon after eating, accompanied with flatulence and frequent bilious dejections, and when a dejection occurs soon after a meal, I think there is reason to suspect disease in this portion of the canal. It must, however, be admitted that disease existing in the liver may not only create uneasiness in the epigastrium, but it may extend even to the left hypochondrium. Other causes, too, might exist, and they not only concur to establish the importance of historical evidence derived from the patient and friends, but also of pursuing the investigation by the taxis."—p. 5.

This erythematous condition of the mucous membrane often induces troublesome diarrhœa, or diarrhœa alternating with constipation, in which cases, after local bleeding, astringents and slight aromatic remedies, will be useful.

When the mucous membrane of the bowels becomes irritated from drastic purgatives, foreign substances, or spontaneous development of congestion, or sub-acute inflammation, it is truly astonishing to witness the quantity of fluids that will be secreted. The fact is exemplified in the *watery* diarrhœa of infants; a disease that will debilitate infants as speedily as if hæmorrhage had taken place. The following case is given in illustration of this statement:—

" On the 13th of August, 1808, I was requested to see an infant seven months old. For some days the bowels had been disordered, yet I never saw a finer babe—plump, and strong, and lively. I was called in about two o'clock p. m. and was informed that at ten the child reclined on the mother's arm, and appeared extremely low, and a large quantity of fluid fæces, the colour of yeast, passed from the bowels, wetting through the mother's clothes, as well as the infant's napkin and dress. These discharges were repeated, and at the time of my visit the child appeared in an extremely exhausted state. Its eyes were either fixed, or wandering about with wildness. The flesh was cold, flabby, and pallid; and the pulse scarcely perceptible. The little patient was placed in a warm bath, which appeared to relieve the general languor, and restored circulation to the surface. An astringent and cretaceous mixture, with a very small quantity of tincture of opium, was directed to be given every two hours. At seven in the evening the child appeared comfortable; it took the breast, and looked more lively than before. At three in the morning it again sucked freely, and retained the milk on its stomach; but the bowels continued to be greatly relaxed. Soon after this time its strength again

drooped, and at six in the morning I was sent for; but being engaged in obstetric duties I was unable to attend till nine, before which time the child had expired.

" The vessels of the mucous membrane were turgid in patches, and there was a blush of redness on one part of the liver, but it appeared to me that the disease was not of hepatic origin.

" This may be viewed as an example of the exhausting effect of excessive secretion from the mucous membrane. When the disease is not so violent, blood is often passed in the stools, accompanied with slimy matter. There is no reason to suppose, even in such cases, that ulceration has taken place, for the blood is frequently discharged from the turgid villi.

" On one occasion, when the disease had continued for a long time, considerable advantage was derived from injecting enemata of decoction of bark and laudanum."—p. 9.

In numerous cases of this description we have succeeded in arresting the disease by the cretaceous mixture with catechu, aromatic confection, laudanum and syrup, at the same time supporting the strength by beef tea, and arrow root, to which a few drops of brandy are added. During this autumn we have treated some hundreds of infants in this way with success, as many of our pupils can attest. The collapse and hydrocephaloid appearance, so faithfully described by Dr. M. Hall, require stimulation, or death will certainly happen.

Mr Cooke gives the pathology of pyrosis as associated with the subject under notice. He does not think it is produced by pancreas. He cites a curious example of pyrosis, which happened to the illustrious Morgagni himself, who having accidentally swallowed a small leaf, became sick, felt pain in the stomach and produced sixteen pints of fluid in twenty-four hours, which did not cease until the offending substance was dislodged by vomiting. Epist. XXXI. Art 9. The fluid ejected is often acid, and according to Prout and Children, contains the hydrocloric, and in the opinion of Levret and Lessaigne lactic acid. But our author has not stated that in some cases the fluid is alkaline, a fact pointed out by Dr. James Johnson, and one of great practical importance, as it explains the efficacy of the mineral acids in some cases, and of the alkalies in others. But sometimes we must alternate these remedies for the same patient; and must prescribe empirically, when the fluid is neither acid nor alkaline. Mr. C. relies on astringents, such as alum and kino, combined with opium, paying attention to the state of the excretions, and carefully regulating both the quantity and quality of the ingesta. He relates a curious case of periodical pyrosis successfully treated in this manner. He next describes hæmorrhage from the alimentary canal, both profuse hæmatemesis and sanguineous discharge from the bowels, which occurred to a young lady aged fourteen, whose catamenia were regular. The common astringents, as alum, catechu, infusion of roses, cinchona, saline purgatives and opium were used with partial success. The disease returned and proved fatal. *Autopsy.*—The liver was enlarged, extending to the left hypochondrium, the gall bladder was filled with black bile, which became greenish on dilution. *The spleen was enlarged to double its ordinary bulk,* having the appearance and solidity of the liver, and containing but little blood. The stomach was healthy except about two inches

in circumference, near the cardiac orifice, which were turgid with vessels and ecchymosed. The blood had flowed from a mere point, but hæmorrhagic action had been set up in the circumjacent vessels, just as we often see it from a leech bite. There were numerous petechiæ within the œsophagus. In the jujenum and ileum there was a large quantity of black morbid matter, which in some places was mixed with blood, and resembled currant jelly. The subjacent cellular tissue of the colon was of a deep red colour. The mesenteric veins appeared as if injected with a black fluid. Our author thinks the liver was the primary seat of mischief. We cannot agree with him, as there were no symptoms of hepatic disease. We believe the spleen was primarily affected. We hope ere long, to be able to place the pathology of the spleen in a proper light before our readers, from the work of Mr. M'Nolty, of Queen Street, Golden Square, which contains an immense deal of curious and valuable information on the anatomy, physiology, and pathology of the spleen, and of the great influence of that organ in producing a variety of diseases ascribed to other causes. We think that the acetate of lead and opium, during the activity of the hæmorrhage in this case, would have produced more benefit than all the medicines employed, and that local bleeding in the hypochondriac regions would have greatly mitigated the disease. The common astringents do sometimes produce benefit, but are not to be compared to the acetate of lead in any of the hæmorrhages, of which the most ample experience has convinced us. The case is, upon the whole, one of interest, as illustrative of disease in the mucous gastro-intestinal membrane, as *also* of visceral obstruction.

Mr. Cooke adduces several interesting and instructive cases, to prove that chronic inflammation of the peritoneum and omentum may be mistaken for dyspepsia. The following case is worthy of serious attention :—

" On the 6th of June, 1812, I was requested to see Mr. T————, about twenty-three years of age, and apparently of a strumous habit. For two months he had experienced dyspeptic symptoms, but they were so slight that he had not even solicited advice. He had loss of appetite, uneasiness and fulness at the stomach after eating, fetid taste, constipation and debility. These symptoms were attended with a difficulty in making water, from a sense of obstruction in the urethra, and occasional pain above the right groin. As he sold drugs, and knew something of their properties, he occasionally took a little medicine, and immediately before my being called in, he had taken five grains of calomel, which had produced rather violent diarrhœa.

" On this, fever, and an increase of the pain in the penis and inguinal region, had supervened. There was no swelling in the groin. Saline medicine, and bland nourishment were recommended.

" The fever by the 8th had lessened, but there was sickness and occasional pain in the bowels and groin. He passed a good night, but on the 9th the tenderness, tension, and pain of the abdomen had increased. He made but little water. Nitrate of potash, with tartarized antimony, were given him, and the abdomen was fomented. The pain on the 10th was considerably lessened, but returned at intervals. The bowels were open, and stools bilious; the tongue was furred, but the pulse did not exceed 90. He still made but little water.

" The late Dr. Buxton was called in, who advised that the draughts and fomentations should be continued, and that five grains of blue pill should be taken every night.

" On the 11th and 12th, he continued convalescent. He rose from bed, passed more water, and had about four dejections daily, He could not bear much pressure on the abdomen, particularly about the right groin.

" During the early part of the night of the 12th he had considerable pain, but towards morning slept three hours. At eleven o'clock a. m. on the 13th, I found him moderately easy, though occasionally in pain, especially in the penis and groin—where, at times, it was extremely severe. He had voided about five ounces of urine at once. *The pulse was* 80, *and natural.* The tongue was cleaner—stools were plentiful—and appetite was returning. At one o'clock, he partook of chicken, and drank a little broth, congratulating himself with feeling better. About an hour afterwards the pain, which he described as drawing the bowels to the back, recurred with sickness, and unavailing propensity to make water. The abdomen became very tense and tender, and the pulse full. He was bled, and leeches were applied to the abdomen and perinæum, and also fomentations. Blistering was objected to on account of the spasm of the urethra, but sinapisms were laid on the abdomen. In the evening he had less pain, and had voided some urine, but felt a difficulty in speaking. His skin was cold and clammy, and the pulse indistinct. The vital powers rapidly declined, and he died at three o'clock.

" I examined the body on the 15th.

" On opening the abdomen, about eight ounces of fluid resembling whey, containing flakes of coagulable lymph, escaped, and about fifteen ounces were collected afterwards. The omentum was highly inflamed, adhering at the lower part (where the inflammation was most severe), to the peritoneum anteriorly, and to the intestines posteriorly. The intestines were inflamed, chiefly about the lower part of the abdomen, and generally adherent. In the right groin, the convolutions of the jejunum and ileum were so closely united with the cæcum as to form, by the lymph thrown out, the walls of an abscess, cantaining about five ounces of pus. It rested on the peritoneum covering the psoas and iliacus internus muscles. The peritoneal coat of the intestines, in the part which had encircled this abscess, was destroyed by ulceration.

" In some portions of the small intestines, there was beginning sphacelus, and the ascending colon was slightly inflamed.

" The stomach was a little blood-shot. The liver was healthy, and the gall-bladder was full of natural bile.

" It was evident that the affection of the penis was sympathetic, and arose from the irritation of the right ureter, which was involved in the abscess—and the deficiency of urine was owing to the same cause. That inflammation had existed long antecedently to my being consulted, there was abundant evidence, but it was masked under the form of dyspepsia. We learnt after his death, that the calomel he took had been so carelessly prepared, that its spiculæ were coarse and irritating. This accounted for its powerful effects on the bowels, and for the development of more active symptoms than had previously existed. Though the symptoms were extremely mild when the degree of lesion is considered, yet from extended observation and experience, I am convinced that they were sufficiently

characteristic of subacute inflammation. Depletion should have been earlier had recourse to, and though it is probable that the patient would not have borne the lancet to a great extent, the application of leeches, or cupping might have been useful, and at that period, a large blister might have been safely applied. Gentle mercurializing (with caution against irritation of the bowels or constitution), if resorted to early, might have counteracted the adhesive inflammation.

" The case has been related exactly as it occurred, to shew that the pulse must not always be regarded as the criterion of inflammation.

" Owing to the connexion which subsists between the stomach and omentum, the diseases of the latter are often disguised under the form of gastric derangement. Tumours and inflammation of this membrane, have, in their early stage, only been attended with symptoms which in many respects resembled dyspepsia."—p. 53.

Derangement of the digestive organs is a well known consequence of renal irritation, and requires no illustration in this place. Some cases of slight cerebral congestion are detailed, to shew that disorders of the digestive organs may depend upon this remote cause. A case of tumefied spleen in a young lady is given, illustrative of symptomatic dyspepsia. The functions of the uterus were arrested. The functions of the renal apparatus were deranged. A complete cure was effected by means of a seton. This case occurred in 1814, and is a good example of the pain in the left side, so often described by females when menstruation is obstructed. It corroborates the pathological views of Mr. Dobson. It conveys a valuable hint to the practitioner, and, like every other case in the volume under notice, proves the author to be a surgeon of great discrimination and judgment. He relates the history of a case of enlarged liver from hooping cough, which merits great attention. The child was five years and a half old. Diarrhœa supervened, and from exposure to cold, acute hepatitis ensued. For this he was treated in the usual way. The symptoms abated, he had alterative doses of the hydrargyr. cum creta. Dr. Farre, Dr. Uwins, and Mr. Abernethy were consulted, as the disease returned, and the liver was greatly enlarged. He was ordered four grains of pilula hydrargyri every night, and that his diet should be sparing. This plan did not succeed, and was discontinued.

" His fever was considerable. Occasionally his countenance presented a deathlike paleness, with a somewhat livid hue. His gums were slightly affected by the mercury, his appetite was impaired, and his limbs wasted very rapidly. The state of the bowels was irregular and respiration hurried. He often complained of headach. The pupils were dilated, and he seemed quite incapable of mental exercises; indeed, he appeared scarcely capable of sitting up without supporting his head on his hand. The bulk of the liver did not appear to have increased; but the increasing failure of strength, accompanied with symptoms of cerebral fulness, led me to apprehend hydrocephalus.

" I was now confirmed in an opinion, which for some time had been entertained, that the diet had been too scanty, and the periods too distant. It was therefore directed, that at six o'clock a. m. he should take half a pint of new milk; that at nine he should breakfast on an egg and milk with some bread; and at one he should dine on the meat of a young ani-

mal (as veal or lamb), or on rabbit or chicken; take some milk again at five, and some gruel and milk for supper at eight.

" As medicine, he was directed to take ten grains of the extract of taraxacum in mint water, or decoction of sarsaparilla, with fifteen drops of dilute nitrous acid, three times a day; and as I was convinced that he could not bear mercury internally, the nitro-muriatic acid bath was tried. That it might be used effectually, a deep narrow tub was obtained for the purpose. It was first used in the evening of the 30th of April. He seemed to enjoy it, and passed a good night. It was repeated five or six times every week. The tense abdomen was daily rubbed with camphorated oil, and every other day with a scruple of mercurial ointment. During the three or four days immediately following the first bath the bowels were relaxed, and he voided much more urine than he had for some time; but afterwards the bowels settled into a moderately regular state, though it was occasionally requisite to give him a gentle aperient. Through the first week of adopting this plan he was immediately under my own eye, and afterwards the effects of the remedies were very closely watched; nevertheless, though the bath not unfrequently produced considerable irritation and tingling in the skin and legs quite to the knees; yet I never could detect any specific influence on hepatic secretion. It appeared useful, however, as a bath, and as a counter-irritant; and in a few other cases in which I have employed it, its utility seemed to be confined to these effects. At the expiration of a week after commencing the bath, he was placed with his mamma in lodgings at Stockwell, where I saw him almost every day. The bath was continued about three weeks, and then water was substituted for the acid. At the expiration of a month he was evidently much improved. His countenance, by the decrease of pallidness, and of lividness in the circumference of the eyes, indicated an improved state of circulation. He had no pain in the liver or stomach, and was more lively, but his appetite still was defective, and his tongue furred.

" During the preceding three months he had taken no mercury, unless it were an occasional small dose, and he had so uniformly become worse after repeating this mineral a few times, that although it seemed almost essential to the removal of the increased bulk of the liver, yet its renewal was somewhat dreaded. The seizing of the fairest opportunity, and the adaptation of the dose, constitute the chief points in the administration of mercury; and in August his general health was so much improved, and he was so free from evidence of active disease, that he was directed to take a grain and half of blue pill at bed-time for four successive nights, and then to omit one or two; and also to take fifteen drops of nitro-muriatic acid twice a day.

" At the close of the month he came again into London. His general health was good and his appetite keen; but the liver was extremely large, occasioning very considerable prominence of the abdomen and of the right side. He pursued the same plan of medical and dietetic treatment through the months of September, October, and November; and from a memorandum made on the 10th of December, it appears that his liver had become much less, and that its secretions were healthy. His general health was very good, and he took no medicine except two grains of the pilula hydrargyri every third or fourth night.

" Through the early months of 1819, he took two grains of blue pill three

times a week, and in April he re-commenced the taraxacum, taking a few ounces of strong decoction of the recent roots twice a day; but though persevered in for three months, it did not appear to have effected any real good. His breakfast and supper consisted of bread and milk, and his dinner chiefly of animal food. He spent May and June in Shropshire, where exercise on horseback was very serviceable; but the bulk of the liver was still formidable.

" As the head had been repeatedly threatened, and the general health demanding the utmost relaxation, his studies had been nearly suspended; but after the midsummer vacation he went to a preparatory school at Brixton, where the utmost attention was paid to him. He took two grains of the pilula hydrargyri steadily every other night, and in the day either the nitro-muriatic acid or carbonate of iron. For twelve months there was scarcely any intermission in the plan, but during the first two or three months both his confinement and mental exercises were very limited, and afterwards the greatest care was taken that they should not be irksome. He grew in stature, and increased in strength and in the size of his limbs. He was always cheerful, and had scarcely a day's indisposition through the whole year, at the close of which it was evident that the viscus was much reduced. As corroborative evidence of the advantage which had now been gained, I might quote from my minutes the opinion of an able and eminent physician who saw him a second time after the lapse of a year and half.—Having a somewhat analogous case under his care, the doctor examined him carefully, and found the liver scarcely extending beyond the edge of the ribs. He expressed himself greatly astonished at the change that had taken place since he last examined the youth, and said he had never witnessed so encouraging an instance of the management of enlargement of the liver.

" Still we felt it necessary to regard the injunction, ' be not weary in well doing,' and therefore from midsummer 1820, to the same period of 1821, the mercurial pill, which had been cautiously increased to three grains, was taken, though less frequently. He appeared then to be quite free from hepatic disease. Taking his pill had grown into a rather pleasant habit, and for some months he occasionally requested one, a favor with which I thought it useful to comply, as it was not solicited oftener than once a week or fortnight. He continues to enjoy very good health, with unimpaired mental powers.'"—p. 86.

Were we to follow Mr. Cooke through the remainder of the volume, we should either cendense the whole, or make extracts too copious for the limits of this Journal. We must take leave of him, and at the same time strongly recommend his excellent work to our readers. Every page of it is replete with valuable information. The reports of the cases are so graphic, and the symptoms so accurately described, that the practical reader almost imagines he has been in attendance with the author. Notwithstanding the numerous works on indigestion, this will be perused with advantage. It is a series of clinical reports of most of the diseases of the digestive organs, while it embraces many other serious affections of the head, chest, and indeed of almost every part of the body.

III—*A Manual of Surgery*. By Thomas Castle, Esq. F.L.S. Third Edition. 1831. Cox, Southwark. Plate.

We are happy to perceive that this manual has gone to a third edition; it deserves its success; its contents are chiefly selected from the lectures of Sir Astley Cooper and Mr. Green, as likewise from Professor S. Cooper's Surgical Dictionary: the mere mentioning such authorities is enough to sell a couple of editions; but this is not the only value of this work—it is a very useful compendium of surgery, and should be in the hands of every medical student. It is embellished with a well engraved portrait of Sir A. Cooper.

IV.—*A Treatise on Auscultation*. By Robert Spittal, President of the Plinian Natural History Society, &c. Grant and Sons, Edinburgh. 1830. Plates.

In the year 1829, the Harveian Medical Society of Edinburgh gave, as the subject of the prize essay, "The diagnostic Properties of the Stethoscope, illustrated by dissections." This treatise was written to compete for this prize, and the author was successful, and in consequence, was induced to publish it.

The diagnostic signs elucidated by the stethoscope are well explained, and are illustrated by cases and dissections. It will prove of advantage to those who may consult its pages, but we must observe, that if new facts are sought for, they are not to be met with, as our author tells us in his preface. The plates are very well executed, and the cases well detailed.

V.—*Pathological Anatomy of the Brain, Spinal Cord, and their Membranes*. By W. P. Cocks, Surgeon: illustrated by thirteen coloured plates.—1831. 18mo. pp. 143. Highley, Fleet Street.

This little treatise is not intended, we are told in the preface, to displace the more voluminous works on the subject, and truly we are of opinion that it will not: common-place writing, plagiarisms throughout, and wretched plates *by way of illustration*, are surely poor recommendations of any work; there are thirteen engravings, of which there is not one that betters the others—all are alike—equally worthy of the fire: the work itself is wretchedly got up, and we can prophesy that it will never reach a second edition. As a specimen of the author's anatomy, we give the following:—

"The next membrane is the delicate but vascular pia mater, loaded with arteries and veins; and when we pull a portion of it, we find it passing down into the substance of the brain, and between the convolutions. *We also find it prolonged into the ventricles, assuming the name of the plexus choroides.*" Until the sage Mr. Cocks's time, we had always understood the *plexus choroides* to be a plexus of arteries at the base of the brain, and as it proceeds up through the inferior cornu, it becomes venous, by the reception of small veins, and the giving forth arterial branches, until it terminates in the foramen Monroianum: this is the way in which *our* anatomical lecturer had always described this plexus; we cannot but return *our very best thanks* to Mr. Cocks, for his kindness in setting us right on this subject.

And for this *uncommon* production, Mr. Cocks has the *uncommon* modesty to ask only the *moderate sum* of *seven shillings.* Away with you, medical students, aye, and even the *magnates* should rush at once to Highley's, and purchase the work, ere the price is raised; such an opportunity may never again occur. We compliment the publisher of this production *highly*, but if he does not perceive his own happinesss and the profits accruing from such a work, we offer him our sincere commiseration. Let him publish a few more such works, and his fortune will be made. We congratulate him again and again on the acquisition of such a writer; he is invaluable, both as a writer and a designer. We fear he had a *design* against John Bull's purse, when he published this treatise.

We pray the author's pardon—we had almost forgotten to praise his peculiar method of relating cases, but perceived our mistake just as we were on the point of entering his work in our catalogue, with "our very best running hand." As we find it impossible to praise it as it deserves, we quote a few specimens, nothing doubting but that our readers will be in raptures at this new plan.

Specimen the first. "The patient, aged twenty-seven, laboured constantly under an affection of the head: one day the pains increased, and he suddenly died."

Specimen the second. "A man, aged sixty, epileptic for six years, with loss of memory, died suddenly."

The third. "A female, aged sixty-four; attacks of head-ach, giddiness, and imperfect vision, occurring at uncertain intervals; afterward mania; at last, after five years, death, with fever and delirium."

"A child, aged twelve, after appearing to be in much pain, lost the use of the inferior extremities, and died in three days. The spinal canal was found full of bloody serum." *Sed jam satis.* We cannot sufficiently admire the conciseness of these cases. [We advise the author to be more careful in his future publications.—Ed.]

VI.—*A Practical Treatise on Injuries of the Head.* 12mo. pp. 121. Dublin, July, 1831. Fannin and Co. *(continued.)*

We resume our notice of this excellent treatise on a subject of such great importance to practical surgeons. The author is evidently well acquainted with the nature and treatment of injuries of the head, and has condensed the opinions of Desault, Pott, Dease, Colles, Abernethy, Astley Cooper, &c. names which will be revered as long as the science of surgery is cultivated. We are induced to remind our readers of this feature in the volume before us, lest some of our friends might consider we devote too much space to its notice, more especially as most of our contemporaries have passed it by, with merely recording its title. This we must remark is by no means surprising, for as things now are some of our worthy colleagues can take little interest in an anonymous publication. Like general reviewers, they are sometimes influenced by a name, and by selfish motives, which were once foreign to the objects of the conductors of the medical press. We are impelled to make these remarks, when we daily see books of the highest practical value slurred over, or condemned, and paltry, insignificant, and

wretched productions, because they are produced by partisans, acquaintances, or friends, lauded to the skies. We see the merits of a work scarcely acknowledged, or absolutely concealed, but its defects, however trivial, exposed with a degree of asperity, closely allied to malevolence. And all this because the author has neither habitation nor a name in the metropolis; or because he has manliness enough to despise the conflicting parties of the profession; because he "plods his weary way" in the laborious duties of his calling, and like the philosopher of old, laughs at the follies and laments the disgraceful cabals of all parties.

We shall not prosecute these comments—we leave them in disgust, and turn to the legitimate object of a reviewer, the exhibition of the progress of the medical sciences. We therefore resume our extracts from the work under notice.

Contusions of the Scalp. Bloody Tumour.

"33. When the integuments of the cranium are struck with a blunt instrument perpendicularly to the skull, or when the head is forcibly driven against any resisting substance, in consequence of a fall, &c. the scalp is generally detached from the pericranium, to a greater or less extent, around the immediate seat of the injury. Into the receptacle thus formed, blood is poured from the ruptured vessels. The extravasated blood is also injected into the cellular substance surrounding the cavity, and thus a considerable tumour is formed, easily distinguishable from all others, and, in general, very easily cured. This is called the *bloody tumor* of the scalp.

"34. On examination of this tumor, we perceive in the centre a soft spot, into which the finger sinks, and produces to the touch a sensation so much resembling that caused by a depressed fracture of the skull, as to be easily mistaken by an inattentive or unadvised examiner. If, in consequence of this mistake, we were to act on the supposition that a fracture exists, we might expose our patient to much unnecessary pain and inconvenience. As the touch is so deceptive, we should be particularly careful never to make a diagnosis of depressed fractures, unless symptoms more unequivocally indicate such an accident.

"35. Our liability to fall into this error is to be attributed to the manner in which the blood is impacted into the cellular substance, causing the border of such a tumour to be raised and hardened, so as to resemble the elevated circumference of a depressed fracture, while the central part, which is detached from the skull, being soft and yielding, allows the finger to sink apparently below the level of the skull.

"36. The treatment of such accidents is, in general, very simple. Unless the extravasation be very considerable, and the integuments much bruised, the use of discutient applications to the tumor, with the antiphlogistic regimen and quiet, will cause the effused blood to be absorbed, and the tumor to disappear in a short time (from ten to twenty days, according to Mr. Colles). The following lotion will perhaps be as good a one as we can apply to the tumor, with a view of procuring the absorption of the extravasated blood.

℞ Muriatis Ammoniæ, ℥iss.
Spiritus Vini Rectificati.
Aceti distillati, ana ℥ij.
Aquæ distillatæ, lb. j. Misce.

It is seldom necessary to have recourse to considerable evacuations, unless symptoms of further mischief be present; but mild laxatives ought to be administered at proper intervals.

" 37. Mr. Colles remarks, in his " Practical Precepts," that, if we should open these tumors in an early stage, we shall induce a high degree of inflammation and fever, which will be followed by suppuration of a very bad character. I believe it is, in almost all cases, unnecessary to open them early; but the practice of making an incision into a bloody tumor is not an unfrequent one, even with experienced surgeons, and, as far as I have seen, has not been followed by those severe consequences which Mr. Colles seems so much to dread. However, as, from this gentleman's extensive practice, and habits of observation, his opinion is entitled to the highest respect, and as the operation is, in general, uncalled for, we shall not run much risk in implicitly following his advice, viz. to wait patiently for ten or twelve days, diligently making use of the remedies above specified; and at the end of that time, if absorption of the extravasated fluids cannot be produced, and the tumor should continue undiminished, especially if the integuments begin to inflame and point, to make an incision of moderate size into the tumor, sufficient to give exit to the blood, and afterwards to keep the parts in apposition, by compress and bandage, till they unite.

38. *Aphorisms.*

Contusions of the head are generally attended with detachment of the scalp from the pericranium, and a *bloody tumor* is the consequence.

The feel of this tumor so nearly resembles that of a depressed fracture, as often to be mistaken for it.

" Never, on this account, make an incision in order to examine the state of the skull; but wait for the occurrence of those symptoms which render fracture more probable.

" The application of cold lotions to the tumor, with the occasional use of laxative medicines, will, in general, be sufficient for the removal of the extravasated blood.

" If these means should not be successful at the end of ten or twelve days, let out the blood by an incision.

Erysipelas, as a Consequence of Injuries of the Scalp,

" 39. Erysipelas generally occurs in persons of a bilious habit, and is sometimes a very frequent consequence of wounds, especially in large hospitals, where bad air, crowded wards, and unwholesome diet, contribute not a little to its developement. There is no part of the body in which wounds are so likely to be followed by erysipelas, as in the integuments of the head. The greater number of punctured and contused wounds of the scalp, in the hospitals of a large city, are attended with more or less of this complication. But in some constitutions, even when placed under favourable circumstances, it will occur from the most trifling injury. Sir Astley Cooper mentions a fatal case of erysipelas, which followed the excision of a small encysted tumor from the forehead.

" 40. Erysipelas commences, in general, from the third to the seventh day from the receipt of the wound. Its symptoms, and even its appearances, vary in almost every individual case. Sometimes the constitutional

symptoms precede the local, as in idiopathic erysipelas; but generally, in the traumatic disease, we will find some difference in the appearance and sensation of the wound, or the surrounding integuments, to be the first indication of its approach. The following, in the majority of cases, is the order in which the symptoms are developed.

" 41. Pain, sometimes dull and obtuse, at other times acute and pungent, in the immediate situation of the wound, is generally the first symptom of the approach of erysipelas. A puffiness of the lips of the wound, at first slight, but very soon more marked, next attracts our attention, and, at the same time, the surrounding integuments are more or less red. If we now examine the tongue of the patient, we shall find it covered with a yellowish fur; he has a distaste for every species of food; he is distressed with nausea, and occasional vomitings of bilious matter; and sometimes he complains of uneasiness in the region of the liver.

" 42. As the disease advances, the swelling and redness extend, occupying the whole of the scalp, and are propagated even to the face. The ears and eye-lids are generally comprehended in the tumor,—the latter of these are sometimes so distended as to be completely closed. On pressure, the colour disappears, but immediately returns on removing the finger. The swelling is always attended with œdema. Scattered vesicles form on the face, but never on the hairy scalp.

" 43. In a still more advanced stage, the pain in the head and sleeplessness increase; delirium sets in, followed by coma; the thirst is excessive; the skin is dry, and is attended with that *calor mordax*, so remarkable in bilious affections; the pulse is hard, small, contracted, and frequent. The appearance of the wound changes. If it be recent, the edges are swollen and dry, not secreting any fluid, and the dressings adhere to the wound. If pus has been already secreted, it changes to a yellowish, thin sanies, often fœtid. The tension of the integuments is sometimes considerable, sometimes not so much marked. Occasionally, the disease terminates in desquamation; but, if our endeavours to procure resolution have failed, collections of matter are formed, which are discharged by openings behind the ears, or in the upper eye-lids; or death itself may ensue.

" 44. The *swelling* in erysipelas is flat, not pointed, as in phlegmon: it is diffused, and has not the hardness of phlegmon. In erysipelas, the *pain* is *burning*; in phlegmon, *throbbing*. The *colour* of the former is circumscribed, and varies from an uniform light red to a brighter colour, often, after a few days, mixed with a yellowish tinge. The *phlegmonous redness* is diffused, not uniform, but deep and livid at the centre, light and shaded off at the circumference. Erysipelas has a strong disposition to spread by continuity, and is, at all periods of the disease, *erratic*; not so with phlegmon, which is, from the commencement, limited and stationary. If the erysipelatous inflammation is to end favourably, it does not spread so quickly as when it is likely to terminate in suppuration. Phlegmon is said to be a *healthy* inflammation; erysipelas, *unhealthy*; the fever in the former is of the *sthenic*; in the latter, of the *asthenic* type. The terminations of the one are generally favourable; those of the other are frequently the reverse.

" 45. The fever, in erysipelas, generally proceeds *pari passu* with the local disease, and both got better or worse together. In the course of the

disease, the tongue becomes of a mahogany colour, and there is often considerable tenderness in the epigastrium. If the patient is to die, he dies of the fever, comatose. Erysipelas is more dangerous when it affects the head, than any other part. Sometimes we will find the disease apparently epidemic, and more prevalent than at others: this occurs generally in damp and changeable weather.

" 46. The appearances, on dissection, of those who have died of erysipelas of the scalp, are very unsatisfactory. In the majority of cases, we will not be able to detect in the brain or its membranes the slightest trace of inflammation, thus disproving the assertion of some authors, that the patient dies in consequence of the *translation* of the disease of the brain. A few cases are recorded, in which an increase of vascularity in the pia mater was observable, but I believe the general result of examinations has been what I have stated above, far from satisfactory.

" 47. When we reflect on the above account of the disease, we shall be disposed to admit that it is chiefly a constitutional affection, depending on disorder in the liver and primæ viæ; and that there is a real, though obscure relation, between the gastric organs, and the parts affected by erysipelas,—a relation which becomes more striking, when we consider that the local symptoms rarely become violent without the liver being affected—sometimes even to such a degree, as to have abscesses formed in it. But this circumstance will more naturally come before us in the consideration of suppuration of the brain from concussion, &c.

" 48. Occasionally, the erysipelas assumes the phlegmonoid character, more than the bilious. In such cases, the symptoms are more violent, and more nearly resemble those attending inflammation under the aponeurosis, already described (27). It has been asserted by some authors, that the erysipelas attending wounds of the scalp is owing to injury of the aponeurosis; and, in consequence, incisions down to the bone have been recommended. There are cases of *phlegmonoid* erysipelas, where this treatment may be required, in order to give exit to sloughy cellular membrane; but in the *bilious* form, the affection is external to the aponeurosis.

" 49. From what has been said, it will be easy to conceive that the treatment of erysipelas of the scalp must be considered with reference to the local inflammation, and the constitutional symptoms. A strict attention to the constitutional treatment is, in general, of far greater consequence to the patient, than a like solicitude about the state of the wound or the surrounding inflammation; but still there are many cases, in which we shall find mere constitutional measures insufficient.

" 50. The local treatment recommended by Desault consisted merely in the use of emollient poultices and fomentations of the wound only, and discutient applications to the erysipelas. But we shall meet with cases where these measures will not suffice, and we shall be obliged to have recourse to the local abstraction of blood by means of leeches. The application of leeches to erysipelas has been objected to, by some of the most experienced surgeons in this city, through fear of the bites being afterwards converted into ill-conditioned ulcers. This fear appears to arise more from pre-conceived opinion, and an attachment to a favourite system of practice, than from actual observation. Every one who has had an opportunity of witnessing the good effects resulting from this mode of

treatment, in the Meath Hospital, will have no hesitation in applying leeches to the erysipelatous tumor following wounds of the scalp. In every case where we are obliged to use general blood-letting for the cure of this affection, the local application of leeches will have a beneficial effect; and in milder cases, it will be proper to apply them without previous venesection. The number we apply must, in general, be considerable,—regulated, however, by the age and strength of the patient,—the extent of the erysipelas,—the degree of tumefaction and tension of the scalp,—and the extent to which we have carried our other evacuations.

" 51. But, as we have already seen, it is upon the constitutional treatment we are to place our chief reliance. In some cases, particularly in young and plethoric subjects, the fever is so high, and the local symptoms so violent, that we must at once have recourse to venesection, without losing time in the adoption of any less decisive remedies. The bleeding should be in proportion to the urgency of the symptoms. Sixteen ounces may be considered as an average quantity to be taken at one operation, and this may be repeated, if necessary. The blood-letting is to be followed by the application of leeches, as directed above, and the other parts of the antiphlogistic system, hereafter to be spoken of. In milder cases, where bleeding has not been practised, we must keep in mind, that the peculiar appearance of the wound and surrounding integuments depends entirely on some disordered state of the chylopoietic viscera, and to correct this disorder must be our chief aim. As the bowels are generally more or less constipated, and often loaded with ill-digested food, we should in the first place administer a smart purgative, and assist its action, if necessary, by an enema. Perhaps as good a formula as we can adopt, to fulfil this indication, is the following:—

℞ Pil. Hydrarg.
Calomelanos, ana, gr. xv.
Pil. Colocynth. comp. ʒss. M. et

divide in pilulas duodecim.

" Two of those pills may be given to the patient, and followed, in about three hours, by two or three ounces of the following mixture (the ordinary *black-bottle*), which may be repeated every two hours till the bowels are well freed:—

℞ Infusi Sennæ, ℥vij.
Tinct. Sennæ, ℥ss.
Elect. Scammonii, ʒij.
Sulph. Magnesiæ, ℥iss.
Antim. Tartarizat, gr. j. M.

This end having been obtained, we may next proceed to administer tartar emetic, after the manner of Desault, dissolved in a large quantity of liquid. It may be dissolved in whey, in the proportion of a grain to a quart, and of this the patient may drink as much as he can bear in the course of the day. Or it may be given in the drink called *imperial*, according to the following formula:—

℞ Potassæ Supertart. ʒj.
Aquæ ferventis, lb. ij.
Corticis Limonis, ʒij.
Sacchari Albi, ℥ij.
Antim. Tartariz. gr. j. M.

Some practitioners recommend the tartar emetic to be given at the outset of the disease, in doses sufficient to produce vomiting. This has been objected to, as likely to cause determination of blood to the head and coma. I believe there are no just grounds for this apprehension. Emetics are constantly prescribed in erysipelas of the scalp, with the best effects, and I have never known them followed by any bad consequences. If we shall have administered an emetic in the first instance, we may afterwards proceed to the purgative and nauseating plan as directed above.

" 52. By the above local and constitutional treatment, judiciously followed, we shall, in most cases, be able to subdue the disease in young and previously healthy subjects; but old, debilitated persons, when attacked by erysipelas, often require a directly opposite mode of treatment. In them the disease seriously impairs the powers of life, and we must rather endeavour to support them, than to combat the local affection. A free use of bark and wine will, in such cases, be often necessary. When the bowels are confined in those cases, aperients may be given in combination with tonics, as follows:—

R. Sulph, Quininæ, gr. xij.
Pil. Hydrarg.
—- Aloeticæ, aa, ℈j.
Pulv. Cinnam. comp. gr. xij. M.

Divide in pilulas duodecim. Sumat duas tertiis horis ad alvi solutionem.

" We shall know whether we are likely to succeed in our endeavours to arrest the disease, by the following circumstances: the fever abates; perspiration appears on the surface of the whole body; the tongue loses its yellow fur; the discharge from the wound recovers a healthy appearance; the inflamed surface becomes pale and wrinkled, and the cuticle begins to desquamate. After the free use of evacuations, even when the local inflammation is nearly removed, a white tongue, and other symptoms of disordered digestive organs, will sometimes remain. Under these circumstances, the use of calomel and James's Powder is very advantageous. They act copiously on the bowels, clean the tongue, and improve the state of the stomach. Two or three grains of calomel, with a quantity of James's Powder, may be given every six hours, for one, two, or three days. The *hydrargyrum cum creta* might be used in the same way.

" 53. When the above means have arrested the inflammation, the patient is probably reduced in strength, and may require the aid of nutritive diet and tonic medicines. These should seldom be employed, till the pulse is quiet and the tongue clean, lest they should induce a relapse of the disease. In cases where we are in doubt whether stimulants should be administered or not, the carbonate of ammonia is the best medicine we can employ. From five to eight grains may be given in a draught, every six hours, without any risk of re-producing the inflammation, and in many cases with decided advantage. Bark comes next in order to the volatile alkali, and the sulphate of quinine is the most eligible form of the remedy. Wine is sometimes necessary, but should be used very sparingly, and discontinued as soon as the necessity for its exhibition has ceased.

Aphorisms.—54. If, between the third and seventh day from the receipt of the wound, you perceive its lips to become puffy, and the surrounding integuments red and swollen, while at the same time symptoms of gastric disturbance make their appearance, you have reason to fear the occurrence of erysipelas.

" The degree of danger of this disease is always proportioned to the violence of the fever, and recovery from the one is indicated by the cessation of the other.

" In nine cases out of ten, the disease arises from disorder of the liver and other digestive organs, and to the removal of this disorder must your remedies be directed.

" The constitutional treatment, in young and plethoric patients, consists in the use of blood-letting, emetics, purgatives, and other evacuants; followed, when the inflammation has subsided, and the tongue become clean, by tonics and nutritive diet.

" In old, debilitated persons, the antiphlogistic treatment is contra-indicated, and recourse must be had to bark, &c. from the commencement.

" The local treatment is always of less importance than the constitutional, and consists in the application of leeches, poultices, cold lotions, &c. to the wound and erysipelas.

" On post-mortem examination of the brain of those who have died of erysipelas, no appearances indicative of disease of that organ can be detected."—p. 29.

VII.—*Physiologie Medicale et Philosophique:* par ALM: LE PELLETIER, de la Sarthe; quatre volumes in 8vo. avec huit planches et des tableaux synoptiques. Pome premier. Paris. Bailliere. 1831.

Medical and Philosophical Physiology; by ALM: LE PELLETIER, de la Sarthe; four volumes, with eight plates and synoptic tables: first volume. Paris. Bailliere. 1831.—(*continued.*)

WE resume " that little weapon, the grey goose quill," or rather the steel pen with infinite pleasure, for the purpose of continuing our review of this splendid work. When perusing a system like the one before us, our best feelings are excited: the beauty of the language, the easy flow and excellence of the ideas, the originality which characterizes the work, alike please, alike enchant, and equally disarm criticism, leaving us nothing but the pleasing task of praise. When on the contrary, works of a different nature are presented before us, when we perceive them stamped, either by malevolence, quackery, ignorance, or stupidity, we speedily turn with disgust from them, and leave them to the oblivion they richly merit. Such have been our feasts and our fasts lately—the good and evil, the " bane and antidote lay both before us—" and as much as we were inclined to dilate upon and speak well of the one, so much were we obliged (gentle reader canst thou supply us with a more forcible word,) to turn from the other with disgust and loathing: we arise from the one with a light heart, and a mind atuned to all mankind, whilst from the other we dejectedly throw ourself back in our editorial chair, and fall asleep from very weariness of spirit: the attentive readers of these reviews will perceive at once to which works we are at present alluding.

But to return from this digression, we pray our readers to accompany us a little further in our march in the domains of Physiology; it is a peaceful one, and all we take, we will acknowledge.

We now enter on the exclusive domain of Physiology itself: in considering organized bodies relative to their composition, we have met with, 1st, *elements*, 2dly, *tissues*, 3dly, *organs*, 4ly, *apparatus*, 5ly, *an organization*. By studying them in connexion with the actions proper to them, we find particular attributes for each of these divisions.

" *To the elements*, correspond *the physical properties*, cohesion, affinity, weight, impenetrability, &c.; 2dly, *to the tissues, the properties of that name*, extensibility, retractility, putrescibility, &c. *the vital properties*, sensibility, contractility; 3dly, *to the organs, the vital phenomena*, gustation, insalivation, mastication, deglutition, chymification, chylification, &c. &c.; 4ly, *to the apparatus, the functions of life*, digestion, circulation, respiration, innervation, generation, &c. &c.; 5ly, *to organization, of the living economy.*"

Authors have differed much in the definitions they have given of phenomena and functions. Thus the Greeks termed them δυναμις, *strength, power*; Galen, *actio*; Celsus, *functio; operatio naturæ*; Boërrhave, *facultas, &c.* But these terms do not give any positive idea, others again are decidedly wrong, sinca they indicate the faculty rather than the action of that faculty. M. le Pelletier, proposes in their place these following definitions—he applies to the vital phenomena the term of *physiological actions more or less simple of organs: under the influence of the powers of life;* and to the functions of the same order, which are the re-union of many phenomena; *successive or simultaneous physiological actions of a series of organs concurring to the same essential end.* But, we must not, as some do, confound the *function* and the *phenomena;* thus *digestion* is a function, *the prehension of aliment, gustation, insalivation, mastication, deglutition, chymification, chylification,* are the *phenomena* which constitute this same function by their ensemble.

In regard to the classification of functions, nature has shown herself so indocile to our arbitrary classifications, that the most exact are only the least defective. Hippocrates was well aware of this, when he remarked that the functions of life formed a circle, all the points of which are so intimately connected, that there is no reason why one part should be examined before the other; *in circulum abeunt* Our author examines them in respect to their number and their classification, and after examining and objecting to the opinions of Vicq. d'Azyr, who admits nine principal functions, *sensibility, digestion, respiration, circulation, nutrition, secretion, generation, irritability,* and *ossification,* of *Cuvier,* who has also nine, *sensation, motion, digestion, respiration, circulation, generation, absorption, secretion, transpiration;* Magendie, whom he considers equally mistaken with Vicq. d'Azyr, in considering as functions *perceptibility, voluntary contractility:* Richerand, who adds to the preceding list, *the voice and speech,* without completing entirely the number of physiological actions: Chaussier who admits eleven functions, *circulation, respiration, digestion, absorption, secretions, nutrition, generation, actions of impression, of perception, of expression, innervation;* of Adelon, who has also eleven; *sensation, locomotion, expressions, digestion, absorption, respiration, circulation, nutrition, calorification, secretion, generation;* and of Bichat, who admits thirteen; *digestion, absorption, respiration, circulation, nutrition, secretions, external, and internal senses, motion, voice and speech, generation, exhalation, calorification;* after offering various objections to all these methods, M. le Pelletier brings forward the following arrangement, in which, he says, all the

physiological arrangements are exactly indicated; they are eleven in number; *innervation, circulation, respiration, digestion, asborption, nutrition, secretions, sensations, thoughts, expression, generation;* he again objects to the grouping of functions, hitherto adopted; and offers the following in its place. "If we examine the living economy with attention in all organized bodies, we see at first a class of functions, the exercise of which is indispensable for the development of these bodies, for their support, for their existence every instant, this class therefore peculiarly merits the name of *vital functions.*

The second class has for its essential object to introduce in the system the materials of increase and reparation, to assimilate them to the tissues, to expel the heterogeneous and hurtful elements; it takes naturally the name of *nutritive functions.*

A third is destined to multiply the connexions of the living body with all that environs it, and which may be expressed by the term of *functions of relation.*

Finally, a fourth perform the physiological actions indispensable for the propagation of the species. We design it by the denomination of *genital functions.*

The *ensemble* of all these functions, the order and the laws which govern them, the harmony which unites this *ensemble,* constitute *the living economy;* their regular exercise produces that complicated result which we designate by the term of *life,* and their study constitutes *physiology properly so called.*

The distinction between *man,* animals, and vegetables, as far as regards the *organic apparatus of functions,* is graphically described.

"*The material part* of vegetables consists of the apparatus of absorption, nutrition, secretions, the vascular circulation, cutaneous respiration, and generation; *the material part* is entirely represented by *sensibility and latent contractility.*

"In the animals, approaching the nearest to man, *the material part* is composed of, besides the organs possessed by vegetables, the apparatus of digestion, cardiac circulation, central respiration, either by lungs, as in terrestrial animals, or by bronchia, as in fishes, general locomotion, voice, central innervation: *the immaterial part* comprehends the vital properties in all their modifications, and this mind, under the name of *instinct,* is confined to the sphere of physical wants.

"In man, for *the material part,* we meet with all these apparatus, with the dispositions proper to his nature; for *the immaterial part,* besides the vital properties in all their perfection, THE SOUL, which not only presides instinctively for the accomplishment of organic wants, but still further, by the power of reason, raises man into an intellectual region absolutely inaccessible to the most perfect animals.

The exact boundary between instinct and the mind, or the operation of the *soul,* has not, and perhaps never will be, distinctly ascertained.

The paucity of instinct, if we may venture so to term it, exhibited by some of the minor animals, the sloth for instance, which remains on one tree, until he has devoured all the green on it, and likewise the *dudo,* and many sea birds, the ascension on this grand scale until we come to the almost reasoning elephant, the industrious bee, the tailor bird, and numerous other instances, which exhibit a power of instinct, that is nearly allied to

the reason of man; these facts confound the philosopher, and put him completely at fault; he cannot with accuracy point out where the order of animals possessing instinct begins or where it ends.

After giving a general view of the functions of the living economy, M. le Pelletier proceeds to a particular examination of each, more especially in the applications which they may have to *pathology, legal medicine, hygiene,* and philosophy.

His classification, as we have already stated, consists of *vital, nutritive, relative,* and *genital* functions. He therefore proceeds first to the examination of the *vital functions*; these consist of *innervation, circulation,* and *respiration,* which form the *trepied* of life.

The vital functions have six proper and distinctive characters.

1st. They have central organs only in man, and the superior animals. In the remainder of the series of organized bodies, we see them only rudimental as it were, and vaguely disseminated; such as the capillary circulation, general respiration, the doubtful innervation of vegetables and the lower animals.

2dly. They are never exercised at birth with all the modifications they offer afterwards,

3dly. They have no need, after birth, of any artificial education to acquire perfection.

4thly. They establish positively the physiological bond between the nutritive functions, and functions of relation.

5thly. At first view, their action appears continuous, but in reality, there is as much suspension as activity.

6thly. Finally, it is impossible to interrupt their action for any time, without imminent danger to life.

Innervation is that action of the nervous system, by which it conveys sensation and motion, wherever its ramifications extend. *It is the chief of all the physiological actions, and according to its development, is the standard of life.* In man and animals, endowed with perception and motion, the nervous system consists of the encephalic and ganglionic; the latter is likewise met with in all organized living bodies, in different degrees; as we advance in the scale, we find medullary masses diversely placed, which appear destined to replace the encephalon, or rather to form the connecting link between those animals which possess only the ganglionic system, and those which have likewise the encephalic. Thus in the gasteropodœ, these medullary masses are placed on the œsophagus; in the acephalous molluscœ, in the oysters, &c. around the mouth; in insects a double lobe exists above the pharynx; but these masses appear to have more analogy with the ganglionic system, than with the encephalic. In polypi, &c. and even in a great number of worms, the existence of even the ganglionic system may be contested."

This can hardly be: had M. le Pelletier ever trod on a worm, and only partially crushed it, its contortions alone would suffice to indicate sensibility; it were better for erring mortals to acknowledge their own insignificance, and their utter impossibility of pursuing farther their experiments, than to doubt that the Creator would have left a class of beings unprovided with a nervous system, when *He* has himself viewed *His Creation,* and declared "that it was good." We do not direct these remarks against M. le Pelletier, for we are far from thinking that he deserves them; but

against a horde of would-be philosophers, who endeavour to raise themselves to notoriety, by impugning the wisdom of the ALL-WISE, being incapable of rising in the profession by their own merits; this conduct is too common, and it becomes the duty of every one to repress it.

In fish the encephalic system is evident, we even find many tubercles, which we cannot discover in man. The hemispheres are small, a large cerebellum but no *arbor vitæ*; in *reptiles* we find two hemispheres, two optic thalami, a very small cerebellum, and a spinal marrow. In birds there is no processus annularis, nor corpus callosum; the third ventricle is placed in the optic thalami, and the cerebellum has only one lobe. *In the mammiferæ*, the encephalon presents the same parts as in onr species, but with modifications of volume and form. In animals which run fast, and especially those which leap from heights, the falx cerebri is entirely ossified, as we may observe in the cat. In those quadrupeds which use only the horizontal posture, there is no tentorium, which serves to point out its use in man, whose station and progression are naturally vertical. *In man*, the great nervous apparatus has reached its highest state of development, *the ganglionic system* is composed of a series of ganglia, and an infinite number of nervous filaments; authors are not unanimous in what way they should regard the ganglionic system. The ancients considered the succession of ganglia as forming one nerve swelling in different points; Professor Lobstein holds almost the same opinion; hence the former term *it the great sympathetic*, the latter, the *trisplanchnic*. M. le Pelletier does not approve of this theory, as in some animals, this, by him termed *pretended*, nerve is not always continuous, and even in the human species; thus in birds, the last cervical ganglion does not communicate with the first thoracic. Waller has seen this want of communication between the sixth and seventh dorsal. Bichat has also observed this disunion between the different ganglia in various subjects, but these are rather exceptions to the general rule; and we must not take few isolated examples as evidence against a whole mass of subjects; we are not to say that the right carotid does not arise from the innominata, because in some scattered examples it arises from the cross of the aorta: the infinitely multiplied sympathies transmitted by the ganglionic system are such that if it be not *one nerve*, the connexion is so very great, and so very extensive, that it would be a work of supererogation to attempt to separate it into more than one. Bichat considers the ganglia as so many little brains, each having a particular duty to perform, and presenting in miniature, the principal phenomena of the encephalon.

This explanation does not please M. le Pelletier; he considers that the truth is between the two extremes. He believes "the ganglia to be so many nervous centres, not isolated in their action, but communicating freely by means of anastomosing filaments, and carrying their latent impressions to the solar plexus, as the principal focus of this species of innervation," thus placing a kind of second brain in the stomach; had M. le Pelletier been dissecting an alderman when he made this discovery, we should not have been astonished; but be it so; to use Sir Walter Scott's words, a little varied, "we quarrel with no man's hobby, if he does not run a tilt against ours, and if he does—let him beware his eyes;" but as our author does not run that same tilt with us at present, we will spare him. The connexion between the encephalic and ganglionic systems is very intimate, as also between the nerves arising from the latter, each nerve frequently anas-

tomosing with others; these branches uniting with the encephalic nerves, form a kind of lattice or lace-work, called *a plexus*. From these arise many minor branches; some, the smaller proportion, are distributed to the neighbouring organs, but by far the larger part accompany the arteries, forming secondary *plexus*, which take their names from the vessels they accompany. Examples of the first, *the cardiac, pulmonary*, and *solar* plexus. Of the second, *cœliac, hepatic, splenic*, &c. In man, and the higher animals, *the encephalic system* consists of two essential parts; the *encephalon* (the centre of innervation), and the nerves (the conductors of sense and motion). Gall regards the encephalon as a medullary centre, formed by the reunion of all the nerves, which obey the will, as a dependant on these latter, and not as their common origin. This theory, so contrary to all received opinions, appears paradoxical to us; as well might he say, that the heart is formed by the vessels it gives off.

There are few physiologists that have not endeavoured in some way or other to explain the exact manner in which the nervous influence is communicated to the different organs. The three principal hypotheses are as follows:—*the nervous atmosphere; the vibration of nerves; or the motion of the nervous fluid. The nervous atmosphere.* Reil, who was the author of this theory, admits around the nerves what he calls *their sphere of activity*, in which each exerts a particular influence. But the nervous influence is not manifested laterally, but from its origin to its termination, for volition and motion; from its termination to its origin, for perception.

Vibration of the nerves.—Many physiologists have pretended that innervation was a shaking (ebranlement), communicated to the organs by the vibration of the nerves, but for a chord to vibrate, it must be *tense*, but nerves are flexuous, rather than tense; it must be *elastic;* nerves are absolutely inelastic, and *should be completely isolated in its whole length;* in fact, it is sufficiently to touch a vibrating chord, to arrest that action instantly; but the nerves are enclosed in muscles, or between them, during the whole of their course.

Motion of the nervous fluid.—Several physiologists consider that there is a nervous fluid circulating in the nerves, like the blood in the sanguineous apparatus; but when we consider the rapidity of the impression, it is almost impossible to conceive that a fluid can transmit it.

M. le Pelletier transfers the power of the nerves to *animal magnetism*, which he regards as analogous to the *electric fluid;* and that the nerves are to the magnetism what the silk-cords are to the electric fluid. Our author quotes the experiments made on dead bodies with the *galvanic fluid*, the experiments of Messrs. Breschet and Milne Edwards, in proof of this theory; many experimentalists admit the existence of this fluid; namely Béclard, Béraudi, Weinhold, Wilson, Edwards, Vavasseur, Aldini, Magendiè, Krimmer, &c. The arguments M. le Pelletier brings forward in favour of this theory, are highly scientific, depending on actual experiment, either by himself or others, and we regret exceedingly that we cannot extract them from their great length.

The Circulation.—Under this head we have a splendid description of the blood, with a plate, and the history of its discovery, which we are glad to perceive is attributed to Harvey; the experiments by which Harvey made the discovery which has handed his name down to posterity, are also detailed, but as they must be well known to English readers, we shall not transcribe them: "it is easy to perceive after what we have said, that the

ancients had no positive knowledge of the circulation of the blood. Cesalpinus and Vesalius prepared this splendid discovery, which Harvey appropriated to himself by his genius, receiving, instead of a civic crown, as a mark of the gratitude of his cotemporaries, threats and persecutions."

Our author divides the circulation into the *lymphatic*, and sanguineous; his description of both is excellent but we have not space to insert them; after the very long reviews we have made of this work, we have only space for a condensation of the varieties of the pulse.

There are six principal;—*Strength,—Frequency,—Hardness,—Breadth, Fulness,—and Regularity;* comprehending with these their opposites.

Strength and weakness of the pulse.—The pulse is *strong*, when the artery strikes the finger with energy; it is *weak* when the contrary occurs. *The pulse is strong* in subjects of a sanguineous, athletic temperament, of a robust constitution: in patients with hypertrophied ventricles; it occurs during violent passion, very active muscular exercise, and in a more lasting manner, during the ordinary course of a parenchymatous inflammation well established. *The weak pulse*, produced by *atony of the ventricles*, as the opposite is by increased energy of those parts, offers a great indication of debility. The *pulse* is *weak* in individuals of a lymphatic temperament, of a soft and delicate constitution, in subjects effeminated by an inactive life, more or less debilitated by chronic diseases, by misery and privations: sorrowful passions, grief. &c. will induce it.

Frequency or slowness.—The frequency of the natural pulse at birth is, from 140 to 130; at a year old, from 130 to 120; at two years, from 120 to 110; at three years, from 110 to 100; at ten years, from 100 to 90; at twenty, from 90 to 80; at forty, from 80 to 70; at sixty, from 70 to 65; at eighty, from 65 to 60; and finally, at 100, from 60 to 55.

The frequent pulse is characterised by a rapid succession of arterial diastole and systole. The pulse is *frequent* in subjects of a nervous temperament, of an irritable and weak constitution, during the action of the passions which exalt the imagination, &c.

The slow pulse is met with in subjects of a lymphatic temperament, of an inergetic constitution; in the depressing passions, absolute repose, profound sleep, apoplexy, syncope, asphyxia, constitutional atony, &c.

Hardness or softness.—The hard pulse is indicated by the roundness and resistance of the artery; it may be found in subjects of a bilious or nervous temperament, of a dry and very energetic constitution, during agony, pain, &c.

The soft pulse is characterised by the facility of compressing the artery; it is produced by atony, the want of elasticity of the arterial parietes, and sometimes the weakness of the cardiac contractions: it is present in the lymphatic temperament, during the depressing passions: in local or general atony, aneurism of the heart, towards the termination of fevers, scorbutus, scrophula, &c.

Breadth or concentration.—The broad pulse is the indication of a regular, abundant, and complete sanguineous circulation, whether in health or disease. It occurs in sanguineous, athletic temperaments; in subjects who take great corporeal exercise, &c.

The concentrated pulse may be met with in the nervous temperament, great irritability of constitution, during fear, inquietude, profound grief; and when united with frequency and irregularity, it is often the precursor of

death. We must not confound the *concentrated* with the *weak* pulse. The first is hard, round, and elastic, yielding to pressure by sinking in the surrounding parts: the second, on the contrary, is soft, and without re-action, and disappears under the finger, being really effaced. The first indicates spasm and irritation; the second circulatory or constitutional atony. The first requires a sanguineous evacuation, proportioned by age, constitution, and the intensity of the inflammation. It becomes more developed and relieved under the influence of this means, then essentially necessary; it becomes stronger and more elastic, instead of being weaker and more concentrated. The second directly contra-indicates bleeding, which would increase the general or local atony. We have thus pointed out the distinctions between the pulses, the importance of which we think is very evident.

Plenitude, or vacuity.—These depend on various causes. General and local plethora or anemia, increased or diminished resistance of the capillaries, may alike cause these states of the pulse.

The full pulse is met with in the sanguine, bilious, and athletic temperaments, in the plethoric constitutions, under the influence of rigorous cold, in the strong passions, organic congestions, &c.

The empty pulse occurs in lymphatic individuals, of a loose, debilitated constitution, during ennui, nostalgia, under the influence of heat, hæmorrhagies, and artificial sanguineous evacuations.

Regular, or anomalous pulse.—The *regular pulse* is characterised by a complete harmony in the intervals of the pulsations, in their duration, their strength, hardness, breadth, and fulness. This absolute regularity is in some sort a chimera, but there is a *comparative* regularity. It is frequently met with in the normal state, in persons of an excellent constitution, a sanguineous temperament, and during physical calm and the silence of the passions. The *anomalous pulse* may differ from any one, more, or all of the conditions above described. It may happen during violent, disturbing passions, very active physical exercise, febrile re-action, especially intermittent during the cold stage, spasms, convulsions, tetanus, &c. during agony, &c. In the diseases of the heart, as pericarditis, carditis, valvular ossifications, aneurism, hypertrophia of the ventricles, cardiac neuralgia, &c. Diseases of the arteries may likewise cause it, by interrupting or increasing the flow of blood.

We here close our review of this volume of M. Le Pelletier's Physiology, and are compelled, at the same time, to express the great pleasure we have experienced from its perusal. We heartily recommend it to all our readers.

VIII.—*Medico-chirurgical Notes and Illustrations.*—Part I. by R. Fletcher, Esq. Surgeon to the General Infirmary at Gloucester, and Consulting Surgeon to the Asylum for the Reception of Lunatics, near Gloucester. Longman, Rees, Orme, Brown, and Co.; Simpkin and Marshall, and T. Jew, Gloucester. 1831. Plates.

That medical men should give to the public the results of their practice, has long been declared a desideratum, and we hope that the lacuna will soon be filled; we do not mean to induce practitioners to publish their

lucubrations in the book-form, or in the expensive manner in which the book before us is published; it would occupy too much of their time, and would certainly do away with the benefits, that would otherways accrue, from the plan we recommend; but if they would draw up cases and send them to the different journals, it would be of great advantage to themselves, the profession, and the public at large; their success on the one hand, would stimulate others to greater endeavours, while their very failures would prove of service, by pointing out the shoals and rocks on which they were wrecked.

Our author commences his work with an account of "the sources of the spasm of the glottis." He observes, that the attention is not often attracted to the subject of suffocation from those affections of the throat, and we therefore know less of its causes.

But it is a knowledge very necessary to possess, of the highest value, as life hangs upon it, and one too perchance of the most precious character.

Admitting therefore that life may sometimes be cut short by sudden suffocation from a sore throat, or an abscess, or a wen, it becomes necssary to know in the first place, the exact mode by which that process is effected, before we can have much chance in arresting its fatal progress, and lastly, we must discover the several causes, or particular affections which will set this process in motion. This process, according to our author, is a powerful spasmodic contraction of the muscles of the glottis, keeping it closed so long that life becomes extinguished. From its rarity, but more especially from its having but a short lived existence, medical men do not often have an opportunity of witnessing its wild, peculiar and distressing character. To them the following description of this horrible complaint, written upon leaving the bedside of the patient, cannot but prove interesting, and highly useful. The remarks concerning self-possession in the patient's room, are excellent, and well deserve to be recorded, though it must be owned the steady basilisk gaze he describes, is enough to frighten one who never saw a case of the disorder before.

"When first seized with spasm of the glottis, the patient starts up suddenly, tossing his arms in wild affright; an expression of terror, as if attacked by some dreadful enemy within, sits upon his countenance; the eye-brows are raised over balls that are starting from their sockets, the shoulders rise and fall, as with an open mouth, and incredible exertions, air is drawn through the nearly obstructed tube, with a singular and alarming sound. Not a word is uttered; enough of the understanding is left in this moment of terror, to induce a belief in the unfortunate patient, that one would be fatal. But as the violence of the spasm subsides, he tells you in monosyllables as well as he can, that he has been nearly choked.

"This communication is sometimes made with a voice which causes you to start; a deep unnatural growl rises from the throat, or it is a fearful broken whisper, that still bespeaks terror, though now on the decline. As this terror continues to fade, the expression of the whole may assume a different character. Apprehensive of a return, he seizes the bed-clothes with his hands, which before were tossing in the air, that he may not be taken unprepared, and with one or the other he will occasionally point to the thyroid cartilage, as the seat of all his sufferings. A pale, haggard, and subdued countenance, on which are seen a few drops of cold perspira-

tion, is before you, the mouth half-open, the breathing yet hard. The eye-balls indeed have in a measure retired within their sockets, but the eyes themselves, as the understanding rallies, wear a mingled expression of keen, watchful intelligence, which follows you every movement, with restless anxiety. On your countenance and actions, are bent all the powers of the sufferer; a steady gaze meets you every where; if the bearing be calm and determined there is hope, but if you betray a wavering countenance, and an inclination to reach the door, you will be detected, and your patient, should he recover, will put you down as nobody, or as one of little value in the hour of danger and difficulty."

The cause of this dreadful disorder appears to be irritation of some kind or other acting on the glottis and its muscles, and exciting their spasmodic contraction. Our talented author relates several cases, their object "being to show, in addition to what is already known on the subject, that so dangerous a system does exist, may arise from many irritations, and that we cannot be too diligent in tracing their sources, or decisive in destroying their fatal power."

The symptoms detailed in the Case IX, so closely resembles those already given, that their recapitulation would be superfluous; we notice for the purpose of making known the treatment pursued; the attack was just subsiding as Mr. F. entered the room, he was sitting up in bed, grasping the bed-clothes, he pointed to his throat, and said in a hoarse and husky whisper, "I shall be choked." He was subject to colds, and was suffering from one at the time.

"At present there was no vestige of any inflammation about the interior of the throat, though he now swallowed with difficulty; but on the exterior there was a general swelling across its middle, more especially on the left side, a little below the inferior cornu of the thyroid cartilage, deep, and immediately over the carotid. The swelling had ascended high in the neck, making it look generally of a colossal size. At the point near the thyroid cartilage, there was a redness, tenderness to the touch, and pain, marking the presence of phlegmonous inflammation; the pulse was quick, he was hot and thirsty. Fifty leeches were applied to the inflamed parts, and a strong purgative given.

"Three hours afterwards I visited this patient. The bleeding had been profuse, and his respiration was infinitely more calm, though once, and for a minute, since my last visit, he struggled so much for air, that his attendants thought he would have gone; this character, indeed, had prevailed throughout, respiration always difficult, but at times the convulsive struggles and stricture about the larynx, frightful.

"I watched the mode of breathing for nearly half an hour, and being satisfied that the regular difficulty, mingled now and then with spasm, was greatly diminished, and that I saw no violent spasm of the glottis, I left, with instructions to be sent for, should the respiration become worse. I heard no more of the progress of this patient, till I visited him eight hours afterwards. The breathing was nearly natural, the swelling in front of the throat greatly reduced, and the skin become pale. There appeared, however, a litile hollowness of the point, which was red, near the inferior cornu of the thyroid cartilage.

"The spasm of the glottis did not return; but a day or two afterwards, I understood that the patient brought up some offensive matter, making it

probable that suppuration in the cellular membrane of the neck had taken place, and found its way into the pharynx."

The causes, in our author's opinion, are as follow:—

1st. Cynanche tonsillaris.
2d. Laryngitis, and cynanche trachealis, or croup.
3d. The irritation of an irritable bronchocele.
4th. The irritation of an ulcer in the œsophagus.
5th. The mere handling and leeching an irritable bronchocele.
6th. The irritation of a scrophulous or a chronic abscess of the pharynx.
7th. The irritation of a phlegmonous abscess in the neck, or fauces.
8th. Chronic enlargement of the tonsil, when inflamed.
9th. Venereal ulcer of the throat.
10th. Elongation of the vulva.

If the cause cannot be speedily removed, bronchotomy is our only resource. When there is pressure, the surgeon should be on the alert, for this may be both the cause of the spasm itself, and increase its danger. When the cause is undiscovered, the surgeon ought not to be satisfied with the usual examination. The fauces may appear sound, and yet in the depth of the pharynx may be concealed the true cause of the mischief. The most minute and careful survey should be made with the hand and eye, of the interior and exterior parts of the throat, in all cases where the source of the spasm is doubtful. The pharynx in an adult is about two inches and a half long, as measured from the plane of the tongue, to the commencement of the œsophagus, and nearly the whole of this portion of it may be explored with the finger, if the jaws are well fixed asunder by a proper speculum. The fore-finger of the right hand introduced between the molares, as far back as the corner of the mouth (on its right side) will admit of, may command the whole cavity. The examination should be done quickly and decisively, or otherwise the irritation of the finger will excite a renewal of these very spasms, or increase that difficulty of breathing, the cause of which it is meant to discover. Of course proper treatment is to be directed against the exciting cause when discovered.

The next article is on strictures of the œsophagus. He relates some cases of false passages by the instruments at present in use, and recommends a dilator, invented by him, and manufactured by Mr. Weiss, to pass through the stricture and below it, to be drawn up, tearing its way through. He expects a cure in the membranous, and relief at least, in the cartilaginous stricture.

In the article on Anomalous Hernia, some curious cases are detailed. The first case was one of enterocele, with its sac contained in the sac of an epiplocele; behind these a cystocele. The operation was performed, great part of the omentum removed; the patient recovered. Other cases are detailed, but we have not space enough to notice them.

Passing over the "failures in lithotomy," though we may observe, *en passant*, that Mr. F. fairly details a case of too great force being used, in which he himself operated; it was his maiden case, and he had bad advice; he adds another, honestly and in a manly manner, detailing his own failures before any one's else; we come to cases of chronic inflammation of the testis; in one case, the patient came to have his testicles removed; he had had an injury in the lower part of the spine, since when, the left testicle

gradually swelled, and became painful; the right testicle participated after a time.

"A slough was made with the potassa fusa, of the size of half-a-crown, which was followed by an escape of fluid, inflammation, fever, and profuse suppuration. It, however, reduced not only the left gland to nearly its natural size, but the right was also diminished.

"The hole made by the slough, when the inflammation subsided, was filled with peas, and after a time the patient went home, well satisfied *with* both his testicles, which he intended to leave behind him."

We have experienced great pleasure during the perusal of this work. It is one of great practical utility, and we are sorry that the high price of the work, puts it out of the reach of the generality of medical men and students, to whom we, otherwise, could cordially recommend it.

ORIGINAL COMMUNICATIONS.

I.—*To the Medical and Surgical Officers of the Worcester General Infirmary.*

The undersigned, being a Member of the Royal College of Surgeons, and a Licentiate of the Society of Apothecaries of London, residing as a medical and surgical practitioner in the city of Worcester, is deeply impressed with the conviction, that the sciences of medicine and surgery are essential to the comfortable and happy existence of mankind; that the power they naturally possess of alleviating the "ills that flesh is heir to," will be increased in exact proportion as they advance nearer to perfection, and as the possession of health is the greatest blessing that can be enjoyed, so he is persuaded every one must consider those arts, the object of which is to preserve health, or to restore it, when impaired, of the utmost value; and every Philanthropist must have great interest in their progress; he consequently feels, that superadded to the ordinary duties devolving on him, as a member of the profession, there is another of the most urgent nature, and from which no circumstances whatever can release him, viz. the duty of endeavouring, by every method in his power, to assist in promoting the improvement of these important branches of human knowledge, and in diffusing in the widest manner, as far as his humble capacity permits, the benefits they are so capable of affording to society.

And he has been led to consider, that among the various means by which these desirable objects may be attained, not one appears more obvious than that of striving to render the medium through which these sciences operate on the community as adequate as possible to convey their full influence; or in other words, of endeavouring to improve the education of those persons to whom the bulk of mankind apply for relief when afflicted with sickness and disease.

Impelled then by this sense of duty, and by this consideration, the undersigned begs permission to direct the attention of the medical and surgical officers of the Worcester Infirmary to the state of medical and surgical

education; and although the subject is one of extreme importance, and admitting (as he thinks) of very great improvement in many particulars, he will advert, on the present occasion in as respectful a manner as he is able, to one point only connected therewith, viz. the restrictions by which students are prevented from freely attending those repositories of medical and surgical science, the public hospitals of the country, among which must be classed the Worcester General Infirmary; and in so doing, he confidently anticipates that the arguments he shall be enabled to adduce, will have the effect of inciting the medical officers immediately to remove the *pecuniary* regulation presently to be noticed; the existence of which prevents many students of availing themselves of the advantages to be derived from an attendance on this invaluable institution.

In commencing an inquiry into this subject, it will be proper to ascertain, first, whether hospitals, infirmaries, and dispensaries, be strictly public institutions?

Whether they have been established for the benefit of private individuals, or for that of society at large?

Secondly, under what circumstances students have at present permission granted to attend the practice of these institutions? And by whom?

Thirdly, whether these circumstances ought longer to continue? And if not, whether any, and what new regulations may be suggested?

The answer to the question, whether these establishments be of a public or private nature is quite clear, and does not admit of the least hesitation.

They are undeniably for the exclusive benefit of the PUBLIC. They have been founded, supported, and are now maintained by benevolent persons, for the express purpose of affording relief to the poor, when oppressed by disease; and although this relief is for the most part administered to such on their personal application to the medical officers, the same end may equally be attained by affording to those medical and surgical persons under whose care the greater number of these individuals fall, the fullest opportunities of learning the nature and treatment of the diseases to which the human frame is liable; for neither can the poor, nor any other class of society, receive effectual assistance in sickness, save by the hands of those who possess the necessary information, which these institutions are undoubtedly intended to afford facilities of acquiring.

The curing of diseases, and the diffusion of medical knowledge, are so intimately blended one with the other, as to be actually incapable of separation.

No one can entertain the least doubt, that such are the purposes intended to be effected by these institutions, and it would be a mere waste of words, to adduce further arguments to prove a position, the truth of which no reasonable person can dispute.

The general affairs of these CHARITIES are conducted by those humane persons, who by their subscriptions contribute to support them, but possessing little or no information in medical matters, they usually leave these to be managed by the wisdom and discretion of the medical officers, conceiving that their professional knowledge will enable them better than any others to direct the energies of these institutions, to the complete attainment of the object they have in view.

Now, it follows of necessity, that all laws, rules, or regulations made by either of these two classes of individuals in their capacities as governors,

ought to be enacted with this undivided intention, and ought to assist in some way or other in promoting it.

This leads to the second query proposed, viz.—What are the regulations, in the observance of which students may attend the practice of these institutions? Do they assist in the promotion of their objects? And by whom are they framed?

In answering this, the undersigned, with no invidious motive, will beg to take the Worcester Infirmary as a fair specimen of the English hospitals, as relating to this subject; first, observing that in Paris, no money is demanded from medical students; *there*, they are freely permitted to learn the art of alleviating the miseries of their fellow creatures.

In Edinburgh, the most celebrated school of medicine in the world, the fee is only *five* guineas for one year's attendance, including both the physician's and surgeon's practice; and in Glasgow, the same rule prevails. Moreover these payments, trifling as they are, do not go to the medical and surgical officers, but to the funds of the hospitals.

At the Worcester Infirmary (certainly not quite so distinguished as either of these), the undersigned believes the rule is, that a student shall pay twenty guineas to the physicians, and thirty guineas to the surgeons, for the privilege of seeing the patients contained in this public institution for one year, which sums are received by them as fees.

This, it must be confessed, appears a most extraordinary method of carrying into effect the benevolent purposes of this charity.

The undersigned declares, he is utterly unable to comprehend by what means this measure can facilitate the curing of diseases, or the diffusion of medical and chirurgical knowledge, the avowed objects of the institution. To him it is quite clear, it must have a directly opposite tendency.

How is it possible, that the payment of a sum of money by a student to the medical and surgical officers for their own sole emolument, should promote the curing or relieving those persons who may be so unhappy as to be afflicted with disease?

But let us further enquire by whom this law hath been enacted and enforced? This consideration is important. By the PROFESSIONAL GENTLEMEN OF THE ESTABLISHMENT! Not casually and incidentally, but deliberately, and with all due consideration.

For whose benefit? Not for that of the sick poor; they are no parties to the transaction, nor do they receive any portion of the payment. Perhaps it is for the advantage of the pupils? By no means. Unless the paying of a sum of money to persons who have not the least right to demand it, and for that too, which may be more readily, more perfectly, and withal honestly, acquired by them without such payments, merits that appellation.

Seeing then, that this law is for the benefit neither of the sick poor nor the pupils, for whose then can it be? If it were said that these *fee-demanding* regulations have been framed by the physicians and surgeons of these charities whilst invested with the sacred character of governors, with a view to their own private emolument, regardless of every other consideration, could it be called an unwarrantable assertion? Is it not rather an inference, flowing, as it were, spontaneously from a consideration of the facts?

Far, very far indeed, be it from the writer to impute dishonorable mo-

tives to any man, much less to the highly respectable and eminent gentlemen whom he has now the honour of addressing, he therefore will not say, that in enacting this law these gentlemen have been influenced by a wish to obstruct the progress of medical science, or to keep the doors of this institution as closely shut as possible, or to prevent any, save themselves and their own pupils, from having access thereto; *he* entirely acquits them of any such intentions: nevertheless, it is very much to be lamented, that these have been the effects resulting from the operation of this law—how else can the following facts be explained?

There is not at this time, nor has been for a considerable period (with perhaps one or two exceptions), a single individual attending this place with the view of studying the healing art, save the pupils and apprentices of the medical officers, it seeming as if all others were effectually excluded by the heavy fees demanded from them.

And the undersigned verily believes, there are in the city *alone*, more than one or two individuals now educating for the medical and surgical profession, who would, as he conceives, gladly avail themselves of the opportunities afforded by this institution, did not this circumstance prevent them.

To this system of exclusion, operating as it does, in an extensive manner, must be referred those melancholy mistakes in practice which unfortunately so frequently occur, which inflict irreparable injury on the sick, ruin the reputation of individuals, and impair the general character of the profession. If a surgeon leave a dislocation unreduced, what remedy hath the unhappy patient?

An action at law, whereby he obtains damages.

And of what doth the law convict the practitioner?

Not of ignorance of anatomy, but of ignorance of the symptoms of the injury in question; he was unacquainted with the sign, by which the accident was to be recognized, consequently was unable to detect the nature of it and apply the suitable remedy.

But the loss of credit to the practitioner, and the injury to the patient, are not the only ill effects resulting from the unskilful treatment.

The latter may be a poor man, having a large family; he is *now* no longer able to support them by his labour—he becomes, with them, an inmate of the workhouse, and a burthen to society.

This is no imaginary case.

The mode by which these unhappy occurrences may in future be prevented is sufficiently obvious, viz. permitting the rising generation free access (of course under proper regulations) to the public hospitals, when the knowledge of *signs* of injuries, and of symptoms of diseases may be acquired.

Thirdly, it would seem that enough has already been urged to shew that these laws ought never to have existed, and that they should be immediately removed, or at least modified; indeed, the undersigned has no hesitation in saying, that he firmly believes the medical and surgical officers of this, and the other provincial hospitals, would long since have abolished this nefarious system, had they not felt themselves, in some measure, compelled to follow the example, the unworthy example, set by their London brethren, of retaining it; but he indulges a well-grounded hope, that the former will now act according to the dictates of their own understandings.

(With the latter the appointed protectors and fosterers of this important science, the undersigned will take the liberty of conversing on another occasion.)

If any further argument were desired to prove the necessity of their removing these barriers to the diffusion of medical knowledge, it is to be found in the petition lately presented to both Houses of Parliament, by the majority of the medical and surgical officers of this institution, in conjunction with other practitioners, in which they bitterly lament the impediments thrown in the way of medical science, by the laws relating to anatomy, and pray earnestly for their removal, yet have they, by enforcing the beforementioned regulation, raised up an obstruction to the progress of the science, compared with which the former are but as a mole hill to a mountain!

How inconsistent in them to complain of that state of things, which they themselves have assisted in producing, and for which they possess, in some degree at least, an almost instantaneous remedy!

Conceive the answer that might justly have been returned to this charity!

How afflicting to the feelings of those who are connected with this charity.

For, if the present tone and temper of the public mind render it inexpedient, nay, almost impossible, at present to meddle with these laws relating to dissection, is it not, on that very account, infinitely more imperative on medical men, to remove those obstacles to the free progress of the arts of medicine and surgery, over which they themselves have complete controul, and which the very breath of their nostrils is alone able to disperse? Undoubtedly it is.

Is anatomy every thing? Is the personal observance of the phenomena of disease nothing to those who are studying medicine?

Will the most intimate acquaintance with the structure of the brain, or of the lungs, teach the symptoms of phrenitis or of pneumonia, unassisted by opportunities of observing these diseases?

Or do the hospital gentlemen imagine that the descriptions of disease, the lectures, with which they occasionally favour the rising generation,—do they fancy these more instructive than the lectures Nature herself delivers, daily and hourly within the wards of these temples, sacred to charity?

Science complains not so much of the legislature as those, who, for their own gain (if, indeed, any such there be), would obstruct her in her endeavours to alleviate the miseries of mankind!

For these considerations, therefore, the undersigned begs to suggest to the medical and surgical officers of the Worcester Infirmary, the propriety of cancelling this rule, or of so modifying it, as to admit the sons, pupils, and apprentices of medical men, generally, to the practice of this Institution, on the payment of a small fee only (which must be next to nothing), on their adhering to such other regulations as may seem best to be determined on.

And the undersigned fervently hopes, that this communication may have the effect of inducing the medical and surgical officers of this charity, to accede to some such arrangement, whereby they will confer a valuable boon on society and a service to themselves—the lasting gratitude of both; but if, unhappily, it should fail of this—if, after waiting a sufficient space of time, he should not receive a favourable answer, he will then be under

the necessity of taking such other measures, as may seem to him best calculated to obtain the object he candidly confesses to have in view, viz. the persuading the medical and surgical officers of this, and of every other hospital and infirmary in the kingdom, to admit the attendance of the sons, pupils, and apprentices of medical men (of them only) freely, and without the payment of the enormous fees at present demanded.

In conclusion, the undersigned begs to apologize to the medical and surgical officers of the Worcester Infirmary, for presuming to address them at this length, and to assure them that in so doing he is not influenced by any improper or factious motives, and that he has the most unfeigned respect for them, both individually and collectively.

WM. HEBB.

St. Swithin Street, 16th Aug. 1831.

Notes.—1. I have addressed a similar communication to the medical officers of the Birmingham General Hospital, of the Gloucester, Hereford, and Salop Infirmaries.

2. There are seven or eight pupils now attending the Worcester Infirmary.

3. I thought it most respectful to leave the regulations alluded to, to be suggested by the medical officers, those which I could wish to be adopted are as follow:—

1st. Although I consider it unjust and unwise to demand money from students, for the privilege of attending the public hospitals, yet, as the attempt to abolish the practice entirely may be attended with difficulty, I would suggest, that hereafter, the payment demanded from a student, being the son or apprentice of a medical man, shall not, *in any case*, exceed the sum of five guineas for the first year, and three guineas for the second year; and a student having paid these two fees, shall have the privilege of perpetual attendance on the particular hospital to which he may have entered, or on that of any other, which it may hereafter be convenient for him to attend, enabling both the physician's and surgeon's practice.

That the students hereafter shall not be permitted (as is now the case) to run in and out the wards of these institutions, without the least regularity, apparently without any object, save that of indulging their own inclinations for rambling about; they shall in future not be permitted to enter the wards or the institutions, except at certain fixed hours, say for two hours every morning, at that time when the medical and surgical gentlemen are visiting their patients; and as there may be sometimes one or two very interesting cases, worthy of being observed twice a day, one hour every evening shall be allotted for affording an opportunity of so doing, and they shall not attend at any other time, save in the case of accidents, or other occurrences, by the seeing of which they may receive instruction.

2d. It shall not be permitted, as it now is, that boys just escaped from the correction of the schoolmaster, should have the privilege of visiting the patients, merely because they happen to be the pupils and apprentices of the medical and surgical officers. Oh, no! this monstrous circumstance should not be permitted to continue a single hour; hereafter, no pupil or apprentice shall enter the wards of these places, with the view of studying the diseases contained therein, until he hath acquired a preliminary knowledge of the profession, until he hath served at least four years of his

apprenticeship or pupilage, unless it should seem fit to the governors, who alone have the power of regulating these matters, to make an exception in favour of the in-door apprentices of the medical and surgical officers.

That the books of the physicians and surgeons, in which are noted the cases, with the remedies prescribed, shall be placed in some situation, to which access may be afforded, at the above mentioned times, to the said students; to the end that they may copy into their own books, notes of such cases as may seem most instructive and most worthy of remembrance, and thereby that they may be rendered more capable of affording relief to those poor persons, who, when afflicted with sickness, may hereafter apply to them, when medical and surgical practitioners.

WM. HEBB.

Worcester, 28th Aug. 1831.

II.—*On Inflammation.* By CHARLES ROLLS, ESQ.

INFLAMMATION terminates either in resolution, suppuration, or mortification. Under this last term I include both gangrene and sphacelus, as they are but modifications of the same affection.

Resolution.—Any inflammatory attack may terminate in this manner, however intense it may be; but the slighter the disease, so much greater will be the chance that it will arrive at such a conclusion. The more extensive attacks, however, will but seldom be found to end in resolution, unless this object be brought about by medical aid; unassisted nature is generally unable to accomplish it. Resolution consists in a gradual decline of all inflammatory symptoms, until the part affected returns to its natural condition, and this may be effected in two ways, either by the unassisted endeavours of nature, or by the aid of medical assistance. I have already explained (in the preceding paper) how bleeding, whether general or topical, relieves the disease, and how all medicines which retard the circulation are likewise efficacious, viz. by removing the impetus of the blood from the diseased part, and thus giving the capillaries time to unload themselves. Local applications of a soothing nature will have the same effect, although in a slight degree. They feel agreeable to the patient, allay the irritability of the part and its neighbouring regions, and thus directly decreasing the force of the propelling arteries, at the same time lessen the impetus and are consequently serviceable in curing the disease. The action of all other medicines, as purgative salines, &c. &c. are too obscure to derive any direct proofs from them; I shall not therefore enter upon the subject, but I think from what I have already said, it is sufficiently evident, that, in all remedies used for the cure of inflammation, the chief object to be attained is to remove the impetus of the blood from the part as much as possible; and the more effectually this is done, the greater is the likelihood of a perfect cure being effected. But in inflammations which terminate favourably, without the use of medical means, how are they resolved? The impetus of the blood is not removed, and therefore as long as the parts remain in the same state as when the disease commenced, so long will it

continue. This is very true; but it must be remembered that the parts will not remain in the same state for any length of time. The veins, we all know, accommodate themselves wonderfully to the quantity of blood at the time in the system; and all parts of the body we find are obedient to use and habit. Hence it naturally follows, that if an artery be distended for any long period of time, that distended state shall become second nature to it, and what before was unnatural or diseased, now becomes natural and healthy. Let this state of the vessels be but once effected, and the disease is cured; for what is it keeps up the disease? I have before shown solely the obstructions of the capillaries, which is continued, by the impetus of the blood acting on their roots. But let this impetus be once removed, or in other words, let the blood find a more natural and easier course of circulation than the capillaries, and the disease will be at an end. This event is opposed only by the resistance of the red blood vessels of the affected part, and therefore it is quite apparent, that as soon as they are sufficiently distended as to admit of the flow of an additional quantity of blood through them, independently of morbid action on their part, so soon will resolution be effected. Let us take it therefore in whatsoever light we may, if the inflammation be cured by art or nature, still it is the same cause that continues the disease, and the removal of this cause which effects its cure.

Hence we discover the reason why a slight swelling may generally be perceived in a part, that has been inflamed, long after all the other symptoms of the disease have disappeared; as also we may explain why a slight degree of inflammation terminates (if not fatally) much more rapidly than an extensive one, supposing the process to be left solely to nature.

Suppuration.—The difference between resolution and suppuration consists in this; in the former, the inflammatory process terminates without leaving any palpable mark of its having existed; whereas in the latter, there is a certain quantity of matter secreted, which differs from the usual secretion of the part. I use the word secreted, because I entirely agree with the present opinion, that pus is a secretion, and not as was formerly supposed, blood, or the solid fibre, altered in its nature. The latter notions are quite untenable.

Taking it therefore for granted, that the formation of pus is accomplished by the secretory process, how are we to explain it? I think this may easily be done. The capillaries usually secrete a very thin fluid, the particles of which are exceedingly minute, and fitted to pass easily through these vessels. If the calibre of these vessels were much widened and made large enough to admit of the passage of red globules, they would no longer secrete serum, the blood itself would circulate in them. But if their calibre were made so large as to admit a particle larger than the serous, but smaller than the globules of red blood, the secretion from them would neither be serum nor blood (if I may use the expression) but a fluid of a consistence between serum and the crassamentum, (i. e. the red globules) of the blood; and this fluid is pus. Now, after certain inflammatory attacks, from the distention caused in the serous vessels, by the pressure of the red globules of blood, they become dilated, to that extent at which they will easily give entrance to particles somewhat smaller than these latter; the consequence is, that a puriform secretion takes place.

If it be asked wherefore, if such is the cause of suppuration, every

inflammation, which otherwise terminates in resolution, does not end in the former manner; I answer, in one case, the vessels from great and long distention, lose for a certain time their elasticity or tone, and therefore do not immediately return to their former dimensions when the distending cause is removed; as long as this is the case pus will be secreted. In resolution, on the contrary, from the less intense nature and shorter duration of the disease, the tone of the vessels is not lost; as soon therefore as they are freed, so soon do they recover their former dimensions. Hence we find it laid down as a general rule in medical works, that inflammations which continue longer than a certain time will (cæteris paribus) terminate in suppuration, while on the contrary, under the same conditions, attacks of shorter duration end in resolution.

Mortification.—Hunter says on this subject "I consider inflammation as an increased action of that power which a part is naturally in possession of. This increased action, in healthy inflammations at least, is probably attended with increase of power; but in inflammations which terminate in mortification, there is no increase of power; on the contrary, there is a diminution of power, which, joined to an increased action, becomes the cause of mortification, by destroying the balance which ought to subsist between the power and action of every part." This appears to me almost as much as saying, that diseases which are to terminate favourably, will terminate so, and those which are to end otherwise will end so, in spite of all opposition. If such is the case, where is the need of a physician? The patient will get well without him, if it is so decreed; if not, he will die. I allow that his words do not imply quite so much, yet they go very nearly to do so. But indeed I do not see the necessity of presupposing any such order of things; the more simply we can explain things the better, and I imagine that mortification can be accounted for more easily than according to the foregoing hypothesis.

There can be no doubt that the primitive or exciting cause (if a negative property of matter can be so called) of mortification is weakness, or, as some would call it, loss of tone or of the vital properties; of a part of this fact we have sufficient proofs. The mortification of the toes in old men, the frequent occurrence of the same disease in other parts, produced by the application of blisters after the body has been weakened by long disease, such as typhus fever, &c. and the rapidity with which parts of the body run into putrefaction in typhus gravior, plague, and other powerfully debilitating affections, are evidence enough to establish this point. But still there is no reason for supposing, as Hunter has done, that this weakness exists through the whole disease, in inflammations which may happen to end in mortification. Such arguments are not borne out by nature, and therefore cannot be allowed. It appears to me much more rational to say, that this weakness in a part, is the consequence of inflammation, than that it coexists with it. Then the explanation becomes perfectly simple. It is a well known law of the animal economy, that excitement invariably follows depression; and if this excitement be very great, the vital powers are so exhausted that even death may ensue. This law of nature not only applies to the whole, but also to every individual part of the body. Now, during the inflammatory process, we behold great excitement in the part affected. It is impossible that this should continue beyond a certain period, without a corresponding state of depression ensuing, and this effect will be in direct

proportion to the intensity of the preceding affection. If the latter have been but small, so will the former; if, on the contrary, it has been intense, the consequence will be a complete loss of the vital property in the part, at least for a certain time. This certainly appears to me to be a more natural way of accounting for the morbid weakness of an inflamed part, than the one adopted by Hunter, and I hold it to be the first step in the process of mortification.

In what part will this weakness produce its chief effects? Is it in the arteries, veins, nerves, absorbents, or where? Certainly in the arteries. They are the seat of the disease, the spot in which the action takes place, and therefore to them we must look for an explanation of the succeeding phenomena. Thus it appears that the loss of tone or muscular power in the arteries, becomes the exciting cause of this malady.

Having simplified the matter so far, I think the remainder of the investigation is easy enough. If we allow the arteries to be muscular, we must also allow that this muscularity is necessary to them, for nature has given nothing to any part in vain. The only use of this power in these vessels, is to propel the blood; therefore it follows that the heart, unassisted by this property of the arteries, is unable to accomplish this object, either through the whole body or through a part, and consequently if the muscular power of the extreme vessels in any part be lost, the blood will stagnate in that part, the vis a tergo being unable to propel it further. The effects of this will be, that all vital processes in the part cease; the nerves, muscles, veins, absorbents, &c. &c. are no longer supplied with blood; the parts are therefore to all intent dead; all sensation is lost, the colour is changed by the decomposition of the blood, and putrefaction shortly commences. This state of a part constitutes mortification.

It appears to me therefore, that resolution, suppuration, and mortification, (considering them not as diseases in themselves, but as results of the inflammatory process) are but stages of the same affection. The first is the consequence of the disease being speedily cured, whether by nature or art; the next arises from the longer continuance of the disease, which indeed is cured before the process of mortification ensues, but not before the tone of the capillary vessels has been destroyed; the third is the result of a still longer continuance of the inflammatory process, by which not only is the tone of the capillaries destroyed, but also that of the arteries themselves. This last termination differs somewhat from the two former, inasmuch as resolution merely specifying the nature of, and suppuration being the consequent on, the termination of the disease; mortification, on the contrary, is the cause which produces the termination of the primary affection, that is, supposing the loss of tone in the arteries to be a part of the process.

Before concluding, it will perhaps be as well to take a slight review of the principal features of the theory upon which I have written, and endeavour to shew how far it agrees with acknowledged facts.

1st. I set out on the principle that the exciting cause of inflammation is a stimulus, or something which produces the same effect. This is the fact. The action of fire or burning, extraneous substances lodged in the body, pricking it with a sharp instrument, wounds by keenly edged bodies, and cold rapidly applied, may all be placed in this class. The last mentioned viz. cold, may be objected to; but let it be remembered that it consists in the abstraction of caloric, and when this substance is rapidly evolved

from the body, its passage may certainly prove a stimulus as well as when applied externally; moreover we should in this case take into account the contraction produced in the vessels of the part, by the loss of the caloric itself.

2dly. The most apparent phenomena of the disease before us, are redness, swelling, heat, pain and throbbing. These are easily explained by the theory. The redness is caused by the greater quantity of blood at the time in the part; the swelling arises from the same account; the heat from the increased action of the vessels, and the passage of more blood in a given space of time; the pain from the distention of the nerves, and the throbbing from the violent pulsation of the arteries.

3dly. It explains the action of blood-letting on the part; how this operation is at all serviceable; why a rapid flow is more beneficial than one more tardy, and why the occurrence of syncope is more serviceable than either, even although but a small quantity of blood be drawn; on the same principles it accounts for the action of various medicines.

4thly. It likewise tends to illustrate the manner in which general pyrexia is induced, by extensive topical inflammations, viz. by throwing the impetus of the blood back from the part on the heart, and thus exciting it to more rapid action, in order to obviate the tendency to over-distention.

5thly. The terminations of inflammation are likewise readily accounted for by its assistance, as I have just shown; and,

6thly. I think it will explain that interesting phenomenon which this disease exhibits, in blood drawn from a person labouring under it, viz. the buffy coat. It appears to me very evident that this is caused by nothing more than a preponderance in the system of that part of the blood which should naturally be carried off by the capillary vessels; as long as these are obstructed with red globules, it is impossible that they should perform their office. The consequence is, that the glutinous portion accumulates in the blood, and by venæsection is made apparent in what we denominate the buffy coat.

III.—*Mechanism of the Cranium.* By Alexander Thomson, M.B.

(Read before the Medical Society of the London University).

Nothing has given rise to more speculation than the mode in which nature has secured a solid covering, neither contractible nor dilatable, and yet formed of various bones for the lodgement of the human brain. Ingenuity has been exerted to find some analogy between the dome or the arch, and the canopy or the upper part of the arched covering of the brain, and has led Mr. C. Bell to come to the following conclusion—"by all this we see that if the skull is to be considered as an arch, and the parietal bones as forming that arch, they must be secured at the temporal and sphenoid bones, the points from which they spring." If I can succeed in shewing what I propose to attempt, that no pressure whatever can be exerted under ordinary circumstances on the temporal bone, by the lower margins of the parietal bone—if I can make it manifest that the temporal has in its connections with other bones no provision whatever for resisting such pressure—that it would, under such pressure, be the most easily dislodged of any of the

bones in the base of the cranium—that the parietal bones are hung upon one another, and upon the frontal and the occipital bones, by a very curious apparatus, so constructed that every point of their lateral and superior margins is hung as it were by a hook—that the frontal and occipital bones are held in such close apposition with the parietal, that its hooks cannot easily be removed from the reverse hooks of these bones on which they hang—that the occipital is the grand source and origin of the firmness and immobility of the two bones, frontal and occipital, on which the parietals hang—and that this bone derives its chief binding or strengthening power from the circumstance of its being balanced on the spine for a fulcrum, I shall, I think destroy the notion of the skull's resemblance to an arch, in the sense of the above quoted passage, and yet find nature exerting, in the various artifices she employs, even more ingenuity than the author of this notion would seem to attribute to her. To understand how the parietals are retained in their position, we must consider both how the external pressure, and how the internal expansion is opposed. The former we propose to consider in the present paper. The only parts of these bones in contact with other bones, being their margins, by these only can they be fixed. If external pressure be applied vertically upon the top of these bones, the natural tendency of the pressure, in the absence of counteracting contrivance, is to approximate these bones to the base of the skull, a tendency which we shall find opposed by every one of the surrounding bones, and first by the frontal bone, in which we find the following restraining contrivances:—if from the point of the frontal crossed by the mesial line to its spheno-parietal front, the margin be bisected, there may be observed, in the lower part of the upper half of the surface of the margin, immediately above the internal table, a row of holes penetrating the substance of the bone to the depth of from one-sixth to one fourth of an inch, varying in transverse diameter from half a line to a line, for receiving corresponding nails, projecting from the lower part of the margin of the parietal bone. Now it is manifest that the vertical pressure, while it tends to force downwards the internal table of the frontal by the aid of these nails, at the same time tends to draw the external table of the frontal inwards, and of course backwards. But at this part the external table forms itself into a nearly perpendicular wall,* by the resistance of which the pulling inwards of the outer table of the frontal, tends to throw the parietal bones farther back upon the occipital, and upon the mastoid portion of the temporal, and therefore to prevent the anterior superior teeth of the parietal, from pressing injuriously on the internal table of the frontal. Now this pressure backwards on the occipital locked in laterally by the mastoid portion of the temporal, and prevented from moving vertically downwards by its supporting column, the spine, must tend to depress the posterior part of the occipital bone, and therefore to elevate correspondingly the wedge of that bone, or the part of it, on the

* In some parts it may be observed, that the mode of union and adaptation are alternated, in order to increase their power of resistance; thus, at the superior part of the arch of the skull, the frontal overlays the parietal bones and rests on them, but inferiorly and laterally, the reverse takes place, where the parietal rests against the frontal. Quains Elements, § 91, a.

This observation is not always true, although indeed the nearly perpendicular wall does sometimes incline, so as produce this appearance. A. T.

other side of the fulcrum. The raising of this wedge must necessarily, from its lying with its extreme surface obliquely under and in close apposition with the posterior surface of the body of the sphenoid, throw or force forwards and upwards the sphenoid bone.

Now the sphenoid bone, which clasps while it supports the frontal, by the orbital-temporal, cerebral surface of its greater wing, by being thrown forwards and upwards, tends to move the anterior or superciliary parts of the frontal forwards and upwards, and therefore the posterior margin forced inwards by vertical pressure backwards and downwards. Hence the buttress part of the outer table of the frontal, by being pressed firmly against the corresponding part of the parietal margin, prevents the parietal teeth from breaking through the inner table of the frontal, keeps them firmly in their sockets, and enables them to support the forepart of the parietal as it were hanging on the frontal bone.

But it may be said that this contrivance might fail, that the buttress of the frontal bone might be imperfect, that the teeth of the parietal might be very short, and that therefore the turning up of the sphenoidal forwards and upwards, moving as it would do the frontal also forwards and upwards, might allow of the escape of the parietal teeth; granting that these teeth might be deficient, and that the consequences feared might accrue, let us observe if any provision be made for such an emergency. Now the orbital temporal, cerebral surface of the great wing of the sphenoidal is triangular, lies nearly horizontally, and becoming elevated towards the temporal side of the triangle, clasps, by the temporal side being directed forwards and obliquely inwards towards the mesial line, a portion of the frontal bone, immediately behind its external orbital process, so as effectually to prevent the frontal from slipping forwards out of its clasp. When therefore these parts of the sphenoidal are thrown forwards and upwards, the frontal bone must be thrown backwards, unless indeed we suppose it to slip from the parietal bones, and be tilted up on the anterior and orbital edge of the triangular process of the sphenoidal just mentioned. To allow of its being so tilted, the point of the external orbital process would require to be liable to be approximated to the inferior exterior angle of the orbital plate of the sphenoidal; but such liability is guarded against by the filling up of the triangular space between the lines, terminating in these points, by the orbital process of the malar.

But even supposing the malar bone might be removed, nature has still taken care to provide against the possibility of the frontal being tilted on the sphenoidal, by the nature of the connection of their surfaces; for the orbital-temporal cerebral surface has a number of bony hooks, or prominences, inclined from behind forwards, so as to leave spaces between them and the surface, into which similar processes of the corresponding frontal surface, inclined from before backwards may pass. Now these processes occur most numerously at the posterior or cerebral margin of this surface, the very part from which the frontal would be first torn, previously to being tilted on the orbital edge of the sphenoidal. Whenever therefore the sphenoidal is moved upwards and forwards, the frontal, since it cannot, as has been pointed out, escape from the sphenoidal either forwards or upwards, is also moved at its superciliary part upwards and forwards, and consequently from its bent form downwards and backwards at its parietal margin. Thus it is provided that pressure exerted vertically on the parietals, by tending

to turn upwards the sphenoidal, presses the frontal against the parietals, and thus keeps the teeth firmly locked in their sockets, so as to suspend the parietals on the frontal. But still supposing the last contrivance absent, there is another equally curious in the remaining and unconsidered half of the parietal margin of the frontal. In this part of the margin, the internal table of the frontal is continually divaricating from the mesial plane, and at this part of the margin, continuing its course, is left by the outer table to proceed back, strengthened only by the plate of bone joining the inner and outer tables at the margin, to the distance of from a quarter to half an inch. Now the parietal overlaps, with a process of its outer table, strengthened by the connecting table of the margin, this part of the frontal bone, and by projecting behind the divaricating internal plate of the frontal, causes that bone at the projected part, to act as a wedge locked in by the two parietals, and thus prevents the frontal from escaping forwards. But it may be urged, that if the upper anterior teeth of the parietal could escape from their sockets in the frontal, pressure, if vertically applied, would tend to separate the parietals one from the other, and thus to open their lower anterior angles, so as to allow of the escape of the frontal forwards; yet nature has guarded against this accident in the following skilful manner: from the projected inner plate of the frontal, there proceed processes upwards and outwards to meet projections of the external table. Now, as these processes proceed upwards and outwards from the internal plane, so they may be said to proceed downwards and inwards towards the same plane, and will therefore meet, so as to leave an angular space between them and its surface, the internal table of the skull descending outwards from the top of the coronal suture. In these angular spaces rest corresponding processes from the parietal bones. Vertically applied pressure therefore on the parietal bones, can only tend to force the parietal processes deeper into the angular grooves or hooks of the frontal, and is restrained from expanding the lower part of the parietals themselves, by the frontal processes, being, during the application of such pressure, always without the parietal processes; indeed any such effort at lateral opening only tends to force out the frontal processes, and with them to force the inner table of the frontal more from the mesial plane, and thus to fasten the wedge of the frontal more firmly between its parietal claspers. Again, supposing these hooks imperfect, the parietal bones could not even then be made to divaricate laterally, being restrained by the posterior half of the orbital-temporal cerebral surface of the greater wing of the sphenoid bone. On this posterior half the anterior angle of the parietal falls, and is restrained from lateral divarication by the oblique projection upwards of the temporal plate of the greater wing of the sphenoidal. Now, as the apparatus of the frontal already described makes the frontal act as a wedge, prevented from escape by the clasping of the parietals, so it evidently acts the part of a stay or wedge in preventing the convergence of the lower anterior angles of the parietal. The two anterior parietal angles therefore being fixed, so that they cannot turn inwards, must in their tendency outwards be clasped by the margins of the larger wings of the sphenoidal, and as these margins are within the temporal bone, or overlapped by the squamous portion of that bone, they must yield before any pressure could be exerted on the squamous portion of the temporal; if, however, the hooks of the frontal act properly, and the sphenoidal margins also restrain the parietals, it will be readily granted that no lateral

divergence of the lower anterior margins of the parietals can take place; and in regard to the convergence of these angles, as it would be productive of especial danger, nature has made a still further provision. Where these angles fall upon the sphenoidal, they pass under the inflected inner table of the frontal, into an angular space left between the reflected inner table of the frontal and the exterior oblique projection of the orbital temporal cerebral surface of the sphenoidal. If then the parieto-frontal hooks did give way, and the inner table of the frontal did not diverge sufficiently to form of the frontal an expanding wedge, so that there might be a tendency to convergence in these angles, these angles would be, by vertical pressure, forced in between the frontal and the sphenoidal, and tend to act as wedges, overcoming the spheno-frontal hooks, and tilting the frontal forwards upon the superior orbital edge of the sphenoidal. Nature, however, has provided against this accident, by making on the inner and anterior edge of the posterior part of the orbital temporal cerebral surface, certain processes pointing upwards, outwards, and backwards, which processes act as so many hooks, or stays, into which corresponding processes from the parietal angles pass. Hence, however great the tendency of the vertical pressure downwards on the parietals, it would all be expended upon the posterior part of the larger wing of the sphenoidal: this pressure, so excited, would even be of use, in preventing what may be supposed possible, when the posterior part of the occipital is forced downwards, the sphenoidal from being tilted forward on the inferior edge of the anterior surface of the cuneiform process of the occipital. As, however, no pressure can be exerted on this part, while the parietal nails remain in their sockets, and while the frontal hooks, with the parietal pins resting on them be perfect, this good effect, which would arise from the pressure, is obtained by the resistance of the parietals held in perfect contact, or the closest apposition with this part of the sphenoidal, which equally prevents the sphenoidal from being tilted in the manner mentioned. The parieto-sphenal hooks restraining the convergence of the parietal angles, are the more remarkable, as they are upon the very same surface with the restraining spheno-frontal hooks, and yet to answer their own purpose, are turned quite in an opposite direction. It has just been observed, that it might be supposed possible, that the anterior surface of the cuneiform process, while the latter is turned upwards and inwards, might, instead of turning the sphenoidal bone with it, tilt up that bone on its lower edge. One provision against such an occurrence has already been pointed out, although another has been furnished by nature. At the lower part of the posterior margin of the great wing of the sphenoid, the outer table projects outwards, forming a rough oblique surface, supporting a part of the temporal bone, which is kept in connexion with it by certain nails, which it sends into holes, made under the inner table of the sphenoidal; any pressure, therefore, made upon the temporal bones, either downwards or forwards, would tend to keep this bone in its place, that is, from tilting upwards, and therefore to keep the back of its body in apposition with the anterior surface of the cuneiform process of the occipital. That such pressure exists, during the application of vertical pressure on the parietals, will be seen from the following remarks: the posterior angle of the parietal rests upon that part of the margin of the temporal, lying between the posterior termination of the zygomatic line and the point which meets the lambdoidal suture. This part of the margin is furnished

with a buttress, projecting upwards from that part of the pars petrosa, in contact with the pars squamosa, and continued only for about half the length of the margin. This buttress most effectually prevents any convergence of the posterior angle of the parietal, during the application of vertical pressure on the parietals. During such convergence, the point of the parietal would naturally, from the form of the bone, tend to pass forwards as well as inwards. To oppose this tendency, we find several ridges rising upwards from the sutural surface, and passing obliquely outwards and backwards from the internal table. These processes leave an angular space between themselves and the internal buttress, to be filled by corresponding processes from the posterior angle of the parietal, which consequently equally prevent lateral convergence, and a tendency to escape anteriorly from the temporal; nor is it difficult to comprehend how these oblique processes of the temporal also tend, by lapping over the processes of the parietal, to prevent divergence of these points, a tendency which nature further impedes by suddenly altering the direction of the remainder of this surface, for towards the lambdoid suture, the external table becomes again the more prominent, and forms with the junction surface of the margin, an oblique wedge for preventing divergence of the parietals; yet even at the interior margin of this wedge, there are a few pits, inclined obliquely forwards and downwards, for receiving processes of the parietal to check the convergent tendency of these points. It is the more important to be minute in the consideration of the projections, and direction of the surfaces on this margin, as they are almost the only means by which the temporal is kept in its place, during vertical pressure on the parietals; for it must not be forgotten, that the squamous portion is not only exterior to the parietals, but also to one half of the margin of the sphenoidal, and having no hooks upon these, derives no support from them, nor that the surface of the margin of the temporal, where it helps to form the additamentum suturæ lambdoidalis, being nearly smooth, and inclined from without inwards and forwards, can oppose no resistance to a tendency outwards of these bones, produced in any manner; but when it is taken into consideration, that the tendency of the temporals, both outwards and inwards, is checked by the mastoideo-parietal surface, and that whatever pressure be applied through the parietals to this surface, must be first applied to force down the posterior part of the occipital, it will easily be seen that the additamental surface of the occipital, while it acts as a wedge, preventing convergence of the mastoideo-parietal part of the temporals, has also a tendency to keep its mastoidean portion, by turning upwards the whole bone, in contact with its corresponding part on the parietal, and thus indeed to oppose the vertical pressure.

This tendency of pressure vertically applied to the parietals to turn upwards the anterior part of the occipital, is further made use of by nature, in keeping this bone (the temporal) in its place, by directing it upwards and outwards; for at the lower part of the additamentum suturæ lambdoidalis, there is an articulation similar to that of the cuneiform process with the sphenoid, that is there is on the occipital and on the temporal, a flat articulating surface placed transversely to the additamental surfaces, and also to the internal angular ridge of the pars petrosa. This articulating surface on the occipital being in situ naturali, nearly horizontal, or directed from without oblique inwards and backwards, so as to have a tendency to be

made horizontal in its direction, during the motion upwards of the cuneiform process, tends from its being situated on the anterior part of the occipital considered as a lever, to turn the temporal upwards and outwards at its base. The latter action is also facilitated by the wedge of the occipital already described as formed by the additamental margins. Now this effort to turn the base of the temporal outwards, is resisted by the wedge formed by the projections inwards, and obliquely downwards and forwards of its inner table, at the sphenoidal margin. In order to strengthen this transverse articulating process, there is a buttress rising from the margin of the foramen-magnum, and crossing the fossa jugularis. Now the object of this articulation is, as we should judge from its being so strengthened, very important, and is the holding of the temporal in constant contact with the angle of the parietal, while the anterior part of the occipital turns upwards. The more effectually to secure this object, there is on the upper edge of the occipital articulating face, a small flat surface, on which generally rests a projection downwards, from the middle of the posterior inferior interior edge of the pars petrosa of the temporal, a process which leads us to understand the use of the articulation mentioned, and which will also help to prevent the temporal from being forced outwards, during vertical pressure on the parietals. It appears then that the articulating surface, terminating the additamental margin of the occipital, by pressing the mastiodean portion of the temporal, against the posterior angle of the parietal, holds the temporal as it were in a vice, and thus enables it to resist any pressure. But remove the pressure upwards of this part of the occipital, and what becomes of the temporal? particularly if we suppose it possible for the occipital to be separated from its contact with the sphenoidal? Why, on the least internal pressure, particularly if this be applied in a lateral direction, the bone drops from its connections. Moreover, if the posterior angle of the parietal be broken off, what aids the occipital or the sphenoidal in enabling the temporal to retain its place?

It may then fairly be stated that the temporal performs no other function in regard to the mechanism of the cranium, than that of preventing the sphenoidal from being tilted by the elevation of the cuneiform process of the occipital, upon the lower angle of that process. The apparatus therefore on the superior mastoidean portion of the posterior angle of the parietal, must be considered rather as a check upon the temporal, than one of much importance to the position of the parietal. It will indeed be seen hereafter that no actual pressure can be exerted on the temporal, till the parietal escapes from the occipital, and that it is made to perform its function, by being kept from the form of the parts in close contact with the sides of the vice clasping it. There is one more contrivance, which prevents the pressure outwards of the temporal, that is its zygomatic process is restrained, by the overlapping of the malar bone at the zygomatic suture. The sphenoidal margin of the temporal, may it is true, be restrained from slipping inwards, by being furnished with certain processes directed obliquely forwards, inwards, and downwards, which pass into furrows and depressions in the same direction, passing under the internal table of the greater wing of the sphenoidal. Yet notwithstanding these provisions, it is evident that but for the contrivance to resist the lateral motion of the parietal points, at the mastoideo-cerebral margin, and to keep

this part of the bone firmly in contact with the corresponding part of the parietal, by the elevation of the anterior part of the occipital, this bone, the temporal, could be more easily forced from its position, laterally by vertical pressure on the parietals than any other, and that it perhaps, least of all the bones, contributes to the connection and fastening together of the bones of the skull. This view of the function of the temporal, is materially strengthened by the consideration of the brittleness of its squamous portion, and of the facts that this bone contains the mechanism of that very delicate structure the ear, for it is scarcely to be supposed that nature would choose a weak and brittle bone, or one containing so important an organ as the ear, providing she could otherwise accomplish her purpose of, resisting external pressure on the parietals.* In regard to the other connections of the parietals with the occipital bone, we observe the following provisions. In the lamdoidal margin of the occipital from the point of the mesial line, for nearly half way down there are on the interior edge of the surface a row of holes, for receiving certain nail-like projections of the parietals, similar to those in the frontal bone, though neither so numerous nor so regularly disposed. Above or exterior to this row of holes or pits, there are a row of processes proceeding outwards and upwards, which owing to their direction overlap the upper row of teeth of the parietal, and thus tend to prevent escape of the margins of the parietals backwards or downwards, by acting as in the frontal bone as hooks. In the remaining half of the lambdoidal margin processes, proceed from the internal tables outwards, and somewhat upwards, and expand as they approach the outer table. The direction of these last processes tends to oppose lateral somewhat, and vertical motion entirely, while both the direction and the expansion preclude the probability of posterior motion. Posterior motion is further prevented by the exterior processes, of the whole of the lambdoidal margin of the occipital, projecting over the bases of the process of the parietal. Now as the internal table of the occipital is constantly diverging from the mesial plane, and as both the holes for receiving the parietal processes, and the surfaces upon which the external parietal processes lie, are without the internal table, it appears that in vertical pressure applied on the parietals, so long at least as the cranial cavity is full, the occipital acts as a wedge in preventing the convergence of the posterior, or lambdoidal portions of the occipital. The same object is facilitated by the direction of the external processes, every one of which serves as a hook, on which to hang its own part of the parietal, and must be overcome before any convergence can take place. We have now then arrived

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* It may be asked, if we adopt this view of the temporal, how can we account for the singular deviation from the ordinary form of the cranial sutures, presented by the squamous suture; but this question may be fairly answered. As the temporal is meant to give no support to any of the other bones, but simply to close an open space in the side of the cranium, and as itself is fastened independently of the squamous ridge, so it needs no teeth or hooks upon that ridge, but is joined to the other bones by the simple apposition of surfaces. But nature has not neglected to take advantage even of this sort of junction, as we shall perceive, by considering that if the parietal and sphenoidal margins were exterior, instead of interior, to the squamous ridge of the temporal, the slightest force applied on the outside of the temporal would be able to force that bone, or a part of it, inwards upon the encephalon.

at a very important result, viz. that the posterior angles of the parietal are prevented from converging or diverging by the apparatus of the occipital bone. We have also already seen, that the anterior angles are deprived of either of these tendencies, by the apparatus of the frontal, aided in some instances, perhaps, by that of the sphenoidal, and therefore we may fairly ask if these points can neither converge or diverge, how vertical pressure on the parietals can have any influence on the temporals? It is indeed plain, that no pressure can be exerted by such means on the temporals, unless indeed it be presumed, that the frontal or the occipital can escape from the parietals; but we have already seen that the frontal cannot. We may now inquire how far the occipital can escape from the parietal. That it cannot escape by convergence, has been already made manifest; that it cannot escape by divergence, appears highly probable from the form and inclination of the sutural processes; we may farther take into consideration, that it would be almost impossible to procure either convergence or divergence of the posterior, as long as the anterior angles remain incapable of either, for the sagittal margin of the parietals being formed into an arch, it is evident that any opening of the sagittal suture, must take place by the two points of the extremities of the arch becoming fulcra, or by the centre of the arch becoming the fulcrum: the first would happen in case of convergence of the lower parts of the bones; the second in case of divergence. Now the angles being much more prominent than any other part of the lower margin of the parietals, must move through a greater segment of a circle in either of the motions than the other parts, and hence require greater latitude of motion; but if two of these angles be fixed, motion being entirely denied to these, is of course equally so to the others; so that it appears, that the apparatus, not only of the occipital, but also of the frontal, tends to prevent the escape of the occipital bone from the parietals. Now as long as these bones are kept in contact, the apparatus of the occipital supports numerous points of the parietal, so that no pressure exerted vertically on the parietals can be transferred to the temporal bones; supposing, however, that the internal table of the occipital fails in part, yet the occipital being fixed on the spine, must in its tendency to escape from the parietals, have its anterior part or wedge forced up, because it is on the other side of the pivot, and will therefore turn up the sphenoidal and frontal, so as to force the parietals synchronously backwards against the occipital, and thus allow its hooks still to act, while the part of the occipital under the temporal, will at the same time turn up the temporal, and add the aid of its mastoid portion, in restraining the posterior angles of the parietal from convergence or divergence. It now remains to consider the nature of the sagittal margins of the parietal bones, and here again we find beautiful provision made for preventing either convergence or divergence of the lower parts of these bones. We have already remarked, that in convergence the central part of the sagittal suture must give way first; and indeed, if we suppose the processes or teeth to be broken in the centre of the suture, we still have the teeth more numerous towards the ends of the arch; as they proceed outwards from the internal table, and obliquely upwards and backwards, every tooth in this tendency overlapping its successor, prevents or restrains it from yielding. Again, as in divergence, the two ends of the arch must expand, and the centre become the fulcrum, so the central processes must be first torn up, after which all the processes

at the anterior and posterior end must be broken laterally, if at all, because, as the processes run across the mesial line at right angles, and are much longer than the transverse diameter of the holes, or furrows, into which they pass, they come to cross this sulcus at an angle, more or less acute, in their progress outwards, and therefore to rest with their points against the flat surfaces of the adjacent processes. Moreover, as the processes of each parietal are, by this divergent effort, made to diverge at either end from the centre, every two of them on either side of the central one, act as a wedge; in this suture, as in the coronal, the inner tables of the opposite bones meet nearly in a line; this meeting in a line more effectually furnishes a ledge for the processes of either bone to hang upon; there is indeed, immediately exterior to the inner table in both bones, a row of holes, into which pass nails from the opposite bone; above these holes arise the processes already mentioned. It is plain from the nature of this suture, that either of these bones hangs upon the other. As then, the nature of the suture tends to prevent their separation, if the anterior and posterior margins, which have been shewn to hang upon the frontal and the occipital, be only kept in contact with these bones, how can any pressure be exerted upon the temporal bones?

(To be continued.)

IV.—Mr. Mackenzie *on the Diseases of the Eye.*

To the Editor of the London Medical and Surgical Journal.

Sir,—In your Number for September, page 247, I observe you attribute to me a mistake regarding the nitrate of silver ointment, and hint that I have led others into error on that subject. On referring to your Number for August, page 131, it would appear that the alleged error consists in the assertion, that lard decomposes nitrate of silver, and reduces it to the metallic state, or to the state of oxide. Those who deny the truth of this would do well to refer the question to some experienced chemist. Perhaps the following authority will be deemed satisfactory:—

24, *St. Vincent Street,* 16*th Aug.* 1830.

"Dear Sir,—I have examined your nitrate of silver ointment.* From an ounce of it I find that three and a quarter grains of nitrate of silver may be dissolved out by digesting it in hot water: the lard still retains its dark colour, and contains oxide of silver, as I ascertained by burning off the lard and dissolving the residual matter in nitric acid. The solution was rendered muddy by the addition of common salt. I did not attempt to weigh the oxide of silver combined with the lard, because the quantity of ointment in my possession was not enough to make an accurate analysis. But if your nitrate of silver was pure, then the ounce of lard must

* The ointment submitted to Dr. Thomson's examination was the strength of five grains to the ounce of lard, and had been kept till it assumed a dark colour.

have decomposed one grain and three-quarters of the salt, which contains 1.2 grain of oxide of silver; so that the ointment (besides the nitrate of silver) must contain 1.2 grain of oxide of silver, united to 480 grains of lard, or at least to a portion of the lard.

The 0.55 grain of nitric acid which has disappeared, has, doubtless, acted on the lard, and contributed so far to convert it into citrine ointment.

"This fact ascertained that hog's lard slowly decomposes nitrate of silver, of course renders it expedient to prepare your nitrated silver ointment only in small quantities as you want it.

"I am, dear Sir, your's truly,

"THOMAS THOMSON.

"*William Mackenzie, Esq. Surgeon,*
"*George's Square.*"

Since the publication of my Treatise on the Diseases of the Eye, I have used the nitrate of silver ointment in different degrees of strength, from five grains up to eighty grains in the ounce of lard. I am not prepared to say that the salt I employed was pure, for I have used it only as I had it from the druggist's, and it is seldom, if ever the case, that the lunar caustic pencils of the shops are not adulterated with nitrate of potash. I have, however, knowingly employed no other ingredients than the salt and lard; judging that either opium, as used by Mr. Cleoburey,* or sub-acetate of lead, as recommended by Mr. Guthrie,† was not likely to serve any good purpose, and would certainly tend to the more rapid decomposition of the nitrate of silver, which, I need scarcely say, is, on the salve being first formed, merely diffused in fine powder through the lard, and not chemically combined with it.

The following particulars refer chiefly to the nitrate of silver salve of the strength of eighty grains to one ounce of lard:—

1. No application appears to act at once so promptly and beneficially in the chronic stage of the blenorrhœal ophthalmiæ, that is to say, when the conjunctiva has become more or less sarcomatous, and is discharging puriform mucous.

2. In chronic strumo-catarrhal cases, presenting the above conditions, it is also of great utility. In common catarrhal ophthalmia, so powerful an application is not necessary; nor does the nitrate of silver salve appear able of itself to overcome the more violent puro-mucous ophthalmiæ in the acute stage. I have seen it aggravate the symptoms of acute ophthalmia neonatorum, when leeching, scarifying, blistering, and the aqueous solution of nitrate of silver, in the proportion of four grains to the ounce, would have done good, and were actually found to be speedily effectual in removing the disease. In the chronic stage of ophthalmia neonatorum, (the complaint having been perhaps neglected for a fortnight or three weeks, and the conjunctiva become thickened and granular, but the cornea still entire, and not infiltrated with pus), strong nitrate of silver salve is the very best application which can be made.

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* Review of the different operations performed on the eyes, p. 60. London, 1826.
† London Medical Gazette, vol. iii. p. 454. London, 1828.

3. I have seen the nitrate of silver salve, of the strength of eighty grains to the ounce of lard, applied in ophthalmia neonatorum, when onyx was present, speedily followed by destruction of the laminæ of the cornea covering the matter, and in this way ulceration brought on more rapidly than if a milder preparation had been used. I consider it dangerous to employ the strong salve in ophthalmia neonatorum, when there is either an extensive onyx, or a deep ulcer of the cornea already present. Under these circumstances, I should regard the four grain solution a safer application.

4. Nitrate of silver ointment is neither necessary nor proper in the treatment of phlyctenular ophthalmia. It inflames too severely, even in the strength of five grains to the ounce, a conjunctiva no way sarcomatous. Applied in common strumous ophthalmia, not blenorrhœal, I have seen the strong salve excoriate the loose conjunctiva of the eye-ball, and even produce a purulent patch or slough of that membrane, which after some days fell out and left an ulcer.

5. Nitrate of silver ointment ought to be used only in the white state. When black, it is more or less effete, and ought to be thrown aside. In preparing it, care should be taken that it is not touched by any metallic or wooden instrument. In applying it, it ought not to be put in, in a lump, upon the inside of the eye-lids, as in this way it is apt to affect only that part of the conjunctiva which it first touches, and may even produce sloughing of that part. It ought to be taken up on the point of a greasy camel-hair brush, the lids are to be everted and wiped dry, and the salve penciled on with the brush upon the palpebral conjunctiva. An immediate chemical effect is produced on the surface of the diseased membrane, the nitrate being partially decomposed by the tears and mucus of the conjunctiva, and reduced to the state of muriate. The pain produced by the salve varies in different cases, according to the state of the eye, but more according to the constitution of the patient. Some complain but little of its effects, and are able, in half an hour or less, to open the eyes, and walk out into the street. Others suffer severely from its effects for three or four hours. It is proper, therefore, to try, in general, first a salve of moderate strength, say ten grains to the ounce of lard. Indeed, the salve of eighty grains to the ounce is a remedy to be employed very cautiously, and only by those whom experience has already taught to distinguish both the different diseases of the eye, and the different stages of those diseases.

I am, Sir, your obedient servant,

W. Mackenzie.

Glasgow, 10th Sept. 1831.

[We beg to assure the learned author of this valuable communication, that the passages of which he complains were not editorial, but communicated by an able correspondent. The high and just eulogium we pronounced on Mr. Mackenzie's unequalled work, must convince him how inconsistent it would be in us to laud and depreciate his abilities.—Ed.]

WESTMINSTER HOSPITAL.

V.—*Aneurism of the Femoral Artery in the Groin. External Iliac Artery tied by* Mr. Guthrie.

(*Communicated by J. Foote, Jun. Esq.*)

William Oakley, æt. 27, admitted Sept. 10th, 1831, under Mr. Guthrie, with a pulsating tumour, nearly circular, about six inches in diameter, and raised about three inches above the level of the surrounding integuments; the apex is about three inches below the middle of Poupart's ligament, on the left side. The pulsation is evident both to the eye and hand; and the sound is heard by the stethescope very plainly over the whole surface of the tumour, and for about two inches above and one inch and a-half below, in the line of the artery. This is not heard on compressing the artery above. From the account given by the surgeon attending previous to admission, there is an opening at the apex, which is at present concealed by strapping, and from which about one drachm of blood has oozed since admission. On the other side is a blister of about one inch in diameter, containing bloody serum. The limb is of the natural temperature, and highly œdematous; the artery cannot be felt either in the ham, or at the ancle. Face much blanched, but calm; tongue covered with a coat of white, tinged with brown, and moist; no thirst; bowels open freely; urine scanty, passed with difficulty; this has only existed two days; skin hot, but moist; pulse 110, but feeble; heart beats loudly, without impulse; respiration 30, natural in sound; percussion sonorous; maciation considerable. He is a book-binder, which occasions constant standing, but has been out of employment for nearly one year: has led a tolerably temperate life, and has never suffered from any disease since infancy. The account he gives is, that between two and three months ago he first observed a beating in the groin, particularly on any exertion. This has increased ever since, and about six weeks ago he first perceived a slight tumour, which at first was not at all painful, but latterly became very much so: he has been attending at a dispensary about six weeks, and at first thought he obtained relief; but the tumour afterwards increased in size: six days ago, *an opening was made into it with a lancet*, through which a small quantity of coagulated blood escaped; after this a poultice was applied: nothing further happened till the 8th, when a sudden rush of blood took place, and, according to the statement of the man, he lost more than four pints. The surgeon was immediately sent for, who compressed the tumour by the aid of strapping, bandages, &c. and no further hæmorrhage has taken place. By the advice of a second surgeon, who was called in, he was brought to the hospital. Mr. Guthrie was immediately sent for, and on his arrival, determined to defer the operation to the following morning at ten o'clock, directing the patient to be closely watched, and a cold lotion to be kept constantly applied.

℞ Sol. Opii Sedativ. ℥. xxx.
Aquæ fontan. ʒ x.
℥ft. Haust. horæ somni sumend.

Sept. 11th.—Seven, a. m. has passed a good night: the tumour is as yesterday; pulse 104, rather fuller: countenance quite calm, still much blanched: skin hot and rather dry: no thirst. Ten, a. m. Pulse 120,

soft : countenance tolerably tranquil : *temperature of the left ham* 97½ of Fahrenheit, *of the right* 101.

Operation.—He was placed on the table, the legs semi-flexed, and separated; the body being supported by the surgery-man. Mr. Guthrie then commenced the operation by making an incision through the integuments of three inches in length, beginning a little above and to the outer side of the internal abdominal ring, and carrying it perpendicularly downwards to Poupart's ligament. He then divided the tendon of the external oblique, and afterwards the internal oblique and the transversalis; raising the two latter muscles on the director, the fingers were then carried down to the artery, pushing the peritoneum upwards : the vessel was now found pulsating, but confined by very dense cellular membrane, which strongly resisted the nail. The depth was fully three inches and a half; this rendered a slight enlargement of the external incision necessary, which was practised towards the outer side : after separating the artery, the common aneurismal needle was carried round, though not without considerable resistance, and the artery finally tied : the greater part of the time spent in this operation being occupied in scratching through the cellular membrane ; a single ligature was put in at the external wound, and the man put to bed in pretty good spirits.

Three, p. m. *Temperature of the left foot* 86½, *of the right* 101, pulse 120, soft and weak, slightly vibratory. Slight increase of the pain on pressure, and extending more into the abdomen : tongue clean : bowels not open : urine passed : skin hot and dry : complains of great pain in the left leg and foot : no pain in the tumour whatever. *Hot bottles to the feet.*

Seven, p. m. *Temperature of the sound limb* 102, *of the left foot* 96, pain in the abdomen the same : pulse 120, fuller, harder, and more vibratory : tongue clean : bowels not open : skin hot and dry : countenance tranquil : pain in the limb less.

Rep Haust. ut heri prescript.

12th—Eleven, a. m. Has slept well during the night : still complains of pain in the left knee, calf, and ankle : abdomen not more tender than yesterday : temperature of both limbs as last reported : slight mottling of the left toes and dorsum of the foot : œdema continues : there has been some oozing of blood from the aneurism during the night : tumour very tender, skin red : pulse 120, fuller, stronger, and rather more vibratory : tongue brown : bowels open : urine high-coloured : skin rather hot and dry : spirits pretty good : *frictions to be used frequently to the foot.*

Four, p. m. Mottling of the foot much more evident : temperature kept up by the bottles : complains of griping pain across the lower part of the abdomen, not constant : tongue more furred; bowels open four times to-day : urine passed : skin dry : pulse 120, more vibratory : countenance altered for the worse.

℞. Ol. Ricini, ʒij.
Soluti. Opii Sedativ. ♏ x. ft. Haust. statim.
wine and water.

Eight, p. m. There is an extension of the mottling up to the middle of the leg : pain in the abdomen has ceased : pulse 132, more vibratory, and each pulsation, as it were, on the back of the other : tongue as when last

reported: bowels open once: skin hot and dry: countenance much changed—it is now shrunk, with a peculiar expression: there is also drowsiness and slight delirium.

Solut. Opii Sedativ. ℥. xxx. h. s. s.

13th.—Sinking fast: pulse 148, small and weak: tongue furred: bowels open: skin moist: feet still warm: leg more cold: feels considerable pain in the foot: countenance has a peculiar expression. *Wine every hour, with* ℥. vj. of the Sol. Opii Sed.

Eight, p. m. He gradually sunk, and expired about eight, the heat of the extremities being still kept up by warm bottles.

Autopsy—eighteen hours after death.—The body presented an appearance of great general emaciation: features considerably shrunk: the limb presented the mottled appearance as far up as the lower part of the aneurismal tumour: phlyctenæ scattered here and there on the inside of the leg and foot: the abdomen felt very tense, owing to a tympanitic state of the intestines. The aneurism contained eighteen ounces of coagulated, grumous blood, besides the coagula adhering to the sac, which extended upwards under Poupart's ligament, in a line with the inside of the ilium. The artery was ruptured exactly where the profunda is given off. The iliac was sound, where the ligature was applied, and the internal coat was fairly divided, with slight redness on each side: the lower end of the artery was filled with coagulated blood, but Mr. G. thought that was from the extension of the mortification. About four ounces of serous fluid, mixed with flocculi of lymph, were found in the abdomen: slight inflammation of the peritoneum, extending about four inches round the incision: the intestines were glued together by lymph: there were old adhesions between the pleuræ, but the lungs were healthy: the heart, aorta, and common iliacs were healthy.

On Saturday, the 17th instant, Mr. Guthrie delivered *a clinical lecture* on the preceding case, in the Theatre, to a numerous body of students, of which the following is an extract:—

I promised you, gentlemen, last Saturday, a few remarks on the case of diseased testicle, but since then, a case of greater interest has been received; it is a case of *femoral aneurism*, attended with peculiar circumstances, to which I shall direct your attention. The history of the case is not clear: the patient felt a weakness in the fore-part of the thigh about two months ago; a pulsating tumour, synchronous with the heart made its appearance, and the leg became weak; until three weeks before he entered the hospital, he had had no medical advice; he then consulted a medical man, who mistook it for an abscess, and directed to be poulticed; while undergoing this treatment, the tumour increased, and last Monday week (Sept. 5th) it was opened: of course nothing but blood flowed: the opening was closed: but on Thursday, (the 8th) it again opened, and bled very much; the man said about four pints, but of course there may be some exaggeration in that: on Saturday evening he was taken into the hospital, and the next day, the *external iliac artery* was tied: mortification set in, and he died on Tuesday night, from the mortification, the result of the operation.

As the collateral branches were enlarged, but unable to carry on the circulation, let us now consider what was capable of preventing them. There are two circumstances to which I attribute this. The great size

of the tumour, for though not very large, that is to say, not as large as your head, yet it was large for the situation, being in the upper part of the thigh, below Poupart's ligament, and of course would raise it up. It contained eighteen ounces of loose blood, besides about eight ounces which could not be got out; it compressed the femoral vein which ran along its inner side, and it also exercised considerable pressure on the collateral branches; these being compressed (the vein and branches), the flow of blood could not go on as it should. When an artery has been suddenly divided, that is to say, when a sound artery has been wounded and cut across, mortification of the extremity, more especially the inferior extremity, is not uncommon, and due notice should be given to the patient, as, should it occur, he may otherwise set you down as an ignorant person.

I should say, looking at the aneurism, that had it been of less size, he would had a better chance; elsewhere I have not recommended an early operation, yet if it be delayed too long, the aneurism may become too large, and thus obviate the good effects arising from the existence of the aneurism for a certain time, by the enlargement of the collateral branches. When nature perceives the main trunk to be diseased, she sets about enlarging the collateral branches, which she generally performs in about two months.

What could be done in this case? About two years ago we had a similar case in the hospital; at least, so far similar, that there was a large *femoral aneurism,* and an *opening* had also been made in it, but it was lower down, about the middle of the thigh: the patient being an old man, I thought he would not be able to bear more than one operation, so I chose that of amputation, but he died. Now, in this instance, amputation of the hip-joint would have been required, but as he was a young man, I preferred tying the external iliac.

If the collateral powers had been sufficient, in two or three days, we should have seen suppuration in the sac—in fact, it was already commencing. From the appearance of the parts, the opening in the tumour would not have closed; and from the suppuration, it would be necessary to lay open this great sac, containing at least eighteen ounces of blood: we had, mean time, only cut off the flow of blood from the upper part of the wound, and not from below; it is more than probable that further hæmorrhage would ensue, not from the upper, but the lower part of the artery. The only way that then remained of treating this, would be, to make an incision into the tumour, empty it of the coagulated blood, and tie the artery below the tumour; in fact, reduce it to the old operation for aneurism. Supposing, therefore, that he had outlived this, we should have had a very serious piece of business; the loss of blood, great suppuration, &c. would be such, that he would not be able to bear up against it, would sink, and die.

We must be, therefore, particularly careful not to fall into the errors, which have twice happened here. I mean in cases in which it had happened, and which were afterwards brought to this hospital. It may teach you the necessity of attending carefully to each case, for I do not suppose that either accident happened from ignorance, but from inattention; the medical men having determined that the swelling was an abscess, did not pay sufficient attention to the case to discover the mistake of their diagnosis.

In all cases of tumours, in the course of vessels, if pulsation is present, apply compression on the artery above the tumour, to ascertain whether the pulsation is in the tumour itself, or communicated by the vessels on which it lies: endeavour to lift up the tumour from off the vessel, to detach it from it; if it be a pulsating tumour, and has come on *without inflammation*, on no account make an opening in it, if you wish to avoid the unpleasant and frequently fatal results: *it cannot be an abscess.* By making an opening in an aneurismal sac, you place the artery in the state of a *wounded artery*, while it is at the same time in a state of *disease.* If the opening be not so small, that compression can be employed, the artery must be tied above and below; it must be tied below to prevent secondary hæmorrhage; the opening may be so small, that compression may be sufficient, being exercised against the coagulated blood within the sac; the opening may be closed to a certain extent, and coagulation of the blood in the sac, which remains fluid, take place; inflammation may ensue around the orifice, extend into the sac, and an abscess be the consequence. This being opened, the inflammation, it will be frequently found, has closed up the inferior extremity of the artery, and thus prevented bleeding. The opening may close completely, if very small, and the sac become a good one again. If you have made an opening, you must endeavour to close it, and only tie the artery, when hæmorrhage has occurred.

I will now speak of what we should have done, had we seen the disease earlier. I might have tied the artery below Poupart's ligament, and have been beneath two large vessels: the profunda, and the circumflexa ilii: if, however, the disease extended as high up as Poupart's ligament, the ligature must have been placed above; however, the patient would have had a better chance of surviving, the collateral branches not being compressed, and being in full health, with the action of the heart and arteries sound. This was not a case of *true aneurism*, the original tumour having been only about the size of a large egg, and having burst when it had attained that size: the fascia, in consequence, formed the walls of this great sac.

We will now speak of the mode of distinguishing aneurisms. There are two kinds of symptoms, *essential*, and *auxiliary*: the *auxiliary* are, the course and situation of the tumour; the manner in which the disease commenced; the patient will tell you, he felt a kind of crack, or he perceived something give way; the swelling commences without pain, or inflammation; the tumour pulsates: this may be taken as a general rule, subject to one particular exception, which I shall notice by and bye. In all cases, in the early stage, before the aneurism has burst, and even afterwards, unless there is much blood effused, which coagulates, and by interposing a great distance between the blood and the skin, prevents the pulsations being perceived. This is the particular exception. The pulsation is synchronous with the heart. When the aneurism has burst, and the blood is effused, and coagulated, the limb is very much swelled, assumes a brown colour, and becomes very massy and hard, will not yield to pressure, and there is no pulsation: this case is very rare: the history will explain the nature of the case.

The second great means for ascertaining the existence of an aneurism, is by the ear. Last winter, there were two young men, pupils of mine, and one of them took it into his head, that he wanted bleeding; the other

bled him; but, by mistake he opened the artery: he allowed it to bleed, fourteen ounces I think, but he then found it rather difficult to stop; but he went about it very scientifically; he made compression, and the opening closed; a small aneurismal tumour followed; on applying the ear to this tumour, a sound was heard which I can compare to nothing so well as to the noise of a blacksmith's forge; I do not mean to say it was so loud, but it resembled it extremely, and this peculiar noise will be heard in all cases, if they are carefully examined: I hardly know to what to attribute it, in this small aneurism, it cannot be owing to the rush of blood into the sac; I think it can be only owing to the blood rushing against the hard and thickened edge of the cut artery, especially as it resembles exactly the bellows sound heard in that disease of the heart, when the edges of the valves are thickened: this peculiar sound and pulsation were very evident in the case of this poor man. When there is a tumour over an artery, a pulsating tumour, but without the bellows sound, *it is not an aneurism*, but a tumour over an artery, receiving a pulsation from it. I have one little point more to tell you, Gentlemen, which is rather peculiar. Every man who has an aneurism, must not necessarily die, a spontaneous cure may take place. Inflammation may take place in the sac, and over it, suppuration ensue, and the upper and lower extremities be closed by inflammation: I have witnessed two cases of this: in one of them which occurred in this hospital, the patient was brought in with a large hole in the thigh, the upper and lower ends of the artery being closed; I could not precisely learn that it had been an aneurism, but from the nature of the case, I am almost certain of it; the ulceration extended into the hip joint, and the patient died. The other case occurred many years ago in the York Hospital, and the patient recovered. Mr. Lynn told me of a case, which happened fifty years ago, a very curious case indeed: a man was brought into the hospital, with an aneurism in each thigh; they had burst, and he bled so much, that he was nearly at death's door, so much so, that Mr. Lynn laid him on one side on pillows, despairing of being of any service to him; but these aneurisms did not bleed again, the man recovered, and left the hospital: whether from the weakness of the man, and the circulation being powerless, coagulation took place, or inflammation was set up, and a spontaneous sort of cure established, or not, I cannot tell; but at any rate, it was a bad principle to go on, and Mr. Lynn would not have pursued it, but that he considered the patient moribund.

If in spite of a careful examination, you have mistaken the disease, and made a large opening, if it be in *the lower part* of the limb, amputate; if in *the upper part*, and your patient be *young*, tie the artery above, and take your chance of secondary hæmorrhage: if, however, your patient be *elderly*, amputate.

Should secondary hæmorrhage occur, you must bear this in mind, the blood will not be arterial, not a bright red, but of a dark or venous colour; it will come from the lower part of the artery, and not from a vein, and this is a fact of very great importance. When this occurs, you must search for and tie the lower extremity of the artery: from the colour of the blood, some have supposed the vein to be injured, and have tied that; but it is a mistake, *it is the lower part of the artery which bleeds*, and the reason why dark blood is effused, is that the collateral branches, which are enlarged, do not pass from the hip to the foot at once in one large vessel, it takes

several months for that to be effected, but extreme branches are enlarged, and these communicate with other extreme branches, both of arteries and veins, and thus form a congeries of vessels, leading to the foot; and as the extreme branches are venous as well as arterial, the blood is dark; this is conveyed to the large trunks by the extreme branches, and regurgitating, shows itself at the inferior extremity of the sac. It will be several weeks before red blood will shew itself. Hence, for some time after, when dark blood appears, the lower end of the artery must be sought for and tied.

Next Saturday, Gentlemen, I shall make some remarks on the case of the diseased testicle.

Scarcely was the lecture finished, than a patient was brought into the theatre for the purpose of being shewn to the students. The patient was an Irish woman, afflicted with an aneurism of the arch of the aorta. Mr. Guthrie said, she came first about four years ago, at a time when tying the subclavian and the carotid was all the rage: this aneurism being then most apparent at the junction of the clavicle with the first bone of the sternum, it was looked upon as affecting the subclavian, and Mr. G. received great blame for not operating; but the event has proved the justness of his diagnosis: at this time, the aneurism could be perceived on *both sides* of the chest equally, and the pulsations were very evident; meanwhile, she had borne a child. Several students who were present, examined the aneurism, both by the ear and the stethescope, and the sound communicated, resembled very much the stroke of a hammer.

VI.—*Case of Aneurism of the right Axillary Artery, cured by tying the Subclavian Artery.*—By W. Bland, Esq. 20th February, 1831.

(*Transmitted through Dr. James Johnson.*)

The patient, Peter Cameron, sixty-three years of age, a poor man in the Sydney asylum, first perceived the aneurismal tumour some months since, which, when shown to Dr. Fattorini and myself, early in December last, presented the section of an oblate spheroid, of about the size of a large orange, extending from the clavicle into the axilla, and was attended with considerable unremitting pain, almost utterly precluding sleep.

He attributed the complaint to a hurt, received some time since, by which he had been otherwise much injured.

On careful examination, no disease of any other artery, or of the heart, was discoverable, and the case having again been examined a few days subsequently, by John Forster, Esq. and Drs. Fattorini and Rutherford, R. N. with the concurrence of those gentlemen, the operation was performed by me, with the assistance of Dr. Fattorini, on the 17th of the same month, in the presence of the other two gentlemen, with that also of Dr. Smith and Joseph Cook, Esq. R. N.

Operation.—The first incision extended from the outer edge or the mastoid muscle, to the anterior edge of the latissimus dorsi, parallel to, and near the clavicle, and it suffices to say, that the external jugular and another small vein having become exposed, but secured with ligatures, previously

to being divided, but little blood was lost during the operation, and which the patient bore well, and with much fortitude.

Abstract of the Case since the Operation.—Sixty minims of laudanum were given immediately after the operation, and which dose was repeated an hour or two afterwards, but without producing any considerable relief. The same night, the patient complaining of increase of pain in the wound, with considerable difficulty of deglutition, and some dyspnœa, and a severe pain extending from the left hypochondrium to the right shoulder, he was bled to the extent of ℥xviij. and which operation was repeated the following morning, in both instances with the greatest possible relief. He was of course restricted to a rigidly antiphlogistic diet and regimen, and the bowels relieved by repeated doses of a saline aperient, combined with antimony, preceded over night by an alterative aperient pill.

From the above date, little remains to be observed, as to the mere history of the case, excepting that the above symptoms, though decreasing in violence, continuing from time to time to recur, were obviated, or reduced by various modifications of the same means; while, in addition, local painful affections were relieved successively, by the employment of warm spirituous fomentations, liniments, dry friction, the use of flannel, and the last ten days, by the warm bath.

The last ligature came away on the twenty-ninth January, and there now remains only the most minute moisture on the spot from which it escaped.

Observations.—I attribute the successful issue of this case, in a particular manner, to the very early and repeated employment of the lancet, the use of spirituous fomentations to the limb, and the support given to it, by means of a broad flannel sling, by which the arm was steadily supported without sustaining any disagreeable pressure: this, in a case of unavoidably long duration, though apparently trivial in itself, was a matter of great moment. There is yet another circumstance to which I should beg to call attention; the careful, but gentlest possible expulsion, by means of pressure, of as much of the discharge as practicable, from the wound, each time that it is dressed; by which the danger to be dreaded from the unpropitious direction of the external opening of the wound (which instead of being in a depending situation, is at all times almost perpendicular above its fundus), is in a great measure, if not entirely obviated.

There was a very slight expectoration of blood, on the 5th of this month (February), but which was immediately obviated by bleeding, and has neither returned nor evinced any tendency to return.

[We beg to thank Dr. Johnson for this and other papers, which want of space alone has excluded from our present Number. We wish that others of our contemporaries could bring themselves to imitate the liberality and good feeling of the talented and independent Editor of the "Medico-Chirurgical Review," and abandon a low line of rivalrous conduct towards us, as well as towards each other, which is as narrow minded as it is contemptible in the eyes of all men of sense or science.—Ed.]

BIBLIOGRAPHY.

ANATOMY.

1. *An Introductory Lecture to Anatomy.* By Thomas Firth, Esq. Surgeon. London.—The author has traced the study of anatomy, from Hippocrates to the present period, at the same time mentioning nearly all its cultivators from the time of the father of physic downwards, their love for this science, and the benefit which mankind derived from it. He shews that Hippocrates must have studied anatomy, as his writings explain parts which dissection only could have identified. We extract the following:—

"I now beg leave to introduce the name of Hippocrates, generally considered as the father of medicine; he was a native of Cos, in the Island of Crete, and flourished four hundred years before the birth of Christ; from his works all the knowledge of antique anatomy may be collected, and many prognostications—the distinction of disease, which time and great discernment have more and more verified.

"Although many important truths are there recorded, by which the practice of physic and the knowledge of disease may be understood, yet you must bear in remembrance that these facts are interspersed amongst many very erroneous notions. Hippocrates was aware of the vast importance attached to a correct knowledge of the structure and function of the human body to those who study medicine and the cure of disease, and therefore recorded all the anatomical knowledge of the day.

"It is generally considered that Hippocrates had dissected human bodies, from his having described parts which is inferred could not be known but by dissection: he describes the human body as consisting of fluids and solids, of spirits, and parts containing and contained The essentials of the body he divided into blood, phlegm, choler or bile, and melancholy, the latter of which he considered occult bile.

"These principles were founded upon the philosophy of the age, viz. that earth, air, water, and fire, were considered the only elementary substances.

"Hippocrates appears to have been acquainted with some of the blood vessels, viz. the aorta, pulmonary artery, and vena cava. The heart he called a powerful muscle, and said the auricles were like a fan. He stated that all the arteries originated from the heart, and all the veins from the liver, from which all the blood flowed and in which bile is separated; he believed the arteries to convey a spirit, and therefore was ignorant of the circulation of the blood; he considered that the soul of man lay in the left ventricle of the heart, and the lungs and heart received part of our drink; he said the brain is a gland, but he knew nothing of nerves or of the use of the diaphragm; nor did he know an artery from a vein, a vein from a nerve, or a nerve from a tendon. Hippocrates appears to have been entirely unacquainted with sensation and vision, notwithstanding he had placed the seat of wisdom in the brain; he however formed a rational idea on moles or false conceptions, and the way by which the fœtus receives its nourishment. He says the communication between the mother and the fœtus is by the umbilical cord; yet, after this, he believed the fœtus was nourished by the liquor amni, and that it entered by the mouth. The above opinions

are some of the many which Hippocrates has handed down to posterity, some agreeing with the opinions of the present day, others not: and, probably, many of those errors originated from the want of better and more frequent opportunities of dissecting the human subject."—p. 6.

When Hippocrates had arrived at " the end of his life, but not of physic," Mr. Firth informs us, that anatomy was not then so much taught, but that it was still cultivated in Athens, by the learned Socrates, Plato, Xenophon, Aristotle, and Theophrastus; and when Athens lost its celebrity as a medical school, Alexandria supplied its place, and flourished under the Ptolemies, and in which school, Erisistratus and Hierophilus became highly distinguished for their anatomical knowledge.

" The opportunities for human dissection at this school enabled Erisistratus and Hierophilus to correct many errors that had been previously promulgated, and to place on a solid foundation that part of the science called neurology. In the period between Hierophilus and Erisistratus to that of Galen, many became celebrated for their acquaintance with anatomical science, but more particularly Rufus, Epheseus, Asclepiades, and Celsus; and it is to Epheseus and Celsus that we are indebted for all the names and situations of the various parts of the human body".—p. 7.

2. *A Lecture on the Anatomy, Physiology, and Pathology of the Eye.* By Thomas Firth, Esq. Surgeon. 1831. 8vo. Millar, Oxford Street.—This lecture was delivered before the Medical and Chirurgical Society, and comprehends a minute description of the anatomy, physiology, and pathology of the eye. Our author then cites a series of cases, the majority of which, he says, were mismanaged by the patient's former medical attendants, and which were properly treated by him. He observes—

" The retina is subject to a disease denominated by the Greeks amaurosis, and by the Latins gutta serena, and it is one of the most lamentable affections that can afflict mankind. In some persons, this disease comes on very suddenly, and in other persons very gradually; but in whatever way it commences, it is one of the most difficult diseases that art or science have to contend with. That many cases of this kind are curable, if not too long neglected, under peculiar attention and management, I do not hesitate to affirm from experience, notwithstanding there are cases that will from the first baffle all our art; such, for instance, are those cases when the retina and pigmentum nigrum have been absorbed, or when particular tumours within the cranium, press upon the optic nerve. Amaurosis, from scrofula or worms in the intestinal canal, and from many other causes, will very often admit of cure under proper management and care. Two or three successful cases of amaurosis I will relate; and first, that of a young lady, eighteen years of age, whose parents reside a considerable distance from London, but who have friends residing in the city of London. The letter which I received from the parents, relative to an opinion as to the probability of a cure, went on to say, that their daughter, five years before, had fallen down, dislocated her elbow, and bruised her head, but so very slight that they thought it of no consequence: some time after, they perceived that she could not see things so well as formerly, and in a few months she became quite blind. At this period her appetite was voracious, and she had become exceedingly corpulent. She then lost the use of her lower extremities, and afterwards, her stomach became so weak that she could take

no solid food. She was altogether confined to her bed, and bottles of boiling water kept constantly to her feet, and she was also covered by eleven blankets, still she continued to complain of cold. Beef tea became her almost only support, which was usually given to her boiling from the fire; notwithstanding, she would often say it was cold, and request them to boil it again, There was an unnatural curvature of the superior part of the spine, and she had constant head-ach. The bowels were constipated, nor were they ever evacuated, without her having taken aperient medicine, and she would frequently cry for hours together.

"Three years before the time that I was consulted, she had been in London under the care of a gentleman generally considered the first surgeon in Europe, and such was his opinion after he had seen her daily for six weeks, that he requested her mother to take her home, at the same time stating, that she would not live many weeks. To cut short this case, which must have become tedious by this time, I have only to say, that she was placed under my care, and in six months she could walk six or seven miles without resting, and at the expiration of eight, she could discover any object whatever. I do not mean to say that she could see as well as if she had not been previously affected, but sufficiently well to know persons, and what they were dressed in, and also the head from the point of a pin."—p. 22.

The majority of the cases narrated in his pamphlet are detailed in this manner, which we are sorry to notice, for however true it may be that they were badly treated, the word mismanaged is language too strong for one medical man to use to another. The lecture evinces a good deal of research, and practical knowledge of the subject. The pamphlet is embellished with two plates.

PHYSIOLOGY.

1. The autopsy of Voltaire and many other persons, highly distinguished by the development of their intellectual faculties, leads us to suppose, that in men of genius, the interstices between the convolutions of the brain are deeper than ordinary. This observation appears to us, since it ought to be the result of a greater extent of the medullary portion.—*Le Pelletier. Physiologie.*

3. *On the Theory of the Non-identity of the Nervous and Electrical Fluids and the Functions of the Ganglia of the Sympathetic.* By George Darby Dermott, Esq. Lecturer on Anatomy and Physiology.—I think that the presence of vessels or organisation in a living substance, whether animal or vegetable, is not absolutely necessary for its vitality; that vitality innately exists in the particles of organic matter of some parts of our body and of vegetables, without vessels. This opinion, if thought worthy of attention, I am inclined to call the *Atomic Theory of Life*, to distinguish it from that diametrically opposite, but vague, and most certainly erroneous, theory of the existence of vessels (vasa vasorum) *ad infinitum*. The following remarks will perhaps contribute to justify this theory:—

There are some permanent structures which possess life, apparently not vascular, as the crystalline lens, evidently fibrous; and the cornea, possibly not vascular.

This non-vascularity is not confined to some living structures; but we have life existing in non-vascular substances which are not regular structures, and some of these are even fluids, as the blood, coagulated lymph, and the jelly of the embryo, the aqueous and vitreous humours may also, perhaps, contain some degree of vitality. The blood is the great magazine of vitality to the whole body. The coagulation of coagulable lymph, when effused, is an act of the vitality contained in it; its formation into fibres is an act of its vitality; its becoming vascular, or the generation of vessels in it, is an act of vitality, quite as much as the deposition of substance in an already organised part, is an act of vitality. The jelly of the embryo is inspissated, rendered fibrous and organised by the agency of the vital principle in it. I regard the circulation in a living part as being, subsequently to vitality having *once* formed organisation in the part, a vehicle for conveying and imparting vitality to different parts so as to support their vitality.

Taking vascularity to be the basis of most organised parts, *the elementary particles of an organised substance cannot be organised:* were that the case vasa vasorum would exist to an infinite degree, for however small the vessels, still vasa vasorum must necessarily appertain to them as vasa vasorum. On the contrary, I presume that vitality is innate in each elementary particle of a living body, and of course in the elementary atoms of the *minutest* vessels; for these vessels, the capillaries, can have no minuter vessels (vasa vasorum) supplying them, and their coats must consequently possess vitality in some other way than by an ordinary circulation of the blood within them.

Each elementary atom of nervous substance within the neurilema sheath of the nerve (as well as the sheath itself) must be alive, possessing the distinguishing living properties of nervous substance, consequently possessing the living principle; yet we cannot believe that each atom is supplied by nourishing vessels in its own substance, for the nourishing vessels are not in the true nervous substance of the nerve, but in the neuralema sheaths, the nervous substance being a deposit in the sheaths, and consequently both the nervous substance, and the vitality in that nervous substance, are produced from the vessels in the neuralema and pia mater, constituting the vascularity of the nerves and brain. And even if the actual existence of nourishing vessels in nervous substance were established, it would be absurd to suppose the existence of vasa vasorum to those vessels *ad infinitum*. The same, I believe, may be said of the substance of muscular fibre, in reference to its cellular membrane.

We have a right to draw a strict analogy between the circulating vessels in vegetables, and the minutest class of the same in animals; for whether in one or the other, life is life. The vessels, then, circulating the sap in vegetables are not apparently supplied with vasa vasorum, yet they are alive, and it would be folly to suppose that the sap circulates by mere capillary attraction; it would, in fact, be reducing the whole substance of the plant to mere dead matter; the circulation of the sap, the digestion or formation of the sap in the root, the respiration of the leaves, and the various secretions of a plant, as well as the deposition or secretion of fresh substance from its sap, producing its growth, are all living actions of the plant; and to say that the vessels of a plant have not a living agency in

circulating the sap, is to deny them life—or, at least, is denying to a living structure a living function, yet I believe these vessels are not known to have vasa vasorum. Perhaps the action of the circulating vessels of plants may be resembled to the living orgasm possessed by some orifices in our bodies, as the puncta lachrymalia of the eyelids, and I believe this to be muscular action. It would be as great a degree of madness to deny a vital agency to the vessels of a plant (its organisation), as to deny vitality to the whole of it, or to deny vitality to polypi (substances, in some respects, half vegetable and half animal,) which not only possess, in a greater degree than plants, organic irritability, but contractibility, and therefore I would venture to conjecture muscular fibre, as well as the elements of a nervous system, the proximate seat of its sensibility. I believe also that plants may contain, throughout their substance, granules of something analogous to a nervous substance in animals, for true it is that their vessels are in a degree sensible to the stimulus of their contents, as well as that of other stimuli. Again, the sensitive plant seems not only to possess, like other plants, organic irritability, produced and supported by its vessels, but, like the polypus, the power of contractility in external organs, an effect of a peculiarity of structure (probably muscular) connected with organic irritability. I believe where there is organic action there is muscular (that is to say, contractile) fibre, and where there is muscular fibre there is organic action.

But to return to the nature of the vital principle, we have it certainly existing in the blood, and I believe it to be a material principle ("materia vitæ"), and the cause of the blood's stimulating power. Whether it exist as an invisible fluid in its different states and combinations with different structures, whether this fluid be volatile, and whether, at the cessation of organic action, it becomes resolved and dispersed into its elementary chemical constituents, like dead organic matter itself, I will not pretend to say, but that this vital principle is evolved from the blood seems evident; probably this is effected not only by its being permeable in organic substance like heat, but by its being separated from the blood in the form of an invisible secretion, produced by arteries organising any structure. This vital principle seems not only by its peculiar stimulus to stimulate the arteries of all structures through which it circulates, but to be the proximate cause of their being susceptible to their stimuli, whereby it gives to all living parts a *susceptibility to be stimulated,* two properties of the living principle distinguishable in all living structures, whereby the vessels of all living structures are kept in action, and vitality is the cause of its own dissemination throughout the frame.

The increase of vitality, whilst the bulk of the body increases, must, I think, depend upon secretion, or some functional action; some stimulus being, at the same time, the existing cause of this organic action, which produces the generation or increase of vitality, as perhaps the stimulus of the air in respiration may be the existing cause (by some peculiar organic action taking place) of the generation of a fresh supply of vitality within the lungs; and thus, perhaps, we may regard the lungs (operating upon the nutritious chyle received into the circulation from the alimentary canal, and excited into this operation by the stimulus of the atmospheric air) as the primary source of vitality, just as the stimulus in the ovum produced

by the semen and the excitement of the uterine system during coition, is the exciting cause of impregnation, and of the commencement of that continued chain of organic actions in the living jelly of the embryo, whereby the future structures of the frame are built up, and, subsequently, called individually and collectively into living action, as well as perhaps the exciting cause of an increased production of the vital principle in a ratio as the fœtus grows. And this vitality will continue as long as the circulation and secretion continue, and once having begun to exist, has the power of generating or increasing itself, upon the application of proper stimulants, those stimulants exciting the peculiar functional actions necessary for its production.

This principle thus inherently pervading a structure, can, I believe, be communicated in a certain degree, to another contiguous part (provided that contiguous part, or substance, is naturally adapted to accept of life, even if that part contiguous should not happen to be vascular), whereby the vitality of a contiguous, not vascular part, may be kept up; the vital principle being eliminated and imparted to it from the capillaries of the surrounding or contiguous vascular substance. In this way I can account for the vitality of the crystalline lens. Coagulable lymph, extravasated in the urine within the urinary bladder, and floating in it, consequently not in contact with the internal surface of the bladder, coagulates; and this coagulation, an act of vitality, is the dying act, under the above-named circumstances, of the coagulable lymph, for in coagulating it dies, and does not become organised. But if this coagulable lymph, instead of floating in, and being separated by, an excrementitious secretion from the living internal surface of the membrane which produced it, remained on the surface of that membrane, then, after coagulating, it still retains the principle of vitality, owing probably to vitality being communicated to it from the contiguous structure (whereby a certain supply is kept up in it), and by thus still retaining in itself, or having supplied to it, the vital principle, it becomes organised; and owing also to an affinity of life existing between the vessels of the membrane and the vessels of the coagulable lymph, the vessels of the two become united. Thus coagulable lymph in contact with the producing membrane, generally becomes organised. By admitting of this affinity of life between two contiguous living structures, we can account for, "sympathy of contiguity"—why, when there is an inflamed convolution of intestine, we find the part of the peritoneal lining of the abdomen which happens to be in contact with it, also inflamed, and why these two contiguous surfaces so frequently, organically, and vitally, unite.

I deem it *possible*, that as all secretions are the product of life, they may all (perhaps excluding the excrementitious) retain some vitality, as long as they remain in contact with the living surfaces which produced them. However this may be, coagulable lymph or fibrin, in all its states, combinations, and structures, seems to be the natural nidus of the materia vitæ; this substance forms the general basis of all the structures of our frame; and there is evidently a very close analogy, almost amounting to an identity, between coagulated fibrin and muscular fibre. I believe one principal use of the serum in the blood, is for the purpose of sufficiently diluting the stimulating materia vitæ in the crassamentum, as nitrogen gas dilutes the oxygen in atmospheric air.

Whether this living principle thrown out of the circulation into living structures, as a secretion or what not, exists in different modifications in different structures, its nature being modified by the peculiarity of the strncture which produced it, or in which it became developed; or whether it exists exactly the same, without modification, in all structures, *certain* properties being developed in *certain* structures, owing to those structures being naturally and specifically adapted, by their arrangement and by the substances composing them, for the development of only one or some characteristic few, of the numerous specific properties of the vital principle, and not for the rest, I will not pretend to determine; but true it is that, from one cause or the other, the vital principle distinguishes itself in various structures by various properties,—as in the nerves, by sensibility, and being the vehicle of the will—in the muscles, by contraction—in the blood, by its stimulating organic parts—in coagulable lymph, by its coagulation, contraction, and by its becoming vascular—in the thoracic and abdominal viscera, by their various specific secretions and functions—in the brain, by certain functions, all equally wonderful, and never to have been preconceived or understood by man, aided only by the principles and qualities existing in dead matter. On the contrary, the agency of vitality either resists altogether, or very considerably modifies or checks the operation of all those agents governing and distinguishing the nature of dead matter; so that the *full and co-operative* development of the laws of dead and living matter is, I believe, incompatible.—*Lancet.*

MEDICINE.

4. *Address introductory to a Course of Lectures on the Principles and Practice of Physic, delivered before the Medical & Chirurgical Society.* By Jas. Baker, Surgeon.—Mr. Baker has arranged this lecture introductory to practice of medicine in a concise, yet comprehensive and able manner.—He has traced the cultivators of our important science nearly to its very origin, shewing that medicine and divinity were practised by the same individuals. The lecture is, as we have already said, ably drawn up, and we are at a loss which part to select as an extract. We think the following will be instructive and amusing:—" Speaking of physicians and surgeons, it may not be amiss to say that a physician ought to understand surgery, and the surgeon the medical treatment of diseases. For medicine is one and indivisible: it must be learned as a whole, for no part can be understood if studied separately. It is from the evidence afforded by external diseases that we are enabled to judge of the nature and progress of those that are internal. Yet as medical science is so very extensive, and such accurate knowledge of its various subjects is required, the division of it into two principal departments, which custom has established, may be continued with great propriety and advantage.

" Bleeding is sometimes necessary in medical practice; perhaps you may think it unnecessary to introduce such a subject, as barbers used to perform this operation in the last century. I have reason to believe that very few pay much attention to this minor operation, as it is called; it is, however, of great importance, as the life of a patient very often depends upon its being seasonably and skilfully performed. Bleeding is absolutely necessary at the commencement of all inflammatory diseases; indeed, I may say,

that it ought to be a medical man's sheet anchor. Some few weeks ago I was requested to visit a female, a few miles from town, who expressed a wish that I should be sent for, whom I found labouring under inflammation of the bowels. A medical gentleman had been in attendance. I immediately abstracted a sufficient quantity of blood to make an impression on the system; I found it necessary to repeat the operation, and also to employ medicines which slightly affected the mouth, and succeeded in arresting the inflammation.

"It is truly amusing to hear the good nurses and attendants of the sick, pronouncing, with an affectation of unerring sagacity, upon the qualities of blood, frequently observing that it is too hot, and that, consequently, the patient must have a fever; that it is too black, and therefore foul; or that it is too thick, and unfit for circulation."

5. *Use of the Ung. Æruginis in tetters or ringworm.* By H. Myers, Esq.—Mr. Myers has transmitted to us a paper which we are sorry we cannot insert for want of space; however we will try to give the substance of it. In tetters, he says, he has used with great success the following ointment, attending at the same time to the general health:—

℞ Æruginis ppt. pulv.
Hyd. submur sing ʒi.
Ungent. resinæ ℥j.
Terebinth. Venet. ʒss.

He observes, that when this disease is one of long standing very great benefit is derived from lotions, such as lotio potass. sulph. lotio hyd. oxymur. Several cases are warranted by this gentleman, which have been effectually cured by the above treatment.

6. *Essays and Orations, with an Account of the Opening of the Tomb of King Charles I.* By Sir Henry Halford, Bart. M.D. G.C.H. President of the College. 12mo. John Murray. 1831. With a plate.—We are informed in the preface, that the two first essays were written for the Transactions of the Royal College of Physicians, and were published in that work. The third, meant for the same work, was read at the conversatione of the College. The subsequent essays were written for a mixed audience, and consequently are less professional than rhetorical. Sir Henry's style is easy, neat, and clear. The essays, &c. are on the following subjects:—

On the climacteric disease.—On the necessity of caution in the estimation of symptoms in the last stages of some diseases.—On the tic douloureux.—Popular and classical illustrations of insanity.—On the influence of some of the diseases of the body on the mind.—On the Καυσοσ *of Aretæus,—Oratio ni Theatro Collegii Regalis Medicorum Londinensis, ex Harveii instituto, habita die Octob. xviij. an. MDCCC.—Oratio in Collegii Regalis Medicorum Londinensis, œdibus novis habita die dedicationis, Junii xxv. MDCCCXXV.—An account of what happened on opening the coffin of King Charles I. in the vault of King Henry VIII. in St. George's Chapel, Windsor, on the* 1*st of April,* 1813. The second paper, "*on the necessity, &c.*" is remarkably well written, and contains some valuable remarks. He relates a case, in which a young gentleman took cold while under the influence of mercury. Notwithstanding what we have said above of the beauty of the writing, we

cannot help pointing out a curious piece of English, it is not exactly *murdering the King's English*, but we doubt very much whether Sir H. is not indictable under Lord Ellenborough's act, *for cutting and maiming*. *The fever* increased daily, until it was accompanied at last by so *much* FEVER (!!!) and delirium as made it necessary to use not only the most powerful medicines, but also personal restraint." *A fever accompanied by so much fever! A broken leg accompanied by such a severe fracture of the tibia!* But notwithstanding this blotch, the paper is well written. This patient became calm and collected, after three days incessant raving. He asked pressingly, if he could live? Being cautiously informed, that probably he might not, he paid his debts, settled his affairs, and died the next night. The reason for this unfavourable prognosis, was that the apparent amendment was not preceded by sleep, and was not accompanied by a slower pulse; two indispensable conditions, on which only a notion of real improvement could be justified. But here was merely a cessation of excitement occasioned by a diminution of power, and by a mitigated influence of the action of the heart upon the brain. In a foot-note, we are directed to consult "the chapter of Aretæus on the Καυσος, as remarkable for the sublimity of the ideas which it contains, as for the beauty of the Ionic Greek in which they are expressed." This is then a chapter to Sir Henry's own mind, and we doubt much, which pleased him most, the sublimity of the ideas, or the beauty of the Ionic Greek.

In his paper on the *tic douloureux*, Sir Henry falls into the mistake of men of less genius and science than himself: he generalizes too much: he seems to believe that this distressing disease is caused by a thickening of the bones of the cranium, or some other diseases of the osseous parietes. He relates several cases, among them those of an Earl, a Duke, the daughter of a nobleman, and an M.D.* In spite, however, of these great authorities, Sir Henry will not be able to persuade the profession, that such a state is the *sole cause* of this dreadful complaint: we admit that it may be a cause, but not the only one. We have now passed in review all the strictly medical papers, and in conclusion, we must add, that the work is neatly got up, and does credit to the author, publisher, and printer. It will afford entertainment and instruction to those who can enjoy the *otium cum dignitate*.

SURGERY.

7. *A Lecture, introductory to a Course of Clinical Surgery, delivered at the Glasgow Royal Infirmary.* By M. S. Buchanan, M. D. not published.—From some passages in the *Introductory Lecture on Clinical Surgery*, which was delivered last November by the learned author, having been misrepresented and perverted, the Doctor has thought it better to publish the *whole lecture, verbatim*, than to argue the various points at issue, or to shield himself by the imputation of misunderstanding or garbling, on the part of those who have thought themselves aggrieved. He appeals for the accuracy of the lecture to the surgical pupils attending the GLASGOW INFIRMARY, and thus places its authenticity on the firmest basis.

* The late Dr. Pemberton.

We have *carefully* and *attentively* perused this lecture, and can fairly say, that we have not met a *single article* in it, which should move the ire or excite the spleen of any individual. It is one of the best written lectures we have read for some time. It contains a comparative view of the French, English, and Glasgow hospitals, the advantages of hospital practice, clinical lectures, the peculiar advantages and disadvantages of the *Glasgow Royal Infirmary*, and the reciprocal duties of a clinical professor and his pupils towards each other. We would wish to make a few unconnected extracts, to point out the facility of our author's writing, the beautiful language in which he expresses himself, and the soundness of his ideas. He praises highly the surgical attendance at the French hospitals.

"Figure to yourself the first surgeon in France making his appearance, pointedly and regularly, at six o'clock, a. m. (which, by the bye, is rather too much of a good thing) at the bed-side of his first patient in the Hotel Dieu, calling all his dressers before him, and receiving from them a summary of the cases under their charge. Now, follow him (with turned-up sleeves and dressing gown thrown about him) to the wards, and there observe him going his rounds, of sometimes upwards of three hundred patients: but this is not all, for at nine o'clock (by which hour, in general, the whole of the above number of patients had been visited by him), he marched into the operation room; and there I have frequently seen him perform operations, and thereafter give a clinical lecture till well on to mid-day. Search our schools and hospitals here, and see if any such enthusiasm is any where to be found, or any such information by those in attendance to be obtained!"

If it is for such a paragraph as this that complaints were made, and the Doctor traduced, they must give us likewise a broadside (if it be in their power), for we fully espouse the Doctor's opinions, and there is scarcely a medical man or student in the three kingdoms but will echo back the same. When we were attending the Hotel Dieu at Rouen, as dresser, we were obliged to be there at *six in the morning*, even in the winter, though our residence was fully half a mile from the hospital, and the ground frozen hard for three weeks. The wards were visited (the hospital containing 1,200 patients, 500 medical, as many surgical, 100 obstetrical, and one hundred old men and women), until about nine, or half-past, and then the operations were performed, after which, from 1 to 200 out-patients were attended to, and the business for the morning closed with a clinical lecture on surgery, and an anatomical lecture with the subject before us, delivered by M. Flaubert; in the afternoon, from four to five, was spent in visiting the wards, attending the more severe cases, and visiting the new-comers. The bodies of unclaimed patients were then given up to the students *without any restriction*, each student, whether he dissected or not, paying to the attendant of the theatre, at the end of the season, the sum of FOUR FRANCS, equal to three shillings and sixpence of our money, and for this sum a student might dissect six bodies, injections included; this operation being performed by one of the house surgeons for the time being.

We quote the Doctor's remarks on the conduct of medical pupils, and we hope our London students will follow the rules he lays down:—

" Let me, therefore, again warn you of the necessity of examining for yourselves every case, and at the same time, with the greatest circumspection. Let not one sinister observation escape you, calculated either to hurt my own feelings, or to upset that confidence in the minds of my patients, so necessary for their cure. As to your conduct in this amphitheatre, during the performance of surgical operations, I hope that it will continue to be characterized by that decorum so becoming the place, and which I have found so necessary to the operator's composure of mind and steadiness of hand. For the accomplishment of this very desirable object, I shall take as much care as possible, that no obnoxious *head*, or obtrusive *body*, be interposed between you and the patient: *the neglect of which sympathy, for the laudable curiosity of the pupil, has, I believe, been the main cause of those disgraceful scenes, too often exhibited in our metropolitan hospitals, and the fertile source, of much of the vituperation and abuse displayed in some of our periodical journals.*"

One more extract, and we close our review of this lecture—it relates to the liberty of the press.

" No man admires the liberty of the press more than I do—none more venerates it as the palladium of our right, and the guardian of our liberties; but remember, that there is a point, beyond which I feel convinced none of you would wish to see it extended. I mean, when, instead of the banner of truth, that of falsehood is unfurled, when licentiousness, rather than liberty, is adopted as its motto, and when calumny and slander, instead of candour and fair dealing, are wielded as its weapons. I may indeed be told that truth is great, and it shall prevail: but how often do we find that varnished falsehood takes its place? For I fear that no situation, however arduous, and no conduct, however straight forward, will shield their possessors from the malevolence of those whose only amusement seems to be the laceration of the most amiable and exalted of natures. I most sincerely hope, however, that those days of darkness have gone by, and that hospital medical men, as they have all along been, will still be characterized as the most liberal of their brethren, and the foremost in the ranks of charity and philanthropy."

8. *Observations and Experiments on a new mode of treating Fractures of the Leg and Fore-arms, especially compouad Fractures.* By William Beaumont, Member of the Royal College of Surgeons, and Surgeon to Farringdon Dispensary. Longman, Rees, Orme, Brown, and Green. 1831. —That the present mode of putting up fractures, whether simple or compound, is liable to many well-founded objections, we are all well aware, but we doubt very much whether Mr. Beaumont's plan is not liable to similar objections, while at the same time, there are a few which belong solely to it. He places the limb in a *casing of Plaster of Paris*. But, as he observes, when inflammation supervenes, the part will be prevented swelling, and the pain be horrible. He calculates. however, that the pressure, by compressing the vessels, will prevent the inflammation, or at the most, by breaking the cast, the pressure may be removed. He has, as yet, tried it only on brutes— and we advise him to halt there.

MIDWIFERY.

9. *Elements of Practical Midwifery, or Companion to the lying-in room.* By Charles Waller, Consulting Accoucheur to the London and Southwark Midwifery Institution, and Lecturer on Midwifery and the Diseases of Women and Children. Second edition, with additions. pp. 196. Plates. Highley. 1831.—We are well pleased to see a second edition of this work. It is well written, and remarkably clear of errors. It is also published in a neat and cheap form, and from its small size, makes a ready "Companion to the lying-in room." We must notice one or two mistakes, however, which we hope will be corrected in the next edition. In making a vaginal examination, Mr. Waller advises that the fore-finger, previously anointed, be passed into the vagina, and *carried forward* till it reaches the os uteri. We rather think, that if the medical man attempts to find the os uteri in that direction, he *will lose his labour,* as it will be found *downwards* and *backwards,* at least we have always found it in that direction. When speaking of the resuscitation of infants, Mr. Waller recommends inflation of the lungs, and does not make any mention of M. Piorry's directions for resuscitating infants by pressure on the ribs for an instant, then giving way to their elasticity, and again renewing the pressure, so as to imitate natural respiration. We can fairly recommend the work, as a useful pocket companion for the young practitioner.

CHEMISTRY.

10. *Analysis of the Medullary Substance of the Brain.*—According to Vauquelin, it is white, but may become yellow, green, or even blackish; it possesses a saltish taste, a spermatic odour, and on analyzation, presents in 10,000 parts.

Water - - - - -	8,000
Albumen - - - - -	700
White fatty matter - - -	453
Red ditto ditto - - -	070
Osmazome - - - - -	112
Phosphorus - - - -	150
Sulphur - - - , -	515

with traces of the phosphates of potass, lime, and magnesia, and the hydrochlorate of soda. The sulphur is in the form of sulphuric acid, in combination with albumen.—*Le Pelletier. Physiologie.*

MISCELLANIES.

11. *Price of Leeches*—The price of leeches has rapidly risen lately from a few shillings to thirty to forty shillings the hundred. They are dearer still in France, and are still rising. The cause is as follows:—The greater part of our leeches are obtained from Poland, and the countries where the cholera is raging. They come down the Elbe, where there are *three quarantines* established, and *another* on entering our sea-ports. The length of the voyage is unquestionably much increased, and the leeches die in vast quantities. This is one of the *benefits* of the *quarantines.*

12. *Paganini.*—The phrenologists have discovered a remarkably prominent *cerebellum* in his cranium, a circumstance which is undoubtedly connected with an exquisite sensibility of the organ of hearing.—*Monthly Review.*

[How did they find this out? We have never heard of his having been trephined—and there is no other way of ascertaining the size of the cerebellum.—Ed.]

13. *Adulteration of Beer.*—The House of Commons, after a painful examination, have determined that molasses should no longer be permitted to be used in beer!!!—*Morning Paper.*

[Fudge! Would they adopt stronger and more efficient means to prevent the far more serious adulterations to which that liquor and *all the articles of food* are subject, they would better deserve the praise of the community.—Ed.]

14. *Lectiones Celsianæ et Gregorianæ, or Lessons in Celsus and Gregory.* By William Cross, Teacher of the Classics, and Medical Latin. Wilson. 1831.—Mr. Cross has published a work that will be of considerble advantage to medical students. It consists of promiscuous examples from Celsus and Gregory, illustrating the rules of syntax, followed by a kind of glossary, or rather the Delphinic ordo, in which the words omitted by those authors are inserted, and the more abstruse parts explained; a lexicon and a concise grammar are likewise added. It will be of great advantage to those students who have not a practical knowledge of the Latin language, and whom we would wish to warn against *interlinear translations*, as alone they will only confuse the learner, and he will find a complete loss of labour and time, instead of proving as he had fondly hoped a "royal road to Latin."

15. *Dr. Ryan's Pupils.*—The gentlemen, amounting to ninety-eight in number, attending Dr. Ryan's Lectures on Medicine, Obstetricy, and Medical Jurisprudence, presented him with the following address on the 31st ult. to which he gave the answer annexed:—

"It is with great satisfaction and pleasure that we embrace the opportunity presented by the termination of another medical course to acknowledge the kindness with which you uniformly treated us, as well as the unremitting anxiety you constantly evinced for our professional and general welfare, during the time we had the honour of attending your valuable Lectures on Medicine, Obstetricy, and Medical Jurisprudence.

"By offering you our thanks in this manner, we do not attempt to increase the publicity of your name, already well known as a Lecturer, and by works which are allowed to be unrivalled for accuracy of information and sound opinions, but intend it as a testimonial of our esteem as well as gratitude, which we consider justly due to your abilities and merit."

[Here follow the signatures.]

"Gentlemen,—I highly value the spontaneous expression of your sentiments of esteem, and high approval of the manner in which I have discharged my duties as your Lecturer. The spirit and exemplary diligence displayed by you in the acquirement of professional knowledge, were pleasing incentives to me, to exert my best efforts in elucidating the principles and practice of our delightful and fascinating science. Your

disposition to acquire information was active and energetic, and fully proportionate to my willingness to impart it. I viewed with sincere pleasure the assiduity and zeal which distinguished you, as they afforded me the best proof of your future competency to relieve the sufferings of your fellow creatures, and to ensure you a degree of mental gratification, such as wealth cannot purchase.

"The time has now arrived when some of the relations which existed between us are to cease; but it is a source of satisfaction to believe, that we have received some mutual benefits from our recent intercourse, and reciprocally imbibed sentiments of regard and esteem, which are not to be effaced by change of situation, by distance, or by time.

"I hope and trust that each of you will practise the moral as well as the professional precepts we have so often considered together, by which you will confer the greatest benefits on suffering humanity, and sustain that high character which has already distinguished the genuine cultivators of medicine.

"In parting, permit me to assure you, that it will afford me sincere pleasure to learn the success and prosperity of each of you in your career; and that it will be with melancholy pleasure I shall revive the recollection of the many agreeable hours we have passed together in pursuit of science. Should you continue zealous in the prosecution of your studies, you will always find me as willing as I have hitherto been, to afford you information, and to promote your interest as far as it lies in my power."

16. *King's College.*—We perceive by the report of this Institution, that students are required to attend the College Chapel on Sundays. This piece of intolerance might be palatable three centuries ago, but we doubt much whether it is calculated to increase the number of medical students.

17. *Dr. Ramadge.*—In our last, we copied an article from one of our contemporaries, relative to Dr. Tweedie's refusal to meet Dr. Ramadge in consultation. We regret to learn that Dr. Ramadge feels aggrieved by this article. We inserted it as confirmatory of our opinion in a former Number, that he would be opposed by the regular members of the profession for his advocacy of Long the quack. He must be aware that after the proceedings of the Medical Society with regard to him, he can no longer expect that etiquette which is due from one physician to another, and which he forfeited by his most injudicious conduct, and this we have told him privately, as well as publicly, and yet he was determined to pursue his course. Every member of the profession must regret his departure from the established course, his descent from his place as a Fellow of the College, to that of advocate for a common empiric. His being sent "to Coventry" by the faculty, is in accordance with the usage of all learned professions, under similar circumstances; and if he feel aggrieved, on reflexion, he has only to thank himself. It is lamentable to think that one who has been indefatigably industrious in pursuit of the science of Morbid Anatomy, and in public and private practice, as Dr. Ramadge, should, by an incautious line of conduct, lose the good opinion of his profession, and for a cause so repugnant to the feelings of medical men, as the defence of quackery. Such a proceeding is almost unaccountable. As public journalists, and as the instructors of the rising members of the

profession, it is our duty to give a faithful chronicle of all passing events which are calculated to improve or injure the interests of medical science. Our readers will admit that we seldom obtrude personal quarrels upon their attention, but that before us was so unparalled, as to require notice. We hope this explanation will be satisfactory to all parties concerned.

18. *London University.*—All the cabals which lately distracted the management of this Institution are at an end—the new appointments in the medical department are highly creditable to the discernment and judgment of the Council, and the medical school is now filled by professors second to none in these kingdoms. There are only two things necessary to ensure the success of this Institution—a charter, and the establishment of an hospital. Without these, however eminent the medical professors may be, the school is a private one, and cannot compete with those of the large hospitals. Let the proprietors found an hospital, and they will not only be certain of public support for the undertaking, but ensure the superiority of the medical school to all others in this metropolis.

We stated in our last, that a meeting of proprietors was called to hear Mr. Pattison, which took place, and confirmed the decision of the Council as to his removal. Another meeting is called to consider the propriety of giving Mr. Pattison an annual grant in lieu of compensation. This is highly creditable to the Council, and will, we are sure, be approved by the proprietors at large.

19.—*Poisoning by Oxalic Acid.*—Autopsy. By Charles Mitchell, Esq.—Thomas Farley, August 22, about ten o'clock a. m. requested me to visit his wife, in consequence of her suffering great pain in having taken something she mistook for Epsom salts.

Upon enquiry, he informed me he had one half of the supposed salts left; I desired him to proceed as quickly as possible, and bring the remainder; he returned in the course of five minutes; the substance was oxalic acid, and detected it at first glance; but the evidence was rendered more conclusive, by tasting a few of the crystals. I proceeded as speedily as possible to the dwelling, where I suspended large quantities of magnesia in warm water, of a temperature which must have proved agreeable to the stomach; it was injected by means of the pump. I found her lying on a bed on the floor; she appeared to be about 70 years of age, with a countenance truly depicting agony, which was pale; the lips were blue, the pulse slow and very weak; she was moaning, and complained of burning in the throat (which commenced four or five minutes after swallowing the draught), and excessive pain in the bowels; although she had vomited severely, as I understood from the neighbours, she represented it as confined to the umbilical region, aggravated upon pressure. It was not found necessary to withdraw the fluid from the stomach, because she vomited freely (whenever the stomach became loaded) a brownish fluid, mixed with coagulated flakes of albumen; this saved considerable time, and allowed the stomach to be refilled with the water mixed with the magnesia as soon as the vomiting subsided; throughout the pulse remained pretty distinct, but ultimately began to fail, the extremities became cold and clammy, and the countenance continued to depict a wretched degree of anxiety. I pumped the fluid from the stomach, and injected a mixture of magnesia, and with-

drew the tube; this was left for the purpose of neutralizing any undecomposed acid remaining in the stomach, or had escaped into the intestinal canal, for she had taken about half an ounce of the oxalic acid upwards of an hour, and, whenever she was asked where she had pain, she pointed to the centre of the abdomen, where the pain appeared to be *exquisite*. Independent of that pain, however, I *should* have conceived myself justified in introducing large quantities, of a substance so harmless, merely to neutralize any suspicion of undecomposed acid, shortly after withdrawing the tube from the gullet, but had not sufficient power to expel from the mouth what had been evacuated by the stomach; the consequence was, the woman drew a deep inspiration, and with that part of the contents in the mouth escaped into the trachea; a gurgling noise was instantly heard in the throat; she struggled; the eyes became fixed and deadly; convulsions of the muscles of the face ensued, constituting a peculiar and dismal state of the countenance, which has been termed risus sardonicus.

Subsultus tendium of the superior extremities followed, the pulse became imperceptible, and the breathing was performed at extended intervals. I bent her forwards, when a large quantity of fluid rushed out of her mouth. I raised her and laid her quietly back, then attempted resuscitation, which brought more frequent but laborious inspirations, while the expirations were imperfectly or not at all observed. Perceiving the approaching catastrophe, as a dernier resourse, I performed the operation of laryngotomy, and by means of a pair of bellows, re-attempted the inflation of the lungs, but failed in sustaining either the circulation or respiration, and death closed the miserable and appalling scene about half past eleven.

I felt convinced at first sight the woman was beyond the reach of art, but I conceived it my duty to give all the assistance that could be afforded, however gloomy the chance, and I am satisfied she must inevitably have soon sunk, independent of that incident which more immediately hastened her end.

Autopsic post mort. Examination.—Forty-six hours after death. Upon laying open the cavity of the abdomen, the stomach presented a reddish appearance, white patches were likewise seen in different parts of the organ. The sternum and ribs, at their cartilages being removed, and a perpendicular incision carried over the anterior part of the throat to the symphisis menti, through the skin and cellular substance, which being reflected laterally, a semi-circular incision through the muscles of the neck brought the pharynx into view, the greater portion of which, with the trachea and œsophagus, were removed in connexion. The delicate lining of the larynx and trachea was unusually vascular, the air cells were enlarged, the partitions ruptured, and the cells united. The lungs crepitated upon pressure, a state which has been by some very appropriatly termed emphysema of the lungs. The papillæ majores of the tongue were more prominent than usual, particularly the most posterior congregated series placed at the isthmus facum, the covering of three or four of these papillæ, at the centre of the eminence, was denuded and encircled by a black margin.

The fandular, or what has more commonly been called the mucous folicules, throughout the œsophagus, were considerably more conspicuous than in ordinary states of health; and the mucous tunic more vascular. Peices of that covering lay detached about the cardiac orifice of the stomach. several parts were of a blackish colour interspersed with a reddish blush, at

these parts the villous tunic could with facility be rubbed off. The internal coat of the stomach was red, grey, and pink, without disorganization; duodenum slightly inflamed, jejunum healthy, ileum very vascular; I regard this vascularity, however, as the effects of pre-existing disease, for the woman had been suffering from pain and diarrhœa. The contents of the stomach had a dark brown appearance, and yielded a very minute portion of oxalic acid upon analyzation, and contained numerous small concrete globules of a dark brown colour.

20. *Nitric Acid in Toothache.*—By Dr. Ryan. Since my former note upon the extraordinary success of this acid, in giving immediate relief when properly and cautiously applied to caries of the teeth, I have used it in many cases with invariable success. It should be applied with a gold or glass probe covered with lint, as a silver probe decomposes the acid, and renders it ineffectual. It is therefore necessary to cover the ordinary probes with lint very lightly, and to apply the acid quickly to every part of the carious surface. If the disease ascends high into the fang by a fine opening, complete relief cannot be obtained, unless the extremity of the nerve is touched, and this is a difficulty which is often met with, when the upper teeth are affected. In general the application affords immediate relief without the slightest pain.

LITERARY INTELLIGENCE.

Preparing for publication, Remarks on Lactation; containing Observations on the healthy and diseased Conditions of the Breast-milk, the Disorders produced in Mothers by suckling, and numerous Cases proving that when protracted it is a common Cause in Children of Water in the Brain and other serious Diseases. By E. Morton, M.D. Cantab. &c. &c.

Practical Examinations on the immediate Treatment of all the principal Emergencies that may occur to the external Parts, Head, Neck, and Trunk of the Body. By W. S. Oke, M.D. and Extra Licentiate of the Royal College of Physicians in London.

LIST OF BOOKS RECEIVED DURING THE MONTH.

1. A Conspectus of Prescriptions in Medicine, Surgery, and Midwifery; containing upwards of a Thousand Modern Formulæ, including the new French Medicines, and arranged Table of Doses. Selected from the highest Professional Authorities, intended as a Remembrancer for General Practitioners. The Third Edition, enlarged and improved. London, Simpkin and Marshall, Stationers' Hall Court; Renshaw and Rush, Strand. 18mo. 1830.

2. Familiar Observations on the Formation and Diseases of the Teeth, with Maxims in Dental Surgery. By W. Hunt, Surgeon-Dentist. 8vo. 1831. W. Maist, Oxford-street, and David's, South Audley-street.

3. Lectures on Anatomy, interspersed with Practical Remarks. Vol. I. By B. B. Cooper, F.R.S. Surgeon of Guy's Hospital, Lecturer on Anatomy, &c. &c. &c. 8vo. 1829. London, Longman and Co. The third volume of this admirable work will be published in a few days.

ERRATA.—In Mr. Jones's communication of last month, for "I profess *an* intimacy" read "I profess *no* intimacy."

All Communications and Works for Review, are to be addressed to the care of Messrs RENSHAW and RUSH, (near Exeter Hall) 356, Strand; or to the EDITOR, at his Residence 61, Hatton Garden.

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CRITICAL REVIEW.

I.—*Elements of Surgery.* By Robert Liston, Fellow of the Royal Colleges of Surgeons in London and Edinburgh, Surgeon to the Royal Infirmary, Senior Surgeon to the Royal Dispensary for the City, and County of Edinburgh, Lecturer on Surgery, &c. Part II. 1831. 8vo. pp. 334. London, Longman and Co.: Edinburgh, Adam Black.

In a former Number we stated that Mr. Liston's object in publishing his "Elements of Surgery," was to offer a text book to the students who attend his lectures. We expressed the most favourable opinion of the first volume, and are equally pleased with that before us, The author gives a concise and accurate description of surgical diseases, and places the best mode of operating in the plainest manner before his readers. This volume contains an account of "Injuries of the Head, Diseases of the Eye, Nose, Lips, Palate, Fauces, Tongue, Gums, Jaws, Face, Neck, Windpipe, Pharynx, Ear, Throat, including Opening of the Jugular Vein, tying the Carotid Artery, Wounds of the Palmar Arches, Paronychia, Necrosis of the Fingers and Toes, Venesection, Affections of the Breasts, Ganglia, &c. In order to prove the value of this as an elementary work, we shall make an extract, and leave the reader to form his own conclusion. The production is ably executed, and must have extensive circulation among all scientific surgeons, more especially in North Britain. It adds much to the literary and scientific reputation, as well as to the acknowledged practical abilities of the author.

"*Wounds of the Scalp* are attended and followed by more dangerous symptoms than wounds of the integuments on any other part of the body. This is in a great measure attributable to the nature and connexions of the parts. The subcutaneous fatty matter is condensed, and closely attached to a firm and unyielding tendinous expansion; and betwixt these tissues and the pericranium, a loose cellular tissue is interposed, so as to allow of free motion of the parts. They are highly vascular, with the exception of the occipito-frontalis fascia, and between them and the internal parts a free communication exists. Injuries of these coverings, though at first apparently trifling, and consequently looked upon as of no importance, and unattended with danger, often assume a very alarming character. No injury of

the head is too slight to be despised, or too severe to be despaired of. Punctured and lacerated wounds, more especially those penetrating all the layers of covering, are frequently followed by violent and extensive inflammation of all the tissues, with severe constitutional disturbance, and with delirium and other symptoms denoting functional derangement of the brain. The swelling is often extensive, involving the whole scalp, and the integuments of the face, and completely shutting the eyelids. In some cases resolution may be accomplished, but the most frequent termination is extensive infiltration of purulent matter into the cellular, or even into the more deep structures, with sloughing of the tendinous expansion. Collections of matter frequently form in the loose cellular tissue of the eyelids, whether the surrounding parts are affected with superficial or deeply-seated inflammation.

" As to treatment, after the infliction of an injury, the scalp ought to be shaved, and the wound cleansed of coagula and foreign substances. If a large flap of integument is detached, it should be replaced, and retained as nearly as possible in its natural situation; and if, for this latter purpose, slips of adhesive plaster and methodical compression prove insufficient, it will be necessary to employ a very few points of interrupted suture: these, however, must be removed at an early period, that is when either adhesion or suppuration has commenced, and ought, if possible, to be altogether dispensed with, being apt in this situation to produce injurious effects by their irritation. Light dressing is afterwards applied. On the accession of swelling, heat, and pain, the parts are to be well fomented with a hot decoction of chamomile flowers, and afterwards covered with a warm and soft poultice; and should these symptoms continue, the fomentation ought to be frequently repeated. Fomentation and poultice are also the best applications when a day or two has elapsed between the receipt of the injury, and the patient's application for cure. The constitutional symptoms are to be moderated, and may in many instances be averted, by the exhibition of antimonials and purgatives; and by general bloodletting, when demanded and authorized by the symptoms and the state of the constitution. Punctures or incisions are to be employed according to circumstances, in order to lessen the vascular congestion of the part, and prevent the formation of matter, or evacuate it if already secreted. In many unpromising cases of lacerated scalp, when a great part of the cranium has been exposed, and partially deprived of its periosteum, a rapid cure has taken place without the formation of much matter. The detached scalp, though much torn and bruised, ought not at first to be removed, it being more prudent to leave nature to determine how much must be destroyed. After the sloughs, if any, have separated, and granulation has commenced, the loss of substance is rapidly repaired in this region, more especially when the patient is young and healthy. General or partial support, by bandaging, is required in many cases, as by a handkerchief, split cloths, or a roller applied in various forms."—p. 4.

Another slender volume will complete the work, and this is ready for publication. The whole offer a concise view of the principles and practice of surgery, and cannot fail to be duly estimated by the profession. The three volumes might be bound together, and form a work of reference and authority. It affords us much gratification to observe Mr. Liston in the ranks of surgical writers, and we sincerely wish that surgeons of all hospitals in these countries would imitate his example.

II.—*Cases of Insunity, with medical, moral, and philosophical Observations, and Essays upon them.*—By M. Allen, M.D. &c. &c. Part I.—vol. I. 8vo. pp. 212. London, 1831. Geo. Swire.

The author commences his work with a detail of cases of insanity, on which he makes reflexions, and from these he endeavours to draw inferences favourable to phrenology. The cases can of course contain no novelty, and are similar to those published by other authors on this class of diseases. He next favours us with an interesting essay on atmospheric influence on health and disease. This is a curious and instructive chapter, replete with valuable information. He duly estimates the great value of Dr. James Johnson's opinions upon this subject, and adduces them in corroboration of his own. As a part of his inquiry, he adverts to lunar influence upon the human body. He attempts to elucidate the influence of seasons and atmospheric vicissitudes upon man and the inferior animals, and clearly proves that the ordinary feelings of persons in health, and more especially those afflicted with disease, are modified by them. He argues that the insane are particularly affected by the changes of the weather. The following observations will be perused with interest:—

"That there is some common cause, or causes, assigned either to atmospherical changes, or co-ordinate with these changes, affecting the animal spirits of the sane and the insane—of the healthy and diseased, (in all, the manifestation is according to individual state), is generally, and indeed, I might perhaps say, universally admitted, that the fact will require no farther proof, either to introduce or confirm its truth. These effects are said, by some medical authors, to be periodical, more so than can be explained on the principle of accidental or apparent coincidence, by which credulous and superstitious minds are sometimes deceived.

"It is generally admitted, in medical authors, that there is a certain periodicity in the excitement and depression of our spirits, in the irritability and activity of some organs, and functions, as well as in all diseases, whether they are mental or corporeal; often the effects are simultaneous, decidedly so in the animal creation; seldom, however, do we find in man, the effects display the same character, even when they are coincident in time; for in almost all cases, the effects must be modified by the state of health, the particular habits, and the peculiar mind of the individual, subject to its influence, though still partaking of the prevailing influence; and hence every disease will be tinged, as it were, with the character of the prevailing epidemic; what, then, can be more evident, than that the habits, and the peculiar state of mind, must with the insane, still more strikingly modify the effects of this influence? so strikingly, that I have no doubt, from these causes, may be explained the very singular exhibitions in this last-mentioned case. Where the particular state of mind, and the peculiar circumstances connected with his confinement, have superinduced in the system the irregular accumulation and expenditure of the nervous energy, so that, though the increase of the animal spirits was, in the first instance, the common effect of a cause operating in and through all, every where,—yet operating through, and modified by, the peculiarities connected with his case, has in time produced in him, as well as in a

less striking degree in others, and in fact, in all cases of insanity, effects so very singular and striking. Yet before I proceed to prove all this, especially in the instance before us, it appears proper, and a most interesting object of inquiry, to ascertain the nature of this common cause, and what are its general effects; and then we shall be better prepared to understand these singular modifications.

" The atmosphere, through the recipiency of organization, is the principal medium of constantly communicating life to man. It will then be most evident, that all changes in the states of the medium, or in the recipient of that medium, will modify the results of this operation.

" It is, however, sufficient for my present purpose, to observe, that we are all, more or less, sensible to atmospheric changes; and hence, in our common salutations, we talk of our spirits being excited or depressed, just as we do of the barometer, and its corresponding indications. And I am quite certain, that an excited and unsettled state of insane patients, is prior to, and co-ordinate with, sudden and great alterations in the atmosphere, and altogether co-ordinate with sudden and great alterations in its electrical state; though this fact is ascertained by the electroscopes of meteorologists, yet it is sufficiently obvious, if we pay attention to the operations in nature, for to this cause it is, that at these periods we find an increase in the effluvia of filthy ditches, common sewers, sinks, and putrid animal remains, and thus every natural and artificial process of decomposition and fermentation, afford us ample tests of the electrical state of the atmosphere, and are, in fact, the best electroscopes; such effluvia, and an unsettled state among the patients, have often enabled me to predict the approaching transitions from one extreme of weather to another.

" During these transitions, the fermentation of bread-making, brewing, and malting, is more active. Vegetation makes greater progress. These changes are also indicated by the painful sensation in wounds, old sores, parts formerly wounded and broken, corns, and chronic affections. All animals, especially birds, whose element is the atmosphere, clearly indicate its influence on them, and by their actions, faithfully foretell the kind of weather which is approaching; and as these things are more sensibly felt and more noticed, so they have with old people, especially in the country, proverbially become the barometers of common life.

" The fits of the epileptic occur more frequently, the passions are more easily excited, quarrels more common, and among the insane, those who are already excited become more so, and the melancholy, by the excitement of the depressing passions, are more liable to commit suicide.

" I have observed with some, that during the violence of their paroxyms, the hair was brushy and bristling, like one electrified. One female fancied she was bewitched, because she perceived a crackling and slight flashes of fire, when the conducting and non-conducting parts of her dress were separated from each other. These indications are more observable in those whose natural disposition is fiery and impetuous, and especially among females.

" I have noticed a more unsettled state of the patients, attended with some of the above indications or symptoms, during the appearance of northern lights, meteors, and all unusual celestial appearances, than at other times.

" During unsettled weather, thunder storms, high winds, equinoctial gales, especially when attended with the sudden accession of warm dry spring weather, or when a hot dry summer is succeeded by a cold and wet autumn, an awakened and unsettled stir of the spirits of the insane, is most marked and decided, and appear very like a new accession or exacerbation of their disease.

" Now, if according to my opinion, every thing depends on one power, operating through all things, and that the diversity of the operations and phenomena is caused by the different media through which it operates; and if the atmosphere is the principal medium of constantly communicating life to man, through the recipiency of organization, it is most evident, that all changes in the states of these media, must modify the results in our vital functions; and if, then, it is a fact, that changes in the state of the atmosphere produce alterations in our animal spirits, it is certain that, among the old insane, whose organization, in every case, I believe, has undergone some change, especially in the principal media through which this power operates, and where it is prepared and fitted for its specific operations, through every single and collective function of the system, it is most certain, I repeat, that the physical as well as moral effects of these changes, must exert a very different influence, and exhibit this both as to their mind and their manner in forms very unlike those who are sane. They are defective in reason and the power of self-controul, to restrain or manage its proper exhibition, while we not only possess reason and the power to regulate the display of our spirits, according to the dictates of prudence and propriety, but we are exposed, in civilized society, to many occurrences, independent of wind and weather, which either excite or depress us, and, of course, counteract or co-operate with atmospheric influence.

Thus we perceive, that the state and circumstances being altogether different, we must look for different results. Every thing, I repeat, depends on the media through which, and the circumstances under which, one power operates. In further proof of the modification which circumstances produce, I may mention, that a person's being more or less exposed to the weather, will make the greatest difference. Storms and high winds will exhilarate or depress us, just in proportion as we expose or shut ourselves out from their influence."—p. 22.

Dr. Allen continues his illustration of the subject, and gives a lucid account of atmospheric changes on organic beings. We must make another extract.

" It is said, that summer is the season of greatest excitement. Compared with the average of the whole year, it is so; but this summer excitement, I believe, is more striking on most continents than in islands; not only is there on most continents the greater warmth of a more southerly climate, but the air of continents generally is drier, and of consequence more charged with electricity, than in our insular atmosphere, and hence it appears to me, that during our summer months, the excitement of greater warmth, is very much counterbalanced by the greater presence of moisture, especially if the patients are not exposed to the sun's rays, and the weather, though sultry, is settled; but it must be

observed, that as the more settled state of our atmosphere lasts, on an average, longer during our summer months, than at any other part of the year, so, according to my observations, is the effect of heat so much counteracted by the presence of moisture, and its more settled state then prevailing, that the excitement of our summer months depends less on a continued and regular heat, however intense, than on those atmospherical changes to which we, in this island, are, even to a proverb, the victims.

" On this principle, we can perceive why, in this country, the excitement, according to my experience, is most obvious during the violent transitions and agitations of the ærial fluid, about the vernal and autumnal equinox, for then, in spite of our moist climate, the electrical state suffers on the whole the greatest disturbance. It is true, there are occasionally greater disturbances during the thunder storms of a hot and unsettled summer, both in the electricity of the atmosphere and the displays of irritability among the insane, but still the average of greatest influence is in favour of the equinoctial periods. In ascribing these effects to electricity, I am so far from excluding the excitement of heat, that I wish it to be understood, that I call heat and electricity different forms or states of the same power; so that I still agree with those who say, that there are other states of the atmosphere, besides what we call warmth and cold, damp and dry, which affects the spirits and functions of organized beings.

" It is from the state of the atmosphere, its relative degrees of heat and humidity, and the local or general nature of the effluvia, and of course, of the nature of the soil, connected with that humidity, that we have diseases peculiar to the weather, season, and climate; generally, the first effect is, that only one function is checked and deranged, say that of the surface, another function has, in consequence, to undertake the office of guardianship to the rest of the system; and if the increased operations are not too long protracted, the equilibrium is soon restored, and no harm ensues: but, if the cause be too powerful, or the system too weak, or the excitement and re-action too great, this primary derangement of some particular function, becomes the cause of local or general derangement, according to circumstances, and the state of the constitution. Now I mention all this for the purpose of making the following remark, that all these primary affections are often, in the first instance, so slight, that we do not prognosticate what the coming disease will be, although, I believe, that it is decidedly indicated by the peculiar state of the nervous energy, which displays itself in some alteration of the spirits, and expression of the countenance."—p. 24.

Our author further observes, that in autumn vegetation, instead of receiving, as in spring, imparts electricity to the atmosphere; and hence the difference between the spring and autumnal shower.

" It is known, that slight wounds that have healed " by the first intention," in spring, or in elevated situations, become putrid and gangrenous sores in autumn, or in marshy places: treatment that will answer in spring, and in one place, will be fatal in autumn, and in a different situation. In spring, patients bear larger bleedings, as well as in mountainous regions, than at times, and in places the reverse of these. Many asth-

matics, who suffer severely in valleys, are instantly cured on removing to an adjoining hill.

" These observations, though true in principle, yet are subject to still further modifications; for both different times and places, as well as climates, are not always according to the latitude of a region, nor doth the seasons always occur according to the dates of the almanack; but still the difference in the seasons are more or less obvious in their effects on men, as well as brute animals; horses are not merely more sprightly, but capable of greater exertion in spring, than in autumn: the energies of nature then superabound. Thus the seasons are types of man's youth, manhood, declining years, and old age.

" There is the same analogy in the characteristic differences of climate, as well as in the different periods of the day, and they all have their corresponding influence on the animal economy, and should be well known and attended to by the medical man. All diseases, according to their nature, have their periods of exacerbation and intermission, in accordance with the diurnal and nocturnal states of the atmosphere, and it would seem, from the differences of effect in the tonic and atonic diseases, that there is some ebbing and flowing of vitality, or some periodical alteration in the media through which it operates.

" It is well known that most diseases remit in their violence in the morning, " Levato solo, Levatur morbus;" this remission, in many diseases, is so marked, that patients suffering agony during the night, at sunrise feel well and strong enough to pursue their usual avocations.

" In fine, there is scarcely a malady that has an exacerbation in the evening, that has not a remission in the morning; asthenic diseases are milder from the increased energy derived from nocturnal repose, while sthenic affections exacerbating during the day, have a remission in the cold humidity and obscurity of the evening; and on the other hand, diseases which are milder during the day, such as fevers, mucous phlegmasia, catarrhs, croup, affections of the lymphatic system, dropsy, cachexia, asthenic complaints, and paralysis in general, are aggravated during the night; but it is not my object to go through the different seasons of the year, or constitutions of different years, or the hours of the night and day, and point out when different diseases are most liable to come on, increase, and have their remissions, still less the critical days of the ancients, all which were founded in fact, though now, these days are counteracted or modified by our improved method of treatment; yet I advert to them to shew there exists some order of operation in the animal economy, which helps to produce this periodicity in its movements; that there are certain states of our organs and our system, at particular hours and seasons, in some measure independent of light and darkness, cold, heat, and humidity of our atmosphere, yet this periodicity of the system varies with the state of the weather, our mode of living, and circumstances in life.

" Humboldt tells us of a certain countess at Madrid, who lost her voice at sun-set, and only recovered it at dawn; this defect disappeared altogether when in Naples, but re-appeared in Rome.

" Aristotle mentions a tavern keeper, who was rational during the day, but became insane as evening approached; indeed this is no uncommon case. A woman, says Baillou, fell into a state of insensibility at sunset, and recovered her vigour in the morning.

" Ramassini writes the history of an epidemic of 1691, the symptoms of which became so alarming after sunset, that the extreme depression threatened death during the night.

" Home and Pringle mention a fever which prevailed among the English troops in Flanders, 1743, of a similar description; during the day, scarcely a complaint was made, the pulse scarcely rising above the usual standard; but on the approach of eventide, the fever, without any precursory cold stage, became so intense, that they were often delirious through the night; and again in the morning, neither the pulse nor heat of the system gave any indication of the danger through which they had passed. There are diurnal as well as annual and periodical returns of disease, depending partly on the air and partly on the patient's constitution.

" It is also well known, that mortality is greater at some hours than others: more in the day than in the night; the greatest number are from two until three o'clock, p. m.; less from three until eight o'clock, p. m.; fewer from twelve till one, p. m.; fewer still from eight until ten o'clock, a. m.; and fewest from ten o'clock, p. m. until three o'clock, a. m. But it must be remarked, these proportions vary with season and climate; most correct during the summer months and warm climates, and almost reversed in winter and colder regions; but every where persons are most liable to die at the period when their disease has either had some periodical recurrence, or has been accustomed to exacerbate.

" There is no doubt but diseases, according to their return and the constitution they invade, have their stated periods of invasions, exacerbation, and remission, and this from some correspondence and co-operation of the different degrees of influence which different periods of the day, as well as seasons of the year, have on different persons, according to their habits and constitution. How different the influence of mid-day and mid-night, of morning, noon, and evening; and no wonder, for body and mind are influenced by the appearances as well as the reality of things; and during the day, how the aspect of things varies, and the reality still more so; they are not only various shades of light and darkness, but the relative degrees of heat and humidity observe the same regular variations in the course of one day, as they do through the four quarters of an annual revolution.

" But we have not only the influence of different periods of the day, seasons, and climate, but we have also corresponding difference between large continents, and the internal parts of them; islands and coasts; mountains and vallies; and the character of the inhabitants, their state of health, and their diseases. The very terms applied to geographical appearances are also applied to the people; namely, dull and flat; bold and lofty; cold and heavy; light and barren; rich and productive; wild and romantic; dark and gloomy. Even cattle, fed on high and dry lands, although much smaller, are more lively and vigorous, than those of humid, low situations. In some places, the stature and stamina increase, in others they diminish, producing changes so great, that their original type, in time, is scarcely perceivable; at the same time, it must not be forgotten, that the present differences, whether natural or acquired, in the character or breeds of men and animals, for the most part, so wonderfully resist these influences, that some argue, these distinctions remain for ever; others, on the contrary, say, that in the course of ages, climate produces

modifications so great, that the character of distinct breeds becomes almost, if not altogether, obliterated; so the truth, to be stated for our present purpose is, whether distinct races be natural or superinduced, or partly both, all constitutions feel the changes of climate, and feel them before custom has wrought the accommodating state, which best fits us for the difference, if indeed death is not the consequence, which is often the case; and hence new settlers always talk of the effects of these changes of residence, especially from hot to cold—dry to moist—from high to low situations—from town to country, just as I have already said, that our complaints and praises of the weather are always accompanied with a description of the state of our feelings and spirits, and this description of the effect on our feelings varies as our states of constitution, habits, and disease vary from each other, and hence different people, being differently affected, give opinions at variance with one another, and this is more especially the case with the valetudinarian, and persons of delicate habits or extreme sensibility. In fact, whatever alters the state of our bodies, as well as the air, alters the relative power of receiving or imparting electricity and caloric, and of course, should be considered, in making out our estimate of those various co-operating causes, which produce, on different persons such sensations, and which are, besides, so modified by an endless variety of circumstances."—p. 33.

The remainder of our author's remarks are deeply interesting, but so numerous that we cannot find space for them. He describes the best modes of treating the insane, and condemns, with great warmth, all harshness and neglect. He points out lunar and planetary influence, as well as that of season, on health and disease, and satisfactorily shews that the periodicity of diseases depends in a great measure upon the revolutions of the heavenly bodies. He gives tables of seasons, which also exhibit the states of excitement and collapse of thirty insane persons; but the inferences deduced do not lead to any practical conclusion. Lastly, our author cites the writings of Dr. Johnson and Dr. Kenedy on the cause of epidemics, and agrees with them in assigning it to some unknown state of atmospheric influence. Dr. Johnson's excellent and able letter is copied from the *Times*, and was well calculated to dissipate the silly fears which were so indefatigably propagated by the press, with respect to the importation of cholera into this country. Upon the whole, we consider Dr. Allen's work one of great interest, both from its originality and instructive contents. He has revived the consideration of sol-lunar and planetary influence upon the human family, and thus followed the footsteps of Hippocrates, Sydenham, Huxham, Rutty, and many other distinguished physicians. The reader may be surprised that he should introduce so much on this subject in a work on insanity, but he is to recollect that the production before us is only a part of the first volume. It is manifest that Dr. Allen has devoted great attention to the study of the influence of season on the periodicity of diseases, and revives a department of science highly interesting, though nearly forgotten. We trust that he will continue his observations, and complete the very interesting and instructive work which he has begun.

III.—*A Conspectus of Prescriptions in Medicine, Surgery, and Midwifery; containing upwards of a Thousand Modern Formulæ, including the new French Medicines, and an arranged Table of Doses. Selected from the highest Professional Authorities, intended as a Remembrancer for General Practitioners. The Third Edition, enlarged and improved.* London, Simpkin and Marshall, and Renshaw and Rush, 356, Strand. pp. 216. 12mo. 1831.

This is an exceedingly useful work, to all who wish to employ the prescriptions of the most eminent physicians and surgeons of these countries. The work contains a complete account of the "New French Medicines," of the effects of poisons, and the best mode of treating them; next of the various accidents which fall under the care of the young surgeon; and lastly, we have a concise and graphic detail of the various classes of the materia medica, with the enumeration of the medicines in each. The work is an excellent companion for Dr. Thomson's justly popular Conspectus, and is a valuable compendium of therapeutics. It has a large sale, and it well deserves it. Those who are desirous to employ the select formulæ, by the most celebrated of the faculty, will find them in this cheap and valuable publication.

IV.—Dr. Ryan *on Morbid Parturition.* (*From Dr. Ryan's Manual of Midwifery.* With Plates: pp. 750. 1831.)

Article XV.—Dystocia, Difficult, Preternatural Labours, Mechanical, Manual, Artificial, &c.

These terms, with the exception of the first, are too arbitrary, and have led to a great confusion among authors. The designation of dystocia employed by Hippocrates, Sauvages, Merriman, Blake, Desormeaux, and others, expresses the whole of the cases of labour which require the aid of art, and is decidedly preferable as a generic term.

The subdivisions of this class proposed in this work are more explicit and exact than those at the head of these remarks; for example, dystocia hæmorrhagica has been placed in the classes of difficult, preternatural, laborious, mechanical, manual, and instrumental labours, according to the pleasure of the different writers. It is evidently better to base upon nature the causes of difficult labours. This plan offers real and incontestable advantages; it allows us to reduce or multiply the genera or species, without injuring in any way the general classification; and it combines all the methods proposed by authors. After all, difficult labours are characterized by the accident that complicates them, and not by the kind of succour which they require.

The causes which render labour difficult depend on the mother and the infant. Those of the mother are the acute diseases, as inflammations of the brain or its membranes, of the lungs or pleura, of the peritoneum, or of the uterus, &c. which occur during labour; a hæmorrhage which en-

dangers the life of the mother and of the infant; convulsions, syncope, prolapsus of the uterus, premature expulsion of the placenta or of the umbilical cord, hernia, aneurism, asthma, deformities of the pelvis, and the various diseases of the generative organs, which narrow the vagina, as fibrous and other tumours; transverse presentations of the fœtus, its deformities and diseases.

Section I.—*Obstacles dependent on the Mother.—Dystocia anenergica.*

1. *Inertia of the Uterus.*—Inertia of the uterus depends on two causes; 1, torpor, or primitive feebleness; 2, exhaustion. In the first, there is want of power and flaccidity; in the second, fatigue and rigidity, or permanent contraction without expulsive efforts.

Causes.—Organic lesions, lacerations, over distention of the uterus by an excessive quantity of water (hydramnios), or by twins, fever, abuse of alcoholic liquors, sometimes fright, shame, drowsiness, distention of the bladder, and sudden discharge of the amniotic fluid, produce the first species of inertia; all the mechanical obstacles dependent on the mother or fœtus produce the second, which is most common with the primaparous or in first labours. The premature rupture of the membranes allows the escape of a small quantity of water during each pain, and prevents the uterine contraction from dilating the orifice. Labour is then prolonged, and the multiplied contractions it requires, cause exhaustion. In all cases of protracted labour, this exhaustion may occur, and expose the woman and fœtus to great danger. This fact must never be forgotten by the obstetrician.

Treatment.—Our first indication is to dissipate the inertia, when this is possible, which may be effected by frictions on the abdomen. A moderate use of cordial and stimulant drinks, of clysters and catheterism, may be highly efficacious. In cases of distended bladder during labour, we must sometimes use a gum elastic male catheter straightened, as the female instrument may be found too short. Rupture of the membranes is to be effected when there is over-distention of the uterus. The ergot of rye is invaluable in these cases, in the doses already described, p. 201.

Exhaustion will be removed by repose, which is to be induced by some of the sedative preparations of opium, as the acetous solution of the Dublin Pharmacopœia, Battley's sedative liquor, morphine, &c. and these are always to be preferred to common laudanum, when our object is to allay pain, and produce sleep. The French writers recommend warm baths or fomentations, fumigations, and blood-letting. With respect to venæsection, it has been strongly recommended in cases of rigidity of the soft parts of the generative organs, by my justly celebrated preceptor, Dr. Hamilton, of Edinburgh. This was his practice when the patient was robust; and the starch and opiate clyster when she was delicate. I can add my testimony in favour of the great value of these remedies. When the membranes are very strong, they ought to be ruptured, either with the finger, or a female sound sharpened. When these means fail, Duges advises us to terminate labour, by version, or turning, the forceps, &c. I do not think it possible that the ergot of rye, when properly preserved, can fail to excite uterine action; and if the delivery be accomplished without the contraction of the uterus, there would be danger of hour-glass

contraction and hæmorrhage; and if the organ was not excited on the extraction of the placenta by the obstetrician, which might fairly be expected in a case of great prostration of the vital powers in consequence of exhaustion, death must be the inevitable consequence. But I am very confident that few cases can occur, in which uterine action cannot be induced by the remedies already mentioned.

Mechanical Obstacles offered by the soft Parts.

Dystocia ectopia; Obliquities of the Uterus.—These have been already described, p. 450; but I may observe, that right lateral obliquity is most frequent, in the proportion of 100 to 1 of the left. The effects of obliquity are displacement of the os uteri, so that the expulsive efforts cannot dilate this opening, it being carried to one side, or pushed backwards, so that one of the parietes of the neck presents in the centre of the pelvis, pressed by the fœtus, it is expanded and thinned, and descends into the vagina, or appears at the vulva (Morgagni, Slevogt, Baudelocque), where it is lacerated, or becomes gangrenous, and gives a passage to the infant, or it is incised for this object (Cathral). More frequently nature reduces the orifice to the centre, and dilates it (Boër); above all, it is reduced by placing the woman on the opposite side, and by bringing the orifice to its proper place with the finger (Baudelocque, Dewees, see p. 451).—The internal orifice is sometimes rigid, tense, without our being able to determine whether it be the result of organic arrangement, or a state of spasm or cramp; its sides are thickened, hard, rounded; it has even, in some instances, been thought advisable to make incisions into them: an uncertain method, and which may cause lacerations extending as far as the body of the uterus. More frequently, after a considerable lapse of time, which weakens the womb, and invariably produces pains in the kidneys, the orifice becomes softened, thinned, and dilated. Warm baths, fumigations, blood-letting, hasten this happy termination, which often requires much time and patience. In order to hasten it more, opium in clysters has been recommended (Asdrubali); the application of an ointment made of the extract of belladonna has proved successful, (see p. 192.)

It is not unfrequent to find this orifice surrounded with scirrhus, thick, hardened, rounded, with uneven edges. The orifice resists for several days all efforts at expulsion, at last it becomes lacerated in several parts, the scirrhus lobes separate, and allow the child to pass; but the uterus, by being fatigued, requires frequently to be aided by making use of the hand or the forceps. It is not impossible but that an extensive scirrhus may destroy the life of the woman, instead of yielding to the usual remedies. In similar cases the neck of the uterus has been seen to break off above the scirrhus, the child tear the rectum, and pass out by lacerating the anus (Archives de Medecine). This would probably be a case for making several slight incisions around the uterine orifice by means of a bistoury, covered with linen nearly to the point (Baudelocque). This method has been used with success. Probably the scirrhus may be easily removed, and this cancerous degeneration, which brings on death in a few months, a year, two years, or even more, prevented.

Finally, the neck of the uterus being thinned as much as possible without rigidity or scirrhosity, it may happen that its external orifice will

remain closed, and almost obliterated. It has sometimes been thought that there was complete adhesion of its edges, and that laceration was necessary for the passage of the child. The orifice may possibly be deformed by cicatrices, rendered less distensible, and may even require incisions; it may be conceived, that although the examples are doubtful and of rare occurrence, that the adhesion of the lips of this orifice has been complete (Portal, Martin, Amand, Sanson, Weis); but in many cases it is only apparent; an inequality, somewhat deep, is felt at first near the centre of the hemispherical projections, formed by the thinned neck of the os uteri, distended, and forced out by the waters or the head of the fœtus; this point yields to the pressure of the end of the finger, by which the lips of this orifice are separated, and which, if we may be allowed the expression, are *hidden*, obstructed, and agglutinated by those thick mucosities which are found usually at the neck of the uterus. When once the separation has been effected, dilatation follows spontaneously and without difficulty, and this obstacle, which had for a long time resisted the uterine efforts, gives no more obstruction to the progress of labour. If art does not aid nature, the latter will at last effect the separation and dilatation of the opening.

Tumours of a fibrous, hydatic, sarcomatous, osseous, and syphilitic character, may offer an obstacle to the passage of the child (Viardel, Mauriceau, Voigtel, Beclard, Moreau, Jackson. Med. Repos. 1826, Peleten. Clin. Chir. tom. i. Park. Med. Chir. Trans. vol. ii. Davis, &c.) either having taken root in the uterus itself, in the ovary, or in the vagina (Merriman, Lachapelle, and others), or they may be produced by the walls of the pelvis itself, (see p. 388, et seq. Thiery, Drew, Stark, and Ramsbotham). A calculus in the bladder, a considerable thrombus of the sides of the vagina, may cause the same effect (Voigtel). Sometimes, these tumours will allow of sufficient compression, so as to permit the spontaneous passage of the infant, or by the aid of the forceps, or by version if it be alive, or craniotomy if dead. At other times we should try to remove those tumours (*polypi, calculi*), to push them above the superior strait (Beclard); tumours filled with matter may be opened; and finally, if those tumours should be so numerous as to obstruct altogether the passages, and cannot be displaced by art, extracted, or destroyed, no other recourse will remain, but the Cæsarian operation. In a case of this kind, nature may effect delivery (Beatty and Crampton, Dublin Med. Trans. 1824, vol. iv. see p. 258).

Imperforation of the vagina by bands, membranes either congenital or accidental, the hymen being rigid (Boehmer, Baudelocque, Smellie, &c.), may offer so much resistance to the passage of the infant, as to render labour difficult (see article on Impotence, p. 364); but it rarely happens that nature alone cannot overcome such difficulties, either by dilatation or laceration, and may be assisted by incisions. The same thing is observed in cohesion or cicatrices of the genital fissure. But as the vulva and perinæum are gradually dilated, by the repeated pressure of the infantine head during labour, we should allow sufficient time, and have sufficient patience before we resort to incisions; and it is only when the rigidity is such as to offer an invincible obstacle, that an incision becomes necessary to prevent laceration, which may extend even to the anus. The necessity for such operation is however extremely rare, and has not been met with during a long life of active practice. In rare instances the vagina has opened into

the rectum (see article Impotence); impregnation and parturition have taken place (Louis, Barbout); but this is still a more rare occurrence.

Dystocia Amorphica.

Mechanical Obstacles formed by the Pelvis.—The deformities of the pelvis have been partly described in the article of Gynæcotomy, p. 12. The brim, or superior strait, may be deformed in every part, and its dimensions be diminished so much that the pubis may approach the sacrum, and *vice versa*. Exostosis may form on any part of the osseous canal of the pelvis. The rami of the ischium may approximate so closely as almost to touch each other; and the coccyx may be within an inch of the pubis. Every imaginable degree of deformity between the natural dimensions and these now mentioned may take place. The causes of these malformations have been detailed in the article already referred to, (p. 13). I have also described the dimensions which ought to disqualify the other sex from marriage, and these are to be ascertained by the finger, or according to the French, by pelvimeters, (see pp. 12, 13, 352).

Prognosis.—The degree of deformity must determine our prognosis. We have to fear the prostration of the vital powers by the long protraction of labour, fever, inflammation, rupture of the uterus, gangrene, and fistulæ (vesico-vaginal, or recto-vaginal) from compression of the soft parts. We must recollect that delivery may happen though there is considerable impediment, either by relaxation of the pelvic joints, by putrefaction of the infant's head, or by premature labour. The infant is destroyed when subjected to much compression by fractures of its bones, or when born by apoplexy, convulsions, or asphyxia.

Indications.—These are based upon the degree of contraction or deformity, upon the life or death of the fœtus, its age, and the strength of the woman. 1. We should favour spontaneous labour, which may happen when the sacro-pubic diameter is three inches and a half in extent. 2. The long forceps will diminish the head and effect delivery in such a case; but version, or the operation of turning, will save most infants. It has been found, at the Maternite of Paris, that the former saves less than one-half, the latter fully two-thirds. 3. We should favour premature labour, when the infant is viable, which is after the seventh month. This method was proposed by Macauley, and is adopted in Germany and Italy, as well as in this country. This operation, which is performed for the preservation of the infant's life as well as the mother's, is a felony, according to the laws of this country. (See Abortion).—But the humane and benevolent intention of our criminal law on this, and all occasions, is highly commendable, though here erroneous.

The French resort to symphyseotomy, or division of the pubic joint in these cases, when the infant is alive; but this is an operation not performed in these countries. (See pp. 10, 438).

4. Craniotomy is performed in this empire; but not until the infant is dead in other countries. In extreme cases of deformity, the instrument called terebellum, or cephalatrobe by the present Baudelocque of Paris, who is nephew to the distinguished obstetrician of that name, or the instrument of Professor Davis, of the London University, will be used with advantage in extreme cases of deformity.

5. Gastro-hysterotomy, or the Cæsarean operation, is performed in France when the infant is presumed to be alive, and when the sacro-pubic diameter measures only two inches and a half. This operation is not performed in the British dominions; under such circumstances, craniotomy is preferred.

Section 2.—*Obstacles dependent on the Infant*

It has been long held by women, that the death of the infant impedes labour. This *dynamic* obstacle is at present regarded as no criterion; it however is certain, that a dead fœtus paralyses, in some degree, the uterus, by depriving it of the sympathetic activity which the living child keeps up in its circulation; besides, a putrified fœtus is less under the influence of the movements and mechanism of parturition; it fills up the passages, and is often tediously expelled. But these difficulties are not in any respect so serious as those we are about to describe.

Obstacles arising from Malpresentations of the Fœtus.

This article treats of all those obliquities of the fœtus, dependent or independent of those of the uterus. The obliquities of the pelvis prevent the proper position of the fœtus, force it in a direction contrary to the axes of the pelvis, pressing the presenting part against the walls of that cavity, or against the border of the superior strait. These are to be remedied by the means pointed out under the head of uterine obliquity, or by those recommended in cases of preternatural presentations.

The *posterior obliquity* of the fœtus occurs frequently, and more so in first labours, when the abdominal parietes being but slightly distensible, force back the fundus of the uterus, causing those positions known by the names of *super-pubic*, and *head retained above the superior strait*; they are without any known cause, and frequently embarrass the obstetrician.

They are to be recognized, 1st, by that particular elevation, and by the position of the head of the child above the pubis, or sometimes it is difficult to reach it; 2dly, by the vacuum which remains behind the head, at the opening of the strait, or as much as can be felt in consequence of the sac of the membranes, or the water contained therein; 3dly, by the elevation of the uterus and the flattening of the abdomen.

It not unfrequently happens that the membranes burst, and the fœtus is precipitated into the cavity; but sometimes it continues elevated, and the labour must be accomplished by artificial means.

Instead of having recourse to version, as some eminent practitioners advise, upon a misunderstanding of the circumstances, we have always succeeded in lowering the head of the fœtus, by directing the woman to walk about, or remain standing up, especially at the moment the membranes burst. It may even be of service to place her on her knees and elbows, so that the body of the fœtus falling forwards, the elevation and depression of the whole womb may bring the head backwards and towards the centre of the strait. We have sometimes been able to reduce the head into the same centre by pressure upon the hypogastric region, as recommended by Baudelocque, in certain false presentations of the ear. Version should always be a last resource.

Obstacles arising from an irregular Position of the Part presented at the superior Strait.

Presentation of the Vertex.—The occipito-posterior and the transverse are frequently of such a mechanism as to require the aid of art, and particularly the use of the forceps.

They may be all different from the obliquities of the uterus, by slight irregularities of the pelvis, or some primitive arrangement of the fœtus, by the presence of twins, &c.; the consequences are, that the head cannot be bent so as to enter the excavation, and offers to the strait the anterior part of the head, or even the forehead; that one of the parietals may be retained by the sacro-vertebral angle (anterior obliquity, imperfection of the pelvis), most usually occurs, or by the pubis (posterior obliquity), occurring seldom, or by one of the ilia (lateral obliquity), which is still less frequent. The other parietal then advances into the cavity, the ear gets near the superior strait, and can be felt. Can the head form an excessive flexure, and present the occiput too plainly? We think not, although this has been made the subject of a particular set of presentations.

These alterations can be distinguished by the displacement of the sutures and fontanelles, which have been described as signs of natural presentations. These imperfections are often rectified by the effects of uterine contractions; but sometimes they must be obviated by art, either by adjusting the head, or by effecting version. Others recommend the lever, or one branch of the forceps. When the child is dead, we should perform the operation of craniotomy.

Dystocia glutealis.

Pelvic presentation.—When the breech presents, we should, by the aid of the fingers, fillets, or blunt hook, applied over the groin, assist in extracting the infant. The forceps applied over each hip will often materially assist delivery. This is the most common presentation next to the vertex.

Dystocia humeralis.

Presentation of the Shoulders.—When the shoulder, arm, or any part of the trunk, from the base of the skull to the breech, presents, we must perform the operation of version. This is a general rule, liable like all such, to exceptions. I have known two instances in which the arm presented; the pains having ceased, the arm was returned, the head brought down in the proper relation to the pelvis, and the rest of the labour was natural. But this success is not to be always expected, as the greater part of obstetricians have observed the immense difficulty, nay, impracticability, of this operation, and hence recommend version in preference. When the uterine contraction is violent, the arm or shoulder impacted in the pelvis, and version impossible, as soon as the infant is destroyed by compression, we should decapitate it with a scalpel or blunt hook, as recommended by Celsus, Smellie, and Vanhorne, and laying hold of the arm for the extraction of the trunk, and by applying the forceps to the head, we can readily extract it; or should we find this difficult, pressure should be made on the abdomen, the head fixed in the pelvis, and its volume reduced by craniotomy. I fully agree with the eminent Velpeau,

that all preternatural presentations may be divided into, 1, those of the head; 2, those of the breech; and 3, those of the shoulder. The presentations of the feet, knees, and breech, are examples of spontaneous version; and many anormal positions of the head, including frontal, occipital, facial, and aural presentations, are to be relieved by imitating this operation, by performing version. When the arm or leg presents with the head, we should, in the absence of pain or uterine action, return either into the pelvis, and this I have repeatedly done without the woman having been aware of it. Mr. Field, of Charter House Square, recollects a case in point.

Malformation of the Fœtus.—When the infant is hydrocephalic, or has dropsy of the chest, abdomen, or spine, labour will be impeded; but these cases are of rare occurrence, and are to be obviated by paracentesis or tapping, after the uterus has had sufficient time to effect delivery. When the fluid is evacuated, the uterus may expel the fœtus; and should this not happen, we should have recourse to the forceps, to version, or cephalatomy. Solid tumours developed on different parts of the fœtal trunk may impede parturition; but these can scarcely be discovered during labour. The simultaneous presence of many infants in the uterus, may offer impediments to delivery. In twin cases, both infants may present in the natural way, or one may present the vertex and the other the feet. Cases are recorded in which both heads presented through the genital fissure at the same time, before and at the expiration of the full period of pregnancy. This fact was illustrated by the Siamese boys, and the Hungarian sisters, already mentioned. This union of infants offers great varieties, whether by a circumscribed junction on the trunk or superior extremities, or on the whole surface of the back or abdomen, or even by the heads. Sometimes there are two heads on one trunk, or two trunks for one head; and again, the lower extremities of two bodies to one trunk. An infant may be expelled by the feet until its head is in the pelvis; and that of another fœtus may descend into the same cavity, when both will be immoveable. In such case, the forceps or version is impracticable, and craniotomy must be performed. But then a question arises, which head is to be opened? Velpeau proposes detruncation, it is not stated of which fœtus, as the only recourse we possess to save the mother and one infant. Now, supposing that the protruded infant is alive, which actually occurred in a case recorded by Dr. Ferguson in the Dublin Medical Transactions, 1830, is the infant to be sacrificed? The narrator intended to craniotomise the other; but nature expelled the second head first, accompanied by that of the first. The first infant was dead, the second alive. Perhaps it might be possible, in the absence of uterine action, to push up both heads, so as to raise that of the second above the pelvic entrance or brim; while the other might be depressed into the cavity of the pelvis by traction on the body or neck of the infant partially protruded. The positions of the head impede labour.

Dystocia Facialis et Frontalis.

Facial and *frontal presentations* usually terminate without assistance; but sometimes require operations which will be described hereafter.

Dystocia Occipitalis et Nuchalis.

Occipital and *nuchal presentations* are exceedingly rare, and are to be rectified with the fingers, the lever, or one blade of the forceps.

Dystocia Auralis et Temporalis.

The *aural, temporal,* and *lateral* positions are to be reduced to the vertical presentation by the means stated in the last paragraph, and if the shoulder is low, version ought to be performed. There is a general rule applicable to all malpresentations of the head, that they should be reduced to natural, if possible, by the means just stated; and if these fail, embryotomy must be resorted to. The various operations under this head will be described in the article on *Artificial Parturition.*

Section 3.—Accidents relative to the Mother.

Various accidents occur to women during parturition, and these differ according to their situation.

A woman who makes violent efforts of expulsion, and suppresses her voice, or "holds in her breath," may become affected with emphysema of the neck and chest. This arises from rupture of some part of the trachea. The disease disappears spontaneously in a few days; but in some cases punctures become necessary.

The symphises, or joints of the pelvis, are more or less relaxed during pregnancy and natural labour, and in some cases the pubic and sacro-coccygeal joints are lacerated and inflamed. The inflammation may extend to the peritoneum, to the glands or vicinal nerves, and cause phlegmasia dolens, according to Velpeau. The abscesses are generally fatal, and therefore ought to be prevented by local and general bleeding, warm baths, fomentations, calomel and opium. I have already described the treatment of inflammation of the pubic and sacro-coccygeal joints. (pp. 9. 438).

The ovary and uterine tube have burst during labour, and caused fatal hæmorrhage. The distended bladder has burst, and caused fatal peritonitis. (Ramsbotham).—There may be chronic peritonitis and hysteritis, and gangrene of the uterus, before delivery; cases of which I have witnessed. (See London Med. and Surg. 1831, vol. vi.)

Dystocia Laceratoria.

Rupture of the uterus may occur in all cases of preternatural or dystocial labour, but more especially when there is some mechanical obstruction to the passage of the infant. It may occur in natural labour, and during pregnancy. The symptoms and treatment have been, in some measure, described. (See p. 440). I may, however, remind the reader, that rupture or laceration may take place in any part of the uterus; the hæmorrhage is seldom fatal; but the escape of blood, amniotic fluid, or some part or whole of the infant into the cavity of the abdomen, will generally induce fatal peritonitis or enteritis, as the infant only can be removed. Nevertheless, when the fœtus is extracted, the patient may recover. This fact is now well attested by recent writers.—(M'Kever, Labat, Collins, &c.)

Treatment.—When the rupture is slight, the application of cold, astringents, and the plug, and carefully guarding against abdominal inflammation, are the indications of cure. Opium, and wine when there is much

prostration, are highly useful. As a fold of intestine descends through the laceration, it has been proposed to cut through the linea alba to relieve the strangulated intestine (Pigrai, Labat). This operation can be seldom, if ever, necessary; as it is easy to return the bowel into the abdomen; at least I have found it so.

When the infant has escaped into the abdomen, with the exception of the head, which remains in the pelvis, the forceps should be applied to accomplish extraction. If the fœtus has passed entirely through the uterine laceration, the hand should be passed after it, the feet grasped and brought through the opening, and the operation of version performed. But should the laceration be small or diminished by uterine contraction, so as to prevent the performance of version, and the woman vigorous and the infant alive, it is generally recommended to have recourse to gastrotomy. This practice has succeeded (see p. 443, et seq.); but it appears to me to be, in general, unnecessary, for many valid reasons. It is to be recollected, that the uterus can be dilated by the gradual pressure of the hand; and here we must bear in mind the occurrence after dilatation of the organ, and I cannot understand upon what grounds it is said that the uterus cannot be dilated, and that the body of an infant cannot be brought through an aperture, through which it has already passed. Even admitting this conclusion, it is manifest that a further laceration of the organ, by the extraction of the fœtus, could scarcely be more dangerous to the woman than cutting through the abdomen, and exposing her to the danger of an operation generally fatal, and doubly so from the effects of the laceration. Again, it is universally admitted that the uterine contraction almost always ceases on the occurrence of the rupture, and therefore there can be no difficulty in passing the hand through the lacerated opening, and extracting the infant by the feet.

When the woman is moribund immediately after the rupture, it is recommended to introduce the hand, and bring down the infant; and if this be impracticable, which I cannot think, to perform gastrotomy to save the infant. But how can we ascertain that the infant is alive? Do we not generally find it is usually destroyed by compression long before the rupture takes place? If these questions are answered in the affirmative, it is obvious that we ought to hesitate in laying open the abdomen of a woman in the agonies of death for the extraction of a dead infant. Neither can I agree with the proposal of performing gastrotomy after death, as advised by some writers. If there was reason to believe that the child was lately alive, the operation should be performed in a few minutes, for example, in a quarter of an hour after the mother expired, as the infant might be resuscitated. Dr. Blundell succeeded in saving the infant, though extracted by gastro-hysterotomy fifteen minutes after the mother had expired. (See p. 232.)—See Gynæcotomy.

Rupture of the vagina is followed by the same consequences as described in the last paragraph, and requires the same treatment. This accident is not so dangerous as the former; it usually yields to proper treatment.

Rupture and sanguineous infiltration of the labium arise from laceration of the spongy tissue of the vagina, by continued compression of the head.

The labium becomes tumefied to such a degree as to oppose the passage of the infant, the evacuation of the bladder and rectum, and the tumour formed by it is of a black colour. The swelling extends to the bladder and rectum, and terminates in abscesses, which may prove fatal.

The *treatment* consists in incision of the labium, evacuating the coagulated blood, and plugging the vagina to prevent hæmorrhage.

Rupture, inflammation, and gangrene of the vagina, of the bladder, and rectum, may occur from the long continued pressure of the head upon those parts, the results of which will be perforations of the bladder and rectum, technically denominated vesico-vaginal and recto-vaginal fistulæ. The consequence of these disgusting and distressing fistulæ are incontinence of urine and fæces. These openings appear about the second or third day, and when small may heal spontaneously (Hildanus, Mauriceau,) and when large are treated with sponges, pessaries, and the catheter (Desault).— These means having proved ineffectual, the actual cautery has been applied by Dupuytren, upon the principle that burns contract, and he also employs the catheter. This plan has become general, (see p. 252;) but is not invariably successful. Lallemand has cured a long transverse vesico-vaginal fistula, by the repeated application of nitrate of silver. The sutures proposed by Hobart, (see p. 255) and Nægelè, have been used with success by Malagodi; but may also fail. Holmes and Earle have proposed the introduction of a gum-elastic bottle. While writing these pages, and since my description of the disease under notice in a former part of the work (p. 253,) was printed, an interesting case of this kind was placed under my care.— The sufferer was twenty-one years of age, of low stature, general health always good, was delivered of her first child after a labour of three days' duration. The medical attendant said there was no malformation. On examination, it was discovered that she had recto-vaginal and vesico-vaginal fistulæ. She was visited by Dr. Conquest, who was of opinion an operation was indispensable; and he recommended the patient to Mr. Earle. She however applied to Mr. Brodie for the purpose of performing the operation: but that gentleman declined to operate, and advised her to place herself under the care of Mr. Earle in St. Bartholomew's Hospital. On application at that institution, she was admitted under Mr. Lawrence, who, with Mr. Earle, considered an operation impracticable, as there was no laceration of the perinæum, and as the genital fissure was so contracted as to preclude the possibility of applying sutures to the vesico-vaginal aperture. An ingenious and most industrious pupil of mine, Mr. Hargreaves, of Burnley, Lancashire, then dresser to Mr. Vincent in the hospital, proposed my plan of treatment to Mr. Earle; but he considered it not likely to succeed. The patient remained in the hospital for a fortnight, and was then dismissed, with the declaration, "that nothing could be done for her." My intelligent pupil thought this an unwarrantable decision, and therefore recommended the patient to consult me, and place herself under my care, should I consider any treatment likely to be of use to her. She first consulted Mr. Salmon, who thought he might cure the rectal aperture. I saw her on the 6th of May last, two months after delivery. On making a vaginal examination, I experienced considerable difficulty in introducing the finger. This arose from the contracted state of the genital fissure, which was as small as that of a person at puberty, but more especially from the existence of a strong ligamentous band, which ran across the vagina, and occupied the situation of the hymen. It occupied the lower third of the vaginal orifice, and could not have escaped laceration during the passage of the infant, had it existed before delivery. On passing the finger beyond it, I discovered a transverse aperture in the neck of the bladder, fully an

inch in length, and about three lines in width; its edges were smooth and hard, and it was sufficiently capacious to admit the introduction of two fingers. There was an opening in the rectum an inch and a half in length, and the vagina was in a high state of irritation from the passage of the fæces and urine into that canal. The vulva was slightly inflamed. The urine was constantly escaping from the vagina. The general health was excellent. The *treatment* consisted in relaxing the bowels, and keeping them in that state, in introducing as much oiled lint as was borne without pain, and strenuously advising the patient to lie on either side or on the face, so that the urine might be collected on the sound surface of the bladder, and the cause of the irritation in the vagina in this way removed. In three days the vagina was filled tightly with oiled lint, which was removed every third day. This plan was pursued in until the 1st July, when the fæces no longer escaped through the vagina, and the vesical opening was contracted to the size of a sixpence. The urine escaped in diminished quantity. The fibro-membranous growth had gradually ascended towards the pubis, and formed an excellent support for the tampon or plug. The patient remained in bed during this treatment, and was allowed to sit up in the middle of July, as scarcely any urine passed through the opening, unless on coughing or walking much. She suffered no inconvenience, and on the first of August considered herself well. At this time the fistula was scarcely perceptible; but the orifice of the vagina is nearly closed by the adventitious membrane already mentioned. This production must be incised, as it will effectually prevent sexual congress. The operation is deferred until exercise in the open air will remove the effects of such long confinement. The result of this case clearly proves that fistulæ, of the description under notice, may be cured without sutures, caustic, or cautery. It shews the importance of attending to the position of the patient during the treatment. In all the cases I have hitherto heard of in the London and French hospitals, the patient was allowed to lie on her back, and consequently the escape of the urine into the vagina, or in other words the cause of irritation, was allowed to continue. Under such circumstances, a cure could not be reasonably expected. It was unnecessary to employ catheterism in this case, as the urine was retained by the position of the patient as soon as the vagina was plugged, and it was regularly voided by the urethra. In another case of vesico-vaginal fistula an abscess formed, and pointed on the tuberosity of the ischium, on opening which a pint of fœtid pus escaped, the constitutional irritation and hectic continued, and in despite of all remedies the woman sunk in a month afterwards. The nymphæ may be inflamed or lacerated; but little inconvenience arises, and the treatment must be conducted upon antiphlogistic principles.

Rupture of the Perinæum.—When the genital fissure is small or rigid, as in young girls or women advanced in life, the head large, instruments badly applied, the frœnum labiorum and perinæum may be lacerated, and the passage of the shoulders enlarge the laceration, unless the perinæum is properly supported. The laceration may occupy the superior part of the perinæum, or the inferior part near the sphincter ani. In some cases the laceration occurs in the centre, and as the head advances through the superior part, it extends through the inferior commissure. My friend, Mr. Matthews, met with a case of this kind, in which there were first, two perpendicular lacerations, one of which extended through the commissure.

I have seen a case in which there was an opening in the centre of the perinæum. Merriman relates such cases, as also Duges. In first cases of labour there is a slight laceration at the vaginal edge of this part. In such cases, simple dressing to prevent the irritation of the lochia and urine, and keeping the limbs together by a bandage, effect union by the first intention. But if the laceration is considerable, the insertion of sutures becomes necessary; and should its edges cicatrise without cohesion, their surfaces are to be excised and sutures applied.

Dystocia Hæmorrhagica.

Hæmorrhage during Labour.—This may depend on laceration of the vagina or neck of the uterus; but it most commonly arises from separation of the placenta, and is distinguished from the former by the abundance of blood which follows the labour pains. The practice in this case has been partly described in the section on hæmorrhage in the last months of pregnancy, in speaking of the plug, rupture of the membranes, &c. Sometimes natural labour will arrest the hæmorrhage; but the rule is to deliver, as soon as possible, in unmanageable cases, either by the forceps or by version. (See p. 480).

Dystocia Convulsiva.—Labour with Convulsions.—The convulsions of parturient women may be local or general; a single member or part may be affected as the face, or all muscles, as the pharynx, œsophagus, stomach, intestinal tube, bladder, uterus, heart, diaphragm, and voluntary muscles. The synonymes of dystocia convulsiva are *convulsio apoplectica, apoplexia hysterica, a. lactusa, a. sympathetica* and *eclampsia.* The last term is generally employed in France. The cause of this disease is congestion in the brain. The subjects most liable to it are nervous, irritable, and delicate women, and more especially those who are in labour for the first time, and who are illicitly in this condition. Some have gone so far as to say the disease was occasionally epidemic.

Symptoms.—The patient complains of intense pain in the head, vertigo, confusion of ideas, depraved vision, or hearing, defective speech, mental depression; the countenance is wild, or she is attacked with general convulsions without any premonitory symptom. Dr. Hamilton was wont to observe, that there was generally intense pain in the forehead, which was a premonitory sign. When the fit comes on, every muscular organ in the body may be convulsed. In some cases the contents of the stomach, intestines, bladder, and even of the uterus, are expelled during the paroxysm. The duration of the paroxysm is as visible as its intensity; it is in some cases of ten, fifteen, or thirty minutes; in others it continues twenty-four hours. Coma may supervene and render the patient insensible for some days, and terminate in complete restoration of health (Velpeau); but it may end in apoplexy and death. Certain functions may be depraved after recovery, as vision, hearing, smell, and even some of the intellectual functions, and these are explained by some degree of compression on the brain. When the woman recovers from the convulsive fit, she is languid, and generally unconscious of what has happened.

When consciousness returns in the interval between the fits, the convulsions are designated *epileptiform;* and when coma and stertor supervene, they are called *apoplectic* or *eclampsic.* This division is useful, as the

epileptic or hysteric convulsions are less dangerous than the latter, and differently treated.

The *autopsy* does not always account for the symptoms. Sometimes there is a small quantity of serum in the ventricles, the encephalic veins and sinuses are more or less engorged; the meninges and cerebral substance are red or natural, or there are evident marks of congestion, or effusion of blood. In many instances no appreciable lesion exists.

The *prognosis* is unfavourable, as a third of the affected is destroyed. The disease is of rare occurrence; but certainly not so rare as the French would lead us to believe. They say that it only occurred in sixty-five out of forty thousand cases. It is much more common in these countries, and very often supervenes on transverse and other dystocial labours. It occurs in the last three months of pregnancy, or during labour, and is less dangerous after delivery.

The infant is usually destroyed in convulsions, from the extraordinary movements during the fits.

Treatment.—In these kingdoms, copious depletion with camphor mixture, ether, &c. are chiefly employed. When there is reason to suppose the disease is of the epileptic or hysterical character, the most powerful antispasmodics, as opium, ether, castor, camphor, &c. are used by the French. Dr. Hamilton considered opium highly injurious, and copious depletion with camphor mixture the best remedy. Mauriceau, De la Motte, and Puzos, were strong advocates for venesection; and there can be no doubt of the value of this remedy, when the signs of cerebral congestion are unequivocal. The venesection should be repeated to the third or fourth time, according to the strength of the patient, and the blood should be taken from a large orifice; should the pulse contra-indicate repeated venesection, thirty or forty leeches should be applied to the temples, behind the ears, or to the neck. When coma supervenes, we should abstract blood by cupping from the neck, and apply sinapisms to the feet and legs. The temporal artery might be opened with advantage. I should prefer this operation to cupping in a desperate case, as blood can be taken more rapidly. Baudelocque, and others, preferred opening the saphena vein in all cases; but this practice is not followed at present.

Tepid-baths are useful, when apoplectic symptoms are absent, and after blood-letting, if the patient is in a fit state to lose blood without danger, otherwise they promote the afflux of blood to the head; they are to be avoided when the convulsions depend upon loss of blood or inaction, as after severe hæmorrhage.

The woman might remain in the bath about twenty minutes, and cold water or ice might be applied to the head at the same time (Denman, Baudelocque). Velpeau thinks the latter practice must be employed with great caution and circumspection.

Irritating clysters are also advantageous as revulsives, and upon this principle the French apply sinapisms to the feet, legs, and thighs, a blister to the neck, and frictions along the spine.

In all cases of convulsions, immediate delivery is to be accomplished as soon as possible, either by the forceps, version, or craniotomy. Though the disease ceases in general on delivery, I have known it to continue for a day afterwards in despite of all remedies. The young practitioner must be reminded that copious depletion can be only employed with safety in

strong, young, plethoric women, and that local bleeding is preferable in nervous, delicate, and lymphatic persons, and also when the disease comes on after hæmorrhage. In the last, the narcotics will be used with success. I am very much astonished that Dr. Burns, in his last edition, 1829, has not distinguished the forms of this disease, and has indiscriminately recommended copious depletion,—and narcotics in no instance (see p. 435). But it often happens that the os uteri does not dilate during the most violent convulsions, and consequently delivery cannot be effected. In such cases the French apply extract of belladonna to dilate the uterine orifice, and when this fails, the woman and infant being in danger, Boelin recommends incisions through the uterus, and Simson and Lauverjat think the operation should be called the vagino-cæsarean. In such a case, I agree with Ashwell, that it would be much safer to dilate the os uteri with the fingers; a proceeding which would give the mother and infant a much better chance of life. I have held this opinion, and taught it in my lectures long before Mr. Ashwell's work appeared, and it was forcibly impressed upon my mind in a case where there was no dilatation, and the woman died undelivered. When we consider the dilatability of the os uteri in every stage of pregnancy, more especially in the last three months, the plan I propose is not so objectionable as it would appear at first sight. Should the woman die undelivered, we ought to perform the Cæsarean operation about ten minutes after death, as the infant might be resuscitated, and even after two days, according to others. (p. 585.)

Dystocia syncopalis.—Labour with syncope.—Delicate, nervous, irrritable women, sometimes faint from the slightest pains, or from severe pains, hæmorrhage, and inanition. Syncope is, however, a rare occurrence. If the life of the woman is in danger, we must deliver as soon as possible. In slight cases, we exhibit cordials, antispasmodics, and treat them upon ordinary principles (see p. 453).

Dystocia with Asthma, Hydrothorax, Ascites, Ovarian Disease, various Tumours in the Abdomen.—It is well known that violent exertion accelerates the respiration, and induces a sense of suffocation in diseases of the chest, or when the lungs cannot expand properly from incurvation of the spine, or from tumefaction of the abdomen (see p. 343). As the efforts of the most natural labour affect the respiration, it must be obvious that in the cases under notice, there must be considerable danger, and therefore it is a rule to effect artificial delivery as early as possible. The efforts of the woman may induce asphyxia, or fatal collapse. Nevertheless many hydropic women have the easiest labours (see p. 458).

Dystocia with Hernia.—The practice in this case is to reduce the hernia, if possible, before the pains become strong, and to make pressure on the opening through which it passed, during each pain.

Dystocia vesicalis.—The bladder may be protruded in the early stages of labour. It is to be returned and retained in its situation; and when the head advances into the pelvis, it is in the absence of uterine action, to be kept in the natural situation, when the next pain may push down the head. This is a rare occurrence (see p. 437.)

Dystocia placentalis.—Placental presentation has been described in the section on Abortion (see p. 462.)

Section IV.—*Accidents relative to the Infant.*

Dystocia funicalis.—Dystocia caused by the premature escape of the umbilical cord. This accident causes the death of the infant, which is induced by the compression of the navel string, which interrupts the circulation of blood between the mother and infant.

The *treatment* in this case consists in preventing the cord being compressed, and to perform the operation of version, should the presentation admit of it, as when the abdomen is over the os uteri. When the breech presents, we must facilitate delivery in the manner described for the management of that presentation. Various methods have been proposed for retaining the cord in the uterus. Dudan proposed a sound for pushing up the cord; Wellemberg, a canula; Duchamp, a ring; others retained it with a sponge; and Sir Richard Croft recommended the hand to be passed into the uterus, and the cord to be placed on the inferior extremities. All these plans are useful when the child is alive; but as soon as pulsation ceases in the cord, death has happened, and then they are unnecessary. When the head presents, it is advisable to push up the cord; when the presentation is transverse, the plan proposed by Croft is advisable, as a preparatory step to the operation of version. It must be unnecessary to state, that whether we perform a manual or instrumental operation in these cases, we should carefully avoid compressing the cord, or effecting that mischief which we wish to prevent.

Dystocia from shortness, or excessive length of the Cord.—Baudelocque, De la Motte, and others, supposed that when the cord was only six or eight inches in length, it impeded the descent of the head, if the placenta was attached to the fundus uteri. It was said that the recession of the head, after the cessation of the uterine contractions, was accounted for by this cause. But every one knows that such recession occurs in all cases, more especially when the perinæum is rigid. Shortness of the cord, however, may cause detachment of the placenta, expose the woman to hæmorrhage, and destroy the infant; and the repeated extension or pulling of the cord, may diminish or arrest uterine contraction, and in this way impede labour. When the cord is too long, it is likely to present, or to be twisted round the neck, body, and limbs of the infant, and produce the same effects as in the preceding case. It is, therefore, more liable to pressure during the contractions, or during the passage of the infant through the vagina. Nevertheless we see infants born alive with the cord twisted round the neck, trunk and limbs, and even knotted in three or more points. But if we found the cord too short in a case in which the infant was in danger, and on the point of birth, it ought to be cut, and delivery effected by the hand or forceps as speedily as possible. When we discover the cord round the neck, after the expulsion of the head, we should rub the abdomen, and excite uterine action as speedily as possible to effect delivery, for otherwise the compression of the vulva will arrest the circulation, and kill the infant. Should contraction not come on, we ought to loosen the cord, by pulling it gently, or slip it over the head in some cases; and exhibit the secale cornutum, or ergot of rye.

(To be continued.)

V.—*A Manual of Medical Jurisprudence, &c.* By MICHAEL RYAN, M.D. Octavo, pp. 309. 1831. Renshaw and Rush.

[*From the Medico-Chirurgical Review, Oct.* 1.]

THIS work, which is an elementary compilation from the best authors, interspersed with many original and acute observations, we can only notice briefly, since it is as incapable of being analyzed as a dictionary. If the author only laid claim to the merit of INDUSTRY, that merit would be not a little laudable; but he is, in fact, possessed of great talent as a learned writer, a judicious compiler, and an instructive lecturer. The ability and diligence with which he conducts our contemporary, the MEDICAL and SURGICAL JOURNAL, have made him quickly and very favourably known throughout the profession—and the versatility of his talents as an author and teacher, is exceedingly creditable in so young a man.

Dr. Ryan's object, in this cheap and well-constructed volume, is to give a concise, yet comprehensive view of the received principles of medical jurisprudence, and to collect, in a small compass, the scattered and isolated facts from the standard works of legal and medical writers. In many portions of the work, however, Dr. R. is not a mere compiler; for, in both the ethical and legal chapters, he has interwoven a great deal of original—and, what is of more consequence, of enlightened, liberal, and independent remarks, which cannot fail, if duly appreciated, to be of great use to all classes of the profession, but more especially to the junior members. The laws relating to the different orders of the faculty, in these kingdoms, are more clearly enunciated, and more succinctly compiled, than in any other publication in the English or in any other language. In the sections on medical evidence and the adulteration of alimentary matters, much original and important information is concentrated in a small space.

"In exposing (says he) the absurd distinctions, the defective state of the laws relating to the profession, and the gross abuses of its constituted authorities, the love of freedom and of equality, with an ardent desire to promote the interest of his favourite science and of humanity, have impelled him to declare the truth, however unpalatable that may be in certain quarters, or to the different orders of the faculty. His motto has been, 'amicus Socrates, amicus Plato, sed magis amica veritas.' He has not been the advocate of any party, of any order, of any corporation, but the advocate of the whole profession."

We have, indeed, been astonished that Dr. Ryan has been able to dedicate so much time to the laborious research which this volume displays, considering his other avocations as an editor, a lecturer, and a practitioner.

We will not maintain that the work is without imperfection—for what work could fairly claim such distinction? Nor do we entirely agree with Dr. Ryan in all his ethical precepts. The author, indeed, from want of attention to inverted commas, has sometimes enunciated opinions which do not breathe the liberal spirit with which he himself is inspired. The following passage, though not marked as a quotation, is, we are convinced, not the sentiment of the author:—

"The presence of an apothecary at a consultation can be of no use whatever to the patient, and is very often injurious. Physicians, in his presence,

cannot deliberate as they would do, were they by themselves. They feel that they are under the *surveillance* of a person who may have a partiality towards one physician, and a prejudice against another, and who may pass what comment he pleases on their opinions and practice. The effect of this is, to create a degree of caution and reserve on their part, altogether inconsistent with the object of a consultation; and which often renders it little else than a mere matter of form."*

If the apothecary of our own time was the mere compounder of drugs, as he was thirty or forty years ago, and uninitiated in the principles and practice of therapeutics, there might be some ground for the foregoing observation. But the general practitioner (for there is now no such thing as mere apothecary in this country) is well educated, and imbued with great practical knowledge, from daily observation of diseases in all their varied forms—he is, therefore a very desirable, and often an indispensible personage in the consultation, where the good of the patient, rather than the academic pride of the physician, is to be taken into account. Our intercourse with this class is probably as great as that of the generality of our contemporaries, and we can conscientiously declare that we would be very sorry, in any important case, to be deprived of the assistance and advantage of the attendant practitioner.

We have made these observations, and we have quoted the above passage to shew that we do not praise Dr. Ryan's work as a mere compliment, and without having perused it. But, we may add, the errors and blemishes are very few indeed, and scarcely sully the performance, which, as a whole, does great credit to the author's heart, as well as his head. After this declaration, it is hardly necessary to say, that we recommend the work as being all that it professes to be, a MANUAL of MEDICAL JURISPRUDENCE.

[The context shews clearly that the paragraph upon which the reviewer comments is a quotation, for it is thus prefaced :—

" The next point for consideration is this, ought a physician to consult with an apothecary or not? The Royal College of Physicians in London decide in the negative, as also the Dublin College. Dr. Grattan, of Dublin, observes,"]—and next follows the censured quotation.

Now, had the sentiments or language in this paragraph been the author's, he never would deny them; but the position of the comma after the word " observes," surely shews that what followed was a quotation. In many parts of the work, the author defended the dignity and importance of the surgeon apothecary, for there is no such person in law as the mis-named general practitioner, as Lord Tenterden has declared fifty times in the Court of King's Bench. While the author defended the surgeon apothecary, he could not avoid stating the defects and abuses in the practice of that, as well as all classes of medical men, and he defies

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* We believe that this passage is attributable to Dr. Grattan, of Dublin; and it is a pity that Dr. Ryan did not consign the property to its real owner, since it is not worthy of being either borrowed or stolen.

any honest man to deny the accuracy and the truth of the following remarks:—

"The dubious state of the English law on the right of apothecaries to demand compensation for their attendance, has given rise to a system injurious to the profession and public, that of prescribing an unnecessary quantity of medicine, and by this means acting contrary to their own feelings as men of education, and virtually imposing upon the public. They must have some remuneration for loss of time, or how are they to support their families and establishments? Can it be expected that an apothecary or surgeon apothecary, in extensive practice in London, will spend his time in driving from one part of this immense city to the other, without some compensation for his services; and this he is compelled to acquire in the disreputable manner already mentioned. It will be said by physicians and surgeons, that the general practitioners, as they are unclassically denominated, are intruders, and have no legal right to practise medicine and surgery. No doubt they have no legal right to practise physic or surgery,* but it is equally clear that they are patronized and generally employed by the public. The want of such a class of practitioners arose from the exorbitant fee for medical attendance, physicians and surgeons demanding a guinea for every visit or prescription, a sum much more than the majority of society can afford. The junior members of these professions are compelled to make the same demand, and in this way the public to a great extent are precluded from procuring the advice or attendance of physicians and surgeons. The apothecary becomes the general practitioner, because people will prefer his opinion to their own, and especially as he is considered entitled to no fees. This line of practice has become so general, that some few doctors and a large proportion of surgeons have adopted it. The character of this body of practitioners, however, is naturally less esteemed by the public, as they are compelled to sacrifice reputation to interest, and to subject themselves to the humiliating mortification of being compounded with druggists and chemists, while the legitimate physicians and surgeons regard them as intruders, and treat them with jealousy or contempt. As the law was said to allow no compensation for advice, they were accounted unreasonable when they made a specific charge for attendance; and they were obliged to order an unnecessary quantity of medicine, and charge a high price, to remunerate them for attendance, to the great annoyance of the public, and to the degradation of the profession. From this mode of remunerating general practitioners, which is distressing to the majority of that body, and which is happily at an end by a recent decision in the King's Bench, the sick were obliged to take more medicine than was required for the cure of their disease; and this is still too often the case, when a physician is called in by the attending apothecary. The English apothecary, however, is as much "sinned against as sinning." He is obliged to receive a medical and surgical education, expend five years in acquiring pharmaceutical knowledge, and undergo examination, before he is legally qualified. He then commences his profession, and has the morti-

* The laws relating to the Medical Profession. By J. W. Wilcock, Esq. Barrister at Law. London, 1830.

fication to discover that any man may usurp his rights, by placing the words chemist and druggist over his door. He also learns that his illiterate rival, who has received no medical education, robs him of his real vocation, the composition of medicine, vends drugs at half the price he charges, compounds nearly all physicians' prescriptions, prescribes for the sick; in a word, is physician, surgeon, apothecary, and obstetrician. The Apothecaries' Company have the power to prevent all this abuse, if they would only do their duty. In Scotland, the surgeon apothecary must be a licentiate of the Royal College of Surgeons of Edinburgh, and must have received an excellent medical and surgical education.

" In Ireland, the apothecary is not obliged to receive a medical or surgical education, though he practises every branch of the healing art, and has his peculiar rights infringed on, especially in the remote parts of the country, by his old colleague the grocer.

" Under all these circumstances, can it be expected that the regular physician or surgeon ought to meet the general practitioners of this empire, and those who assume the title of such in consultation? The Colleges of Physicians and Surgeons have invariably decided in the negative. If the members of each branch of medicine received the same education, of course there could be no objection to their meeting in consultation; but this has never been the case, and therefore the law and the public have wisely decreed a distinction of medical practitioners, which no class of the faculty can destroy. That it is quite preposterous to attempt it, the recent history of medicine in this country amply testifies. It may be said, that the science and art of medicine are " one and indivisible," and therefore ought to be studied and practised by every member of the profession. Granted, if every man could either comprehend or understand the science and the practice of the healing art, but as yet no man has had the temerity to boast of a perfect knowledge of the subject. Hippocrates, who afforded the best evidence of the most extensive knowledge of the various branches of medicine of any of his successors, candidly acknowledged that he had not arrived at the end of physic. But now a days, it is seriously asserted, that every young gentleman at one and twenty, who qualifies at Apothecaries' Hall, or Royal College of Surgeons, is perfectly acquainted with medicine, and competent to treat all diseases incidental to humanity. Such is the march of intellect of the age. Unfortunately for this assertion, the most eminent members of the profession are of a different opinion. They unanimously maintain that no man, however talented, can be a complete master of the science and practice of medicine in its full acceptation, that every man ought to acquire as much information as possible in all its branches; but that the practice of any one branch is as much as he can undertake with satisfaction to himself, or or benefit to mankind. Such is the received opinion, with respect to practice in the large cities, in which a division of the practice of medicine is universally observed. After all that has been stated on the contrary, there is no instance in the history of the profession, of one individual having produced a good system of physic, surgery, midwifery and pharmacy, much less a complete system. The reason is obvious, any one of these branches is sufficiently extensive to occupy the mind; but a complete knowledge of all is far beyond the limits of the human understand-

ing. If this position be admitted, and where is the well educated physician or surgeon who can deny it, it follows that the division of the medical profession is consonant with reason, common sense, and expediency.

"This division, however, is most valuable to the affluent; and is manifestly injurious to the great mass of society, the middle and lower classes, who are precluded from enjoying the advantages it affords. To supply the wants of these classes, the general practitioners are supposed to be necessary, indeed indispensable, though this is very doubtful when we consider how easily the aid of young physicians and surgeons may be procured, as well as the aid of their seniors at the numerous charitable institutions. But the lowest class of society ought to be enabled to purchase the services of well educated practitioners, and this could be easily accomplished, by regulating fees according to seniority, the fee of the junior being such that all might afford to give it. This plan has been adopted in France and other conntries, with the best effects to the profession and the public. The young physicians and surgeons of France, men of the first rate education and talents, some of them the best writers of the day, take fees of one, two, three, five, ten francs, and so on to one or two louis, according to their standing; and this plan does not degrade their characters any more than the subaltern officer or midshipman is degraded by his situation, or the admiral or general by having passed through the lower stations, or the clergy who receive their tithes in proportion to the wealth of individuals. Were the medical profession in this country to follow this example, there would be no inducement to prescribe unnecessary medicines, a great many useless if not dangerous practitioners might be spared, young physicians and surgeons would be employed, who under the present circumstances have no chance of practice, in consequence of requiring fees similar to their seniors, and who must commence their career, after an expensive education, by affording gratuitous advice. The change would elevate the medical character, by removing the temptation to many degrading practices, now too common among all classes of practitioners, Though this regulation of remuneration is not formally adopted by the legal heads of the profession, still it is sanctioned by the majority of physicians and surgeons in this metropolis to a certain extent, as the most eminent accept a fee of half a sovereign for advice at their own houses. This is not generally known, but it is a fact."

Throughout the work the perfections and imperfections in the discipline of physicians, surgeons, and apothecaries are fairly and impartially stated, and of course will excite the ire of the short sighted and narrow minded of each class; but it was never intended to praise or dispraise any class exclusively, and the author challenges the most cynical critic to prove the contrary. The strictures on the abuses in the Colleges of physicians and surgeons, might as reasonably excite the anger of physicians and surgeons, as the extract under notice that of the general practitioners. The truth is, that a general medical reform is necessary, and must be granted. It is right to state that the author of the Medical Jurisprudence, is on the best terms with the members of the Colleges individually, as well as with the general practitioners, but as public bodies he has shewn that

they all have need of improvement. The grossest abuses and absurdities may be brought home to each; and in fearlessly exposing these for the general good, and for the promotion of a salutary reform, more or less offence must have been a necessary consequence. But is there an independent or enlightened physician, surgeon, or apothecary in the kingdom, who does not admit the existence of abuses, and the necessity of their correction? In alluding to consultations, the rules of the colleges were stated, and if these are unpalatable, the author is not in any way accountable—they are not of his making. He however must take this opportunity of stating, that he has as much intercourse with general practitioners as any member of the profession of his standing, and would be the last person in the profession to make any observation unfriendly to that body. But while he avows this as an individual, and it would be great ingratitude and want of candour to omit doing so, he must remind the reader that as a historian in writing a work, it was his duty to state facts as they exist, openly, freely, and impartially. It would be a matter of deep regret with him, to give offence to any class of the profession; but he never has crouched to any, nor never will cringe to any, by suppressing or glossing over defects and abuses which characterise every one of them; he consoles himself with the reflection, that all independent members of the faculty will rather applaud than condemn his sentiments, which upon calm and dispassionate consideration, will be found intended for the good of all. He trusts that this explanation will be satisfactory; and hopes that the able Editor of the *Medico-Chirurgical Review* will give him an opportunity in his forthcoming number to set himself right with the numerous readers of the periodical which he conducts. It was impossible to please all classes of the profession in impartially stating the abuses and the anomalies characteristic of all, but if the author have accumulated and condensed all that has been said on Medical Jurisprudence, his object is attained.—M. R.

VI.—*Aur. Cor. Celsus on Medicine, in Eight Books, Latin and English. Translated from L. Targa's Edition, the words of the Text being arranged in the Order of Construction. To which are prefixed, a Life of the Author, Tables of Weights and Measures, with Explanatory Notes, etc. designed to facilitate the Progress of Medical Students.* By Alexander Lee, A. M. Surgeon. In Two Vols. London, 1831. Vol. I. 8vo. pp. 318. E. Cox.

This is one of the best translations of Celsus that has hitherto appeared, and is much more adapted to the capacity of those whose classical acquirements are slender, than other productions of the same description which have been lately published. In some of the latter, the translation is too free for those students, whose knowledge of classics is limited. We subjoin a specimen of Mr. Lee's arrangement, which shows how much he has facilitated the study of the work of the great Roman physician, which is now, as it has always been, a general favourite with all medical practitioners who have received a proper classical education. Mr. Lee's tran-

slation is ably executed, and we have no doubt that it will be among the most popular versions of the work of that renowned physician.

A. Corn. Celsi de Medicina Liber Primus.

PREFATIO.

Ut alimenta sanis corporibus agricultura, sic sanitatem ægris medicina promittit. Hæc nusquam quidem non est. Siquidem etiam imperitissimæ gentes herbas, aliaque prompta in auxilium vulnerum, morborumque noverunt. Veruntamen apud Græcos aliquanto magis quam in cæteris nationabus exculta est, ac ne apud hos quidem à prima origine, sed paucis ante nos seculis; utpote cum vetustissimus auctor Æsculapius celebretur. Qui quoniam adhuc rudem et vulgarem, hanc scientiam paulo subtilius excoluit, in Deorum numerum receptus est. Hujus deinde duo filii, Podalirius et Machaon, bello Trojano ducem Agamemnonem secuti, non mediocrem opem commilitonibus suis attulerunt. Quos tamen Homerus non in pestilentia, neque in variis generibus morborum aliquid attulisse auxilii, sed vulneribus tantummodo ferro et medicamentis mederi solitos esse, proposuit. Ex quo apparet, has partes medicinæ solas ab his esse tentatas, easque esse vetustissimas. Eodemque auctore disci potest, morbos tum ad iram deorum immortalium relatos esse, et ab iisdem opem posci solitam. Verique simile est, inter nulla auxilia adversæ valetudinis, plerumque tamen eam bonam contigisse ob bonos mores, quos neque desidia, neque luxuria vitiarant. Siquidem hæc duo corpora, prius in Græcia, deinde apud nos afflixerunt. Ideoque multiplex ista medicina, neque olim, neque apud alias gentes necessaria, vix aliquos ex nobis ad senectutis principia perducit. Ergo etiam post eos, de quibus retuli, nulli clari viri medicinam exercuerunt; donec majore studio litterarum disciplina agitari cœpit, quæ ut animo præcipue omnium necessaria, sic corpori inimica est.

Ordo. Liber Primus Aur. Cor. Celsi de Medicina.

PREFATIO.

Ut agricultura promittit alimenta sanis corporibus, sic medicina (promittit) sanitatem ægris. Quidem, nusquam, hæc non est. Siquidem etiam imperitissimæ gentes noverunt herbas, que alia prompta in auxilium vulnerum, que morborum. Veruntamen exculta est apud Græcos aliquanto magis, quam in cæteris nationibus, ac ne quidem, apud hos a prima origine, sed paucis seculis ante nos; utpote cum Æsculapius celebretur vetustissimus auctor. Qui, quoniam excoluit hanc scientiam adhuc rudem et vulgarem, paulo subtilius, receptus est in numerum Deorum. Deinde, hujus duo filii, Podalirius et Machaon, secuti ducem Agamemnonem bello Trojano, attulerunt suis commilitonibus, non mediocrem opem: tamen quos Homerus proposuit, non atulisse aliquid auxili in pestilentia, neque in variis generibus morborum, sed solitos esse mederi vulneribus tantummodo, ferro et medicamentis. Ex quo apparet, has partes medicinæ, solas esse tentatas, ab his; que eas esse vetustisimas: que potest disci eodem auctore, tum morbos esse relatos ad iram immortalium Deorum; et solitam posci opem ab iisdem. Que est simile veri, inter nonnulla auxilia valetudinis adversæ, tamen plerumque eam contigisse bonam, ob bonos mores, quos neque desidia, neque luxuria vitiarant. Siquidem hæc

duo (vitia) prius afflixerunt corpora in Græcia, deinde apud nos. Ideoque ista multiplex medicina, neque necessaria olim, neque apud alias gentes, vix perducit aliquos ex nobis ad principia senectutis. Ergo etiam post eos de quibus retuli, nonnulli clari viri exercuerunt medicinam, donec disciplina litterarum cœpit agitari majore studio, quæ, ut est omnium præcipuè necessaria animo, sic (est) inimica corpori.

Translation. The First Book of Aurelius Cornelius Celsus on Medicine.

PREFACE

As agriculture provides aliment to the sound body, so medicine does health to the sick. Indeed no part of the world is without this art. For the most uncultivated nations know the properties of herbs, and other prompt remedies for wounds and diseases. But it was cultivated by the Greeks, a little more than other nations, yet not even by them from the origin of that people, but a few ages before us; as it would appear Æsculapius is celebrated as their most ancient author, who, because he cultivated this art, hitherto rude and barbarous, a little more skilfully, was received into the number of their gods. Afterwards, his two sons, Podalirius and Machaon, having followed their general, Agamemnon, to the Trojan war, did not render little assistance to their fellow soldiers. But Homer has represented that they did not attempt to cure pestilence nor various other kinds of diseases, but were in the habit of dressing wounds by the knife and medicines only: by which it appears, they were accustomed to treat surgical cases only, and that this was the most ancient. It may be learned from the same author, that diseases were then ascribed to the anger of the immortal gods, and it was usual to implore their aid. It is also very likely, that as there were but few remedies known for sickness, yet for the most part it happened that men enjoyed good health from the simplicity of their morals, which neither idleness nor luxury had vitiated. Since, indeed, these two vices, first in Greece, then among us, have greatly exerted their baneful influence on the human frame. Hence, that multiplied variety of remedies, unnecessary in ancient times and even now among other nations, can hardly support any of us to the first stages of old age. Therefore, after those whom I have mentioned, few men of eminence practised medicine until learning began to be prosecuted with greater ardour, which, as it is of all things most necessary to the mind, so it is equally injurious to the body; and, at first, the science of healing was esteemed a branch of philosophy, as the cure of diseases and the study of the laws of nature had their origin under the same masters; which may be supposed from those chiefly requiring its aid, who had impaired their constitutions by arduous study and midnight watching.—p. 3.

From this specimen of the work, it is manifest that the medical student, who is at all acquainted with the Latin language, cannot fail to derive considerable assistance from this valuable translation. We understand that the Worshipful Company of Apothecaries intend to examine, ere long, in Aretæus's work, in imitation of the College of Physicians. We suppose the next step will be, the promulgation of the inutility and imbecility of the College.

VII.—*Essays on the Effects of Iodine in Scrofulous Diseases, including an Inquiry into the Mode of preparing Ioduretted Baths.* Translated from the French of M. Lugol, Physician to the Hôpital St. Louis. By W. B. O'Shaughnessy, M. D.; with an Appendix by the Translator, containing a Summary of Cases treated with Iodine, either simple or combined with Opium, Mercury, or Lead, and Directions for preparing the Iodurets of these Metals, and for detecting the Adulterations of Iodine and Hydriodate of Potass. London, Oct. 1831. 8vo. pp. 218. Highley.

This is an exceedingly valuable work, and entitles the translator to the thanks of his profession for presenting it in an English dress. It contains a mass of valuable information on the successful, or rather certain cure of the various forms of scrofula in every part of the body, which will be gratefully received and highly appreciated by those engaged in the practice of medicine.

When we consider the frightful ravages made by scrofula, its prevalence, and its analogy to cancer, phthisis, disorganizations of the uterus, ovaries, in a word, to some of the most fatal diseases incidental to humanity, we must hail with pleasure a work in which we find the most satisfactory evidence of a certain cure for these hitherto intractable diseases. The great merit of this valuable discovery is due to M. Coindet, of Geneva, our old class-fellow at Edinburgh; and to his able adjuvants, Manson of Nottingham, Gardner of Edinburgh, and Murray of Belfast, who is now consulting physician to his Excellency the Chief Governor of Ireland. But to M. Lugol, who is physician to the Hôpital St. Louis of Paris, we are chiefly indebted for the most conclusive, and indeed incontrovertible evidence of the efficacy, we had nearly written, the infallibility, of iodine in all the forms of scrofula. This talented physician has carefully observed the effects of this remedy in numerous cases of strumous affections, and has collected a mass of evidence as satisfactory as conclusive.

We were the first journalist who noticed M. Lugol's work, (see vol. iv. 1830,) and are much gratified by an opportunity of again recurring to the subject.

M. Lugol's work consists of three memoirs, which were read before the Royal Academy of Sciences of Paris, and were deemed so important that three learned and distinguished commissioners were appointed, MM. Serres, Magendie, and Dumeril, who examined the patients and witnessed the practice of our author at the Hôpital St. Louis. They report the result of their observations on one hundred patients, the substance of which is as follows:—

1. That iodine is used internally and externally; the form intended for internal use, is a simple solution of iodine in distilled water—the others proper for external application, whether for ointments, for ulcers, pommade for frictions, or watery solutions of varied strength for collyria, lotions, and injections.

2. The aqueous solution of iodine is preferred to the alcoholic tincture and syrup. The solution is called the "Mineral Water," and is of two degrees of strength; No. 1, containing two-thirds of a grain; No. 2, contains one grain of iodine in solution. It is not stated how much water is

added, whether a pint or half a pint; but we find it a pint in a subsequent page. Half the quantity of No. 2, is the first allowance; the entire of No. 1, the second; and the whole of No. 2, is finally given. In the third memoir these formulæ are changed, and a solution of iodine in the hydriodate of potass is substituted. The former solutions, which we think were composed of a pint of distilled water, and the proportions of iodine above stated, are worthy of notice, as they cured twelve cases of scrofula. Before adverting further to these cases, we must premise that the aqueous solution of the hydriodate of potass of the Dublin Pharmacopœia of 1826, possesses all the virtues of these new formulæ. The cases cured were three of ulcerated tubercles, in three, seven, and twelve months; two of ophthalmia and coryza, one of deep-seated fistulous abscess, four of corrosive (esthiomenic) scrofula, and one of caries. It is attested by the commissioners, that the application of the remedy to ulcers changes their appearance, in as marked a manner as mercury does venereal ulcers. Here is a most important fact. Sometimes iodine resolves tubercles, at other times promotes suppuration.

3. Iodurettted water increases the appetite, the urinary and salivary secretions. When it produced pain in the stomach, which is very rarely, the wine of quinquina in the dose of two or three ounces, as recommended by M. Coindet, was effectual.

4. Iodine never caused emaciation, nor produced bloody expectoration, or the other accidents which some have imputed to its action. The author believes that iodine is one of the most valuable acquisitions the healing art has made in modern times. Such are the contents of the commissioners' report to the Academy.

At first our author dissolved half a grain, two-thirds of a grain, or a grain of iodine in a pint of water, and the solutions were Nos. 1, 2, and 3. He began with the first, and seldom used the second until after the expiration of two months. The third was not administered indiscriminately to all patients. These solutions are weaker than those of M. Coindet, but still sufficiently exciting. The latter exhibited three grains daily.

" I avoided the tincture of iodine for another reason besides those already described. It is usual to prescribe this remedy in an *aqueous* vehicle! The whole of the iodine is consequently precipitated in the pure solid state, in which form it may produce intense excitement in the stomach, if we may judge by our knowledge of its external effects. This observation applies still more forcibly to the syrup, which contains the iodine only in a state of suspension. It is, I feel convinced, in consequence of the employment of such modes of dispensing, that accidents have ever occurred, or prejudices arisen against the remedy. Tartar emetic, corrosive sublimate, and other powerful remedies essential to the treatment of numerous diseases, have been found to produce bad effects before their apt dose and due mode of preparation were discovered. Even yet, such evils follow when the necessary indications which should regulate their use are neglected, or improper methods of administration pursued.—Iodine, thus, would long have been a source of more harm than utility, had not the indications it may fulfil, and the rules according to which it should be prescribed, been diligently sought for in suitable conditions.

" But whatever merit may be possessed by the preparations thus recommended for internal use, they do not answer a purpose of frequent

occurrences in scrofulous cases, viz. that of local treatment. I, therefore, at first, prescribed a particular ointment, of three different strengths, composed of hydriodate of potash and iodine

IODURETTED OINTMENT.

		No. 1.		No. 2.		No. 3.
℞	Fresh Lard.....	lb ij.	..	lb ij.	..	lb ij.
	Hydriodate of Potash	ʒiv.	..	ʒv.	..	ʒv.
	Iodine	ʒiv.	..	ϑxiv.	..	ϑxvi.

" Afterwards I made use of a solution of iodine, which occasionally forms a valuable substitute for the preceding ointment, especially in scrofulous ophthalmiæ, and for the injection of fistulous canals.

IODURETTED SOLUTION FOR EXTERNAL USE.

		No. 1.		No. 2.		No. 3.
℞	Iodine	gr. 2	..	gr. 3	..	gr. 4.
	Distilled Water ..	lb j.	..	lb ij.	..	lb iij.

" As to the dressings and iodine frictions, I have been enabled by care to regulate the proportions of iodine and hydriodate of potass in the several degrees of the ointment and solution, but I found it almost impossible to assign a fixed dose daily to each patient, from the variable condition of the parts and the necessary diversity to be observed in the quantity or repetition of the application. During the first months of my experiments, I dressed ulcers or rubbed the tumours twice a day; but afterwards, I remarked in several cases, that two such local irritations were too much in such a short interval. One dressing daily is therefore only practised, unless in particular cases of profuse suppuration, which very frequently attends fistulous ulcers, symptomatic of scrofulous caries of uncertain extent."—p. 15.

We are informed that the external local effects of iodine, are a prolonged sensation of prickling and smarting, especially severe on bathing days. In many cases the action terminates by a fit of itchiness, short in proportion to the duration of pain. The aspect of ulcers changes rapidly. The following cases well illustrate this point:—

" Two scrofulous patients,—one Scieuré, since cured; the second Hastard, afterwards dismissed convalescent, were each affected with ulcerated cervical tubercles, in the month of May, 1828.

" Scieuré had an ulcer an inch in length, of oval form, deeply seated in a tubercle in the same shape; the edges were red, bleeding, projecting about two lines over the base, which was fungous, and bathed in scrofulous pus.

" In Hastard the principal ulcer was round, soft, its edges unequal, thin, red, and bleeding, generally level with, but in some points below, the centre, which suppurated profusely.

" Scieuré's ulcer was at the left side of the neck; Hastard's at the right: so that, looking from one patient to another, we had two different examples of scrofulous ulceration in its most striking form. The appearances in these cases struck me so much that I wished to have them

delineated by Dr. Carswell, an able anatomist, who possesses the highest degree of perfection as a pathological painter; but that gentleman having been detained at La Charité by similar labours, he could not at once comply with my request; and when ten or twelve days of the treatment had elapsed, the ulcers had so changed that they were no longer objects of delineation, both being then in rapid progress of cure.

" It is not exaggeration to say that iodine changes the appearance of scrofulous ulcers, sometimes more quickly than mercury modifies that of syphilitic sores.

" We have even seen ulcers cicatrised too quickly; that is to say, before the complete resolution of the tubercles; but this is not so troublesome a result as might be anticipated, for the iodine resolves the tubercles quite as well as it excites suppuration.

" We have also seen old cicatrices gain the level of the skin, lose their morbid colour, and again resume the normal colour of the cutaneous tissue. The young woman, Courriot, whom we cured of an ozœna and ophthalmia of the right eye, had two old scars on the upper third of the sternum, of a red colour, deep, and puckered; both these became pale, and reached the level of the surrounding skin.

" The skin, when rubbed with iodine, becomes of a reddish yellow colour, from the absorption of the remedy, its presence in the cutaneous tissue, and its injection into the capillary vessels. The epidermis soon becomes datached in layers of various sizes, so that the ointment comes into immediate contact with the true skin.

" In general, this effect of the ointment is in proportion to the degree of its local action. I have, however, twice seen, in Louis Fleuriet, and Isidore Ferreth, this local action take place to the utmost extent, without being followed by desquamation of the epidermis. " It appears to me," said Fleurit, " that the ointment burns me till the matter flows, and then the pain is extinguished." The majority of the patients expressed themselves in similar terms.

" Nevertheless, the suppuration of the scrofulous tubercles, under the influence of iodine, is subject to many secret conditions which I have not yet been able to comprehend. I have frequently seen tuberculous ulcerations cured after copious suppuration; sometimes, also, recent cicatrices, still of a fistulous kind, suppurating copiously, and much of the adjoining textures mixed with the discharge."—p. 17.

Our author makes some pathological observations on tumours that deserve remembrance.

" It should not be lost sight of, in the study of this disease, that a tumour is usually composed of several tubercles, which communicate together before they form a common swelling enclosed in the same cyst; that in certain cases the limits of this tumour are more distant and deeply seated than they approach to the touch, so that a fistula which we might believe to terminate in a minute and separated tubercle may communicate through this with another of variable size. All these anatomical details being taken into consideration, it will be seen that the suppuration is not in a certain ration to the bulk of the tumour, and that it sometimes continues as a secretion, though the cysts are not freed from the tubercular

matter they contain; and, finally, that in the cases where they are evacuated, they may be speedily filled with new tubercular contents."—p. 18.

M. Lugol gives an account of the internal effects of iodine, subversive of the received opinions in this and his own country. He says it improves the appetite in all cases, and is therefore valuable in scrofula, in which the digestive powers are generally much diminished. It is a powerful diuretic, it purged about a third of the patients, and sometimes with such effect that it produced slight colic. When this happens, which is seldom, the medicine should be diminished, or omitted for a day or two. In several instances it produced salivation. In some females, pain in the stomach, which was removed by kina wine. Iodine encourages the growth and increase the size, as proved by several cases (pp. 22, 23.) It cured distressing dysmennorrhœa in two cases. Another girl, who was better fed with her mother than in the hospital, acquired improved health. Iodine does not produce pulmonary tubercles, hæmoptysis, and other accidents described by former writers.

But our author would dread thoracic to other accidents, if three grain doses were given daily. He pays a just compliment to M. Coindet, as his predecessor, but thinks it indispensably necessary to make the preceding statement.

M. Lugol details a series of cases illustrative of the efficacy of iodine in scrofula, which we shall endeavour to condense, and thus avoid the diffuseness of description so characteristic in French writers.

Case I.—A man, æt. 22, with ulcerated scrofula of the neck, was treated with iodine from September 24, 1827, to February 11, 1828 ; the medicine having been omitted seventeen days, a complete cure was effected. We published a similar case some months ago.

Case II.—A young woman, æt. 22, a tubercular tumour larger than a hen's egg, beneath the right mastoid process. The mineral solution, the ointment and baths used almost daily; cure effected in eight months.

Case III.—A girl, æt. 15, had scrofulous ulceration of both cheeks and right side of the neck, was cured in two months.

Case IV.—Ophthalmia and scrofulous coryza, with epiphora, all cured in forty-six days.

Case V.—Was scrofula in the cellular tissue, and

Case VI.—Cutaneous scrofula, both cured.

Numerous other cases of the worst form of scrofula were cured.

M. Lugol has the merit of having introduced the use of Ioduretted Baths into practice, and has the gratification to state that Professors Magendie, Serres, Baron, Bailly. Alibert, Richerand, and Jules Cloquet, have found them highly efficacious. Our author is however clearly entitled to the claim of priority of invention. As iodine possesses a strong tendency to form chemical combinations, M. Lugol decided, after many experiments, that wooden troughs were best for the bathing machines; even this material is acted on, and a small portion of hydriodic acid is formed. After much consideration, M. Lugol was of opinion that iodine would prove energetic, if applied to a large surface, and that the heat of the bath might possibly promote the good effects of the remedy. He determined upon the following formula for the usual quantity of water in a bath:—hydriodate of potass ʒij.

iodine ʒj. water ʒv. When the solution was stronger it caused too much irritation on the skin, and was obliged to be given up, when the proportion was about ninetenths of a grain to a quart.

" But I have long since been in the habit of administering internally, without inconvenience, a grain of iodine daily in twelve ounces of the vehicle, to the majority of my scrofulous patients in the second period of their treatment. I daily caused the eyes, nose, and lips, to be bathed, and fistulous channels to be injected with a solution containing three, four, or five grains of iodine to the pound of distilled water.

" In certain scrofulous diseases of the skin, tubercles, cellular tissue, &c. I have found an ioduretted solution of half an ounce of hydriodate of potash and two drachms of iodine, in eight ounces of water*, to act as a powerful rubefacient and caustic."—p. 59.

Tabular View of the Proportions of Iodine and Hydriodate of Potash and Water in Baths,† for Children and Adults.

BATHS FOR CHILDREN.			
Age.	Water. Quarts.	Iodine. Troy Grains.	Hydriodate of Potash. Troy Grains.
4 to 7	36	30 to 36	60 to 72
7 to 11	75	48..60..72	96..120..144
11 to 14	125	72..96	144..192
BATHS FOR ADULTS.			
Degree.	Water. Quarts.	Iodine. Drachms Troy.	Hydriodate of Potash. Drachms Troy.
No. 1	200	2 to $2\frac{1}{2}$	4 to 5
No. 2	240	2..$2\frac{1}{2}$..3	4..5..6
No. 3	300	3..$3\frac{1}{2}$	6..7

* I have prescribed this ioduretted liquor for the past nine or ten months, to be added in sufficient quantity to poultices of linseed-meal, which I have applied to excessive growths, and scrofulous caries.

It serves equally for local baths, to the hands, feet, chin, &c. by adding a certain quantity of it to the necessary proportion of water.

† The ioduretted baths have not yet been systematically introduced into the Hopital St. Louis; until they can be permanently established, the hospital patients are treated with the sulphureous baths.—TRANSLATOR.

Our author observes that by the combination of heat, moisture, &c. the skin becomes more porous and penetrable and apt for the absorption of iodine ; this point was strongly insisted on by Dr. Murray, in his work already refered to—a work replete with original and valuable practical matter, and one that has deserved much more attention than it received from the medical press. We have however done it justice. It is entitled " A Dissertation on the influence of heat and humidity, with practical observations on the inhalation of iodine and various vapours in consumption, catarrh, croup, asthma, and other diseases." 1829. In this work we have many facts now maintained by M. Lugol, such as the application of iodine in ophthalmia, &c.

The baths may be used three times a week, unless they produce too much cutaneous irritation. The skin is often tinged yellow. The bath is very efficacious when the mesenteric glands are enlarged. The iodine solution, well sweetened, is used internally in these cases. The solution No. 1, was applied in ophthalmia with success. In scrofulous affections of the fingers, which were hitherto deemed incurable, linseed meal poultices with a drachm of the hydriodate of potass, added to two ounces of the cataplasm, and this serving for three dressings, effected a perfect cure. Here we must close our notice for the present, but shall resume it in our next. We have made sufficient extracts to enable the experienced reader to form his own opinion of the work. In the suceeding part we have an account of the treatment of scrofulous diseases by iodine, and here we may observe in anticipation, that the worst cases have been cured by this remedy. The work ought to have a place in every medical library. From the preceding extracts the reader will recollect the danger of exhibiting more than a grain of iodine daily ; and yet we are informed by that able and scientific journal the *Lancet*, October 22nd, in a recent report of Dr. Elliotson's clinic lectures, that drachm doses of the hydriodate of potass are given three times a day in St. Thomas's Hospital ! ! ! This monstrous and dangerous blunder proves the *ability* of the reporter, and how *competent* he is to diffuse sound medical knowledge to the junior and inexperienced readers of that veracious and astute periodical, which politely designates one of its contemporaries a lying and stupid production—*Mutato nomine de te fabula narratur.* Before the mistake can be corrected some lives may be sacrificed, by those who place the fullest confidence in the infallibility of our scientific contemporary. To use his own powerful language on a recent occasion, " this is a precious passage in a recent work" for the instruction of the rising generation, but we don't know whether the narrator lacks " common sense," on this occasion, though we are pretty certain that he lacks medical knowledge.

We cannot comprehend the reason why the editor of the *Lancet* has commenced his attacks upon us, as we are unconscious of having given him the slightest cause. The only conjecture we can form is, that he has taken offence because we cannot go to the lengths he does in medical politics, and because we have refused to join the London College of Medicine, after repeated solicitations from some of its committee. We are as staunch reformers as he is, as we have repeatedly shewn in this Journal, but cannot sacrifice our opinion at the wish of any individual.

ORIGINAL COMMUNICATIONS.

I.—*Mechanism of the Cranium.* By Alexander Thomson, M. B.

(Read before the Medical Society of the London University).

(Concluded.)

Now if the parietal bones be divided into individual pieces of greater or less breadth by lines drawn parallel to the mesial line, every one of the pieces so obtained may be considered as a beam or plank of bone, hung without any reference to its arched nature entirely upon the frontal and parietal, and merely connected with its adjacent beams for the sake of greater security. It is indeed true, that the arched or bent nature of these beams gives them greater strength in opposing vertical pressure. By considering, however, the bounding lines of these beams to run parallel to the mesial line, and the planes in which they lie to converge to the inferior mesial line, or mesial of the base, we shall be enabled to comprehend that every one of these beams, saving the last, is, transversely considered, a wedge, because the external table is broader than the internal, and is therefore prevented from passing inwards during vertical pressure, by the resistance opposed by the adjacent beams, a resistance fully secured by their hanging upon the frontal, and upon the occipital by their own hooks. Hence we can scarcely consider these bones as acting the part of arches laterally or transversely to the mesial line, because it is evident that we might remove one of these planks, without the rest yielding or falling inwards. Nature has the more effectually provided for the full acting of these transverse wedges, by amalgamating them into one bone, and thus adding the force of cohesion to the principle of the wedge. By receiving, indeed, the last of these beams, or that at the temporal margin, as still hanging upon the frontal and sphenoid, and on the occipital, and therefore forming an abutment, we may consider the beams between it and the sagittal margin as forming an arch, yet not an arch in the sense taken by Mr. C. Bell, who makes it spring from the temporal. It cannot moreover be denied, that the parietals may be supposed to be divided into similar beams by lines crossing obliquely, either from the frontal to the opposite parietal, or from the occipital to the same part: this supposition leaves every individual piece of bone, part of it, at least three independant arches, all equally strengthened by the force of cohesion. But all these observations, while they shew the beautiful adaptation of the bone to defend the brain, do not in any degree militate against the position taken, that no pressure can be exerted on the temporals during vertical pressure on the parietals. If, however, we receive the opinion of the same great physiologist, we shall find that he himself prefers considering the cranium in another light, for he says, " but the best illustration of the form of the head is the dome." Now it certainly does appear, that the head can in some respects be compared to an artificial dome, and that, even from the allusions made by the learned gentleman, although he has not deigned to

apply them. He observes, " the dome of St. Sophia, in Constantinople, built in the time of the Emperor Justinian, fell three times during its erection; and the dome of the cathedral of Florence stood unfinished 120 years for want of an architect; yet we may, in one sense say, that every builder who tried it, as well as every labourer employed, had the most perfect model in his own head. It is obvious enough that the weight of the upper part of the dome must disengage the stones from each other, which form the lower circle, and tend to break up their joinings, and consequently to press or thrust outwards the circular wall on which it rests. No walls can support the weight, or rather the lateral thrust, unless each stone of the dome be soldered and hooped together and girded. The dome of St. Paul's has a very strong double iron chain, linked together at the bottom of the cone, and several other lesser chains between that and the cupola, which may be seen in the section of St. Paul's, engraved by Hooker." It appears from what we have been describing, that the frontal, parietals, and occipital, are by the means already pointed out, so connected together, that they will allow of no lateral thrust, and that therefore their pressure must be quite vertical upon the bones or parts of bones which support them: but it equally appears, that part of that very connection depends upon the curious principle of a rigid lever, suspended somewhere between its extreme points on a fulcrum, which in this case is the spine. Now it by no means strikes the observer as the most curious circumstance, that the pieces forming the brain case should be so connected as to form a dome without lateral thrust, but that they should be constructed into a dome, the whole weight of which is, under any circumstances, capable of being collected into so small a space as is given on the top of the spine for the support of the cranium. That this very small support should moreover by its resistance, be the means and the chief means, in so unusual a manner as we have pointed out, of preventing stress being laid upon the connections of the dome, securing the absence of lateral thrust, must strike the thoughtful as indicating a fineness and perfection of design, which while it demands his utmost admiration, baffles his greatest powers of praise.

II.—*On the Composition of the Black Ointment.*

To the Editor of the London Medical and Surgical Journal.

Sir,—I again resume my pen, but with the pleasing satisfaction, that it is not this time for the purpose of entering the lists with an unavowed antagonist, not for the purpose of combating an opponent, who keeps his vizor down, but one who manfully comes forward and proclaims his name ere he enters the arena. I conceive that Mr. Mackenzie's letter is written *against* me, though not *at* me. I suppose so from the following passage: " *Those who deny the truth of this would do well to refer the question to some experienced chemist.*" Mr. Mackenzie, it should seem, has followed his own advice by submitting his ointment to Dr. Thomson for analysis. Before I proceed further, I must state that I am convinced of my error in respect to Mr. Mackenzie's ointment, but that is owing to the

opinions of several distinguished chemists whom I have consulted, more especially those of Professor Daniel and Mr. Pereira (see his letter), rather than to the analysis by Dr. Thomson, which is far from being satisfactory, at least to me. In the first place, Sir, it seems that the portion submitted was very small. The Doctor states, that " the lard still retains its dark colour (after dissolving out of it three grains and a half of the nitrate), and contains oxide of silver, as I ascertained by burning off the lard and dissolving the residual matter in nitric acid." May it not be very easily supposed, that in burning off the lard the Doctor drove off the portion of nitric acid in combination with the oxide, and thus reduced it to that state? Not that I mean to insinuate that the analysis was not conducted with proper care, but I think no inductions should be drawn from an analysis of such minute quantities: had the 80-grain ointment been submitted, I had been better satisfied. It is well known that light, and more especially heat, will decompose nitrate of silver, without the intervention of lard. Again, the Doctor says, that " *the* 0'55 *grain of nitric acid which has disappeared, has doubtless acted on the lard, and contributed so far to convert it into citrine ointment.*" I now perfectly agree with the Doctor in the belief, that the nitric acid has acted on the lard, and reduced it to an oxide, and not that the lard reduced the nitrate of silver to an oxide; that idea was the cause, in a great measure, of my committing the error. The most feasible explanation I have heard of this process was given by Mr. Pereira. He said that lard had a great affinity for oxygen, of which gas nitric acid contains a great proportion; when, therefore, nitric acid, in the form of nitrate of silver, is combined with lard, the latter substance attracts oxygen from the acid, and becomes oxydized, while nitrogen gas is evolved. In this way, the silver may be left as an oxyde, and if the attraction of oxygen by the lard proceeds, it may be reduced to metallic silver." This view of the question completed that change, in my opinion, which had been partly effected by Professor Daniel, of King's College, and Mr. Everitt, Professor of Chemistry to Medico-Botanical Society, gentlemen whom I had previously consulted. But, Sir, nothing can express the surprise I felt on reading the latter part of Dr. Thomson's analysis: " *contributed so far to convert it into* CITRINE OINTMENT!!!" Surely Dr. Thomson wrote this part in a mighty great hurry, or he would never have proclaimed himself—I beg pardon—have proclaimed Mr. Mackenzie, *an alchemist!* The days for transmuting metals are past; but if Dr. T. *really* possesses the *art* of changing metals, it will be highly appreciated at present, as the cry is great, that the precious metals are returning again into the bowels of the earth—*into citrine ointment!! Change the nitrate of silver into the nitrate of mercury!* What a splendid discovery!

I have said that my opinion was changed in consequence of the representations of several distinguished chemists. I have now infinite pleasure in embracing this opportunity of returning them my sincere thanks for the ready kindness with which they answered my queries, and to the gentlemen already mentioned, for the time they more especially devoted to explain their views of the case to me. I append the letters I received from these gentlemen, as I hope they set the affair in a much clearer light than I can do. Mr. Pereira's letter is extremely full, comprehensive, and highly satisfactory.

I have found but one gentleman, of those I have consulted, in favour of my side of the argument. I allude to Mr. Hume, Chemist to the King. He says, "If dry nitrate of silver in fine powder is mixed with *pure* lard, he does not think any decomposition of the nitrate would take place. The mixture should be made by means of a piece of glass or a silver knife." But allowing this decomposition to take place, on Mr. Mackenzie's own shewing, only one grain and a half of the nitrate out of five is decomposed, why then should the three grains and a half be sacrificed? Surely an ointment, of the active principle, of which only three-tenths are decomposed, leaving seven-tenths in their primitive state, cannot be effete, and consequently ought not to be thrown aside. But to leave the chemical part of the question, I perceive that Mr. Mackenzie appends an account of the success he has met with in using his ointment. The objections he raises to the use of the ointment, after it has been made a few days, and on account of its want of success in certain cases, cannot apply to the ointment made with the liq. plumb acet; as the ointments are essentially different, and I may add, that Mr. Guthrie's ointment has always succeeded in purulent ophthalmia, while it appears Mr. Mackenzie's has aggravated the disease. I may likewise remark, that I have never seen it employed in cases of onyx, nor should I recommend it, more especially in infants, but in cases of ulcerated cornea I have used it with advantage. The ointment Mr. Mackenzie employs was formerly used at the Ophthalmic Hospital, but it was abandoned from the great irritation it produced, and the present substituted, which is found to combine all its good properties, without being so irritating. Mr. Mackenzie says, that he has seen the ointment produce a slough of the conjunctiva. I incline to think that this depends on the nitrate not being sufficiently fine. I can only say, that would Mr. Mackenzie employ Mr. Guthrie's ointment, I think he would speedily prefer it to his own.

I have the honour to be, Sir,

Your obedient Servant,

J. Foote, jun.

36, Tavistock-street, Covent Garden.

No. 1.

From Dr. Turner, Professor of Chemistry, London University.

38, *Upper Gower Street, Oct. 17th,* 1831.

Sir,—I have not particularly examined the subject upon which you request my opinion; but judging from the properties of nitrate of silver, I should certainly anticipate decomposition from the contact of unctuous substances. You are at perfect liberty to state this opinion.

I remain, Sir,

Your obedient Servant,

Edward Turner.

John Foote, Esq. jun.

Dr. Turner stated that he had kept a crystal of the nitrate from light and heat, yet in the course of a few months, it became metallic silver.

No. 2.

From Professor Daniel, of King's College.

King's College, 11th October, 1831.

Sir,—I have not the least doubt that lard, or any other unctuous substance, would very speedily decompose nitrate of silver when made into an ointment with it.

Your's, &c.

J. F. Daniel.

J. Foote, Esq. jun.

No. 3.

From Jonathan Pereira, Esq. Lecturer on Chemistry.

General Dispensary, Aldersgate-street, October 17th, 1831.

Sir,—In answer to your letter, in which you request me to state whether lard, or any unctuous substance can, in my opinion, decompose nitrate of silver when made into an ointment with it in any length of time, I beg to state, that I believe that the fatty matter will slowly decompose the nitrate. At the same time, however, it is but right to say, that I have not seen any ointment of the above kind which had been kept, and, therefore, am unable to speak except from analogy on this point.

My reasons for forming the above opinion are two-fold: 1st. the ease with which the nitrate of silver is decomposed; and 2dly, the affinity which lard has for oxygen.

We know very well that many organic substances reduce nitrate of silver to the form of an oxide, and in some cases, even to the metallic state. Thus *ivory*, dipped in a solution of the nitrate, will, by exposure to light, become covered with a coating of metallic silver. *Geiger* (Handbuck der Pharmacie, 3tte. Auflage, p. 539), says, that *Casaseca* in the *Magaz fur Pharmacie*, has found that the watery solution of the nitrate of silver is decomposed by *sugar, gum, all vegetable extracts*, &c. and that the silver is reduced to the metallic state. It is well known that the cuticle, the hair, &c. of animals are blackened by the nitrate, owing to the separation of this oxide of silver. The decomposition is, in all cases, much facilitated by exposure to the rays of the sun.

Fatty bodies attract oxygen from the air, as, for example, the *fat oils*; and it is highly probable that rancidity of lard and other such like bodies is owing to a similar circumstance. We also know, that when lard and nitric acid are mixed together, a substance is formed, which *Fourcroy* calls an *oxide of fat, and nitrogen, and nitric oxide* gases escape. At the same time *water, carbonic acid, oxalic acid, sebacic acid*, and, according to Dr. Thomson, (System of Chemistry, Vol. IV.) a portion of *saclactic acid* are formed.

On these grounds, therefore, I conclude that in an ointment composed of lard and nitrate of silver, the fatty matter will attract oxygen from the nitrate, by which this salt will be converted first into a subnitrate, then into an oxide; and I strongly suspect, that ultimately, metallic silver will

be produced. This last supposition is apparently supported by the fact, that an ointment made of the nitrate of silver, lard, and subacetate of lead, by keeping, becomes brown and covered with a coating of what appears to be metallic silver. The nitric acid of the nitrate of silver will yield oxygen to the fat, while nitrogen and nitric oxide gases escape. The fat by uniting with oxygen forms *oxide of fat* (Fourcroy), and probably also *water, carbonic acid, oxalic acid, sebacic acid,* and *saclactic acid.*

This view of the action of lard and nitrate of silver on each other is rendered highly probable by reference to the changes which occur in making the *ung. hydr. nitrat.*

If the lard, of which the *ung. argenti nitratis* is made, contain any muriatic or phosphoric salts, of course these will decompose the nitrate, and form chloride and phosphate of silver. Such is a theoretical view of the action of lard and nitrate of silver on each other.

I am, Sir, your obedient Servant,

JON. PEREIRA.

Mr. Foote, jun.

I beg leave to add that on Saturday, the 15th instant, I made some of Mr. Mackenzie's ointment, and also of Mr. Guthrie's; I perceive, on looking at them this evening, the 18th, that Mr. G.'s ointment has assumed a greyish black colour; while Mr. Mackenzie's is apparently totally unaltered: so that it would appear, and reasoning from analogy, I should judge, that Mr. Guthrie's ointment is more rapidly decomposed than the other. As a running commentary on the above, I may add, that a medical friend of mine, Mr. Nice, informs me that he has employed Mr. Guthrie's ointment, *when two years old,* with effect. Surely if the ointment becomes effete in a few days, it ought to be so in two years, unless it becomes regenerated.

J. FOOTE, jun.

October the 18*th,* 1831.

III.—*Cases of Aneurism.—Aneurism of the Abdominal Aorta.*

[Being well acquainted with the narrator of these cases, we can vouch for their authenticity. We think the medical public highly obliged to him for their publication, and cannot but express ourselves highly gratified with his making our Journal the medium of transmitting them to the public. —ED.]

[Colonial Hospital, Hobart's Town, Van Dieman's Land.]

ANTONIO Francisco, aged 40, had been ill about twelve months; in April, 1830, he was admitted into the Colonial Hospital, Hobart Town, Van Diemen's Land, complaining of great pain in the course of the right psoas muscle, and down the thigh, which was always in a state of flexion; in the right lumbar region was a pulsating tumour irregularly circumscribed, and occupying nearly the situation of the right kidney; above this, but more anteriorly, was a smaller tumour of a texture somewhat firm and moveable,

slipping in various directions, according to the manner in which it was examined, to the extent of three or four inches. One of the most annoying symptoms to the patient was constipation, which was so constant that he never towards the few latter weeks of his life had a motion but from the effects of purgatives. Latterly the pain was more severe near the right external abdominal ring; he frequently sat up, crawling from his bed to the fire-place. Things continued in this state till the evening of 30th June, when the patient was attacked with a sudden collapse, apparently brought on by internal hæmorrhage, and he died early the next day.

Post mortem examination in the presence of James Scott, Esq. colonial surgeon, and Dr. Turnbull. The abdomen externally appeared rather distended; on the right side the abdominal muscles were removed separately, but there was not any tumour between them. Through the peritoneum was seen a quantity of coagulated blood, surrounding a tumour the size of a child's head; in the right lumbar region, on removing the coagula, which completely invested the kidney and tumour, that viscus was found diminished in size, but healthy, lying on the polished surface of the tumour, and this must have been that tumour which was so moveable during life. More fully to discover the nature of the tumour beneath the right kidney, and also that of one situated in the left lumbar region, the intestines were removed. The aorta was found to be dilated during the latter part of its course through the thorax, but on its emerging through the crus of the diaphragm, there was an opening through the posterior aspect of the artery, two inches in length, which led into two cavities or aneurismal sacs, one in each lumbar region, which were filled with coagulated blood in concentric layers; the quantity of blood in the two pouches was nearly five pounds. The right sac measured nine inches in length and four in breadth, and the left eight inches in length and four in breadth. The left kidney was bound down to the tumour on that side of the abdomen. The coagulum seen through the peritoneum on first opening the body, proceeded from a rupture the size of a crow's quill in the upper part of the aneurismal tumour in the right lumbar region, and was the immediate cause of death. The aneurismal sacs appeared to be formed of the cellular coat of the aorta after the rupture of its internal and middle coats. The bodies of the 11th and 12th dorsal and the three first lumbar vertebræ were diseased, in consequence of the pressure of the tumour; the inter-vertebral substances were sound.

Aneurism from Anastomosis.—Mary Trotter, aged 41, a soldier's wife, was admitted a patient in the Colonial Hospital, Van Diemen's Land, Dec. 11, 1829, there not being room in the Military Hospital. She was formerly in the habit of getting her living by washing. About five years since, after wringing some clothes, without any previous symptoms (as she says) hæmorrhage took place from the tip of the ring finger of the left hand from a small opening immediately below the nail; this finger got gradually worse for three years, being subject to frequent bleedings. At the early part of the disease she did not perceive any alteration in the state of the finger, but her attention was first called to it by an attack of hæmorrhage; after this it gradually became pulpy to the feel, then the little finger of the same hand became affected in a similar manner, but occasionally she lost

considerable quantities of blood, so as to occasion great weakness; and it was this first induced her to apply for advice, which she did a year since; and a medical gentleman bandaged the fingers, and applied astringent lotions, since which period there has not been any hæmorrhage. The present symptoms are good general health, radial artery of the left wrist beating stronger than that of the right, the ring and little fingers of the left hand present a mass of disease, feeling like a sponge or placenta like substance, shrinking on pressure, but on its removal immediately regaining their former unnatural figure, much tumefied, and of a darkish blue tinge; pulsation strong all over the diseased portions; the little finger standing at almost right angles with the palm, and its integuments in a state of inflammation. The basilic vein much enlarged up to the wrist, the ulnar artery felt strongly pulsating in its course to the palmar arch; considerable pain and throbbing, which is much increased by depending posture, mental excitement, bodily exertion or quick respiration. On the 16th she lost several ounces of blood, which flowed per saltem.

18th.—Mr. Assistant Surgeon Russell, of the 63rd regiment, removed the ring and little fingers, with their metacarpal bones, from the articulation with the carpus, first tying the ulnar artery above the wrist.

This was obviously the only operation by which all of the diseased parts could be removed, and it was attended with complete success, although the patient had a very severe attack of dysentery during the time she was in the hospital.

Ossification of the Pericardium.—George Carter, aged 27 years, had been operated on once before for ascites; the history of the case did not give any proof of previous organic disease, indeed the patient, except when the abdomen was enormously distended, appeared free from complaint. On the 1st of March twenty-three pints of water were drawn off by the operation of paracentesis abdominis, when, and not till then, the liver was found much enlarged; he died in twenty-four hours, apparently sinking from the period of the operation. On opening, the abdomen the following morning gave vent to four pints of dark-coloured serum; found the peritoneum highly inflamed, and that portion lining the walls of the abdomen considerably thickened; the intestines lying above the pelvic region, glued together by coagulable lymph. The liver much enlarged, and its surface had the appearance of a mottled cartilaginous substance, which was occasioned by its peritoneal covering, having become converted into a pitted semi-cartilaginous membrane.

On examining the thorax, found the heart adhering to its case, which could not be separated but at the apex, and thence dissected upward nearly two-thirds, as at its upper part the pericardium was completely ossified, forming a bony ring, enclosing the upper portion of the heart and extremities of the large vessels, an inch in breadth, and in some places a quarter of an inch in thickness.

There are several points worthy of remark in this case; 1st, the total absence of any symptoms denoting such extensive alteration of structure; 2nd, the different manner in which tissues of a similar nature were affected; and, 3rd, the masked character of the peritoneal inflammation and its sudden accession and termination in death.

IV.—Mr. Hebb, *on Medical Reform.*

To the Editor of the Medical and Surgical Journal,

Worcester, October 12th, 1831.

Sir,

The communication or rather the Memorial on the Abuses existing in the Public Hospitals, which you did me the honour of inserting in the last number of the Medical and Surgical Journal, was *originally* addressed *privately*, and *exclusively*, to the Medical and Surgical Officers of the Worcester Infirmary, and it was not until after the expiration of a week, no notice having been taken of it, that it was again sent to them, (and at nearly the same time to the Gentlemen of the Salop, Gloucester, Birmingham, and Hereford Infirmaries,) *publicly* through the medium of the Secretary.

In that Memorial, I have protested against the practice of demanding money from the sons and apprentices of medical men, for attending the hospitals; and I have claimed for them and for those physicians and surgeons who are not officially connected with these Institutions, the privilege of admittance at stated periods without the payment of large fees.

The object I have in view, is the more complete alleviation of the miseries to which mankind, from the infirmities of their nature, are liable, and I have no doubt that this claim, founded as it is in justice and humanity, will be insisted on

I beg to observe that I stated "no apprentice ought to be permitted to attend the practice of any hospital, until he had acquired some preliminary knowledge of the profession, until he had served *two* years of his apprenticeship,"—you have it *four* years, which is much too long.

I also mentioned that no person ought to be admitted for examination with the view of being authorized to practise medicine and surgery, unless he produce certificates of having attended such an Institution for the space of three years,

As I have not the least idea of the nature of the arguments, by which the system I have reprobated in the memorial can be defended, conceiving that no substantial reasons can be brought forward in its support, I deem it superfluous to say more than that I am prepared to prove that the proposed alteration will inevitably tend to establish and to confirm the interests of every class of the profession.

I request you will have the goodness to give assertion to the following, which are the answers to the Memorial alluded to.

The attention of the reader is particularly requested to that from the Salop Infirmary, and to the reply which was made to it.

I am, Sir, your obedient servant

Wm. Hebb.

Worcester, August 27th, 1831.

Sir,—I am requested by the Medical and Surgical Officers of the Worcester Infirmary, to send you the following resolution:—

"The medical and surgical officers of the Worcester Infirmary have read and considered Mr. Wm. Hebb's Memorial, addressed to them, and in reply they beg to inform him they have no intention of departing from their present regulation."

I am, Sir, your's obediently,

T. H. WHEELER, Secretary.

Mr. Wm. Hebb, Surgeon.

Salop Infirmary, 5th Sept. 1831.

SIR,—I repel, with the utmost indignation, your false and scandalous attack on myself, and am really at a loss to know how you dare make such a statement, contrary to truth, and a gross libel on the medical officers, for (during the seventeen years I have been one to this charity), to my knowledge, no fee has been paid by a student or pupil to them; but, Sir, admitting there had been, even then, I consider your observations on the medical officers of this institution are uncalled for,* unjustifiable, and contrary to all professional etiquette and decorum.

I am, Sir, your obedient servant,

J. P. JOHNSON, M.D.

Of the Royal Colleges of Edinburgh and London.

[Mr. Hebb assures us that he has the permission of Dr. Johnson for the publication of this letter. It appeared to us the letter was not intended for the public, and we declined inserting it, until we received a contrary assurance.—ED.]

Perceiving from this letter, that the system of demanding fees from students, did not obtain at the Salop Infirmary, and that the imputation of its existence there had naturally excited the abhorrence and anger of the medical officers, the following reply was sent by return of post, as an apology for the charge so unjustly alleged against them :—

Worcester, Sept. 7th, 1831.

SIR,—I have to acknowledge the receipt of a letter from you this morning, in answer, I presume, to a communication addressed by me a few days ago, to the medical and surgical officers of the Salop Infirmary, (through the medium of the secretary), a similar paper having also been sent to those of the Worcester, Birmingham, Hereford, and Gloucester Infirmaries.

In the commencement of your letter, you say "I repel with the utmost indignation your false and scandalous attack on myself, and am really at a loss to know how you dare make such a statement, contrary to truth, and a gross libel on the medical officers?"

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* The passage in the Memorial, alluding to the gentlemen of the London hospitals, was accidently omitted in those sent to the Salop and Hereford Infirmaries.—W. H.

Permit me to inquire what attack I have made on *you* ? or how can you convert that which was a communication, addressed to a body of individuals, into an attack on *yourself* ? I protest I have dreamt no such thing; and I tax my memory in vain, to find a sentence in the paper alluded to, which can be applied to any single person. I repeat, I aim not to attack individuals. My observations are meant to apply to, and to deprecate the system of demanding large fees from students, for attending the public hospitals, which I consider alike injurious to the best interests of the community and of the profession; a system, too, which prevails at almost every hospital in the kingdom; but judging from your letter, the Salop Infirmary forms an exception exceedingly honourable (if you will so permit me to say), to the medical and surgical gentlemen connected with it; although, by the way, I must observe, you do not say " that no fees are paid at all, but that " no fee has been paid by a student or pupil to them," the medical men.

I assure you I am by no means angry at the tone of your letter; on the contrary, I am much pleased at it, as it confirms, in a very eminent manner, the correctness of the opinions I entertain on this subject. It is evident the mere mentioning that such a practice exists at the Salop Infirmary, is at once sufficient to excite your just " indignation." Such not being the case, it is to be presumed, therefore, that you cannot approve of it elsewhere, and will perhaps afford me your assistance in endeavouring to abolish it.

Permit me to observe, that I have not asserted—" this custom exists at the Salop Infirmary," but that " I have been informed that it does," or that " I have heard so;" and I really do not see how I could suppose to the contrary, when I know that it does obtain at Gloucester, Worcester, Hereford, and (as I believe) at Birmingham also.

I am exceedingly gratified to find that I am not correct; that no money is demanded by the medical officers of the Salop Infirmary, from students, for the privilege of attending there. Your letter is the most powerful argument I could have been furnished with in support of my views; it will shew that the bare supposition of such a circumstance existing at the Solop Infirmary, is sufficient to excite your " utmost indignation at the *false* and *scandalous* statement."

I am extremely sorry if, in the paper alluded to, there were any observations calculated to give uneasiness to any person—such was not my intention; but it is clear, the anger you feel is rather to be attributed to my having erroneously supposed that the medical and surgical officers of the Salop Infirmary had adopted the odious custom of demanding money from students wishing to attend there.

I beg to inform you, that the Memorial will be in *The London Medical and Surgical Journal* for October; but I am fearful your answer will not be in time for this month. It shall, however, certainly appear in the Number for November.

I beg to apologize for troubling you, and to remain, Sir,

Your obedient servant,

Wm. Hebb.

D. J. P. Johnson, Salop Infirmary,
Shrewsbury.

The secretary of the Gloucester Infirmary has written to Mr. Hebb, stating that his memorial has been submitted to the medical officers of that institution. The same reply was received from the General Hospital, Birmingham, and the secretary of the Hereford Infirmary informs Mr. Hebb, that the medical officers of that establishment are perfectly satisfied with their own rules and regulations.

[Mr. Hebb evinces great zeal and disinterestedness in his defence of Medical Reform, and we hope his labours may contribute to the correction of abuses in all the great hospitals in the United Kingdom.—Ed.]

V.—*Case of Apoplexy, ensuing upon the Rupture of a small Aneurism of a Branch of the Middle Cerebral Artery.* By Alex. Thomson, M.B.

The subject of the present case, Mrs. B————y, a woman of a rather literary turn, fifty years of age, the mother of three children, of the last of whom she had been delivered about seventeen years back, having then been married seven years, had suffered considerably from mental anxiety during the last seven years of her life, having at the commencement of that period lost her husband, who died in a coach of a fit of apoplexy, while accompanying herself to the opera, and been, since his death, much annoyed by a suit in Chancery and other pecuniary embarrassments; yet her spirits were regular, her temper well regulated, and her habits remarkably temperate; in fact, she was often heard to observe that she never had known an hour's illness for years; she had been perfectly regular at her monthly period till the last time, at which she had had no discharge, which fell about a week previous to her decease. She had spent the evening previous to the day of her death with some next-door neighbours, and appeared to them, as well as to her daughters, to be contented in her mind, and remarkably cheerful. She breakfasted heartily as usual with her family on the morning on which she died; appeared in good health and spirits, and left the breakfast table to put up some curtains in one of the bed rooms, while the daughters went to their usual morning recreation of taking care of a neatly arranged garden behind their domicile. The daughters not having seen their mother for about an hour, went up into the room in which she was supposed to be working, and to their astonishment, found her lying with her face jammed against the carpet, breathing very slowly and heavily. Her elder daughter thought she must have fallen, as it appeared she had been standing upon a chair and upon a table, on the paint of which the impression of the heel of a shoe was discernible, and expressed this to Mr. Bacon, a surgeon, for whom she had sent, he having previously attended her mother. He did not, however, coincide in this opinion, on account of the relative position of the body, the chair, and the table.

Mr. Bacon had attended Mrs. B. about four months previously for a slight bilious fever, from which she recovered after a few doses of calomel and saline aperients in three or four days, without having been confined

to her bed. During this attendance, she informed Mr. B. that she never remembered having had a day's illness before. Mr. Bacon had arrived at about a quarter past ten, a. m. and found the lady lying upon the floor of her bed room, to all appearances dead. Her face and extremities were quite cold, though there remained a slight degree of warmth about the chest and abdomen. Her countenance had a death-like appearance, the features being slightly swollen, the lips remarkably pale, the eyes fixed, the pupils slightly dilated, the mouth and nose discharging saliva, that from the mouth being slightly tinged with blood, the tongue very much swollen, one side of the face marked with an impression of the carpet; the pulse and action of the heart imperceptible, and the respiration stopped, no sign of it being perceivable by the aid of a glass held before the nose. I had in the mean time been sent for and arrived in time only to confirm the belief of Mr. Bacon, that little could be done. He had judiciously wrapped the extremities in flannels steeped in boiling water, and fancied, even after my arrival, that he felt a pulse; it was, however, what he wished to feel. I opened a vein in the arm, but the blood only trickled out. I cut into one of the temporal arteries, and obtained no blood. I attempted, by the aid of a pair of bellows, to keep up artificial respiration, but the spirit had fled, and all my efforts were fruitless to recal it.

Morbid appearances twenty-four hours after death.—The body was about five feet six inches in length, well formed, and generally plump and well filled. The features were all swollen, while the whole of the face, with the exception of the upper part of the forehead, the under lip, and the eyelids, were of a purplish hue, owing to the turgescence of the capillary vessels, which could be easily traced by the unaided eye. A similar hue, from similar turgescence, was spread over the ears to the whole of the neck, the whole of the back as far as a line drawn from the anterior spine of the crest of ilium upwards to the shoulder, and in scattered patches over the upper half of the anterior surface of the thorax. About half a pint of blood had oozed during the night from the wound of the temporal artery. The lips were swollen and corrugated, and, with the gums and anterior half of the tongue, unusually pale; the mouth contained a small quantity of turbid fluid; the eye was directed horizontally forwards, had its cornea remarkably tense and prominent; the vessels of the adnata and sclerotica still containing an unusual quantity of blood; the pupil occupying about one-sixth part of the space of the cornea, and its iris brown; the hair was black, dashed plentifully with grey. She had been much troubled during life with *acye punctata*, and the sebaceous follicles in every part of the face, nose, forehead, and neck, were distended with the peculiar hard, flask-shaped masses, which constitute the most remarkable feature of the primary stage of that disease; the abdomen was tense; the sound of the thorax was generally dull.

The branches of the temporal arteries and veins, and the minute vessels of the cellular tissue of the pericranium, in some parts of which were found numerous petechiæ, and of the cranium itself, although it was thick, of an ivory density, and nearly destitute of any trace of a diploe, were found gorged with blood. The whole of the dura mater of the right side had its serous layer most minutely covered with longish vessels parallel carrying red blood, and to all appearance was in a high state of inflammation.

All the arteries, indeed, of this meninx were in a high state of turgescence. On the left side, however, while the larger arteries were equally turgid, the capillaries of the serous layer were not so much injected as those of the false tentorium, and of the right side.

The loose arachnoid membrane was here and there slightly thickened, and elevated from the convolutions by a considerable quantity of serum, effused underneath it, and between the convolutions. The vessels of the pia mater, and the larger branches of the cerebral and cerebellal arteries, were empty of blood, so that the pia mater appeared unusually free from vascularity. The menigeal veins contained but little blood, and that of a very dark hue, and in a very fluid condition. There was effused between the convolutions, and between the arachnoid and pia mater, chiefly of the middle lobes of the cerebrum, as high up as the top of the temporal bones, of the whole of the base of the anterior lobes, and generally over the approximate surfaces of the hemispheres, a vast quantity of blood of a perfectly fluid character, and of a very dark hue; and also over the whole of the medulla oblongata, pons varolii origins of the cerebral nerves, crura cerebri, the approximate surfaces of the convolutions in the fissura silvii, and between the convolutions of the cerebellum, was a large quantity of dark blackish coagulated blood, in a layer of about one-eighth of an inch in thickness, which, in the fissura silvii, had succeeded in dissecting off the pia mater from the surfaces of some of the convolutions. The primary inter cranial branches of the internal carotids, and of the vertebrals, with their cerebral and cerebellal branches, were nearly destitute of blood. Yet, when pressure was exerted on the sides of the thorax, the blood flowed in a fluid state from the carotids. The pitiutary gland was destitute of blood, and natural in colour and consistence. The middle cerebral arteries had several semi-cartilaginous depositions in their parietes, and in those of their ramifications, many of which, in several points, were more or less dilated. Moreover, in each of these arteries, was found a small aneurismal pouch, the fractures of one of which had been the source of the effused blood. The pouch on the left was not larger than a millet seed, had semi-cartilaginous plates in the substance of its parieties, was unruptured, and situated on the cerebral aspect of the first angle of bifurcation, from which it arose by a neck narrower than the circumference of its body.

That of the right side was about equal in size to a common garden pea, similar in the condition of its parieties to that of the opposite side, situated towards the cerebral aspect of the point of bifurcation of the anterior branch of the first fork of the middle cerebral artery, and ruptured at the point most remote from the vessel, from which it proceeded, and which appeared to be chiefly the anterior of the prongs. The parietes of this anterior prong had also been dilated, independently of the aneurismal pouch, attenuated and fractured to the extent of about a quarter of an inch. From these two orifices all the effused blood had proceeded.

The medullary substance of the cerebrum and cerebellum was peculiarly free from red spots; but, throughout the whole mass of both, softer than natural, and nearly destitute of its ordinary elasticity.

The lateral ventricles were uncommonly large, particularly in their posterior form, measuring, from the mesial line of the posterior margin of the

corpus callosum, two inches and a half; and an equal distance from the same spot, to the point of deflection of the lateral cornu; they contained, each, about f℥ss of sanious serum, with a loose clot of blood, about the size of a horse-bean; had the veins of their parietes turgid with dark red blood, and the parietes themselves remarkably tender, particularly in the septum lucidum, which was in a pappy and diffluent state. The velum interpositum and plexus choroides had their vessels quite destitute of blood, but contained between its layers, towards its posterior part, a small clot of blood. The corpus striatum of the right side had a great quantity of bloody spots or petechiæ on its surface, and was in its substance, together with that of the thalamus of the same side, minutely traversed with vessels gorged with black blood. The fourth ventricle also contained a small black recent coagulum, of about the same size as those in the lateral ventricles, and had the vessels of its lining membrane gorged with blood, particularly towards the origin and track of the portio mollis of the seventh pair of nerves. The blood which had flowed from the divided vessels, and from between the meninges of the brain, did not measure less than three or four ℥s. and, after standing exposed for half an hour, displayed a tendency to coagulate.

There was a subcutaneous layer of fat, of about half an inch in thickness, over the whole of the abdomen and thorax. The lungs were full of air and did not collapse, owing, no doubt, to the obstruction presented to the exit of the air, by the frothy mucus contained in and filling up the trachea and its ramifications. The anterior mediastinum, and the course of the costal vessels beneath the pleura costalis, were loaded with fat. The pleural cavities each contained some sanious serum, the right about four, the left about three fluid ounces. The pleura costalis, on both sides, was minutely traversed with vessels gorged with red blood.

The mucous membrane of the posterior part of the tongue of the pharynx, the larynx, the trachea, and its larger ramifications, was most minutely traversed with vessels loaded with red blood, stellularly arranged, while the surface of the trachea was covered with white and frothy mucus. The lungs of both sides were natural in hue, and in no way diseased, except by containing a superabundance of white froth in their air tubes, and a cicatrix of about the size of a half-crown piece, formed out of some lobules, flattened and indurated by old disease, at the uppermost part of each, that of the left side being more oblong in form than the other. The exterior of both of these cicatrices was attached to the costal pleura by strong old bands, by which also the upper lobe of the right lung was bound anteriorly to the middle lobe, posteriorly to the inferior lobe, and by the whole of its lateral and dorsal surface to the costal pleura. The upper lobe of the left lung also was fastened through old adhesive bands by its lateral surface to the costal pleura, and by its inferior surface to the inferior lobe.

The pericardium was larger than natural, and contained about one fluid ounce of brownish yellow serum, was minutely traversed with vessels, carrying red blood both in the cardial and capsular portion of its serous layer, and dashed under the former with a considerable number of minute petechiæ, had its capsular surface elevated into irregular ridges and tubercle-like bodies, by organized coagulable lymph deposited underneath it. The

portion of the systemic auricle, round its junction with the ascending cava, is extensively covered with adherent, organized masses of coagulable lymph, which had evidently been thrown out within the cavity of the pericardial sac. A mass of organized coagulable lymph effused also within the pericardial sac, of about the size of a shilling, was also to be seen over the fat, immediately between the systemic auricle and pulmonic ventricle; and another, rather larger in size, on the anterior aspect of the heart, towards the apex, at the smaller end of the systemic ventricle: it was opaque, white, about one-sixteenth of an inch in thickness, elevated and irregularly circumscribed. The heart itself was rather larger than usual, much loaded with fat along the primary course and ramifications of the coronary arteries, the substance of its ventricles very flabby, and paler than natural, particularly that of the systemic ventricle. There was a small quantity of fluid blood in the aorta, in the pulmonary veins, and in the venæ cavæ. All the valves were opaque, and slightly thickened; those of the ventricles having a tendency to induration at their loose margins, the semi-lunars of the pulmonary artery having a slight cartilaginous rim round their attached margins. The foramen ovale was open, and would allow of the passage of a crow quill.

The abdominal cavity contained about half a table-spoonful of sanious serum. The stomach contained air, and a small quantity of greyish semi-fluid semi-opaque matter, reached down as far as the umbilicus, was bent upon itself, and pushed almost entirely to the left of the mesial plane, by the enlarged liver. The intestines were universally distended with air, and contained only a coating for their mucous membrane of yellowish grey semi-fluid matter; while the vessels of their serous coat were turgid with blood, although the mesenteric arteries and veins were nearly empty. The liver was much larger than natural, extending from the fourth rib to the crest of the ilium, very irregular on its surface, being marked with knobs, as though some of its portions had become hyper-tropic, particularly towards the inferior half of the convex surface of the greater lobe, having its investing membrane in many spots thickened and opaque superficially in the inner vertrophoid portions; having universally, on the exterior, in point of colour, an appearance not unlike fine red granite, but internally more uniform, the substance being generally harder than natural. The gall bladder was quite empty, although of the usual size, and not even tinged externally with bile. The spleen was firmly attached by its convex surface to the diaphragmatic portion of the peritoneum, by bands of old formation; had that part of its investing membrane to which the adhesive bands were fixed, opaque, yellow, thickened, indurated, and puckered, as if by an old cicatrix, was larger by one-half than usually, and internally in a soft, pappy, almost diffluent state. The whole of the serous surface of the uterus and of its appendages, was in an inordinate state of injection with red blood, as was also the case with the proper substance of the uterus, for from one-eighth to one-sixth of an inch inwards from the serous membrane. The uterus itself was rather large, measuring about three inches from the margin of the os tincæ to the uppermost point of the fundus, about two and a half from the insertion of one, to that of the other fallopian tube, and in the thickness of its walls from the serous to the mucous surface of the body, about three-quarters of an inch.

Along the course of the fallopian tubes, and even on the body of the uterus, but more plentifully between the layers of the broad ligaments, were scattered small serous cysts, lying beneath the peritoneum, lined with a polished smooth membrane, containing a pellucid brownish-yellow fluid, themselves pellucid, and of every size, from that of a millet seed to that of a grain of wheat. One tumour, similar to these in every respect, except that of size, in which it was equal to a hazel nut, hung by a short pedunclе from beneath the extremity of the fallopian tube, on the anterior surface of the broad ligament of the right side, and had some vessels carrying red blood upon its surface. This small tumour, larger than I have hitherto found these serous cysts, strengthens me in the suggestion I ventured to make, in a case which I have some time since published in the *Lancet*, viz. that these tumours are the originals of what is termed dropsy of the ovary, which body they, when they have separated by expanding the layers of the broad ligaments, push aside, flatten out by pressure, and leave attached to themselves, after having usurped its place. It strengthens me in this suggestion, because it is intermediate in size between the smaller cysts, and that which is described in that case, as follows:—

"The peritoneal surface of the uterus and of its appendages was intensely inflamed; but more particularly of the posterior surface and of the fallopian tubes. The broad ligaments contained, particularly in that part of them which lies between the ovarium and the free extremity of the fallopian tube, but also scattered over the surface of the fallopian tubes themselves, several tumours, varying in size from that of a millet seed to that of a pea, some round, some oval and compressed, some conical, all translucent, pointing backwards, and containing a transparent brownish serum, and each furnished with a cyst of its own, the inner surface of which was smooth and polished. The right ovarium, which was of its natural size, resembled in appearance the convolutions of the brain, and was inflamed at its inner angle and posterior surface only, beneath which were also a few petechiæ.

"The left ovarium had yielded its position to a tumour, about the size of the woman's doubled fist, of an ovoidal form, the blunt end of the egg being presented towards the base of the triangular ligament of the ovarium. This tumour had pushed the uterus a little over towards the right and anterior part of the pelvis, but had not at all increased the length of the inner corner of the triangular ligament of the ovary. The ovary itself was flattened out into a membranous substance, lying between the peritoneum and cyst of the tumour, by which it had been pushed aside, and on the small apex and exterior side of which it was spread. Thus expanded, the ovary covered a space about equal to four square inches, and was in no part above one-twentieth of an inch in thickness, but retained some traces of the convolutions of its surface. The peritoneal coat of this tumour was much crowded with red vessels, and when it, together with the expanded ovary, was carefully dissected back, the second coat of the tumour was found to consist of fascia-like fibres deposited parallel, or nearly so, to one another, and radiating also from beneath the expanded ovary. This coat was densely covered with long vessels radiating from beneath the ovary, and running parallel to one another, and to the fibres. The third or inner

membrane of the sac, was extremely thin, covered with minute red vessels stellularly disposed, and smooth and polished on its inner surface, and enveloped a glary colourless fluid. There was no body found within this fluid, so that from the nature of the sac, the whole of whose parietes was not one-tenth of an inch in thickness, there can be no doubt of its being an incipient ovarian dropsy. The expanded ovary had several petechiæ in its substance."

Now in both cases there existed similar small seriferous tumours, and one of a larger size in the vicinity of the ovary, and in the last case this larger one was precisely in such a situation that had it expanded, it must have come in contact with and pressed against the ovary, by which it would have formed a tumour, closely resembling that described in the former case, and for the origin of which I attempted to offer the following explanation :—Again, the tendency to form the little serous sacs, which have been noticed as being found both between the layers constituting the uterine ligaments, and under the peritoneal investment of the uterus itself, is worthy of remark, since it may be conjectured, that the ovarian cyst owed its origin, not to any disease in the substance of the ovary itself, but to an unusual development of one of these little serous cysts, occurring in, or generated in connexion with, the peritoneal investment of the ovary itself.

More examples are however still necessary to confirm the probability of this conjecture, the substance of the uterus, with the exception of about the eighth of an inch deep from the exterior surface, which was unusually red, was dense, hard, and white, consisting apparently of a net work of thickened cellular tissue. In the heart of the substance, close to the right utero-fallopian orifice was an incysted tumour, of about the size of a large horse bean, spherical in form, hard, and formed of hard concentric and interlacing white bands of cellular tissue, with a yellowish substance in the interstices. A similar tumour was found in the centre of the anterior paries of the body of the uterus. The mucous membrane of the vagina and os uteri was in a minutely injected state, but particularly that of the os tincæ, from out of the orifice of which hung a flaccid tumour of about the size of an almond, consisting apparently of spongy and highly vascular mucous membrane, suspended from the rugæ of the centre of the posterior aspect of the cervix of the uterus, at about three-quarters of an inch within the margin of the os tincæ, by a taper peduncle.—The surface of all the rugæ of the cervix was remarkably red, from the minute vessels being gorged with red blood; while between the rugæ were several small sacs distended with a watery fluid with transparent coats, such as have received the name of the *ova of Naboth*. The whole surface of the cavity of the body of the uterus was covered with a whitish turbid mucous discharge. The lining membrane resembled mucous membrane that has been long soaked in water, was extremely lax and spongy, and about the eighth of an inch in thickness, having no blood in its vessels, and being of the hue of dirty cream. There was proceeding from the right side of this lining, at about three-quarters of an inch below the right ultero-fallopian orifice a tumour similar in form, magnitude and consistence, to that situated near the orifice of the womb, but resembling in colour the lining membrane of the body. Both ovaries were rather

larger than natural, measuring one and a half inch in length by one inch in breadth; neither of them was much corrugated upon the surface, each, however, contained two soft and yielding tumours, feeling as if half filled with fluid. The left ovary was more vascular than usual, particularly for one sixth of an inch from the external surface, consisted in its substance chiefly of vessels interlaced with thickened indurated cellular substance, contained a soft tumour, consisting of a sac lined with a smooth membrane, densely covered with vascular ramifications carrying red blood, of about the size of a hazel nut, containing a dark, dull red, homogeneous mass, having a smooth investing membrane of its own, resembling a mass of recent venous coagulum, but not so easily lacerable, and attached by a small part of its surface to the paries of the containing sac, situated at the exterior ligamental edge of the ovary; and one similar in structure and appearance, and smaller in magnitude, and attached universally to the surrounding parietes, in the extreme point of the free edge of the same ovary. The right ovary was also internally somewhat more vascular in appearance than usually, similar to the left in its substance, and like it containing two tumours, one at its exterior ligamental edge, in all respects similar, except in being rather smaller to that similarly situated in the left ovary, and another about the size of a large horse bean, lying between the serous coat and the substance of the ovary, though attached to both, situated towards the inner angle of the free margin of that body, of a bright red hue throughout, although surrounded by a defined ring of a buff-yellow hue, uniform, toughish, and flexible in its consistence, and having in its centre a funnel-like depression, lined, however by the serous membrane; this last tumour and that in the corresponding part of the opposite ovary, are perhaps the hyper-organized remnants of old and unabsorbed corpora lutea, although it is difficult to account for their homogeneous red hue, unless by the result of recent inflammation. The other two tumors attached to their sacs in one spot only, are most probably hyper-organized ovarian vesicles, which have not ruptured the external tunic of the ovary, and the fluid of which has been gradually replaced by solid organized coagulable lymph.

REMARKS.

1st. The effusion of serum between the convolutions of the brain, although combined with deprivation of the elasticity and generally softening of the substance of encephalon, neither of which states we have reason to believe, can have been the result of sudden action, produced in this case, not only no symptoms of disease, but did not prevent the patient from having the appearance to her friends, and the sensation to herself, of having enjoyed more happiness, and actually unalloyed health, comfort, and spirits, for the last three months, than for seven years back.

Now, how can this be made to coincide with the inference of Abercrombie, in his second chapter on "Ramollissement of the Central Parts of the Brain, and Ramollissement of the Central Parts, combined with serous effusion, constituting the most common form of acute hydrocephalus." In the first of which he observes, "From all that I have observed of this affection, I have no hesitation in considering it as the termination of inflammation in these particular parts. It is an appearance of very fre-

quent occurrence, and seems to hold an important place in the pathology of the brain, and particularly in the pathology of acute hydrocephalus. A most interesting point in the history of it is, that it may be fatal without effusion, and without any other morbid appearance, though with all the symptoms which are usually considered as indicating acute hydrocephalus." And his second inference is, " From a fair and candid review of the whole subject, I think we can have little hesitation in concluding that this is the ordinary form of the disease, which is commonly called acute hydrocephalus; that it is originally an inflammatory affection, chiefly seated in the substance of the central parts of the brain; that it generally terminates by ramollissement of these parts, combined with serous effusion in the ventricles; and that it may be fatal by the ramollissement alone, even of small extent, but with all the symptoms which are commonly considered as characteristic of acute hydrocephalus." But in this case, notwithstanding the extensive ramollissement of the central parts, notwithstanding the ventricular and introconvalutionary effusions of serum, there were no symptoms of hydrocephalus, none whatever of disease, so that ramollissement and effusion *may exist, at least for some time,* without yielding any symptoms, palpable even to the attached friend and anxious companion of the patient. This inference, calculated to throw so much obscurity and doubt over the diagnosis of such affections, while amply borne out by this case, has not escaped the attention of the acute Abercrombie; for he observes, " we have seen the disease run its course without any complaint of pain, or any symptom indicative of danger, until the patient was unexpectedly found in a state of profound coma."

2nd. It is, moreover, well worthy of remark, that the space afforded for the lodgment of the effused arterial blood, was yielded as would be theoretically expected by the space occupied by the distended blood-vessels, which in all parts of the encephalon were found unusually destitute of blood; an observation of great importance, because it frees us from the necessity of supposing that the death is the result of pressure, in as much as it shows us that the effused blood does act in diminishing, if not in obliterating, the space necessary for a circulation, and thus in preventing the arrival of any new or arterial blood at the nutrient extremities of the encephalic arteries, and may, therefore, cause death by inanition of the encephalic mass.

3rd. The fact of an aneurismal tumour having been found nearly at the same spot in each of the middle arteries of the cerebrum, would lead us to suppose that the deficiency of resistance of the arterial coats in these spots to the dilating forces, arose from some common centre with which the organic nerves of the parts were connected by sympathy, having been subject to irritation.

4th. The great facility with which compression of the thorax, while there was no other obstacle to the exit of the air from the lungs but the frothed mucus in the air tubes, forced by pressure, the still fluid blood from the cut orifices of the carotids, and vertebrals within the cranium, may lead us to conceive how great must be the dilating force applied to the arteries of the encephalon, when, during straining, the breath is retained by the spasmodically closed epiglottis, and great and forcible contractions of the abdominal muscles are compressing the large vessels.

5th. It is worthy of remark, that this person appears to have been one of those in whom there is a peculiar disposition to inflammations of the serous membranes. Thus we have effusion beneath the file arachnoid, and the local thickenings of this membrane; numerous old adhesions of the pleuræ, remnants of former inflammations of the pericardium, and of the peritoneal investments of the spleen and liver, and the development of serous cysts of various sizes, in connection with the peritoneal envelope of the uterus and its appendages, while we found no traces of external disease of any mucous membrane, unless the pedunculate tumours in the uterus be considered of that kind. Notwithstanding, however, these evidences of a procliveness to inflammation of the serous tissues, I was assured by her daughters and friends, that she had never been afflicted with rheumatism.

6th. It is remarkable that the hypertrophic state of the liver gave no annoyance to the patient; and it is difficult to say whether the empty state of the gall-bladder, with the enlargement of the liver, arose from a want of secretion of bile, since the bilious attack three months previous to the decease, or whether the gall-bladder's contents had been made use of in perfecting the chymification of the hearty breakfast, which is not impossible, as the stomach contained nothing but greyish mucous looking matter in a small quantity, and the small intestine as small a quantity of yellowish grey semifluid matter. Had the acne punctata, so crowded over the face, forehead, and neck any dependance on the condition of the liver?

VI.—*Successful Treatment of Purpura Hæmorrhagica.* By Dr. Ryan.

A child, æt. two years, whose parents reside in the Edgeware Road, was presented at the Middlesex Hospital in July last, labouring under purpura hæmorrhagica. It was seen by Dr. Ley, according to the mother's account. It had no medicine. It was presented at the Institution for Children, Golden Square, and here also nothing was done for it. When the woman applied to the narrator, the case was exceedingly well marked, and he, in the presence of several of his pupils, made some clinical remarks, in accordance with the received opinion as to the incurability of the disease. He considered, however, that the condition of the blood must be vitiated in this disease, and accordingly was determined to try the effects of neutral salts, so strongly recommended by Dr. Stevens in yellow fever. The result was fortunate, as the child improved in twenty-four hours, after taking the remedies about to be mentioned. The petechiæ became paler, the vibices lost their dark colour, and in one week all appearances of the disease had vanished, The child is now in good health.

Should saline medicines, with tonics and mercurials, prove effectual in the practice of others, the record of this case will be of advantage. The following were the formulæ employed—the diet was nutritious:—

℞ Sodæ subcarbonatis, ʒij;
Sacchari purif. ʒiv.;
Succi limonis recent. q. s. ut saturetur soda,
Aq. destillat. ℥ij,
Dosis coch, med. 3.4ve de die

Habeat,
Quinæ sulphatis, gr. vi.;
In chartulas sex divide; ex his;
Sumatur una ex theriacâ, ter indiès.
Sig. tonic powders.

℞ Hydrarg. submur. gr. xv.;
Rhei. pulveris, ℈j.;
Pulv. aromat. ℈ss.:
Sacchari purif. ʒj.;
In chartulas vj. divide; ex quibus.
Sumat unam singula nocte.
Sig. aperient powders.

Hatton Garden, Oct. 30th, 1831.

VII.—Mr. Mitchell on Testitis.

To the Editor of the London Medical and Surgical Journal.

Sir,—If the enclosed observations merit a place in your estimable Journal, you will oblige, by their insertion,

Your most obedient servant,

C. Mitchell, Surgeon.

Humoral pathology has nearly by common consent been exploded, but I think not in every instance with sufficient inquiry; while on the other hand names have been retained, which imply a belief as to the existence of corruption or humour producing disease, such as in hernia humoralis, which, be it well known, is caused in gonorrhœa by the inflammatory action extending along the seminal tubes. Testitis, as long ago proposed, is a substitute much more applicable, and an appellation less likely to bewilder and embarrass the student.

Every practitioner must be well aware that it proceeds from a variety of causes, independent of gonorrhœa, and in the celebrated and useful Dictionary of the indefatigable and learned Mr. S. Cooper, we find the following observations:—

"The same symptoms follow every kind of irritation of the urethra, whether produced by strictures, injections, or bougies." The subjoined cases will, I presume, shew a few of the causes, which may operate in the production of testitis.

G. P. while wrestling with a companion, accidentally received a blow upon the testicle, which produced syncope. I saw him two days after the receipt of the injury; the left testicle was the size of an orange, tumour confined to the body, while the epididymis seemed almost exempt from participating in the inflammation; it was enlarged, but little pain was caused by pressure; he complained of severe pain in the loins, constant

sickness, and thirst; the pulse was quick, and the skin hot and dry. A gentle emetic was administered, followed by calomel and a saline purgative; leeches were applied to the scrotum, and afterwards warm solutions of opium, with support. The emetic was an extinguisher to the febrile action; the tenderness diminished, and the enlargement progressively declined.

A. B. a lascivious youth, much addicted to venery, received an unusual degree of violence during coition; he went to bed, affected with darting, but not acute pain, in the right testicle. He awoke in the night cold and chilly; severe rigors followed, accompanied with sickness, which succeeded to incessant vomiting, attended with excruciating and piercing pain in the testicle and loins. I saw him early next morning, December 10; enlargement and heat of the testicle and scrotum; superficial veins turgid; tongue white; pulse small, quick, and constringed; skin hotter than natural; bowels confined; chord much thickened, and painful upon pressure.

℞ Pulv. emetic statim.
Hydr. sub. mur. gr. vj. P. opii gr. i. ℿ. capiat tres hôras post emet.
Sulph. magnes. ℥j. hôra post pulv.
App. hirudin v. et cataplasm calid postea.

In the evening I was requested to visit him, then much worse—the testicle was swollen, in consequence of the mercury, to a size little less than one-half of the adult head; the torment was excessive, and almost unbearable; numerous scarrifications were made through the distended vessels of the scrotum; he was supported in the erect posture, whereby the venous blood returning, vis a tergo, and from the impending position, a large quantity was soon procured, by the outlets formed through the full vessels, after which a large poultice was renewed, while he took the following powder every four hours:—

℞ Antim. tart. gr. 1-6th. Sulph. magnes. ℥j. Pulv. opii. gr. i. ℿ.

Dec. 11. The pain lessened in severity: diminution of size in the testicle followed, the febrile action somewhat abated, but the sickness and pain are still very distressing; slept during the night at intervals; pulse softer but quick; skin hot; tongue drier, with more thirst. Camphorated mercurial ointment was applied, as recommended by Mr. Hunter, with great benefit; its discutient and soothing powers were soon apparent; the powders were repeated, and the cure, in the course of ten days, was happily completed

An interesting case of syphilis some months ago, appeared in *The Gazette of Practical Medicine,* somewhat analagous, where the patient used mercury internally with advantage; he had consulted several eminent surgeons, and at length was prevailed upon to advise with Sir A. Cooper, who recommended mercury, introduced by means of friction, under which the patient soon recovered.

D. C. one morning when he awoke, experienced pain in the right testicle; he perceived the bulk a little increased, which made him anxious. When I saw him the circulation was quickened, producing an elevation of temperature, accompanied with pain, sickness and thirst. I premised an emetic,

ordered fomentations, recommended support and rest, placed him under opium, antimony and calomel; the system soon became influenced, and the disease subsided.

A young lad, after horse exercise, felt both testicles extremely tender, and painful upon pressure; he confined himself to bed for a day, but finding the parts swelling and becoming more painful, he became uneasy, and requested assistance; both body and epididymis of the testicles were involved; pulse quick, small and hard; skin hot and dry; much thirst and nausea.—An emetic was prescribed, which speedily produced relaxation of the skin, and almost instantaneous detumescence of the engorged parts. Cases have been recorded, where vomiting has had the effect of completely, without any adjunct, eradicating the disease: but in forty cases, where I have seen, and used emetics, no advantage was gained so signal as in the case above detailed, where the cure was completed by a saline purgative. Inflammation sometimes rises pretty high in attempting to obliterate the sac, when performing the radical cure for hydrocele, which frequently subsides spontaneously, or at least only requiring an aperient or purgative, conjoined with the antiphlogistic regimen, but very often in conjunction, requiring leeches and mercurial alteratives; but it is necessary not to check it suddenly, or our views will be frustrated, for some degree of inflammation is necessary to consolidate, or render adherent, the tunica vaginalis et albuginea, by the interposition of lymph. Tartarised antimony diminishes the force and frequency of the pulse, and above all obviates the constriction, and causes diaphoresis. Mercury arrests the inflammatory action, and ultimately effects the removal of deposition, or the subsidence of chronic action. Our increased experience of mercury justifies its administration, in cases of acute and chronic inflammation, as an efficacious corrector of disorganization, in most inflammations. Rest and support are highly advisable; unusual distention is prevented, which in many instances, if not averted, lays the foundation for more serious and troublesome diseases, or at least renders the cure protracted, and the affection more irremoveable.—Gonorrhœa being a painful affection, we are naturally led to have recourse to any means calculated to effect a more rapid cure than that with which we are acquainted; under that persuasion, therefore, I made use of caustic, mixed with lard, so weak as only to destroy the smaller congeries of vessels, without injuring the canal; the effect was, the discharge went off for 12 hours, and he experienced very little scalding in making water. The application was renewed twice, until a cure was obtained; it was only of three days' duration; at the same time he took cubebs. The ointment was smeared over a bougie, and carried into the urethra, where it was turned and withdrawn. For the proposition I am indebted to the pages of the *Lancet*, and I feel convinced it must become of much utility in allaying the sensibility, and stopping the progressive extension of the inflammatory action, thereby preventing the gonorrhœal affection of the bladder, which is an insiduous and dangerous disease, and likewise inflammation of the testicles, and consequences, &c. Cold applications are extremely precarious and hazardous, and, in my opinion, inadmissable to inflamed glandular organs, of so much importance as the seminal secretions.

Lamb's Conduit-street, Oct. 1831.

VIII.—*Extraordinary and curative Effect of a Contusion in a Case of Consumption.* Attested by Dr. L. V. Desimoni, Hon. Member of the Seminary of Public Health of Rio Janeiro.

(From a Correspondent.)

The natives of the Canary Islands who come to Mozambique, are in general remarkably thin; but one of them, a soldier, belonging to the garrison, attracted universal observation, having more the appearance of a living skeleton than a follower of Mars; he had been received into the civil and military hospital of the above city, at the period when the writer (Dr. Desimoni) was physician to that establishment, as well as to the entire district. A chronic cough, at times accompanied with apparently purulent expectoration, which was generally tinged with blood, a hectic fever, with morning and evening exacerbations, a dry skin, of a clay colour, and covered with profuse perspiration during the night, and unceasingly burning heat of the skin peculiar to certain tuberculous individuals, seemed to indicate the existence of pulmonary consumption. Besides these symptoms, there were also noticed an extreme difficulty of breathing, a low hollow voice *(pectoriloquous)*, a diarrhœa, which came on and disappeared at intervals, and left no doubt as to the former diagnosis, which joined to excessive emaciation of the patient, warranted the supposition that he was absolutely incurable, and that his last hour was fast approaching. It, however, turned out, that under a mode of treatment entirely palliative, he experienced some alleviation of his sufferings, and his debility was by no means so great as upon his entering the hospital; being much disgusted with this abode, he solicited me to allow him to go out, in order, as he alleged, to complete the re-establishment of his health, by change of air, as he already felt his strength somewhat increased. I objected to his leaving the house, seeing the state he was in, fully persuaded that this slight improvement was not to be depended on, being merely temporary; but finding that my refusal had such an effect upon the patient that he refused to take any food, and under the idea that a further detention in the hospital would not restore him to a better state of health, I determined on allowing him to leave, believing that this would accelerate his death. It was with great difficulty that he was able to walk from the hospital, and by the use of some diet more agreeable to his taste and the change of air, he felt his strength increasing, so that he formed the intention of again entering into the army. On the third day after his leaving the hospital, he was placed as a sentinel on the top of the bulwark surrounding the fortress of St. Gabriel, on a part of the island which is considerably above the level of the sea. He had not been long at his post, when on a sudden his strength forsook him, and, with his musket in his hands, fell from the height where he stood to the foot of the bulwark, dashing his body against the ground in a spot where a quantity of loose stones were strewed about. Luckily none of his limbs met with a fracture, and he escaped with some contusions in different parts of the side upon which he fell, and especially one in the face about the malar region; he remained insensible for some hours, at the expiration of which, spitting of blood and epistaxis came on, and

to so violent an extent as to threaten his existence. However, by the use of baths of camphorated brandy, an infusion of centaury taken internally, and the application of some leeches, *subsequently obtained*, and also by the adoption of a nutritive diet, he by degrees recovered (with the exception of a slight sensation of pain now and then, in consequence of the contusions), his old complaint entirely ceased, so much so, that all symptoms of phthisis disappeared; he acquired a healthy appearance, and finally became fatter than any of his countrymen. At the end of a year after his recovery, he was seen by the writer of the present article, who left him in a state of perfect health, thus presenting an instance of an individual cured, as above related, after every remedy heretofore relied on had been unsuccessfully administered.

(Signed) L. V. Desimoni, M. D.

Seminary of Public Health.

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PHYSIOLOGY.

1. *Method to discover the Sex of the Fœtus before birth.* By Dr. Lœwenhard. *Journ.; fur Geburtshulfe. tom.* ix. *Bullet. des Sc. Med. Fev.* 1831.—The author contends that the moon exerts great influence upon the sex of the fœtus, not at the time of conception, as is generally believed, but at the time of delivery which precedes the present conception; that is to say, if a woman be delivered at the increase of the moon, her next infant will be a boy; and if parturition be accomplished at the decline of the moon, the infant will be a girl. It is only necessary for the woman to recollect the lunar epoch at which she is delivered, to predict the sex of the next child. This cannot apply to primaporous women. The author has drawn his conclusions from numerous observations. The idea is worthy of investigation. It does not obtain in plural labours.

2. *Description of a Quadruped Infant, born and living at Paris.*—By M. Geoffroy Saint Hilaire. Read at the Academy of Sciences.—This monster was born at Paris, in the Rue de Vaugirard, No. 88. The father, a journeyman coach-maker, enjoyed good health, as likewise the mother, who has already borne several children without deformity. During her pregnancy she was troubled with frequent illness, and suffered from the whites, and also from sanguinolent discharges from the end of the first to the fifth month.

The monstrosity consists in the infant being double inferiorly, the pelvis included. The second pelvis is situated to the left of the proper one, pushing the coccyx from the mesial line to the right. It is attached to the left ilium and ischium, but is merely an atrophy, containing, however, the elements of two ilia and ischia; each head of the femora is lodged in a common articular cavity, and in consequence are so near each other, that though perfectly distinct in their whole length, they are enveloped in one

mass of flesh, the muscles and integuments of each thigh having become completely incorporated. But, from the knees downwards, the rest of the limbs is separate. The left leg is ankylosed, and fixed at right angles from left to right; the foot is also twisted at right angles, so that the external malleolus is inferiorly: there are only two toes to this foot, one of these being double the size of the other. The right leg is shorter and thicker than the left, and is partly engaged in the integuments of the thigh; the foot has the same appearance at the ancle as the other; but it afterwards assumes a more natural appearance, and has five toes of the natural shape and position. The sexual organs (male) are situated between the left thigh and the supernumerary one, and are well formed: the testicles at the time of the report not having descended.—*Bulletin des Sciences Medicales; Fevrier.*

A young medical friend lately described to us a supposed human fœtus which had been shewn him. According to the account furnished him, the fœtus was the product of an illicit intercourse between a medical man and a female in the country: the monster (for such it undoubtedly is) has one eye, the penis stuck on the forehead; the lower jaw like a pig's, skin smooth, ears resembling those of the pig, a tail, and the upper and lower extremities were formed also similar to those of a pig. This is, in all probability, a lusus from the pig family, which from bearing some similitude to a human being, has been foisted on the gentleman to whom it was sent as a human production. However, the circumstance is sufficiently curious, and we take this opportunity of requesting an *authenticated* and *correct* description of the animal.—Ed.

3. *Fœtal Circulation.*—It is a disputed point at present, whether the auricles contract simultaneously in the adult. Without entering into this point, I think that the auricles cannot contract simultaneously in the fœtus, as a great portion of the blood of the right auricle is transmitted through the foramen ovale into the left auricle, and, consequently, when the right is contracting, the left must be, pari passu distended.—*Mr. Dermott's Lectures on Anatomy and Physiology.* Oct. 1831.

MEDICINE.

4. *New Styptic.*—M. Bonafous has communicated to the Royal Academy of Medicine, that he has succeeded with a powder composed of equal parts of rosin, carbon, and gum arabic, in arresting hæmorrhage from large arteries. The author related several cases in which its application to the divided brachial artery in a man, to leech bites, to the carotid artery of a horse, &c. had entirely arrested the flow of blood.—*Gazette Medicale, Feb.* 1831.

5. *Tetanus and Neuralgia treated by the external Application of the Acetate of Morphium.*—Dr. Gaspard Cerioli reports two cases, one of traumatic tetanus, the other of neuralgia, which were successfully treated by the application of morphium to a blistered surface. In the first, a quarter of a grain of morphium was applied to the neck, the skin having been previously denuded of the epidermis by a blister. This was repeated twice during the first day, and was afterwards increased to one-third of a grain. A long-continued and obstinate neuralgia of the face was cured by a similar course. A case is also reported of a distressing irritation in the larynx,

which prevented the person from sleeping, by keeping up a constant cough, and which seemed to threaten the development of laryngeal phthisis. It was speedily removed by use of morphium, as in the above instances.—*American Journal of Med. Sciences, May,* 1831.

OBSTETRICY.

6. *Internal Uterine Hæmorrhage occurring during Pregnancy, Labour, and after Delivery.* By M. A. C. Baudelocque. Paris, 1831.—The Society of Medicine of Paris proposed, in 1819, the subject at the head of this article, which induced M. Baudelocque to arrange a moderate sized 8vo. in the form of an essay, after the experience of eleven years. He has accumulated a large mass of cases, and added comments on each, which are highly interesting. He believes that hæmorrhage, in the early months of pregnancy, is caused by a separation of the connexions between the fœtus and uterus, between the epichorion and chorion, between the chorion and amnios, between the placenta and the womb, between the placenta, womb, and external surface of the decidua and chorion, in the tissue of the placenta in the early months of pregnancy, between the umbilical vessels and their coverings, in the cavity of the amnios, in the peritoneal cavity during all stages of pregnancy;—during parturition hæmorrhage may occur between the womb, the placenta, and membranes, in the tissue of the womb, and thence into the abdomen, and rarely into the cavity of the amnios;—after delivery blood may be effused between the uterus and the placenta, or into the uterine cavity alone, thence into the peritoneal cavity, or into the vagina. Such are the contents of the first chapter. In the next chapter the author describes the causes, whether mechanical or dynamic, and offers many new views on this point.

In the article on the treatment this able and talented writer takes the most extensive views, and describes every remedy hitherto proposed. He examines the effects of frictions on the hypogastrium, the introduction of the hand into the womb, the external application of various fluids, injections into the uterus, the introduction of ice, lemon, a bladder, a sponge soaked in vinegar, compression of the abdomen, the tampon or plug, the ergot of rye, the compression of the aorta, ligatures on the extremities, blood-letting, galvanism, revulsives, internal astringents, &c. In these descriptions we find notice of a singular remedy, the introduction of a peeled lemon into the uterus. The chapter on "after-hæmorrhage" contains nothing novel, though, like all parts of the work, it proves the author to be a scientific and judicious practitioner. His work is a perfect treatise upon the subject of Uterine Hæmorrhage; and, like all Gallic monographs, is as perfect as the state of science will permit. We are glad that the nephew of the renowned Baudelocque has shewn so much judgment and skill, and we think no practical obstetrician in these countries will hesitate to pronounce him one of the best and most useful writers on obstetricy. We need scarcely mention, that we strongly recommend this valuable work to our readers.

7. *Hydrothorax in a Child of Fifteen Months Old.*—M. Lichtenstædt, Professor at St. Petersburgh, relates a case of hydrothorax in a boy, aged fifteen months, which arose suddenly without any evident cause. The child was seized with oppression of the chest, anxiety, irregular and violent action of the heart, and inability to remain in the recumbent pos-

ture. Both cavities of the chest were filled with a clear limpid fluid, as also the pericardium. But neither the pleura nor pericardium offered any trace of inflammation. The other organs were healthy. Ascites and anasarca often supervene on scarlatina, but hydrothorax in infants seldom occurs. We condense the facts of this case from the *Litterarische Annalen der gesammten Heilkunde*, July, 1830. It appeared also in the *Bulletin des Sciences Medicales*, Jan. 1831.

MEDICINE.

8. *Cancer of the Bladder: puzzling Case. Hopital St. Louis.*—A man, named Rossignot, aged sixty-five years, entered the hospital on the 13th of January, 1831, saying he had been afflicted with rheumatism a long time. His complexion was delicate, his limbs slender, and his features shrunk—in fact, he was greatly emaciated. He complained of a burning heat internally, and had much thirst, with constipation of the bowels, but little or no tenderness on pressure of the abdomen. He had severe pains in the loins, and indeed in both of the lower extremities. He had incontinence of urine, and his body and clothes smelt strongly of that excretion. This incontinence had existed for eighteen months, with some periods of retention of the same, the urine being very turbid, and sometimes mixed with blood. M. Biett conceived that there was some organic disease of the urinary organs. The pains in his loins increased rather than diminished; and, on the night of the 16th of the same month he was seized with hæmaturia, and the next day, in the midst of interrogatories, he suddenly expired. The reporter, M. Berard, here asks, " What medical man, after observing the above symptoms, would hesitate to pronounce the disease Nephritis Calculosa ?"

This opinion was that formed by M. Biett, and participated in by M. Berard; yet they were both mistaken.

On dissection, the kidneys were free from disease. The ureters were as large as the jejunum. The bladder filled a great part of the inferior pelvis, and was knotty on its surface ; its cavity almost obliterated. and its parietes thickened enormously by a malignant fungous disease. A cauliflower excrescence, of a cancerous character, projected from the bladder towards the inguinal ring; and another penetrated through the great ischiatic notch, compressing and blending with the great sciatic nerve. A third excrescence ascended from the fundus of the bladder, towards the lumber vertebræ, compressing the uterus, and obstructing the discharge of urine into the bladder. These post-mortem facts explained all the vital phenomena, though it would not have been easy to predicate the real nature of the malady during life.—*Revue Medicale. (Med. Chir. Rev.)*

9. *Nature of Hooping Cough.*—This has been looked upon by some as a catarrhal affection, complicated with spasm—by others, as a cough purely and essentially spasmodic—while some have placed the seat of pertussis in the head, the stomach, the liver, &c. M. Bland confesses that he himself has failed to ascertain the true nature of the disease. He thinks, however, that we may fairly assume that it consists in a morbid secretion of the bronchial mucus—a specific secretion, sui generis—saturated, in some way or other, with hydro-chlorate of soda, the irritation of which excites the paroxysm of coughing. He has tried the sulphuret of potash in this disease, and with success. He relates three cases, and adds, " We see in

the three foregoing cases, with what promptitude the sulphuret of potash modified the morbid secretion which constitutes hooping-cough—changed it into simple mucus—and thus stopped the paroxysms of cough which this morbid fluid excited."—*Revue Medicale (Med. Chir. Rev.)*

10. *Febrifuge Properties of Salicine.*—M. Magendie, Dr. Miquel, at the Hôpital de la Charité, Husson and Bally at the Hotel Dieu, have experimented on this medicine, and agree that it possesses febrifuge qualities. From twenty-four to thirty grains are sufficient to arrest completely the attacks of fever, whatever be the type.—*Bulletin des Sciences Medicales.*

11. *Bronchocele. Poudre de Senic.*—The proprietor of this medicine, concerning which the commission for secret remedies has already addressed the Academy, has written to the company to desire that their report may be made. The commission has made several experiments on different patients, with such success that they propose to Government to purchase it. The Academy of Medicine, however, thought the experiments were not sufficiently numerous to warrant their seconding this proposition, they, therefore, recommended the commission to resume their experiments; but as bronchocele is rare at Paris, it is evident that the report will be delayed. Meanwhile the proprietor, anxious to know its fate, proposes to make known the remedy at present; but he hopes that the Academy will demand an indemnity for him, as the price of the sacrifice he imposes on himself. It is probable that the composition of this remedy will soon be published, and in that case we promise to give it to our readers. Meanwhile we entreat those who have tried it, to publish the results of their experience. When a medicine is new it becomes a duty to publish its effects, whatever they may be.—*Academie de Medecine. Bulletin des Sciences Medicales.*

12. *Bleeding in Intermittents.*—ProfessorReich of Berlin, states that in forty years' practice of all the ague patients he has had, from the beginning of their attack, and who have implicitly followed his directions, there is not one that has not been speedily cured, and without suffering a relapse. He always commences his practice with bleeding, as he deems that there is an identity between intermittents and pneumonia; he has sometimes even repeated the bleeding, but never more than four times.—*Rust. Magazin fur die ges. Heilkunde,* tom. xxxi. 2 cah. p. 322.

[This confirms the views of Dr. Mackintosh of Edinburgh.—Ed.]

13. *Chronic Coryza.*—Professor Spitta, of Bostock, recommends the following prescription in this complaint. He says it is a very pleasant remedy :—

℞ Pulv. cubeb. ʒij.
Bals. tolut. gr. vj. admisc.
Syr. Bals. peruv.
Succi lyquirit. aa. ʒj.
Gum. arab. q. s. ut ft. massa ex quâ formentur trochisci ponderis gran. x. consperg.

14. We are much gratified in informing our readers that Cullen's Nosology, with Willan's Synopsis of Cutaneous Diseases, has been published at Moscow, for the use of medical students. Those who condense the classification of the great Scotch philosopher, must observe that the pro-

fession in all countries are of a different opinion. The Scotch Hippocrates admitted the imperfections of his Nosology, as will appear by reference to the genuine octavo edition, and those who raise objections, such as the illustrious author admitted, might perhaps be less censorious, until they have produced a more perfect system.

15. *Precautions against the Cholera.*—The stomach and bowels should be preserved in a natural state; extreme or sudden vicissitudes of temperature should be religiously shunned; raw fruits, adulterated beer, sour wines, and all kinds of indigestible food, should be strictly prohibited. Regular hours are indispensable; the mind should not be suffered to despond: unwholesome localities, such as the neighbourhood of low and marshy grounds, close and ill-ventilated habitations, condensed and over-crowded districts, should be as much as possible avoided; and all degrees of intemperance, whether in food or drink, are especially destructive. In short, every thing which can add tone to the general health, should be pursued; while whatever tends to weaken the powers of life should be counteracted. In many respects no town which cholera has yet visited, can furnish an easier conquest than our own metropolis. The hundreds of starving paupers, who come to London for relief, and are compelled, from want, to herd together in much less cleanliness than the lowest orders of the native Indians, are ever predisposed to the invasion of such an epidemic; and the over-peopled condition of many of our streets, courts and alleys, will strongly co-operate with the intemperate and filthy habits of many of their inhabitants, in giving a facility to its propagation, which the wisest and most rigid quarantine may be unable to neutralize. A medical commission should be appointed, to investigate the health of the metropolis, and every thing which, in their opinion, would tend to encourage either the entrance or progress of this pestilence, should be reported on. This precautionary measure should be adopted now; and in the event of the dreaded arrival of the cholera upon our shores, the town should be divided into districts—each district should be placed under the surveillance of a medical sub-commission, which should have erected for their use a temporary hospital, centrally situated, and severe penalties should be inflicted upon all who did not inform the members of this commission the moment symptoms of the disease were detected. It was some such preventive plan as this which was adopted at Moscow; and when cholera was ravaging Madras, two men were stationed in every street to carry the sick to the hospitals as soon as they took ill, and to each street was appropriated a lazaretto, sufficient to accommodate as many as required its assistance.

This paragraph we extract from a spirited and exceedingly well written article in the *Westminster Review* for October. Had the writer of that paper written nothing else, that alone would have stamped him as a man of high talent and genius. The history of the disease, its progress, &c. are accurately detailed, and although we do not coincide with the doctrines apparently held forth, we cannot avoid expressing our high admiration of the manner in which the subject has been treated. There are doubtless many points, which can be easily refuted, and many which demand to be controverted; yet as our space will not allow us to enter into a lengthened analysis of the paper, we must refrain. If the subject continues of such para-

mount interest as at present, we may perhaps review it in a succeeding number. Neither do we entirely agree with the writer, that London is more likely to be ravaged by this disease, should it appear, than any other city: there are of course numerous parts of the metropolis, as the neighbourhood of St. Giles's, Saffron Hill, the water-side, Wapping, and such like districts, in which dirt, drunkenness, &c. abound, the closeness of the air, and the manner in which several families are crowded together, the disease would extend its ravages rapidly; but we do not think it could do much injury among the more cleanly and the richer part of the inhabitant of this great city.

We think the plan submitted by this gentleman the most feasible of any we have yet seen, and far superior to the "SICK," and "CAUTION" plan of the board of health. We would beg to suggest that it would perhaps be as well that the sub-medical commission were appointed as early as the superior commission, and not to be delayed until the disease appears. We have heard that it is in contemplation to close the anatomical theatres, be it so, but clear out at the same time the shambles, the sewers, purify the water of the Thames as far as possible, and thus improve the health of the metropolis, so that when it does come, it may find us prepared. The terrific notification respecting cholera, published by the Privy Council, at the suggestion of the Board of Health, is exceedingly well calculated to diffuse cholera-phobia through all classes of society. The document is well worthy of the dark ages, as it is replete with horrifying assertions as to the contagiousness of cholera, a notion which can be entertained only by those who have never witnessed the Asiatic disease. The recommendation of the board to destroy infected *papers*, to boil clothes in a strong ley, to subject nurses and we presume physicians to quarantine, and to surround infected districts with strong bodies of troops, is one of the most absurd pieces of advice that has been recorded in the present century. It reminds us of the views of Dr. Hodges, in his account of the plague of London, "that the deadly quality of the pestilence vastly exceeds the arsenical minerals, the most poisonous animals, or the killing vegetables." We are told by this writer with great gravity, that the contagion was subjected to chemical analysis. "The breath of an infected person was received on a piece of glass, and was found to consist of an innumerable multitude of strange, monstrous and frightful animals; such as snakes and serpents, and dragons, and DEVILS, frightful to behold." It is to be hoped that the Board of Health will order the contagion of cholera to be analysed, in order to prove the correctness of their views on the suoject. The Board forgets the concurrent testimony of all writers, ancient and modern, that epidemic diseases have in spite of every regulation, though timely and strictly enforced, invariably spread in defiance of all human efforts, have overleaped the mounds, barriers, and stone walls, erected to confine them—have proceeded unimpeded in their course, beaking through all interruptions that human ingenuity could throw in the way, desolated all before them, and then suddenly disappeared, when human interference was considered useless. In proof of the validity of this statement, need we refer further than to the unimpeded progress of cholera through Europe? It therefore follows that the precautionary measures advised by the Board of Health, cannot prevent the advance of the disease, unless they possess the influence which Sir Thomas Maitland stated in his own

dispatch to our Government, during the plagues of Corfu and Cephalonia, that he possessed, namely, " that the four plagues were declared to be extinguished, *according to my own fiat.*" Did ever human being indite such a monstrous absurdity, as if plagues and epidemics were to be arrested or extinguished by the talismanic effect of an act of parliament, or a pompous decree of some arbitrary viceroy ? This reminds us of a comic observation of a popular author of the day, who said " that by taking the Act of Parliament in his hand he would set the devil at defiance." Cholera attacks those whose constitutions are injured, but cannot affect persons of good health. In no nation in Europe it is likely to have less influence from the advantages we possess of affluence, domestic comforts, mode of living, cleanliness and salubrity of climate. That the disease may visit this country is extremely probable, but that it is communicable by contact with the diseased, is ridiculous.—Ed.

16. *Raskani (Russia), Sept.* 9.—We have a variety of remedies for the cholera ; but not one of them has, as yet, been generally successful : even dung from stables has been tried to cure this dreadful malady. Amongst the number of remedies tried heretofore, I have found the following the most beneficial :—Ipecacuanha powder, from 33 grains to two drachms, given even at the period of vomiting, and in two hours afterwards 20 drops of liquid laudanum ; by the above mixture there will be found in the stomach a kind of Dover's powder, which will produce healthy perspiration, and restore sleep. Some of the physicians here assert the ipecacuanha is better without the laudanum ; but I have not as yet had an opportunity of proving that fact. I have discovered a new remedy for the cholera, which requires to be used more frequently before it can be generally recommended. This medicine is composed of arsenic, and given according to the theory of Hanneman.—The dose is about one-tenth of a grain. All the symptoms in cholera are exactly the same as those produced by poisoning from arsenic. This new remedy has been used by a physician in the country, and with so much success, that out of forty cases treated with the arsenic, he only lost five. My informant has, no doubt, confounded the bilious cholera with the Asiatic ; however, the statement which he has made is worthy of attention and further experiment.—*Private Correspondence of the Morning Herald.*

SURGERY.

17. *M. Larrey's Mode of tapping the Pericardium.*—In hydro-pericarditis, when it is deemed advisable to tap the pericardium, M. Larrey selects the point between the base of the xiphoid cartilage on the left side, and the united extremities of the seventh and eighth ribs on the same side. In this triangular space we may boldly make an incision, extending from the junction of the cartilage of the seventh rib with the sternum, along its inferior border, to the extremity of the cartilage of the eighth, which is closely united to the seventh. In this incision some of the fibres of the rectus and external oblique and cellular tissue are divided, when the knife comes down upon the projecting surface of the pericardium, traversing the triangular space between the two first indigitations of the diaphragm. The point of the knife must then be carefully directed a little upwards, and from right to left, in order to open the pericardium without wounding the

peritoneum. A small portion of the anterior edge of the diaphragm, at the point of its attachment to the posterior border of the cartilage of the seventh rib, is slightly wounded, but no vessel of any consequence is injured. The heart is less likely to be cut in opening the pericardium in this situation than in any other, because the fluid will naturally collect most at the most dependent part of the bag containing it. M. Larrey, it appears, has not performed the operation, in this situation, on the living body; it is accomplished with great facility on the dead.—*Med. Chir. Rev. Oct.* 1831.

18. *Ligature of the Crural Artery, Nerve, and Vein.*—Doctor P. Ghidella relates, that eight days after the amputation of the leg, in a child thirteen years old, secondary hæmorrhage ensued; styptics, compression, &c. were employed in vain. The crural artery was then tied in the inguinal space, but the adherence to the parts was so intimate, and the weakness of the patient increased so rapidly, that he was obliged to tie the artery, nerve, and vein together. No ill consequences ensued, unless we reckon as such the sensation of a cord preventing the extension of the thigh, and which disappeared by the tenth day. A complete cure was effected by the 22nd.—*Giornale di Chirurgia Pratica. Bulletin des Sciences Medicales.*

19. *Analysis of Drusium, or the Resin of the Oak.*—It contains a yellow matter soluble in æther, a little extractive and much gum; also all the principles of vegetable tissue and traces of acetate of potass, which renders it diliquescent. M. Soubeiran does not suppose that it can become ever a therapeutic agent.—*Op. cit.*

20. *A specific for cancerous Ulcerations.*—It appears, by a report from our esteemed contemporary, the *Medico-Chirurgical Review*, that a Mr. Wall has been trying a specific, or rather a secret remedy in carcinomatous ulcerations, under the superintendence of Mr. Green. Mr. G. was induced to allow these experiments, as Mr. Wall promised that, if successful, he would disclose his remedy. It was tried in two or three cases, with at first partial success, but it did not, in the end, effect a cure; Mr. Wall, after a greater or less space of time, abandoning the patient. The remedy is a powder procured from an Indian plant. "Mr. Wall says his object is to destroy the surface, and then cicatrization will rapidly ensue. He applies his vegetable powder, mixed up with lard, and then covers the surface, besmeared with this, with dry lint: the latter again he confines with a strap of plaister, and over the whole a bread poultice is put. It would be, perhaps, still desirable for the profession to be acquainted with the substance employed, as it might be turned to advantage in the management of certain ulcers. Mr. Wall is utterly ignorant of medicine or surgery, and consequently incapable of judging in what instances the application might be proper."

21. *Purulent Ophthalmia treated with Iodine.*—M. Magendie, in his report to the Academy of Sciences, relative to the treatment of scrofula by iodine, relates his having seen in the Hôpital St. Louis, under the care of M. Lugol, a case of purulent ophthalmia cured by the employment of iodu-retted collyria and injections, with the internal use of iodine. The state of the eyes in this young patient would be difficult to describe; they were

hypetrophied to the utmost degree; they had lost their form, and the pus gushed out in a continued jet, like the most copious blenorrhagia. After the fourth day's employment of the iodine, an amendment was perceived, and in a month he was cured.—*Gazette Medicale, Jan.* 1831.

22. *Cases of Amaurosis successfully treated.*—Dr. Buzzi has communicated to the Medical Society at Florence, five cases of amaurosis successfully treated. From the account of these cases in the *Annali Universali di Medicina,* July, 1829, it appears that in the two first cases (a man and a woman), the disease was caused by a bilio-gastric affection. They were cured by purgatives, but principally by repeated emetics, as advised by Cotugno, and successfully used by Stevenson. The vapour of ammoniacal æther was also directed to the eye. The treatment was entirely successful.

In the third case the disease was produced by excesses in the use of spirituous liquors; the patient was treated first by emetics, afterwards by emetized drinks, rigid diet, diluent drinks, wine and water, and repose.

The fourth case was occasioned by masturbation. It ceased on the abandonment of this vicious habit, the moderate use of good wine and a milk diet.

The fifth case was successfully treated by anthelmintics, the affection appearing to depend on the presence of worms in the intestinal canal.—*Op. cit.*

23. *Mercurial Ointment in Erysipelas.*—At the French hospitals this ointment has lately been employed with success. We learn from Mr. Guthrie's Introductory Lecture on Surgery, that, having been informed of this plan of treatment by Dr. Duprè la Tour, or Latour Duprè, that it had been employed successfully, he determined to give it a trial, and a case occurring opportunely at the Westminster Hospital, the advantages attending its use were fully exemplified by its effecting a cure. We may return to this in our next.

24. The following should be read by all the votaries of *fashion,* male or female. We hope that it will be sufficient to destroy the dreadful practice spoken of, and which can never be sufficiently deprecated.

" Let us examine the action of one only of the numerous muscles connected with the chest and spine, the latissimus dorsi, which arises from the common tendon of the loins. The fleshy part of this muscle encircles the lower and back part of the chest, passes over the corner of the shoulder-blade, from which it receives a fleshy bundle; and as it passes over the ribs it sends some tendinous slips to them. The lower fibres of this large muscle ascend, the upper ones go directly across. The flat tendon, produced by the junction of these fibres, forms the back part of the arm-pit, and is inserted into the arm-bone. The action of this muscle is to draw down the arm; and when either arm is fixed, it draws the spine to one side or the other, as in climbing, &c. How can this muscle act as it should do under the compression of tight stays? The same question would apply to others of the muscles of the spine and chest. The whole back is clothed with strong muscles, its cavities are crossed by many smaller ones, related to the ribs and spine, and the actions of all are, more or less, impeded by the compression of stays. Look at the withered legs of beggars in our

streets, notoriously produced by tight bandages. Tight stays produce a similar effect in a less degree, but sufficient to weaken the power of those muscles whose duty it is to maintain the natural position of the spine.

"Not only does tight lacing act directly in this manner, but indirectly it operates in diminishing muscular vigour, by impeding respiration. It is well known, that muscular power bears a relative proportion to the freedom of respiration, animals having the highest development of the respiratory organs, being the most powerful in muscular force. Tight stays compress the ribs together, and prevent the play of the respiratory muscles —when applied during the growth of the body, they prevent the development of the chest, and thus lay the foundation of many pectoral diseases. Much more might be said on the subject. To expect that stays will be banished from the female dress would be idle, but I think few mothers, who will reflect on the evils of tight lacing in growing girls, will hesitate to defer, at least to the latest moment, the vanity of forming their children of that shape which is most convenient to the dress-maker; for really the great use of stays, from all I can learn on the subject, appears to be, that they form the most suitable groundwork for the attachment of the manufactures of these artists. The female form, at least in youth, requires no artificial aid to improve it. Who would think of putting stays on the Venus de Medici!"—*Beale on Deformities.*

This needs no comment.—Ed.

MATERIA MEDICA.

25. *Savine as a Remedy for passive hæmorrhage of the Uterus.*—Dr. Feist in the *Gemeinsame Zeitschrift fur Geburtskunde*, tom. IV. recommends the use of savine internally in that complaint. He relates a case in which after canella, quina, alum, iron, &c. failed, it effected a cure. The prescription was as follows:—

℞ Pulv. sabinæ ʒiij.
Extract. sabinæ ʒij.
Ol. sabin. destill. ♈j.
Mft. pil. pond. gr. iij.

Four at a dose to be taken three times a day, and gradually increased to ten at a dose.—*Bulletin des Sciences Medicales.*

26. *Corrosive Sublimate in Excoriations of the Breast.*—Dr. Feist of Bensheim, speaks very highly of a solution of corrosive sublimate, two or three grains to the ounce, applied to excoriations of the breast. The child must be put to the breast at certain intervals only, the nipple being previously well washed. It is superfluous to state, that great precautions are necessary.—*Gemeinsame Zeitschrift fur Geburtskunde.*

MEDICAL JURISPRUDENCE.

27. *Poisoning by the topical Application of Arsenic.*—The danger of applying arsenic to large surfaces of the skin has long been known to medical men, the article is, however, frequently resorted to by irregular practitioners, and not unfrequently with fatal effects. In the *Transactions Medicales*, we find related the cases of three children, who were destroyed by the use of this poison. These three children, who were of the ages of seven, nine, and eleven, had scald head, to which the mother, at the recom-

mendation of a charlatan, applied an ointment, which he assured her would cure her children in a few days. In a few hours the children were attacked with pains all over the body, dreadful colic, and the next day the youngest died, and the day after the two others. Dr. Fristo, of Sierck, examined the bodies of these children, and the ointment which had been applied to their heads. The bodies were found swelled and ecchymosed; the membranes of the brain greatly injected; the substance of this organ inflamed, presenting a number of sanguinolent spots; lungs hepatized and engorged; stomach phlogosed; ecchymoses in the duodenum and small intestines.

The ointment was found to contain arsenic.—*American Journal of Med. Sciences, May,* 1831.

28. *Population of Naples.*— The *Osservatore Medico,* for May, 1831, gives us rather a sorry account of the salubrity of Italy's boasted climate. It appears that the number of births in Naples, during the year 1830, was 14,267, while the deaths amounted to 15,419, leaving a deficit of 1152 in the population of the "finest climate in the world," in one year—and that year undistinguished by plague, pestilence, famine, or war! Our readers are aware that, according to Dr. Hawkins, the ratio of mortality in London is about one in forty annually. In Naples, during last year, it was one in twenty-three and a fraction! What will the advocates of an Italian climate say to this? We believe, indeed, that the mania for running across the Alps and Apennines, to bask in the brilliant suns of Italy, for restoration of health, is nearly over. It is the duty of medical men to make the non-professional public acquainted with the nature and effects of a transalpine climate, before their patients incur the fearful risk and expense of foreign travel—or rather of foreign residence. The British Isles offer facilities for travelling exercise in the autumn far superior to the Continent—and perhaps equally conducive to health, at a much less expenditure of time and money. The day is probably not far distant when Snowdon and Ben Nevis will attract more tourists than the Simplon and the St. Bernard —when Windermere, Killarney, and Loch Lomond will vie with Como, Lake Leman, and the Lago Maggiore. In the former routes, as much health may probably be gained, and far less money and morality expended in the pursuit.—*Med. Chir. Rev. Oct.* 1831,

CHEMISTRY.

29. *On the Existence of Hydrocyanic Acid in Cheese.*—Dr. Witling has undertaken a series of experiments to ascertain the nature of the changes which occur in some kinds of cheese; the results of his investigations are the following:—1st. If cheese is well sweated, sufficiently salted, and dried at a moderate temperature, it never acquires poisonous properties. 2d. Its fermentation and alteration is in direct proportion to its moisture, especially when it is kept in a close place. 3d. When exposed to the action of water, and to the sun, in a few days it gives out an ammoniacal odour. In this state, if treated with alcohol, this liquor yields on distillation some traces of hydrocyanic acid; it appears that this acid is united to the ammonia in cheese which has become changed. 4th. At a more advanced period of the fermentation, no trace of this acid is to be found. It therefore appears the deleterious property of some kinds of cheese is

owing to the formation in them of hydrocianic acid.—*American Journal of Med. Sciences, May*, 1831.

30. *Analysis of the Mineral Water of Stachelberg.*

CUBIC INCHES.	
2,451	Carbonic acid gas.
0,190	Hydrogen ..
0,328	Oxygen ..
1,578	Nitrogen ..
0,241	Hepatic ..
4,788	—— of volatile parts.
2,00 gr.	Carbonated sulphur.
5,35	———— magnesia.
2,55	Carbonate of lime.
8,48	Sulphates of soda and magnesia.
0,81	Calcareous earth
01,81	Matter unknown.
20 grs.	—— of fixed particles.

The analysis was made by the celebrated chemist, *Kielmeyer*, on thirty-eight ounces of the water.—*Bulletin des Sciences Medicales.*

Analysis of the Mineral Water of Wumdersleben, near d'Erfurt. By M. Trommsdorff.

Chloride of sodium	1,3333 grs.
———— calcium	1,0492 ..
———— magnesium	0,2769 ..
Sulphate of lime	0,1417 ..
Carbonate ——	0,0208 ..
———— magnesia ..	0,0050 ..
	2,8268 grs.

MISCELLANIES.

31. *Dr. Walker.*—The following extract from a letter from General Sir John Doyle, G. C. B. and K. C. to Dr. Epps, exhibits the benevolent character of the late Dr. Walker, a review of the life of whom we presented some time since to our readers:—

"Sir,—The General can never forget the impression made upon him by the extraordinary situation in which he first made an acquaintance with that amiable and benevolent individual (Dr. Walker). The day after the action near Alexandria, when the brave Abercrombie fell, the General was riding over the field of battle, attended by two orderly dragoons, to see if there were any wounded, French or English, who had escaped notice the evening before, when, on turning round a wall near the sea side, he was struck with an appalling sight of more than a *hundred* French soldiers, with their officers, huddled together, desperately wounded by grape and cannon shot from an English brig of war. From being collected in the recess of the wall, they had escaped notice on the previous day of search, and were exposed to the night air and with undressed wounds. Here the

General saw a man evidently English, in the garb of a Quaker, actively employed in the heavenly task of giving his humane assistance to those poor brave sufferers,—giving water to some, dressing the wounds of others, and affording consolation to all. Upon inquiry, he found the benevolent individual to be Dr. John Walker, who was himself almost exhausted, having been thus nobly employed from day-break without any assistance."

32. *Book-making.*—A celebrated lecturer on surgery, in an introductory lecture lately delivered on that science, stated, that when he wrote a book, and he had written three or four, he became tired by the time he had written one-half; so that to induce himself to finish it, he used to send it to the press, and when he had had it printed as far as it was written, he was compelled to go on writing, as the printer's devil continually pestered him for copy.

33. It is well known that in Europe, especially in England, the most common expedients resorted to by young men to obtain practice, is to publish a book on the treatment of some disease, or on the use of some remedy, with cases, (not a few of which, there is reason to believe, are sometimes manufactured for the occasion,) illustrating the author's successful treatment of some disease, or of his new and advantageous employment of a certain medicine. With the slightest ingenuity, and by the aid of large type and wide spaces between the lines, a goodly sized volume is readily got up, is advertised in every book, magazine, and newspaper; and even should the work remain unsold on the booksellers shelves, it has been found that though the author has paid much for his advertisement, the practice he obtains by it fully compensates him. We must not be understood as saying that this is the history of all the works published at the present day, but it is that of a great number of them, as we have found to our cost; for, after wading through volumes, we have with difficulty been able to glean enough to fill a page in our Bibliographical Notices.—*American Journal of Medical Sciences. May*, 1831.

34. *New Analysis of Swaim's Panacea.*—Just as this form was preparing for press, we received from Dr. J. Rose, of this city, an account of an analysis made by him, under the superintendence, and in the laboratory, of Professor Hare, of the contents of a bottle purporting to be "Swaim's Panacea." In this analysis both mercury and arsenic are said to have been detected. We have already published the statements of three different chemists, by whom mercury was found in Swaim's Panacea, but it had not been before examined, we believe, for arsenic; at any rate, so far as we know, this is the first time that the presence of that poison has been detected in it by chemical analysis. We have long been satisfied, however, of the variable composition of the panacea, and it seems probable that it sometimes contains both the corrosive sublimate and arsenic; sometimes only one of them, and at others neither. So perfect have become the processes of modern analytic chemistry, that it is almost impossible for the minutest particle of a mineral substance to elude the scrutiny of the skilful analyst; and it is in vain now for the empiric to think to conceal his poisonous drugs by mixing them with syrups and saccharine matters.—*Op. cit.*

35. A fine little child of Hatton, a weaver, then living at the Goosbery-corner, suffered most curiously and severely from the effects of burning—

she fell against the grate, was unable to rise—the eye-brow, fore-head, and cheek were swelled and ulcerated, the eye supposed destroyed and sunk, was visible no more; the brow and cheek grew together, into one smooth, uniform surface of flesh and skin; there was no trace of the eye, nor even a hollow where the eye had been. Fourteen months afterwards, when I accidently saw her, she seemed to have been born only with one eye. On finding the cause, I explained to her father, that the eye-ball was so much in motion, so covered with liquid, and so well defended, that it was most probable it had not adhered to the flesh above it, that it was yet safe in the socket, and that an operation would ascertain the fact. After a month, he consented. I cut down over it, fibre after fibre, dividing an incredible depth of flesh; I reached, at length, the beautiful little blue eye; deep and weak, and buried, it glimmered by the stimulus of light, like that of a new-born infant; I prevented the re-adhesion of the separated surfaces, by proper dressings.

The fine little girl is now as well as ever, and fully enjoys the benefit and beauty of that eye, which, for fifteen months, had been deeply hidden from the light, unseeing and unseen!—*Murray on Heat, Humidity, and Inhalation of Iodine, and other Vapours, in Consumption, &c.*

36. *Dr. Ramadge* v. *the Editor and Publishers of this Journal.*—Dr. Ramadge has commenced an action against us and our publishers, for our having inserted an article from the *Lancet*, purporting that Dr. Tweedie had refused to meet Dr. Ramadge in consultation; that the attendance of Dr. R. was discontinued; and that Dr. Tweedie employed a different plan of treatment from that of Dr. R·; and, finally, that the patient recovered.

Now it appears that every word of the above is true, except the recovery of the patient, which did not take place, as we are assured upon the authority of Dr. Ramadge's solicitor. We regret, exceedingly, to have published this article under such circumstances; but Dr. Ramadge having allowed it to remain uncontradicted in the *Lancet*, led us to conclude it was correct in every particular; and of this we had, also, the assurance of a party, who was well informed upon the subject. As soon as we discovered the inaccuracy of the statement, as to the recovery of the patient, which was since our last number, we immediately expressed our regret to Dr. Ramadge's solicitor, and our readiness to insert any communication from his client; but to this proposal no answer was given, and law proceedings were forthwith commenced against us. Our solicitors, also, made a similar apology, but no answer has as yet been returned, after a lapse of several days, and therefore, we are to presume, the action for libel proceeds. The only part of the article complained of "*as injurious to Dr. Ramadge's character with the profession,*" is, according to his solicitor, that in which it stated Dr. Tweedie reversed his treatment, and the patient recovered. Now what is so common as the disagreement of Doctors almost in every case, and who, besides Dr. Ramadge and his solicitor, ever before heard of an action for libel upon such grounds as these? Can the statement of such difference of opinion be injurious to any physician in existence in the eyes of the profession? Certainly not, the thing is so proverbially common.

Again, what possible injury could this Journal, which is solely devoted to scientific objects, inflict upon the professional character of any medical

practitioner? None whatever; and, therefore, is it not the most speculative persecution to subject us to ruinous law expenses, when the verdict, if not in our favour, which we are strongly advised it will be, cannot carry half a farthing as damages? To sustain this speculative action, for it deserves no other name, special damage must be proved by the plaintiff, to entitle him to a verdict; and it is manifest to every one, that we could not possibly have injured his character with the public, nor with the profession. The only persons who will be gainers by this sapient proceeding are the lawyers, for their valuable services in maintaining and defending an action about nothing.

If Dr. Ramadge has only the defence of his character with the profession in view, why did he not reply to the article in the *Lancet*, where it originally appeared some weeks ago; or answer it in this Journal? In appealing to a court of justice, he had better recollect the necessity of appearing, as the lawyers say, "with clean hands." It would, also be judicious in him to bear in mind the many modes of defence which the law allows us, and of every one which we, of course, shall avail ourselves, it being our duty to show the value of his character with the profession, and how little we have injured it..

It will be, also, our province to prove whether his practice in the case which gave rise to his action was that usually employed, and this we shall do by the evidence of the first physicians in the metropolis. These, and many other points of vital importance to his professional reputation, will be rigidly probed to the bottom, and he alone is the best judge of the propriety of the investigation.

It grieves us, exceedingly, that the dignity of medicine should be sullied and depreciated in public estimation, by appeals of physicians to the tribunals of the law, which, in the opinion of the brightest ornaments of our profession, are highly injurious to the character of the faculty. But we are dragged into the affair, unnecessarily, harshly, and unjustly, for we were not the first to publish the libel, if libel it be; and, with the most painful feelings, are compelled to defend ourselves in every way we can. We have ever supported the honour and dignity of our profession, and, for so doing, are now subjected to persecution. Nevertheless, we have recorded an oath to do so, and shall never fail to use our best exertions in promoting the interests of our profession, than which none are more calculated to benefit humanity.

37. *Reply to the Review of Ryan's Medical Jurisprudence in the Lancet.*

To the Editor of the Lancet.

Sir,—I trust you will perceive the necessity of inserting the following observations in your next number, in reply to the review of my work on Medical Jurisprudence, which appeared in your Journal of this day, and which I know, from a source you can never discover, was not written by you; and as this review is a base piece of personal spite, intended not only to injure my work, but to blight my prospects in another way, I lose no time in showing it in its proper light, which will frustrate its malignant object in a quarter your reviewer was short-sighted enough to suppose it impossible for me to reach, except through your periodical.

It is lamentable to observe, that medical students, and young physicians

and surgeons, "who have just escaped from school," should be the reviewers in your Journal, persons unacquainted with the arduous research, and the unceasing anxiety, of those engaged in the cultivation of science for years, and who have some character to lose; and that these critics, for they do not deserve the name of reviewers, should have the consummate audacity, under your auspices, to condemn, indiscriminately, the writings of men well known to the profession, their superiors in years, in experience, and in science. This arises from your attention being directed to other matters besides the Editorship of the *Lancet*, in the management of which you have also displayed a degree of energy and talent which all must admire.

But time presses, the printer's devils are in crowds at my elbow at the end of the month, and, therefore, a few words to your able and impartial reviewer, and his coadjutors.

He states, that having submitted my work on Jurisprudence to rigid scrutiny for the last six weeks, "we refuse the volume the least share of our approbation." As a proof of the justness of this decision, I refer the reader to Dr. Johnson's opinion, in a former page of this Journal, (p. 378.) "It is a task," quoth he, "we fulfil with extreme reluctance, from many motives, which it would be, perhaps, impertinent to explain on this occasion; but which may find an apt illustration in the sentence prominently adduced by Dr. Ryan at the outset of his work, 'Amicus Socrates, amicus Plato, sed magis amica veritas.' Such ever has been, such ever will be, the canon of our critical demeanour; and, while we observe it honestly, carrying it into practice with a cautious, unbiassed, and unflinching hand, the progress of true medical literature will suffer not the least impediment from our strictures."

The ingenuity of expressing reluctance in censuring my work, is amply attested by the caustic comments that follow, and the reader must be extremely stupid who does not perceive the cloven foot in the article. I am at a loss to discover the motives to which the writer alludes; but I do not consider it impertinent to explain those which really actuate him.

The fact is, that on many occasions I have censured works, solely on the grounds of error, which have been lauded to the stars in the *Lancet*; I have repeatedly argued against the ultra reform supported in that journal; and worst of all, this work of mine under notice has had such success with the public and the profession as to extinguish one, of which two sheets were printed, by one of the conductors of the *Lancet*, and hinc illæ lachrymæ. The condemnation, therefore, of my work is to be expected from the friends of those who have reason to feel sorely at its success. But its depreciation serves another purpose, besides making room for the intended production, and that is to lower me in the estimation of a certain public body, before whom my abilities and testimonials, however slender, have been rigidly examined, as well as those of the individual whose work has for the present been delayed, so that the degradation of one of us may be supposed to serve the interests of the other. Here then is the clue to the review in the *Lancet*, and nothing but the preservation and defence of my professional character, which is as dear to me as my life, could induce me to expose it. As to the strictures on the work, they are so puerile, so futile, so despicable, that they scarcely deserve the slightest notice.

Thus the reviewer states, "did we speak of this department" (the

section on Medical Ethics) "in the condemnatory terms which even the mildest judgment would dictate, we should do violence to our feelings." That the writer should feel galled at the ethics of our profession, which condemn in the strongest manner calumny, slander, and unprofessional behaviour, is by no means wonderful, and requires no further comment. That he should condemn my statement, that the laws of this empire are humane and unequalled, and accuse me of having included "the game laws, forgery laws, &c." is so monstrously absurd as to deserve nothing but pity for the obliquity of the intellect of the writer. His object is so obvious, and his intention to injure me so manifest, that no one of common comprehension can mistake them.

The first tangible charge is, that I have copied largely from Professor Christison's valuable work without acknowledgment, but the proofs offered are most unsatisfactory, and require no answer. I have esteemed toxicology a minor branch of state medicine, while the celebrated Edinburgh Professor believes it to be the most important. I have stated in my Preface, that I borrowed from all works of value, and have always acknowledged my quotations when given in the author's words, but, in many instances, I found it necessary to condense the language of others, and in such cases would not be justified in using inverted commas. As a reviewer and an author, I have spoken in the highest terms of commendation of Dr. Christison's work; but as the greater part of that production is a compilation from the German and French periodicals, the facts stated are as much my property as Dr. Christison's. It would be impossible for any physician in existence to write a complete work on Jurisprudence, without extracting from his contemporaries.

The reviewer is so witty as to sneer at the terms gynæcology, &c. taking the hint from the classical Editor of the Medical Gazette, who hopes the Greek words used by me will not come into use, though these terms have elicited the praise of some of the best reviewers on the continent, which only shews the ignorance of both these seers as to the state of scientific terminology in all countries. If either of them had had the good luck to have seen Professor Carus's splendid System of Gynæcology, he would have been more cautious in his strictures on this or the other terms. No doubt these terms are not to be found in common lexicons; and, therefore, must be sad stumbling blocks to those who feel the want of a classical education. But need I refer to the terminology now in use in France in support of my own? For the benefit of the illiterate, it is explained in my preface.

But in the succeeding paragraph, I am accused of not keeping pace with science, and am outrageously censured for my defence of Christianity, against the attacks of Materialists, in my strictures on phrenology. If this be a crime, I glory in it, and can assure the reviewer, notwithstanding all his abusive declamation about my prejudices, that he must enlighten my mind by sober argument and strict logical induction, and not by vituperation.

Again; I am censured, for having inserted the ethics of Hippocrates, promulgated more than 2000 years ago, for which I am wisely held accountable; and for having stated the rule laid down by the profession in all ages and countries, that dangerous experiments should not be made on the sick, without their consent. I am told that the effects of arsenic, hydrocyanic acid, and other valuable medicines, could not have been discovered accord-

ding to my position; but the writer forgets that these, and all other dangerous medicines, were in general first tried on animals. Perhaps he, in his zeal for science, would allow a few experiments to be made upon himself, with the poisons alluded to, or with the virus of a rabid animal, or a little upas tiéute. Or would he prefer the application of these things on the poor?

I am also accused of having omitted the leading principles of the science of Medical Jurisprudence, and of the badness of my classification; though I have strictly followed the best French jurists, Orfila, Briand, Sedillot, &c. with whose writings the reviewer is clearly unacquainted. He charges me with having omitted the physiology of the causes of sudden death, the means of distinguishing between real and apparent death, the osteology of the skeleton, &c. Had I discussed these matters, I should have exceeded the limits I prescribed for myself, in arranging a manual for students, and would have done little good, inasmuch as the study of Medical Jurisprudence is as yet in its infancy in this country; and its general principles are scarcely attended to. He says, I have passed over the subjects of wills and survivorship, which is a gross misrepresentation. The next charge is, that the obstetric questions connected with forensic medicine, are the same as in my work on Midwifery; but he forgets that the latter is in the hands of almost all students, and the former will not be possessed by them until the subject of which it treats shall be peremptorily required, as a branch of tion.

In introducing the questions of infanticide, delivery, &c. into my Midwifery, I followed Professor Capuron, and placed them before students, who as yet pay no attention to juridical medicine, and in so doing I thought I acted right, when I considered the numbers of unfortunate women who had been executed unjustly in this country, upon the erroneous evidence of ignorant medical witnesses. Nor do I regret what I have done, so obtuse is my mind to the lucid remarks of this brilliant reviewer. The sections on asphyxia are considered erroneous, though copied from the standard works of this country and France. The definition of poisons, taken from a late foreign incomparable manual, is ridiculed, and "burked"!! by this sapient critic. In a word, there is not a redeeming feature in the work, though I have received more than one hundred letters from some of the most scientific physicians lauding this good-for-nothing production, and the professions of law and medicine are so deplorably stupid, as to have already nearly consumed the impression.

I have only to observe, in conclusion, that being attacked so furiously in the pages of the *Lancet*, I am reminded of the fate of the most eminent physicians and surgeons in the kingdom, and so far from deeming it an injury, the attack is so barefaced, so uncloaked, so manifestly malicious, I deem it an essential service. However unpalatable this declaration may be to you, I trust to your candour and justice, either to copy this article which I should have sent in manuscript, had time permitted, or to allow me an opportunity of replying to your reviewer. You will recollect that the editor of the *Medico-Chirurgical Review*, whose opinion with the profession is justly of the highest authority, and nearly the whole of the most influential part of the public press, have lauded this production, and are at variance with your reviewer. You therefore perceive that authority, as high as the dictum of your critic, is in my favour, and it is

only fair and just that you should place the antidote as well as the bane before your readers. I hope your usual press of matter will not exclude its insertion for four or five weeks, for it will then be worse than useless.

I am, Sir, your most obedient servant,

M. Ryan.

October 30th, 1831.

38. One of our contemporaries, in bewailing his misfortune that the title of this Journal is nearly allied to his own, assures the profession, that his production has no connexion with any other periodical, thereby meaning this Journal. The proprietors of this periodical assure him, that he need not be alarmed, as they should be extremly sorry to think any such confusion existed, as there can be no mistake.

39.—REGULATIONS OF THE ROYAL COLLEGE OF SURGEONS.

The College of Surgeons require Candidates to bring Proof—

1. Of being twenty-two years of age.
2. Of having been engaged six years in the acquirement of professional knowledge.
3. Of having studied Anatomy and Physiology, by attendance on Lectures and Demonstrations, and by Dissections, during two anatomical seasons.

*** *An anatomical season is understood to extend from October to April inclusive, and to comprise at least* 140 *Lectures on Anatomy and Physiology, occupying not less than one hour each, given on separate days; and at least* 100 *Demonstrations of the like duration, given in a similar manner; exclusive of Dissections, of which distinct Certificates are required.*

4. Of having attended at least two courses of Lectures on Surgery, delivered in two distinct periods or seasons, each course to comprise not less than sixty Lectures.
5. Of having attended Lectures on the practice of Physic, on Chemistry, and on Midwifery during six months; and on Botany and Materia Medica during three months.
6. Of having attended during twelve months the surgical practice of a recognised Hospital in London, Dublin, Edinburgh, Glasgow, or Aberdeen; or for six months in any one of such Hospitals, and twelve months in any recognised provincial Hospital.

REGULATIONS OF THE APOTHECARIES COMPANY.

Gentlemen wishing to be recognised as Lecturers, are referred to the following Resolutions of the Court, passed on the 18*th of November*, 1830, viz.

Resolved,

That a Member of the Court of Examiners shall not be recognised as a Lecturer on any branch of Medical Science.

That the Court will not recognise any *New* Teacher who may give Lectures on more than *two* branches of Medical Science; nor will they sanction any teacher already recognised in giving Lectures on any new branch of the Science, if already he gives Lectures on *two*.

That the Court will not recognise a Teacher until he has given a Public Course of Lectures on the subject he purposes to teach; but if, after such

preliminary Course of Lectures, the Teacher should be recognised, the Student's Certificate of Attendance on that Course will be received.

That the Court will not recognise a Teacher until he has produced very satisfactory testimonials of his attainments in the science he purposes to teach, and also of his ability as a Teacher of it, from persons of acknowledged talents and of distinguished acquirements in the particular branch of science in question.

That satisfactory assurance shall also be given that the Teacher is in possession of the means requisite for the full illustration of his Lectures, viz. that he has, if lecturing—

On CHEMISTY, a Laboratory and competent Apparatus:

On MATERIA MEDICA, a Museum sufficiently extensive:

On ANATOMY AND PHYSIOLOGY, a Museum sufficiently well furnished with Preparations, and the means of procuring recent Subjects for Demonstration:

On BOTANY, a Hortus Siccus, Plates or Drawings, and the means of procuring fresh Specimens:

On MIDWIFERY, a Museum, and such an Appointment in a Public Midwifery Institution as may enable him to give his Pupils practical Instructions.

That the Lecturer on the PRINCIPLES AND PRACTICE OF MEDICINE must be, if he lectures in London, or within seven miles thereof, a Fellow, Candidate, or Licentiate of the Royal College of Physicians of London; and if he lectures beyond seven miles from London, and should not be thus qualified, he must be a graduated Doctor of Medicine of a British University of four years' standing (unless previously to his graduation he had been for four years a Licentiate of this Court.)

That the Lecturer on MATERIA MEDICA AND THERAPEUTICS must be a Fellow, Candidate, or Licentiate of the Royal College of Physicians of London; a graduated Doctor of Medicine of a British University of four years' standing (unless previously to his graduation he had been for the same length of time a Licentiate of this Court); or he must be a Licentiate of this Court of four years' standing.

That the Lecturer on ANATOMY AND PHYSIOLOGY must either be recognised by the Royal College of Surgeons of London, or must be a Member of that College of four years' standing.

That the DEMONSTRATOR OF ANATOMY must either be recognised by the Royal College of Surgeons of London, or must be a Member of that College.

REGISTRATION.

A book is kept at the Hall of the Society for the Registration, at stated times, of the names of Students, and the Lecturers, Hospitals, or Dispensaries they attend.

All Students, in London, are required to appear personally, and to register the several classes for which they have taken Tickets; and those only will be considered to have complied with the regulations of the Court whose names and classes in the register correspond with the testimonials of the Teachers.

The book will be open for the registration during the first Twenty-one days of the months of October, February, and June, from Nine o'clock until Two.

The Court also require Students at the Provincial Medical Schools to register their names in their own hand-writing, and the classes they attend, with the Register of each respective school, within fourteen days from the commencement of each Course of Lectures, and those Students only will be deemed to have complied with the Regulations whose names are so registered.

EXAMINATION.

Every person offering himself for examination must give notice in writing to the Clerk of the Society on or before the Monday previously to the day of Examination, and must also at the same time deposit all the required Testimonials at the office of the Beadle, where attendance is given every day, except Sunday, from *Nine* until *Two* o'clock.

Candidates will be admitted to examination in the order in which their names stand on the notice paper; and those neglecting to attend agreeably to their notice, will, upon a subsequent application, be placed at the bottom of the list.

The examination of the Candidate will be as follows:—

1. In translating parts of Celsus de Medicinâ, or Gregory's Conspectus Medicinæ Theoreticæ, the Pharmacopæia Londinensis, and Physicians' Prescriptions:
2. In Chemistry:
3. In Materia Medica and Therapeutics:
4. In Botany:
5. In Anatomy and Physiology:
6. In the Practice of Medicine.

By the 22d section of the Act of Parliament no rejected Candidate can be re-admitted to be examined until the expiration of six months from his former examination.

The Court meet in the Hall *every Thursday*, where Candidates are required to attend at A QUARTER BEFORE FOUR O'CLOCK.

The Act directs the following sums to be paid for certificates:—

For London, and within ten miles thereof, Ten Guineas.

For all other parts of England and Wales, Six Guineas.

Persons having paid the latter sum become entitled to practise in London, and within ten miles thereof, by paying Four Guineas in addition.

For an Assistant's Certificate, Two Guineas.

BY ORDER OF THE COURT,

JOHN WATSON,
SECRETARY.

APOTHECARIES' HALL,
Sept. 22, 1831.

LIST OF BOOKS RECEIVED DURING THE MONTH.

1. Pharmacopœia Universalis, or complete Encyclopædia of Materia Medica. Edited by J. Rennie, A.M. Professor of Natural History, King's College. Parts IV. V. VI.

2. Pharmacopœia Medico-Chirurgica in usum Facientium, a Roberto G. Holland, Chirurgo concinata. Edinburgi; apud Joannem Carfrae et filium; and Londini, apud Longman et Socios, 1831, 8vo. pp. 185.

*** This work is ably executed, and is highly useful to students and practitioners.

3. Bulletin des Sciences Médicales, redige. Par M. le Dr. De Fermon. Jan. et Fev. 1831.

*** The Gazette Medicale has not been received for some time.

4. The American Journal of the Medical Sciences, May, 1831.

5. Medico-Chirurgical Review, Oct. 1831.

6. Edinburgh Medical and Surgical Journal, October.

7. The London Medical Gazette.

8. The Midland Medical and Surgical Reporter, October.

9. The Glasgow Medical Journal, August.

10. Essays on the Effects of Iodine in Scrofulous Diseases, including an Inquiry into the Mode of preparing Ioduretted Baths. Translated from the French of M. Lugol. By W. B. O'Shaughnessey, M.D. London, 1831. 8vo. pp. 218. S. Highley.

*** A most valuable work. See our reviews.

11. A Synopsis of the Bones, Ligaments, Muscles, Blood-vessels, and Nerves of the Human Body. By W. Sands Cox, Lecturer on Anatomy and Surgery at the School of Medicine, Birmingham, 12mo. pp. 305. Birmingham, J. C. Bennet.

12. Maingault's Operative Surgery, with Illustrations of the different Amputations performed on the Human Body, represented by Plates designed after Nature, with Practical Observations. By W. Sands Cox, Esq. Folio, Plates 8. London, 1831. Longman and Co.

LITERARY INTELLIGENCE.

A Treatise on the Diseases of the Heart and Great Vessels, comprising a new View of the Physiology of the Heart's Action, according to which the Signs, both Ordinary and Stethoscopic, are explained, by J. Hope, M. D. is in the press.

All Communications and Works for Review, are to be addressed to the care of Messrs RENSHAW and RUSH, (near Exeter Hall) 356, Strand; or to the EDITOR, at his Residence 61, Hatton Garden.

THE

London Medical and Surgical Journal.

No. 42. DECEMBER 1, 1831. VOL. VII.

CRITICAL REVIEW.

I.—*Essays on the Effects of Iodine in Scrofulous Diseases, including an Inquiry into the Mode of preparing Iodurretted Baths.* Translated from the French of M. Lugol, Physician to the Hôpital St. Louis. By W. B. O'Shaughnessy, M. D.; with an Appendix by the Translator, containing a Summary of Cases treated with Iodine, either simple or combined with Opium, Mercury, or Lead, and Directions for preparing the Iodurets of these Metals, and for detecting the Adulterations of Iodine and Hydriodate of Potass. London, Oct. 1831. 8vo. pp. 218. Highley.

(*continued.*)

M. Lugol is entitled to the credit of having first applied iodurretted baths in the cure of scrofula. Repeated experience has convinced him that the hydriodate of potass possesses no therapeutic agency in the baths under notice, otherwise than in dissolving the iodine. He has employed various proportions of the hydriodate, and also of the iodine, and then in combination, from the results of which he draws the following inference—that it is necessary that the iodine be dissolved in the ioduret of potass, in order to secure its equal and complete division in the ordinary quantity of water in a bath.

" 1. The hydriodate of potass has scarcely any action whatever in the dose of three ounces to each bath.

" 2. Iodine should be regarded as the active principle of the baths.

" 3. The proportion of iodine should generally be from two to three drachms a bath, and very seldom beyond that.

" 4. Pure or simple iodine is not completely soluble in a bath; and in that case, its action being unequal, may give rise to local accidents; and it may also be deficient in its general action on the economy.

" 5. Iodine previously dissolved in alcohol does not continue in a state of solution when diluted with the bath, and it moreover produces olfactory phenomena, which may proceed to a species of drunkenness, or even to decided and durable cerebral congestion.

" 6. The most certain mode of preparation is the preliminary solution of the iodine in the hydriodate of potass."—p. 75.

Some cases are detailed, illustrative of the efficacy of the external use of iodine. There was one case of mesenteric disease, which was greatly improved by this remedy. A child, æt. 25 months, was pale, ill-grown, and unable to walk. It was ordered a coffee-cup of ioduretted mineral water, sweetened, and three iodine baths weekly. The treatment was continued three months, with little benefit. The abdomen gradually diminished in size, and became pliable, and then tubercles were felt, the growth of the body was rapid, and at the end of four months the child walked alone. If the iodine baths were of no other use than promoting the cure of mesenteric disease, they would be a most valuable remedy.

The next case is also one of deep interest.

" Early in the month of last September I was consulted for a boy, æt. 4, whom I have treated at Amiens, and of whom the following is the history.

" Since the age of 18 months almost habitual cough, impeded respiration, which during sleep is accompanied with wheezing. At two years of age ophthalmia of both eyes; the catarrhal state of the chest increased uninterruptedly, and three months later the infant nearly perished of croup.

" At two years and a half hypertrophy of the first phalanx of the right great toe, which continued fistulous for eleven months.

" At three years and eight months a scrofulous abscess, free from pain, formed very rapidly on the right hip, having left when I was consulted three fistulous canals.

" During eight or ten days that the suppuration was less abundant from these fistulæ, the great toe, then three months cicatrised, again became fistulous, the ophthalmia, which had preceded and accompanied the hypertrophy of the phalanx, appeared again, and the swelling also returned.

" Another affection, still more serious than any we have enumerated, also existed, namely a gibbous enlargement of the seventh, eighth, and ninth dorsal vertebræ, with paraplegia of the lower extremities of eighteen months' standing.

" Despite of this deep-seated and premature affection of the bones, dentition had been exempt from any accident, and took place, as might be said, imperceptibly, although the infant sucked for eight months during the protrusion of the first teeth.

" He walked by himself at eleven months; his intellect was precocious; in appearance he closely resembled his mother, æt. 24, who for a year was affected with a copious leucorrhœa, and who had a scrofulous sister.

" The treatment was composed of the internal use of the ioduretted mineral water, of collyria, and injection of the fistulous canals with the iodine solution, and three ioduretted baths weekly.

" The father wrote to me at the end of a month, and to two other persons also, that his child, who had not walked for a year and a half, was now beginnning to walk alone in their apartments."—p. 78.

The greatest success attended the practice of M. Lugol, in the external and internal employment of iodine, and this is attested by MM. Dumeril and Magendie, the commissioners re-appointed by the Academy, who report as follows :—

" The new facts which on the present occasion your committee has verified, are such as to remove every doubt on this subject. Not only have

we witnessed the cure of scrofula in the first and second degree, but we have also seen the successful treatment of the disease in its most aggravated forms.

" Deep-seated alterations of the glands and various other organs, serious lesions of the bones and their principal articulations, accompanied by those general symptoms which forebode a speedy death, have been perfectly cured, in great numbers of cases, in the space of a few months, leaving the patients in the best possible state, and free from every vestige of the malady except the ineffaceable scars it had originally effected. Moreover, these results are rendered still more valuable by the fact that the majority of cases subjected to M. Lugol's practice were, previously, in a desperate state, and only admitted into his wards as deplorable examples of the ravages of an irremediable disease. Among the unfortunate persons thus afflicted are frequently seen some whose mutilations are truly frightful. Before the discovery of iodine, they were all devoted to inevitable destruction, but since the introduction of that remedy and of bromine into therapeutics, one of your committee has had the happy satisfaction of restoring to life and comfortable existence many of those cases hitherto deemed of an incurable kind. It may not be superfluous to add that these cures have been as rapid as unexpected.

" We shall not here enter upon an analysis of the individual facts submitted to our examination and authentication by M. Lugol. We have added some to this report, but they are not suited to be read to this assembly, for pictures so melancholy, without promoting the interests of science, could not fail to be disagreeable—one remark is nevertheless essential. In cases of tumours of the articulations, with caries or other alterations of the bony tissue, instead of recommending absolute rest, according to the general practice of surgery, M. Lugol includes regular exercise in his remedial measures. The cases of this kind which he has shown us leave no doubt of the advantage to be obtained in following this departure from the general rule.

" We have already said, in our preceding report, that M. Lugol does not pretend to the discovery of the utility of iodine in scrofulous diseases; but from the great number of cures he has obtained—from the zeal and perseverance with which he pursues his researches—from the light he has thrown on the varied effects of the different preparations of iodine, internally and externally administered, it is manifest that he has contributed largely to the advance of medical science, And as, moreover, he has the wisdom to shun all idle and profitless speculations, the uselessness of which constitutes but their least inconvenience, we have the honour to propose that M. Lugol's researches receive your approbation, and that he be requested to continue to prosecute inquiries fraught with so much value to mankind."—p. 88.

The forms of scrofula in which the remedy proved successful were tubercular scrofula, scrofula in mucous membranes, as ophthalmia, cutaneous scrofula, scrofula of the cellular tissue, and in the bones.

We are properly informed that a classification of scrofulous diseases cannot be attempted in the present state of science. In proof of this position, our author mentions that he had omitted scrofulous caries, in his first memoir, but since the publication of his first essay, " a patient was cured by

iodine of caries of the inferior maxillary bone, and of white swelling of the knee, with five fistulous ulcers on the external surface of the joint, into one of which "*six inches of a probe* [what a happy translation] could be introduced." Several successful cases have since occurred, though caries is, in general, very intractable.

Twenty-eight cases, of various forms of scrofula, are detailed, which were cured by iodine; but most of these are described so minutely, and with that prolixity, so characteristic of our Gallican contemporaries, that we must condense many of them. The translator must excuse us on this occasion, for the omission of inverted commas, while we employ our own language in condensation.

"CASE I.—*Ulcerated Tubercles of the Neck at each side—Deep Alterations of the Skin—Ophthalmia of the right Eye—Copious Epiphora—Seven Months' Iodine Treatment—Cure.*"—p. 91.

In this case a shoemaker, aged 19, had ulceration on each side of the neck, extending "to the *back* of the chin," and a small fluctuating tumour at the top of the sternum, and also another hard one "before the massiter (masseter?) muscle." Such is the substance of this prolix report, May 6th, 1829.

"August 1st.—After twenty-six days' treatment with the ointment containing the proto-ioduret of mercury, and with the ioduretted mineral water, the tubercular ulcers were cicatrized, and tubercular matter was felt no longer in any situation, excepting the two swellings which last appeared, and over which the cicatrices were less firm and healthy than in the other places. During the first month of the treatment the suppuration was very profuse; and for a period of nearly three months the local action of the iodine was most acute, causing severe pricking pains for two or three hours morning and evening.

"16th October.—For more than two months the patient was only dressed once daily. No local suppuration or tubercular incrustations; the cicatrices of the two recent ulcers not yet sufficiently healthy. The iodine had by this time lost nearly all its local power."—p. 94.

He was dismissed cured Feb. 28, 1830.

CASE II.—is nearly similar; patient aged 19 years; July 27, 1829; dressing with the ointment of the proto-iduret of mercury, ioduretted mineral water, and sulphur baths. Improvement was evident in a fortnight, and a cure effected in a month.

"CASE III.—*Tubercular Tumour on the Right Groin, Ulceration of a Month's Standing—Two Months' Treatment with Iodine—Cure.*"—p. 95.

A toymaker, 22 years of age, had a tumour, the size of a clenched hand, in the right groin. The tumour was punctured at the Hotel Dieu, and soon became ulcerated.

"On the 22d August, frictions and dressings of iodine, with the mineral water, were commenced; and during September and October, I touched the ulcer several times with the rubefacient and caustic iodine. He was dismissed cured on the 24th October, 1830."—p. 96.

"CASE IV.—*Tubercular, Cellular, and Cutaneous Scrofula—Habitual Cough from Childhood, aggravated at intervals by Ophthalmia—Retardation of Growth till the Age of* 17*—Eight Months' Treatment, during which Hæmoptysis supervened—Cure, and great Amelioration of the general Health.*" —p. 96.

A barber, æt. 20, was subject to catarrh from childhood, and to chilblains on the hands and feet when ten years old, and to repeated attacks of ophthalmia, with chronic cough, from the age of 14 to 19. At this latter period he had night-sweats, and was emaciated. There were cellulo-tubercular tumours on both sides of the neck, and one in the left axilla, which attained the size of both hands. In June, 1830, an abscess was opened on the right side of the neck, which gave issue to a large quantity of fœtid pus, erysipelas of the face supervened, and he appeared moribund.

"On the 4th of August was admitted into the Hôpital St. Louis, when he presented the following symptoms:—He was pale, emaciated, and weak, having two ulcerated tumours, the skin in the vicinity of which was of the worst appearance, red, livid, and impregnated with pus. The ulcers secreted pus most copiously, so that two dressings per day were scarcely sufficient. A third tumour existed under the left axilla, as large as both hands, and its anterior half resting on the chest. The corresponding limb was stiff and motionless, and excessively pained on being touched. On the third day after his admission this tumour burst, and at least a pint of tubercular pus was discharged. Ioduretted dressings, mineral water, and sulphuretted hydrogen baths.

"In the third month of this treatment, 8th October, 1830, a profuse hæmoptysis supervened, and lasted two days. The left side of the neck was not at all improved, but the right side and the axillary tumour were evidently almost cured.

"It may readily be conceived how alarming this hæmoptysis was in a young man liable to cough since infancy; nevertheless, after having purged him twice with manna, at the interval of a day I resumed the iodine treatment, in the belief that some good effects might thus be produced, while debilitating measures could only accelerate the end of the unhappy patient.

"I trust it is unnecessary for me to add, that wherever I find a set of symptoms increasing under the influence of iodine, I do not neglect to modify the internal use of the remedy, and suspend it if necessary altogether, and, as in this case, continue only the local treatment, directing my attention to the hæmoptysis in the appropriate manner. In this instance, a few days after the expectoration of blood had ceased, I resumed the ioduretted mineral water: the caustic iodine was also used locally. Before the end of September, the left axilla and the right side of the neck were cicatrised. In the left side the ulcers remained open for two months longer.

"The local action of the iodine was very painful in this case, and the ioduretted water proved diuretic. The appetite continued good during the entire course of the treatment; once or twice monthly the patient usually experienced sensations of smarting, like those which preceded the hæmoptysis, by which he was attacked in October. In other respects his health is much improved. The iodine treatment was suspended on the 15th April. The patient, however, was to be retained in the hospital for some weeks, in order to ascertain whether any recurrence of the scrofulous tumours should

take place, or whether he should experience any further improvement in the condition of the cicatrices, and in the state of his general health."—p. 99.

This is an exceedingly interesting and instructive case; one well worthy of serious consideration. We have next the reports of two cases of scrofulous ophthalmia and coryza, cured by iodine.

"CASE V.—*Double Ophthalmia, with blindness of five months' standing —Scrofulous Caries in the first stage—Cure in five weeks.*

A man, æt. 19, was blind of both eyes, from thickening of the conjunctiva and cornea, with hypertrophy of the eyelids.

"The slightest examination was almost impossible, from the excessive pain and profuse lacrymation occasioned by the light. The inflammatory affection of the eyes prolonged itself into the frontal sinuses and nasal fossæ, producing intense lancinating headach, with violent coryza, particularly of the right nostril, with incrustations on the pituitary membrane. The present was the third attack of ophthalmia; the first happened when he was 17 years of age, set in in the commencement of winter, and lasted but a few weeks. The second supervened at 19, in March, and lasted eight months. The third, which I have just described, commenced in May, and was consequently of more than five months' duration. The left eye was always much more severely affected than the right. For five months he had a seton in his neck, and two blisters had been applied to his arms at the onset of the attack, opiate applications of various kinds had been used to the eyes, and ninety leeches had been applied at three intervals. Lastly, he was bled from the arm, since which evacuation he has been completely blind.

"Besides the appearance of this ophthalmia, its obstinate nature, and the periodicity observed in its annual returns for three years, the patient still retained palpable traces of previous disease, of such a nature as was calculated to elucidate the character of the present affection. At two years of age he had caries of the third phalanx of the left ring-finger, and of the lower third of the humerus of the same side. This caries terminated in eighteen months by the loss of the greatest portion of the phalanx, and by the separation of two scales of the arm-bone. Since that time till the commencement of the present illness he enjoyed extreme good health, and even remarkable muscular power. Five brothers, older than himself, were similarly vigorous.

"8th October, 1830.—Suppression of the seton, and blisters; to have local baths, ioduretted injections behind the eyelids and by the inner angle of the eyes, to be repeated frequently every day. To take the ioduretted mineral water (three-quarters of a grain of iodine dissolved in a pint of water).

"After six days of this treatment the patient was evidently convalescent, and he saw clearly with both eyes.

"24th October.—Right eye cured. The upper lid of the left eye was still red, indurated, and consequently nearly immoveable. On the cornea were seen two spots, each of about two lines in diameter.

"10th November.—Dismissed cured. The left eye seemingly a little smaller than the right, on account of slight remaining hypertrophy of the upper lid. Though he saw objects distinctly with this eye, his power of vision with it was weaker than at the other side, from a deep-seated corneal

stain. The right eye was perfectly well. The headach and coryza disappeared with the ophthalmia. I recommended the patient to continue the use of the ioduretted solution for six weeks after he left the hospital."—p. 101.

" Case VI.—*Purulent Scrofulous Ophthalmia in the most violent form and intense Coryza, mitigated in a few days by active local treatment with Iodine, and finally cured by the Internal and Local Method.*"—p. 101.

A lad, æt. 16, had double purulent ophthalmia and scrofulous coryza of the worst kind; eyes bathed in pus, of enormous size from hypertrophy of their soft parts; conjunctiva much thickened.

" The nose participated also in the condition of the eyes, and was almost buried in the swelling of the surrounding soft parts. The nasal fossæ were choked with crusts, the alæ nasi hypertrophied, so that the patient was obliged to breathe exclusively through his mouth. Both these affections were of about thirteen months' duration, and their actual state had lasted for eight days. He had previously been affected with ophthalmia several times; had also laboured under obstinate chilblains, and had had favous pustules on the scalp."—p. 102.

" 5th May.—Local baths, ioduretted solution to be injected beneath the eyelids and into the nostrils with a small syringe. As the danger of losing the eyes was imminent, I stationed another patient near Cretenet, to keep the local baths and injections constantly renewed.

" 7th May.—Pain and suppuration diminished, and the soft parts less impregnated with pus. By slightly opening the eyelids we found the cornea red and swollen.

" 10th May.—Swelling of the soft parts much decreased, the patient can open his eyelids and support the daylight. The secretion less abundant, and not so yellow. He remained several hours without a bandage.

" 16th May.—The swelling disappeared, and disease reduced to the condition of mild ophthalmia.

" 27th May.—The patient attended my clinical lectures without a bandage, and surprised every one who had seen him three weeks before in the state I have already described.

" Early in June the ophthalmic symptoms re-appeared with much violence, a circumstance which I was at first inclined to attribute to the neglect of blisters and other secondary measures, but which a more rigid examination showed me to have arisen from the patient's own neglect of the local remedies prescribed in his treatment. These were therefore resumed with renewed perseverance, and in a few days the relapse was nearly terminated. After the symptoms had abated in violence, the patient commenced the employment of the ioduretted mineral water, and in this, associated with sulphureous baths, he continued for four months.

" The preceding cases are sufficient to show the efficacy of the iodine treatment in this species of scrofulous disease, no matter how severe in its form. A third example occurs in the *Lancette Francaise*, third volume, No. 68, in a young patient, æt. 15, who, since three years of age, laboured under ophthalmia of both eyes, coryza, general impetigo, and cervical tubercles, and in whom the iodine exerted equally prompt and durable effects.

" Besides these cases, I possess many others of ophthalmia in its most intense form, in hereditary instances, and in which the ophthalmic disease and the general health have received equal improvement from the local application and internal administration of iodine."—p. 104·

(To be continued.)

II.—*A Manual of Materia Medica and Pharmacy; comprising a concise Description of the Articles used in Medicine, with Observations on the proper Mode of combining and administering them; also the Formulæ for the officinal Preparations of the London, Edinburgh, Dublin, Parisian, American, and most of the Continental Pharmacopœias, together with a Table of the principal Medicinal Plants.* From the French of H. M. Edwards, M. D. and P. Vavasseur, M. D., corrected and adapted to British Practice. By John Davies, M. R. C. S. Surgeon to the Herts Militia, late Editor of the London Medical and Surgical Journal, &c. London, 1831 : 8vo, pp. 490. Whitaker, Treacher & Co.

III.—*The Pharmacopœia Universalis, or Complete Encyclopædia of the Materia Medica, contained in the Pharmacopœias of London, Edinburgh, and Dublin, as well as of all those of Europe and America, and of the Dispensatories, Formularies, and Chemical Works of* (here follow the Titles of thirty-one of the best Works extant on Materia Medica and Pharmacy). By A. J. L. Jourdan, M. D. of Paris. Edited by J. Rennie, A. M. A. L. S. Author of a new Supplement to the Pharmacopœias, Professor of Natural History, King's College. London, 1831 : 8vo. Parts III. IV. V. and VI. Fry and Fletcher. Brompton.

IV.—*Pharmacopœia Medico-Chirurgica in usum Facientium, a Roberto G. Holland Chirurgo, Concinnata. Edinburgi veneunt apud Joannem Carfrae et filium. Londoni apud* Longman, Rees, et Socios, 1831 : 8vo. pp. 185.

The admirable works now before us are among the most extensive and elaborate which have hitherto appeared on therapeutics, and will undoubtedly become standard books in every medical library. The work of Edwards and Vavasseur is ably executed, and is a valuable compendium of all that is known on materia medica. It contains all the varied information promised in its title page, or in other words, all the facts in the British, European, and American pharmacopœias, which are stated concisely and accurately. The physical, chemical, and therapeutical properties of medicine, with their mode of action on the economy, are detailed as exact as the present state of science permits.

In describing each medicinal substance, the learned authors have noticed;

1. The different names by which it is known, and especially the popular, pharmaceutical, and scientific appellations.
2. Its origin.
3. When a vegetable substance, the botanical characters of the plant which furnishes it, is also given. The families of plants are given in a tabular form at the end of the work, to prevent tedious repetitions.

4. Its physical properties, by which are understood its description in the state in which it is commonly found in commerce.

5. Chemical properties.

6. The substances with which it must be never combined in a pharmaceutical preparation.

7. Its preparation.

8. Its mode of action on the economy, and its therapeutical employment.

9. The doses in which it is usually given. The different forms in which it may be employed internally and externally; the principal officinal preparations into which it enters as a component part; its composition and doses; and finally, some magistral formulæ, to serve as examples of the manner of prescribing it.

In the first chapter, under the head of "General Considerations," the authors have presented that which is most essential to be known respecting remedial agents in general; they have considered them in relation to their chemical and physical properties, their natural affinities, their mode of action on the animal economy, the different preparations to which the pharmaceutist subjects them, the various modes of administering them, and finally, the rules to be followed in their administration, and in the manner of mixing them.

The greater part of this chapter is condensed from the first volume of that unequalled work, Dr. Paris's Pharmacologia, a production of the highest importance to every class of medical practitioners, whose only defect is the exorbitance of its price, which renders it inaccessible to the younger part of the profession. If its learned and scientific author would take this hint in his next edition, and add the formulæ of the foreign pharmacopœias, which could be easily done without increasing the size or price of the work, he would render the junior cultivators of science an essential service. We are satisfied that the author must admit the price of his work, which was affixed by the publishers, and not by him, is nearly double what it should be, according to the present scale of prices. Nevertheless, its value was so great as to obtain an extensive sale, but its circulation would be five times as great, had its price been more moderate. The Manual before us is published at little more than a third of the cost of the Pharmacologia, it contains the substance of the latter, with the exception of the quack nostrums, whose place is well supplied by the introduction of the formulæ of the foreign pharmacopœias.

Mr. Davies has the merit of having adapted the French Manual to British practice, and has conferred an essential service on students and practitioners by this accurate translation. We feel fully satisfied that this work requires only to be known, to be generally esteemed.

After a luminous exposition of the classification of remedies, our authors maintain "that the only rational basis on which a classification of remedies can be erected, are the physiological changes, effects or results, which they produce on the action of the organs." But we are properly informed of the utter impossibility of arriving at an accurate classification of remedies.

"That which we have adopted in this work is therefore, very imperfect and liable to many objections; but, such as it is, we think that it may faci-

litate the study of materia medica, and, at the same time, that it is not divested of usefulness in the practice of medicine.

" We have divided remedies, according to their primary effects, into,

" 1st. Caustics, which, by their chemical action, disorganize parts of the body with which they come in contact.

" 2d. Rubefacients and Epispastics, which induce inflammation of the parts to which they are applied, without disorganizing them.

" 3d. Astringents, which, applied to the living parts, produce a contraction of the fibres of the tissues, and have a simple local action.

" 4th. Tonics, which, by their general action, have a tendency to increase the energy of the organs.

" 5th. Excitants or Stimulants, which stimulate the tissue of the organs, and augment the activity and rapidity of their functions. They are subdivided into—

" General; the stimulating action of which is felt by the whole economy; and,

" Special: which act more especially upon one or more organs, such as the kidneys, the skin, the nervous system, &c.

" 6th. Narcotics, soporifics or stupefiers, which act specially on the nervous system, and which have a peculiar tendency to lessen its activity, or even to suspend, momentarily, its functions.

" 7th. Emetics, which excite the contraction of the stomach and of the abdominal muscles, and thus produce vomiting.

" 8th. Purgatives, which induce over the internal surface of the intestines a transient and moderate irritation productive of alvine evacuations.

" 9th. Laxatives, which produce alvine evacuations; but by acting rather as emollients than as irritants.

" 10th. Temperants, which moderate the too great activity of the organs, and more especially the rapidity of the circulation.

" 11th. Emollients, which tend to soften the tissues with which they are in contact.

" 12th. Anthelmintics, which, without acting in a decided manner upon the economy, produce the death or evacuation of intestinal worms."—p. 44.

The mode of action of each class, is first accurately and faithfully described, and here our authors borrow very largely from Dr. Paris and others. We next have a description of the substances in each class in the following manner, before the collation of which, it is necessary to explain the abbreviations employed:—P. P. Physical Properties. C. P. Chemical Properties. T. E. Therapeutical Employments. D. and M. Dose and Mode of Administration.

" Caustic Potassa. Potassa fusa. Lapis causticus. Impure hydrate of protoxide of potassium. Caustic kali with lime. Common caustic.

" P. P. Flat, irregular, brittle pieces, or round sticks, like the nitrate of silver; of a grayish-white, sometimes reddish; of a savour extremely caustic, and a slight odour sui generis.

" C. P. The caustic potassa is composed of protoxide of potassium 100 parts; water 25; besides a little sub-carbonate, sulphate, and hydrochlorate of potassa, of silica, &c. it possesses alkaline properties in the greatest degree; that is, it converts the colour of syrup of violet into green, restores the blue colour of the tincture of litmus reddened by an acid; it reddens

turmeric paper, or the yellow vegetable colours; exposed to the air it attracts quickly carbonic acid and moisture from the atmosphere, and is thus converted into a very deliquescent sub-carbonate. It is very soluble in water and alcohol, combines with fatty substances, and forms with them soft soaps; finally, it fuses below red heat.

" Prep. Treat the potassa of the shops (impure sub-carbonate of potassa), dissolved in twelve or fifteen times its weight of water, with an excess of quick-lime; filter the liquor; evaporate rapidly, fuse, and pour out on a marble slab, or into iron moulds; when it becomes hard, break it and keep it in well-stopped bottles.

" Th. E. This substance is extremely caustic; it decomposes quickly the parts with which it is put in contact, and it leaves on the skin a soft grayish eschar, which comes off slowly. Advantage is taken of this action to establish issues, to open indolent abscesses, or such as are accompanied with induration of the surrounding parts, to cauterize poisoned wounds, &c. Taken internally, it acts in the same way as all corrosive poisons; it has, nevertheless, been administered, in very dilute solutions, as an antacid, diuretic, and lithontriptic. It has succeeded in the gravel, in nephritic colics, and other affections proceeding from superabundance of uric acid. It has been recommended likewise in the treatment of scrofula and in some diseases of the skin, such as leprosy, &c. This solution, even when much diluted, soon irritates the stomach, and brings on anorexia, which prevents it from being used for any length of time.

" D. and M. of Adm. As a caustic, a piece of the size of a lentil. Internally, Liquor Potassæ, L. E. D. P. (Caustic potassa, 1 part; distilled water, 10.) From ♏. v. to xx. in ℥vj. of mucilaginous menstruum. Tinctura Kalina, Pol. (Caustic potassa, 1 part; rectified alcohol, 6.")—p. 46.

" Melted Nitrate of Silver. Nitras argenti fusus. Lapis infernalis. Lunar Caustic. Not to be found in nature.

" P. P. Small cylinders, two or three inches long, of the size of a quill, of a grey or dark colour, lighter within, inodorous, and of an extremely caustic, bitter and metallic taste. When broken, they present a number of small whitish crystals, disposed in rosets or in a radical form.

" C. P. This salt is formed of nitric acid 100, and silver 214.38, it is not deliquescent unless it contain a small portion of copper; it is soluble in its weight of water at 15° Centig. (59° Fahr.) crystallizes in thin scales, white and semitransparent; light turns it black; it is fused at a moderately high temperature, and is decomposed at a red heat; its solution colours the skin, in a permanent manner, of a brown or deep violet colour.

" Incomp. Subst. Fixed alkalies, hydro-chloric, sulphuric and tartaric acids, soaps, arsenic, hydro-sulphates, vegetable astringent infusions, &c.

" Prep. Treat the metallic silver with pure nitric acid; melt the salt thus obtained in a crucible, over a slow fire, until all the water is evaporated. Then pour the fused nitrate into proper moulds slightly rubbed with tallow. The dark colour which lapis infernalis sometimes acquires, is owing to a small quantity of oxide of silver. or of the metal rendered free by the decomposition of the unctuous substance used. The crystallized nitrate of silver is white.

" Th. E. It is the best of the catheretics; therefore it is the one which is most frequently used: this substance acts slowly upon the skin, but very quickly on granulations; the irritation it causes is of short duration; the

eschar is thin, dry and grayish; it is not absorbed. It is used to stop the growth of fungous flesh; to prevent strictures of the urethra, and those of the nasal passages, as has been recently proposed; to induce cicatrization in ulcers of the cornea, in old fistulous passages, in obstinate ulcers, and indolent chancres; its powder applied to hospital gangrene stops its progress, and a cure is obtained; dissolved in water, it is recommended as an astringent collyrium in some cases of chronic ophthalmia. Finally, it has been recently used to cauterize the pustules of small pox in order to stop their progress; and according to Dr. Serres, to prevent the inflammation of the meninges of the brain, which so often renders variola so complicated. This mode of treatment has received the appellation of the *ectrotic* method. Administered internally and in large doses, the nitrate of silver is a very active corrosive poison; in small doses it produces a heat in the epigastrium, colic, vertigo; and often, after a certain lapse of time, it alters the colouring of the skin to blue or brown; it appears moreover to increase the urinary secretion. It has been used in epilepsy, angina pectoris, and other nervous diseases. It is however a very dangerous medicine, and must be used with the greatest caution when exhibited internally.

"D. and M. of Adm. As a caustic, any quantity. As a collyrium, gr. j, to distilled water, ℥ij. Internally, one-tenth to one-fifth of a grain, two or three times a day, increasing by degrees to twelve or fifteen grains. Pills of nitrate of silver, Paris H. (Nitrate of silver gr. iij; gummous extract of opium, ℥ss; musk, ℈j; camphor, ℈ij; for 48 pills.) Two or three pills a day."—p. 48.

We have not met any work for a long time, which contains in the same space more useful matter than in the Manual under notice. We recommend it for its accuracy, perspicuity, and the comprehensiveness of the details with which it abounds. It is an accurate, well digested, and highly instructive work, evincing mature deliberation, vast research, profound judgment and fidelity.

Mr. Davies has executed the translation with much ability and judgment. We strongly recommend it to students, especially those preparing for examination at Apothecaries' Hall, as well as to every one engaged in the practice of medicine.

On a former occasion, in our Number for July last, we spoke in high terms of commendation of the Universal Pharmacopœia. M. Jourdan has displayed a degree of industry and laborious research, which remind us of the great masters of former times. He has collected almost all the pharmacopœias extant, and comprised them in two octavo volumes. He has produced a work which stands a splendid monument of learning, indefatigable industry, and great talent, and whose comprehensiveness is not equalled by any modern publication. It is unequalled in the annals of modern medical literature. This translation renders it accessible to every one engaged in the practice of the healing art. It differs much from preceding works on pharmacology, as it merely consists of a vast number of formulæ, unaccompanied by a perfect detail of the physical, chemical, and therapeutical properties of medicines, or their action on the animal economy. In fact, it is a correct view of the collegiate and clinical formulæ of all countries, divested of the science of pharmacology. It is therefore a valuable work of reference for all who wish to avail themselves of the

prescriptions of the most renowned physicians and surgeons in all civilized countries, and of the past and present ages. A good attestation of the truth of this statement, is afforded by the account of assafœtida, in which we find the enumeration of eighty-eight formulæ for the exhibition of this valuable remedy. Every medical practitioner will experience great satisfaction in being afforded the amplest opportunity of deriving valuable therapeutical knowledge from such an available source as the truly important work before us, and we have no doubt of its triumphant success. Nearly half the work is now translated, and its subscribers daily increase, which fulfils our former prediction. We perceive by a notice on the cover of the last part, that the spirited proprietors announce their intention of publishing an Encyclopædia of Medicine, Pathology, Surgery, Midwifery, and Medical Jurisprudence, comprising all the best articles in the three great French dictionaries, of nearly one hundred volumes, to be edited by Professor Rennie. We wish them every success, and we are certain that a work of the kind is a great desideratum, and cannot fail to be encouraged. This publication offers good evidence of the selfishness and cupidity of the large medical booksellers, who, one and all, have repeatedly refused to co-operate in such an undertaking. Such was the fate of the Pharmacopœia Universalis, but it now appears in our language, in despite of the opposition of interested publishers, and we sincerely hope that the intended Encyclopædia of Medicine, &c. will, like Aaron's rod, devour most of the imperfect works, which they so ardently patronize. When we consider that four dictionaries of medicine (the first extending to sixty volumes octavo, the second to fifteen, the third to twenty, and the fourth, now in course of publication, to fifteen), have appeared within the last thirty years in France, while Cooper's, Hooper's, and Good's works, are the British systematic additions to science, we must acknowledge that our Gallic contemporaries are far before us in their contributions to medical literature and bibliography. We are happy to state that a British Cyclopædia of Medicine is also announced, by an association of the most distinguished writers of these countries, under the editorship of Dr. Tweedie, Dr. Connolly, and Dr. Forbes, the first part of which is promised in January next. It is, however, to be confined to medicine alone, and can only compete with Good's Study of Medicine, rather a formidable rival, and Hooper's Medical Dictionary. We doubt much whether it will equal the former, and we are quite satisfied that it will not surpass it, either in a literary or even in a scientific point of view.

The list of contributors to the Cyclopædia of Medicine, contains the names of many eminent physicians, who propose to form a collection of essays on the most important parts of medical science. Each is to be complete and authenticated by the author, so that the whole, when finished, will form a valuable work of reference. With such advantages, the Cyclopædia will be preferred to the intended Enclycopædia, unless the latter comes forth under an editor, whose opinions on the principles and practice of medicine, surgery, obstetricy, &c. have more weight with the profession, than those of the professor of natural history in the King's College can command. In saying this, we by no means intend to depreciate the high literary and scientific attainments of Mr. Rennie; but that voluminous author must be a literary Goliah to compete with the

editors, and contributors to the Cyclopædia. We trust, however, he will persevere, as a condensation of the French medical dictionaries, with a judicious combination of British medicine, could not fail to be favourably received by the whole profession.

The great success of the Universal Pharmacopœia is the strongest proof that can be adduced, of the value set on the instructive and comprehensive compilations of a neighbouring country, which all have admired. We consider it a great undertaking, because, if conducted in the spirit of its projection, it will be one of the most invaluable productions of medical literature. To render it complete, the principles of British medicine must be added; because, as an abridged translation from the French, it could not possibly influence the great mass of the profession in these countries.

We have now to apologize for this digression, and can only offer, in expiation of our transgression, our humble opinion in favour of systematic works, which, if judicially executed, will promote the objects of all enlightened medical practitioners, the diffusion of scientific knowledge, and the better conservation of public health.

The Pharmacopœia Medico-Chirurgica is a compilation, consisting of the best formulæ of eminent physicians and surgeons, and is an admirable collection of prescriptions. Had its author explained the intention of the writer of each prescription, the work would be much more valuable. It is a useful work, from which some important information may be acquired by every medical practitioner. It is a kind of conspectus to the British Pharmacopœias, with magistral formulæ. The student and young practitioners will find it extremely useful and instructive.

V.—*On Spasmodic Cholera.* From the *Westminster Review,* Oct. 1831.

VI.—*Memoire sur un nouveau traitement du Cholera Morbus, et des Affections Typhoides, etc.* Par H. F. Ranque, etc. Paris, 1831.

Memoir on a new Treatment for the Cholera Morbus, and Typhoid Affections, etc. By H. F. Ranque, Paris.

VII.—*Trattato delle varie specie di Cholera Morbus.* Di Michele Buniva, M. D. Turin, 1831.

A Treatise on the various Kinds of Cholera Morbus. By Michele Buniva, M. D.

VIII.—*Die Asiatische Cholera in Russland in den Jahren,* 1829, 1830, und 1831, Von Dr. J. R. Lichtenstadt, etc. Berlin, 1831.

Of the Asiatic Cholera, as it appeared in Russia in January, 1829, 1830, and 1831. By Dr. J. R. Lichtenstadt.

IX.—*Die Cholera Morbus, etc.* Von Dr. Schnurrer, etc. 1831.

On Cholera Morbus, etc. By Dr. Schnurrer.

X.—*Remarks on the Cholera Morbus, etc.* By H. Young, M. D. Smith, Elder, and Co. Cornhill, London, 1831.

XI.—*Papers relative to the Disease called Cholera Spasmodica in India, now prevailing in the North of Europe.* Printed by Authority of the Lords of his Majesty's most Honourable Privy Council. London, 1831.

XII.—*An Essay on the Epidemic Cholera of India.* By Reginald Orton, Surgeon H. P. of his Majesty's Thirty-fourth Regiment of Foot. Second Edition, with a Supplement. London, November, 1831. 8vo. pp. 488, with a Map. Burgess and Hill.

XIII.—*Warning to the British Public against the alarming approach of the Indian Cholera.* By Sir Gilbert Blane, Bart. F.R.S.

XIV.—*Cholera, its Cause, Treatment and Prevention, clearly and concisely explained.* By Charles Searle, Esq.

XV.—*Practical Remarks on Cholera.* By John Goss, M.R.C.S. Late Assistant Surgeon in the Hon. East India Company's Service, Bombay Establishment.

XVI.—*History of Contagious Cholera.* By James Kennedy, Member of the Royal College of Surgeons. Cochrane and Co.

As the hours roll on, and the days advance, the horror excited by this pestilence deepens, and the all-absorbing interest it excites, increases every instant in intensity. The frightful and appalling destruction of human life which it has caused in some countries, the ravages it has committed, and again the mildness with which it has passed other states, either totally passing them by, or else visiting them very slightly, the rapidity with which the dire monster frequently retraces its steps, and suddenly makes its appearance among those who had just flattered themselves that "the bitterness of death had past," alike confound and amaze the inquiring mind, whilst they appal and dishearten every non-professional person. But a few days have passed, and the papers were declaring loudly that the cholera had reached England, and was pursuing its destructive ravages with frightful mortality. The reports were, that it was extending rapidly; it was proclaimed to be the "true Asiatic cholera." It appeared in Sunderland, a direct importation from Hamburgh. It soon shewed itself in Newcastle, and ere long, would doubtless have thrown fear and dismay among the inhabitants of the metropolis, had not the veil been rent in twain, and the real nature of the disease ascertained. *Montes parturiunt*—would we could say, *nascitur ridiculus mus.* But the real cause turns out a more serious affair, no less than poison, which destroyed nearly a whole family. Were it not for this, and for the dread which these reports must necessarily have caused in the public mind, they would be highly laughable and ridiculous in the extreme. One paper stated that the cholera at Sunderland was imported direct from Hamburgh; that it was owing to a Hamburgh vessel having been allowed to pass Sunderland Bridge, and there perform quarantine; which said quarantine was so negligently enforced, that the seamen were allowed to come ashore at night, and thus communicated the disease: but alas, a strict regard for truth compelled them to add, that indeed "the sailors were very healthy, and had not the disease." Another paper went beyond this, and, as we are informed, for we did not see it stated, that six or seven of the crew died on the voyage of cholera. According to the first account, the sailors communicated a disease to the Sunderland folk, which they had not themselves; but they brought it in their clothes, say the contagionists. But if that were the case, how is it they took not the disease from their own clothes, since they wore them, and were in greater contact with them, day and night, than the inhabitants

of Sunderland, who saw them only by night, and then by stealth. And neither is it likely that the inhabitants would have much to do with the clothes of these seamen; but, say the contagionists, the Sunderlanders were more predisposed to the disease—en veritè, mes chers, surely it is well known that seamen work hard, eat bad, indigestible food, and drink hard; and what more is necessary to predispose any one for an attack of cholera? True, the Sunderlanders, who were attacked, were probably also hard drinkers, and perhaps hard workers, and thus were predisposed for the complaint. But they also lived in the filthiest part of that filthy town, and these causes alone are sufficient to induce an attack of spasmodic cholera, without importing it from Hamburgh, or any where else.

Again, a case was reported from Newcastle, the symptoms detailed in the newspapers, and it also declared to be cholera; it ended fatally.—The investigations set on foot soon shewed that the man had not been with seamen from abroad, and that nothing had been employed in his business that could possibly have communicated the disease; and they also shewed that the man had had a similar attack some time previous, and that *he had previously left an airy and dry situation, and had taken lodgings in one of the dirtiest, and most crowded parts of the town*; and from such cases as these, all England was to be inundated with the cholera. However, some good was done by the report, as it spirited up the "Board of Health" to attempt something to prevent its progress—but we shall return to them in a little while.

We now proceed to redeem the promise given in our last Number, and shall enter into an analysis of the paper in the *Westminster Review*.

"Cholera is a disease which has been long known and fully described by many authors; but until about the middle of the seventeenth century, neither its prevalence nor fatality was such as to invest it with the character which it now wears. As it usually appeared during the heat of summer and the fruit season, it was very generally ascribed to an elevated temperature, and the immoderate use of fruit; but, although it was occasionally violent, its ordinary features were by no means alarming. Sydenham says, that it appeared in an epidemic form in England during the summers of 1669 and 1676, and that its symptoms were so severe as to frighten the bye-standers, and kill the patient in twenty-four hours.

"According to Le Begue de Presle, it prevailed in 1762 in Bengal, and carried off 30,000 negroes, and 800 Europeans. Dr. Paisley mentions it as being in Madras in 1774; in 1775, it seems to have invaded the Mauritius; and in 1781, a division of Bengal troops were attacked by it so fiercely at Ganjam, that 5,000 were admitted into hospital during the first day, and by the end of the third, the half of the entire corps were ill; men previously in perfect health, instantly dropped dead upon the ground, and few survived the first hour, who did not ultimately recover. In 1780, during a festival at Hurdwar, it destroyed 20,000 people; and in the records of Madras, it is stated to have raged at Arcot, in 1787, as an epidemic." * * * * * "The Brahmins have long since described a malady, which they call *vishuchi*; and the Japanese a similar affection, which they call *senki*, both of which have a very striking resemblance to spasmodic cholera: and certain it is, that Sydenham, whose accuracy of observation is well known, never alludes, in his description of the severe

form of cholera which he witnessed, to the existence of bile in the evacuations, merely calling them " pravi humores," or " bad humors."

From this it would appear that cholera is erroneously described, as first shewing itself in 1817. Dr. James Johnson observes, that this disease may assume every degree of violence, from the *mort de chien*, in which the evacuations are principally mucous, to the common cholera in which bile is passed; it is but fair therefore to suppose that the disease of 1817, is only an aggravated form of a disease previously existing.

" As far as similarity of symptoms can establish their identity, Mr. Scott and Dr. Keir's description must place it beyond suspicion, that the cholera which now devastates the North of Europe, is substantially the same disease with the Eastern cholera, which appeared at Calcutta in 1817 ; and the same fact is established by their corresponding mortality, by the identity of their post mortem appearances, and by the medicines found most efficacious in the one affection, proving equally successful in the management of the other."

The use of bleeding, warm bath, calomel and opium, have been found most successful in the cure of the Indian disease ; but these have frequently failed in curing the Russian epidemic, and others have been had recourse to, as magnesia, magistery of bismuth, arsenic, &c. sometimes with success, but more frequently nothing has been able to save the patient.

The mortality of this disease in different places has varied excessively; in some the greater part of those attacked fell victims, while in others very few indeed perished.

" According to Moreau de Jonnès, one-tenth of the whole population of Hindostan was attacked; and one-sixth of those who were attacked, perished. In Arabia, one-third of the inhabitants of a town died. In China, its mortality seems to have been much greater, partly in consequence of the great density of the population, and partly because the Chinese declined, from religious motives, to employ any preventive measures. In Persia, it killed about one-sixth of the inhabitants of Bender-Abassi, Shiraz, and Yerd. In Mesopotamia, no fewer than from one-fourth to one-third perished. In Bassorah and Bagdad, which are situated on the Tigris and Euphrates, and therefore surrounded by alluvial soil, and humid atmosphere—the mortality was frightful. At Erivan and Tauris, one-fifth of the inhabitants was destroyed; but in more healthy and elevated parts of Armenia, as at Erzeroum and Kars, the disease was less fatal. In no country have its ravages been more varied and less uniform than in Syria. In some places, one-half of the population sunk under the disease, while in others, as in Tripoli, only one perished out of 3,000." * * * * " It is estimated that its average mortality in Syria, amounted to about one-tenth of the population. During the irruption of cholera, in 1800, into Russia, there was a most marked difference in its virulency among the northern and southern provinces. Thus, at Tiflis, three-fourths of the sick, at Astracan, two-thirds, and in the province of the Caucasus, out of 16,000 attacked by the disease, 10,000 perished; while at Orenburg, only one-fifth, at Twer one-third, and at Moscow, one-half of the infected died." * * * " At Zitomir, the number of deaths almost equalled that of the sick. In Berdicheff, during 15 days, 201 were taken ill, and of these 133 perished. At Kamenetz, on the frontiers of Moldavia, 589

these parts the villous tunic could with facility be rubb
coat of the stomach was red, grey, and pink, with
duodenum slightly inflamed, jejunum healthy, ileum ver
this vascularity, however, as the effects of pre-existing
man had been suffering from pain and diarrhœa. T
stomach had a dark brown appearance, and yielded a
of oxalic acid upon analyzation, and contained nume
globules of a dark brown colour.

20. *Nitric Acid in Toothache.*—By Dr. Ryan. Since m
the extraordinary success of this acid, in giving imm
properly and cautiously applied to caries of the teeth, I h
cases with invariable success. It should be applied with a g
covered with lint, as a silver probe decomposes the a
ineffectual. It is therefore necessary to cover the ordi
lint very lightly, and to apply the acid quickly to every
surface. If the disease ascends high into the fang b
complete relief cannot be obtained, unless the extremit
touched, and this is a difficulty which is often met with,
teeth are affected. In general the application affords
without the slightest pain.

LITERARY INTELLIGENCE.

Preparing for publication, Remarks on Lactation; co
tions on the healthy and diseased Conditions of the Brea
orders produced in Mothers by suckling, and numerous C
when protracted it is a common Cause in Children of W
and other serious Diseases. By E. Morton, M.D. Cant

Practical Examinations on the immediate Treatment of
Emergencies that may occur to the external Parts, H
Trunk of the Body. By W. S. Oke, M.D. and Extra
Royal College of Physicians in London.

LIST OF BOOKS RECEIVED DURING THE MON

1. A Conspectus of Prescriptions in Medicine, Surgery, and M
upwards of a Thousand Modern Formulæ, including the new Fr
arranged Table of Doses. Selected from the highest Professional A
a Remembrancer for General Practitioners. The Third Edition, en
London, Simpkin and Marshall, Stationers' Hall Court; Renshaw
18mo. 1830.

2. Familiar Observations on the Formation and Diseases of the Te
Dental Surgery. By W. Hunt, Surgeon-Dentist. 8vo. 1831. W.
and David's, South Audley-street.

3. Lectures on Anatomy, interspersed with Practical Remarks.
Cooper, F.R.S. Surgeon of Guy's Hospital, Lecturer on Anatomy, &
London, Longman and Co. The third volume of this admirable w
in a few days.

ERRATA.—In Mr. Jones's communication of last mont
an intimacy" read "I profess *no* intimacy."

All Communications and Works for Review, are to be addressed
RENSHAW and RUSH, (near Exeter Hall) 356, Strand; or to the EDIT
61, Hatton Garden.

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died out of 1,288; and at Warsaw, out of 2,580 patients, who occupied the hospitals on the 5th of May, 1,110 had died, and 1,278 still continued under treatment. In Austria, cholera has been equally fatal. During five days, 357 died at Leinberg. and 1,135 at Brody." At Riga it was very severe when it first appeared, but its violence gradually decreased. At Brisod, in Hungary, out of nearly 6,000 sick, not one recovered; and it has been equally fatal in Comonu and Debreczyn."

We have thus presented our readers with a most appalling, yet, as we believe, a faithful picture of part only of the ravages committed by this pestilence. They are such as to merit more attention than has been paid by our Public Boards, and yet the facts as yet adduced are not sufficient reasonably to account for the panic excited in the public mind. The countries as yet invaded by this pestilence, and more especially those where it has extended furthest its frightful ravages, are all deeply buried in superstition—the tyrant of the mind, and are, generally speaking, almost as much subjected to the tyrannic slavery of the body. Who can deny that the Russian, the Turk, and the Persian are not in the state we describe? The Russian, in addition, is given up to filth and drunkenness; he is disposed of by his masters, as cattle are sold at fairs; he dare hardly call his soul his own, and who then can wonder at the ravages of a pestilence amongst them, when it is well known that it is aided materially in its attack on the human body by all the depressing passions, by dirt, drunkenness, &c. The Austrian, Prussian, &c. are but little better. Their monarchs are despots, and rule with almost unlimited authority over them, and while THE PEOPLE ARE NOT FREE, depressing passions must have their influence, and thus lay the foundation for such and similar diseases. But we are told that the people are not alone attacked. True, Field-Marshal Diebitsch, and the monster Constantine, perished by this disease. But these were proverbially slaves to their passions. Diebitsch, the greatest drunkard in all Russia, while the monster Constantine is handed down for the execration of posterity, as his numerous barbarities, and ingeniously-contrived cruelties have rendered him infamous for ever.

" A most unusual phenomenon has been occasionally discovered after death, both in the Indian and European cholera, which probably bespeaks their identity, with as much emphasis as any of the facts yet stated. It has been, in a few instances, noticed, that the spasms have suddenly recurred several hours after the apparent extinction of life, and have convulsed the body for many minutes. In one instance, recorded by Dr. Sokalord, he observes, that ' twenty minutes after his last breath, and when the corpse had been already washed and dressed, it was affected all at once with frightful movements. Convulsive motions took place in the hands and feet, like those excited by galvanism, commencing first in a few muscular fibres, especially in the neck and thighs, extending in a vermicular manner, and suddenly producing bending of the head, and agitation and elevation of the feet.

" ' These spasms continued, with intervals, for ten minutes, becoming in the end faint and rare. The same phenomena, though in a less remarkable degree, were observed on another occasion, but so long as six or seven hours after the termination of the symptoms of the disease.' In such cases the principle of vitality cannot be entirely extinguished; and, as death always occurs suddenly in spasmodic cholera, such facts are sufficient to

teach us the propriety of allowing a considerable interval to elapse before those who perish by this disease are consigned to the tomb."'

Such an appearance is exceedingly curious, and must be highly horrifying. After life has apparently quitted the frame, and the soul has gone to answer its account at the bar of Heaven, to behold the apparently lifeless body start up in convulsive action, is something so peculiarly terrific, as to cause one's flesh creep with horror. It doubtless is owing to the circumstance that the nervous influence is not altogether extinct, and that nature is making her last efforts to restore her decaying power, and in these she should be aided by whatever means we have in our power.

"Females are less exposed to it than males, and children than adults. In our armies in India, the camp followers were generally the first attacked, then the native troops, next the common European soldiers, then the officers, and last of all the civilians." * * * "In all cases, unwholesome or insufficient diet, unseasonable or immoderate exercise, imperfect cloathing, and damp, low, ill-ventilated dwellings, have strongly favoured its propagation. If we except a few doubtful cases, there is no reason to believe that it ever invades the same constitution twice." This we rather think is a mistake; several medical friends have communicated to us cases of a second attack, and one of them experienced a second in his own person: it was slight to be sure, yet still it was cholera.

Dr. Young holds that it does not visit the same person twice. He says, "while treating of this part of the subject, it may be proper to introduce a remark, which is at once important and consolatory, viz. that in no instance was it found that the same individual had the disease more than once; it is undoubtedly true, that many who were in a convalescent state suffered a relapse, either from their own imprudence, or from some other cause; but the observation and experience of the writer (and he believes also of all the other medical officers), went to prove, that after a person had once fairly and completely recovered from the epidemic cholera, he did not appear to be subject to a future attack."

We have already detailed our opinions on this subject, and can only add, that we hope that Dr. Young may be in the right, as it were much better for us, if such were the case. The few examples we have adduced are merely exceptions to a general rule, as we hope it may prove to be. We are informed by Dr. Short, of Clarendon Square, that he and others had been attacked twice by the disease, and that such an occurrence is by no means uncommon. Some have traced the origin of spasmodic cholera to a distempered state of the atmosphere. The inhabitants of Syria have named it *El Haoua*, or pestilential air, and Mr. Orton and Dr. Joehnichen, attribute the spread of the complaint to the atmosphere being either negatively or positively electrified. The *Westminster Reviewer* opposes this, on the grounds that if such were the case, it would travel under barometrical laws. This is always supposing that the state of the air is induced by something brought from the place where the disease originated—a supposition that does not hold good, as the atmosphere can as easily be decomposed or altered in one part of the world as in another, and without any connexion with that part of the world.

The Reviewer also states that "it should be propagated in the direction of the prevailing winds; quick as its movements have been, it should travel with a hundred times its ordinary velocity; it should sweep equally and

alike with its besom of destruction, all the countries and cities over which it blows, and no means, incapable of exerting any influence upon the movements of the air, should be found sufficient to controul its progress. But in none of all these points does this theory hold true. In place of travelling in the direction of the winds, it frequently braves the very boldest monsoon in the Indian sea, and perseveres in its own peculiar track along countries in the torrid zone, where the winds are regular and uniform." * * * 'The disease would sometimes take a complete circle,' says the Medical Board of Bombay, 'round a village, and leaving it untouched, pass on as it were wholly to depart from the district. Then after a lapse of weeks, or even months, it would suddenly return, and scarcely re-appearing in the parts which had already undergone its ravages, would nearly depopulate the spot that had so lately congratulated itself on its escape.' Mr. Annesley also observes, that 'in the very centre of extensive districts ravaged by epidemic cholera, there are certain narrow stripes or patches of country, into which the disease has never penetrated, though all around was one scene of desolation;' and then he adds, that 'this limitation of the disease to places where there existed no natural obstacles to its extension, militates most conclusively against any idea as to its being a contagious disease, and seems to point to the existence of some difference in the quality of the atmosphere.' But this fact cannot be allowed to settle the question; for if the spread of cholera depend on the movements of the air, nothing can appear more unaccountable than such partialities. As the cause is, perhaps, the most universal that exists, its effects should be proportional to its extent."'

This cannot be supported for an instant, unless it can be proved, or rather unless it be assumed, that the air of the whole world, or at least of those parts where the disease rages, or has raged, is to be contaminated by the air of the place where it first arose: but it is more reasonable to suppose that a similar cause may operate on and decompose the atmosphere of a far distant or a neighbouring country, either at the same time, before, or after, as at the place where it first acted, and this supposition so far is tenable, that it accounts for the fact of the disease appearing in one place, and not acting even in its immediate neighbourhood, a fact in direct opposition to the doctrine of contagion. The facts stated by the Medical Board of Bombay and by Mr. Annesley are also in direct contradiction to contagion.

"It is no doubt true, that either a hot or humid atmosphere has been shewn to be highly favourable to the propagation of spasmodic cholera, and it was for some time believed that a sufficient degree of cold and drought was capable of wholly extinguishing its malignant energies. But its appearance at Moscow in the very dead of winter disproves the one supposition, and its ravages in the thirsty deserts of Arabia, and the calcareous ridges of the Caucasus, repudiate the other. According to Mr. Annesley, the average height of the thermometer in India, from 1810 to 1815, was 83° 8', while from 1815 to 1820, it was only 82° 6'; so that in place of the heat having been greater at the period of the cholera's commencement, it was less: and in after stages of its future course, the fall of the thermometer 30 degrees below the freezing point, proved incapable of arresting its progress. But if either a hot or a humid, a plus or minus electrical atmosphere, be the active agent in generating this pestilence, it is strange that our armies have traversed the Indian Delta during all seasons and temperatures; yet until this scourge entered Lord Hastings's camp, it was almost, if not wholly

unknown in its present form. The temperature of India was as high, and its atmosphere was as humid a hundred years ago, as they are at the present moment. There was as much sun and as much moisture then as there are now; yet both the natives and the Europeans could travel the whole Peninsula, from Bombay to Ganjam, and from Travancore to Delhi, with the most perfect impunity. Now, however, circumstances have wholly altered. Some towns and districts are seldom free from the disorder. It sweeps the entire country with as steady a regularity as spring succeeds to winter, or harvest follows the summer season. It neither obeys the movements of the wind, nor confines its partiality to the dank regions of the air; but in opposition to wind and water, it pursues its own wayward and mysterious track, sowing death and desolation among the districts which it treads.

By way of illustration to the foregoing passage we quote the following from Dr. Young's work on the cholera:—

"The seasons in India are, in general, remarkably regular, having three divisions—the cold, the hot, and the rainy: the first commences with November, (though the latter part of October is often cool and pleasant), and during this period, which ends in February, the weather is, in general, very delightful, a cold, sharp wind blowing steadily from the north. The thermometer in the shade ranges throughout from 48° to 85°, mean heat about 69°, mean altitude of the barometer 29° 99'.

"About the latter end of February the weather begins to be much warmer, though the nights are still cool; and by the beginning of March the hot season sets in: the days become, during that month, excessively warm, but, about the end of March, or beginning of April, the atmosphere is occasionally refreshed by what are called north-westers; these storms being preceded, during several days, by cloudy mornings, strong gusts of wind, and distant thunder. Then, about sun-set, the wind, which had been high, falls suddenly, and a profound calm ensues; the air becomes excessively oppressive, the clouds, in the north-west, form a black, lowering bank, vivid flashes of lightning and loud thunder follow, and at length the dead calm is succeeded by a tornado and clouds of dust, which completely darken the horizon; now descend torrents of rain, accompanied by tremendous and quickly repeated claps of thunder, and these are, at length, succeeded by a serene sky, and a delightful freshness and coolness of the atmosphere. April is generally, throughout, a windy month, the weather is hot, but pleasant, till the end of the month, when the nights become oppressively sultry; the hot wind is sometimes succeeded by refreshing showers. In the early part of May windy weather continues, generally, to prevail, till about the middle of that month, when the winds become less constant; it is sultry, close, and oppressive, and the nights are particularly unpleasant; great dejection and lassitude are felt, and these are only relieved by the frequency of the north-westers. The thermometer during the hot season ranges from 75° to 94°, mean heat about 84°, barometrical altitude 20° 74°.

"About the end of the first week in June the rainy season commences, and continues during the remainder of that month, and through July, August, and September, and, sometimes, the early part of October. They generally set in from the south and east, and continue for many days with great violence. At the end of this period there is occasional fair weather,

and the nights are beautifully clear and starlight; but this fair weather never lasts many days, the heavy rains, every now and then, recurring. Storms of thunder and lightning are very frequent. The wind is pretty constantly from the south and east, veering, however, sometimes a little to the west of south. The weather becomes cooler, though the nights often continue oppressive. The thermometer ranges from 75° to 89'; the mean heat being about 81°. The mean altitude of the barometer is 29° 45'.

" In October the days are still hot and sultry, but the nights begin to be cool and pleasant, and are attended with very heavy dews. The barometer rises rapidly, and, towards the end of the month the thermometer falls to about 70°. The total quantity of rain that falls, differs in different years; but the average may be stated at about 70 inches.

" The above short account of the seasons is more especially applicable to the lower provinces of Bengal. There had been very great irregularities in them for two or three years before the breaking out of the epidemic. In 1815 the rains had been excessive, bursting the banks of the Ganges and other large rivers, and causing great inundations throughout the country. The succeeding cold season was remarkably damp and unpleasant; and the hot season that followed was observed to be hotter and more oppressive than usual, the thermometer often standing, in the shade, at 98°; and many natives and Europeans falling down dead in the streets. In April there was felt the shock of an earthquake; and in the following July a second shock was experienced. There was a suspension of rain in August, when the weather became intolerably sultry, and many of the rivers were dried up. About the middle of September the rain recommenced with unusual violence, and continued to fall till the middle of October, causing greater and more destructive inundations than had happened within the memory of man.

" The effect of these violent irregularities was an unwholesome condition of the atmosphere, producing low fevers and typhoid diseases; and throughout the upper provinces, a bilious remittent fever, somewhat resembling the yellow fever of the West Indies, raged in every city, town, and cantonment; and, in an immense number of cases, after running a short course of three or four days, proved fatal. A great mortality also took place about the same period amongst horned cattle and other animals.

" It has been thought right to mention these circumstances, though not immediately connected with the subject under discussion, as serving to prove the unwholesome state of the atmosphere previous to the appearance of the cholera morbus.

" The ensuing cold season was warmer than usual, and remarkably foggy; and, what was uncommon, a great deal of rain fell in the month of February, and the same also happened in the following month; and, throughout the whole of March, there were very frequent thunder storms. The air was unusually cool for that season of the year, but raw and unpleasant. The mean height of the thermometer was about 75°. Still, however, both Europeans and natives, in the province of Bengal, remained quite healthy.

" Throughout April the weather was still unseasonably cold; but early in May it became hot, the thermometer standing in the middle of the day, in the shade, at 90°. About the middle of that month, or three weeks

earlier than usual, the rains set in with great severity, and with very little remission. The city of Calcutta was not, however, more unhealthy than common, though fevers and bowel complaints prevailed in a moderate degree. In July an immense quantity of rain fell. The atmosphere was not unpleasantly hot; the thermometer varying from 80° to 87°. In August the rains were incessant, with an east and south-east wind; and the natives *now* first began to suffer from the epidemic cholera. As, in the production of this disease, much stress has, very naturally, been laid on these unusual variations of seasons and vicissitudes of temperature, it has been thought right to enter more minutely into the history of the climate of Bengal, in the years 1815, 1816, and 1817, than under other circumstances would have been necessary."—p. 45.

The Westminster Reviewer says, "the temperature was as high, and its atmosphere as humid, &c." but he forgets that the cholera is stated to arise after heavy rains have ceased, and *then* extreme heat supervening. It cannot be denied that in some seasons these may be considerably increased, and it is a mistake to say that Europeans could traverse India with impunity; it has ever been known as a fatal climate for Europeans, even without cholera; have they not the well known marsh or jungle fever, *cum multis aliis?* Besides this or a similar disease, as we have already stated, prevailed in India at different periods, and was very destructive, known to the natives under the name of *Vishuchi*, it prevailed in Bengal in 1762, and carried off 30,000 negroes, and 800 Europeans; it was in Madras in 1774, at the Mauritius in 1775, and in 1781 it caused extreme destruction among the troops at Ganjam; in 1780, during a festival at Hurdwar, it destroyed 20,000 people; and at Arcot, in 1787, it raged as an epidemic. Our readers must pardon us if we are somewhat tautological and prolix, but really the nature of the subject is such that we cannot well avoid it.

The Reviewer then proceeds to examine the question, whether the remote cause of cholera proceeds from the earth, as argued by Dr. Johnson, or by the influence of the earth and air combined, according to Mr. Annesley. He appears to ridicule the idea, and says that Mr. A. adopted his hypothesis, "fancying that between the demon which rides the storm, and the pestilence which is originated by the earth, there will be less difficulty in solving all the problems connected with cholera." The advocates of these opinions are highly numerous and respectable; in all the countries where the disease has shewn itself, there are the partizans of this opinion to be found.

"They appeal for proof to the partiality of the disease for the banks of rivers, and the neighbourhood of marshes; to its peculiar hostility towards the poor, the filthy, the naked, and the diseased; to its inveteracy in damp, low, and ill ventilated localities; to its wayward partialities in the course it travels; to its violence during the heat of summer, when evaporation is most active; to its decline in the close of autumn, when the temperature begins to fall; to its extinguishment during the winter, by the intensity of the cold; and to its re-appearance on the return of spring, when vegetable decomposition again begins to contaminate the air with noxious vapours.

"They contend that it makes its appearance suddenly and contemporaneously in districts of the same country, similarly circumstanced as to soil and season; that its violence is in proportion to the salubrious or unwholesome character of the place it enters; that it cannot only be diluted in intensity, by lessening the exciting cause, but wholly banished from any

locality, if by proper modes of purification the earth can be prevented from pouring forth her poisonous influence; that it seldom, if ever, appears in districts where some source of morbid miasmata cannot be detected; and that there is no unequivocal and decided instance of its ever having travelled from one neighbourhood to another, through the medium of human intercourse. When cholera prevailed at Tripoli, which is a very clean and well ventilated town, thirty-one only were taken ill out of a population exceeding 15,000; of these only five died, and the disease tarried but a few days; while at Antioch and Gesra, which are low and badly aired, it continued for a month and committed frightful ravages. The farther north the disease extended, the fewer were its victims. Thus, in Hindostan, out of 10,000 European military, 3,000 were attacked by cholera in the period of five years, and about 700, or from one-fourth to one-fifth died; and among 71,000 of native military, during the same period, 15,830 were attacked, and almost one-fourth perished; whereas in Russia, not more than one-twentieth of the population of the infected provinces suffered. They assert that the progress of this disease from one country to another, is more rapid than that of any known contagion; that in less than one year it traversed India; in less than two years it spread from the Persian Gulph over a line of 400 leagues in length to the shores of the Mediterranean; and that in six months it passed from the Caspian provinces, over the Caucasus, to the governments of Twer and Jaraslaw, a distance of 700 leagues from the point of its departure."

To this strong body of evidence, it is objected by the contagionists that "if cholera exclusively originated in pestiferous miasmata, it should be found only where such a poison is acknowledged to exist; whereas, say they, it has traversed countries, cities, and villages, which are geographically incompatible with the generation of such an influence to a degree sufficient to produce the effect ascribed to it."

But they must recollect that in addition to this state of the earth, the atmosphere may be contaminated, and that these, conjoined with dirt, filthiness, drunkenness, and the depressing passions, which too often exist in a very high degree among the peasantry of the countries where it has appeared, are more than sufficient to account for the formation and fatality of the disease. Then, say they, admitting all this to be true, what has hitherto prevented this noxious offspring of heat and moisture from making its appearance hitherto? We have shewn that it has frequently appeared, and very destructive has it proved; besides, have we not a periodical cholera in England, not so fatal in fact, and is it not notorious that this is more severe after a very wet summer, and during a hot autumn?

We will answer this question by asking another; if the cholera is contagious, how is it that it has ceased in some countries, while persons, who have been freely exposed to that contagion, yet live, and have never taken the disease? "It is argued, that the doctrine of malarian influence leaves unexplained the numberless examples of coincidence between the arrival of the diseased amid a healthy population, and the subsequent appearance of the disease among such as had been previously exempt, as well as the escape of those who take the necessary precautions against its inroads." But the arrival of these diseased persons, and the subsequent breaking out of the disease is a mere coincidence; how often have diseased persons arrived at places without communicating the disease? How often has the disease

broken out in towns without any such arrival, Moscow to wit? And who can say that the cholera would not have appeared without the arrival of these diseased persons?

The Westminster Reviewer proceeds to state that for these and similar reasons it is contended that cholera is a contagious as well as an epidemic disease; he then proceeds to give several instances from different authors of diseased persons *bringing* the cholera to districts previously healthy: this we have already answered, and shall not trouble our readers with a recapitulation: he also instances healthy regiments arriving in a diseased district, and becoming infected; this we answer arises from their being exposed to the same cause as that which induced the disease in the inhabitants of that district; besides the natives being first attacked, and the disease raging for some time among them, ere the Europeans became diseased, although in constant communication with them, the latter not being affected until the fatigues of duty and the harrassing nature of their service have so enervated them, that they fall a prey to the disease, all tell against the doctrine of contagion. The Reviewer likewise quotes the case of M. Lesseps, the French Consul at Aleppo, "who took refuge, with all who chose to accompany him, in a garden at a small distance from the town, which was surrounded by a wall and a wide trench, and had only two doors by which it could be entered. His little colony amounted to at least 200 individuals; every thing which was admitted to them from without underwent quarantine, and not a single case of disease occurred; while in eighteen days, 4000 perished in the town." This is the very *ne plus ultra* of folly; think of a leg of mutton or a round of beef performing a forty days quarantine at Aleppo! Heaven help those who had to eat it afterwards. It must not be forgotten that M. de Lesseps in retiring to his garden with his colony, at a small distance from the town, withdrew himself from a dirty and crowded place, and by the extraordinary precautions which were doubtlessly employed, of great cleanliness, preventing access to the bottle, &c. avoided the disease, rather than escaped contagion.

The Reviewer next, after refusing to state what his own opinion may be, proceeds to examine the precautionary measures to be employed in preventing the disease spreading in our native land, and here we find him equally strong.

"Those classes of society whose habits, occupations, and rank in life, render them most obnoxious to pestilential agents, have been beyond all proportion its most frequent, its earliest, and its easiest victims. In India it preyed with peculiar violence upon the natives, who are restricted by their religion to a vegetable food, are generally employed in all menial offices, and are necessarily exposed to more privations than the European population. In Arabia, Persia, and Syria, the poor, aged, and debilitated, were always the first cut off; and in Russia and Poland but few of the upper orders of society have become its victims."

This being acknowledged, among the first means to be adopted to prevent the spread of the disease, are measures for alleviating the condition of the poor and ill-fed, as well as ill-clothed, for rendering them more happy, and removing them from the ill-ventilated, the dirty, and excessively crowded houses which they inhabit. The hundreds of starving paupers who come to London for relief, and are compelled from want to herd together in much less cleanliness and comfort than the lowest orders of the

native Indians, are ever predisposed to the invasion of such an epidemic; and the over-peopled condition of many of our streets, courts, and alleys, will strongly co-operate with the intemperate and filthy habits of many of their inhabitants, in giving a facility to its propagation, which the wisest and most rigid quarantine may be unable to neutralize."

This passage ought to be printed in large letters, in juxta position with the preceding one relating to Tripoli, and placarded about the streets, that the public may be more fully aware of the immense necessity of cleanliness, and a less dense population. Should the disease reach England (and it is rather problematical), it will probably rage in those places, but we do not in the least doubt, that there it will be confined. It appears that fumigations and the use of chlorides are not to be relied on. Free and frequent ventilation is more to be trusted.

"Should it unfortunately visit our shores, we have good reason to anticipate that it will make much less havoc among our population, than it has done either in India, Russia, or Poland. Our people are better clothed and better fed; our habitations are more spacious, and better aired; our charities are more numerous, and conducted on a more generous scale; and our long connexion with the East, has made the faculty generally well acquainted with the nature of the disease, and with the various remedies which have exerted the greatest influence upon its progress and mortality. The stomach and bowels should be preserved in a natural state; extreme or sudden vicissitudes of temperature should be religiously shunned; raw fruits, adulterated beer, sour wines, and all kinds of indigestible food should be strictly prohibited. Regular bowels are indispensable; the mind should not be suffered to despond; unwholesome localities, such as the neighbourhood of low and marshy grounds, close and ill-ventilated habitations, condensed and over-crowded districts should be as much as possible avoided; and all degrees of intemperance, whether in food or drink, are especially destructive. In short, every thing which can add tone to the general health should be pursued, while whatever tends to weaken the powers of life should be counteracted."

The writer of this paragraph deserves the thanks of the whole metropolis, what say we, of all Britain, for the clear and comprehensive manner in which he has laid down rules for the guidance of all persons, and we are bold to say, that if they are duly attended to, cholera will not make us a very long visit.

"A medical commission should be appointed, to investigate the health of the metropolis, and every thing, which in their opinion would tend to encourage either the entrance or progress of this pestilence, should be reported on. This precautionary measure should be adopted now, and in the event of the dreaded arrival of cholera upon our shores, the town should be divided into districts, each district should be placed under the surveillance of a medical sub-commission, which should have erected for their use a temporary hospital, centrally situated; and severe penalties should be inflicted upon all who did not inform the members of this commission the moment symptoms of the disease were detected. It was some such preventive plan as this which was adopted at Moscow; and when cholera was ravaging Madras, two men were stationed in every street, to carry the sick to the hospitals as soon as they took ill, and to each street was appropriated a lazaretto, sufficient to accommodate as many as required its assistance."

This plan were excellent, were it adopted at once, instead of waiting til *l* the cholera had commenced its ravages, and having then every thing to do. London should be divided into districts at once, and the commissions appointed; and if the *Board of Health* will not interfere, let the parish authorities call meetings of the parishioners, and appoint them themselves. We do not in the least doubt that the medical men residing in each parish will willingly come forward, and offer their services for the commission gratuitously, without putting the parishes to the expense of 500*l.* a year each, and then do but little for it.

" Drs. Joehnichen and Moreau de Jonnés entertain a very moderate estimate of the powers of the healing art in the present instance; but by comparing the mortality of those who have received no treatment with that of those who have, there seems no ground to despond." " In one district," says Mr. Kennedy, " 15,945 were attacked with cholera. Of these 1294 had no medical assistance, and there is reason to believe that of that number every individual perished; whereas, 166 were attacked on the estate of Count Guriev, in Saratov, and out of 147, who were attended to from the first, 26 only died, or one-sixth of the whole; while the remaining 19, who received no treatment, perished without one exception."

The treatment for this scourge differs unfortunately with almost every physician, who has written concerning it: one says " bleed and cure," another, " bleed and kill:" a third gives immense quantities of opium, which a fourth denounces as highly injurious; and, in short, whatever remedy has been praised by one party, is sure to be decried by another. The following appears to the Westminster Reviewer to be a summary of the treatment found most successful in India and on the Continent:—

" If the patient be seen as soon as he is attacked, a vein should be opened in the arm, and blood should be abstracted in proportion to the violence of the symptoms, and the powers of the patient. At the same time, a pill, composed of 20 grains of calomel and two grains of solid opium, should be taken, and instantly followed by a draught, composed of one ounce of camphor mixture, one drachm of laudanum, and one drachm of æther. The entire body, but more especially the extremities, should be rubbed with warm flannel, or flannel steeped in spirits of turpentine, and bottles, containing hot water, are to be applied to the feet. If these measures succeed in affording relief, the pill and draught may be repeated in the evening, and half an ounce of castor oil should be given on the following morning; after which no further danger need be apprehended. But if the symptoms remain unabated, and, as often happens, no blood can be obtained by the lancet, from twenty to thirty leeches should be applied to the pit of the stomach; the pill and draught should be repeated every two hours, until the spasms relax; and after the leeches have done bleeding, the bowels should be covered with a mustard poultice or a blister. As soon as bile appears in the evacuations, strong hopes of recovery may be entertained, and half a drachm of compound jalap powder, mixed up with two ounces of peppermint water, may be then given to solicit this secretion, and be repeated if necessary. The attack, if violent, seldom continues longer than from twelve to twenty hours; but inflammatory action is not unfrequently set up afterwards in the brain, stomach, or other important organs, which requires both skill and watchfulness. As medical assistance,

however, can always be procured before the case has progressed so far, these accidental consequences may in general be avoided."

A medical gentleman, lately returned from India, assures us that he experienced great benefit in many cases, from the use of the warm bath, bleeding, and the application of a mustard paste to the pit of the stomach. We should think that the first measure to be adopted would be to place the patient in the warm bath of 100°, the water being thickened with mustard, to draw the blood to the surface, and as soon as the body becomes warm, to open a vein, thus relieving the congested vessels, as autopsic examinations have shewn the great veins, the brain, lungs, and liver to be highly congested, and with black blood, probably similar to that described by Dr. Stevens in yellow fever. The calomel and opium plan may then be pursued, but we certainly would use the *mustard warm bath* during the stage of collapse. The Reviewer instances the opinions of several eminent practitioners, in regard to the use of bleeding.

When blood can be obtained, the lancet is also admitted to be invaluable. Dr. Kennedy says, " I always feel it a subject of regret when I cannot bleed; it is, in my mind, next to signing the patient's death warrant, when I decide that the critical moment is passed, and he no longer capable of undergoing it." Dr. Burrell states, " that out of 100 patients, 88 were bled, and 12 not bled. Of the 88, two only died, while of the 12, eight perished." When the blood does not flow, an ounce or two of brandy, or some cordial stimulant, may excite the circulation, and cause a flow of blood to take place. The Russian physicians depend mostly on the application of heat, and causing perspiration." " The exciting of copious diaphoresis," says Dr. Hermann, " is the only efficacious remedy against cholera, and no patient recovered in Moscow, without this critical secretion."

We have now fulfilled the promise given in our last—we have accompanied the Reviewer from page to page, and from paragraph to paragraph, and have been highly pleased with the paper: we have already expressed the high opinion we entertain of this writer; and a second perusal has enabled us to confirm our opinion. Our review of this paper has been so very long, that we can spare but little space for any individual work on this subject.

Dr. Young's treatise is a modest, unpretending little work, containing a concise and well written history of the progress of this disease, its symptoms and treatment.

Sinee this article was in type, we have received numerous other essays on Cholera, The great length of the preceding extracts prevents us from quoting from these works, and hence we must merely offer our opinion of their merits. Dr. Young's tables are worthy of attentive consideration.

The following tables extracted from his work, will shew the mortality during the latter part of the autumn and the winter of 1817, and 1818.

List of Patients attacked with Cholera Morbus, to whom the native Medical Assistants in the suburbs of Calcutta, employed for that purpose, afforded relief, from the 19th of Sept. 1817, to the 31st of Jan. 1818.

MONTHS.	No. of Sick.	Cured	Died.	Convalescent
From the 19th to 30th Sept. 1817 ...	2190	1920	243	27
From the 1st to 31st Oct. 1817	3275	3122	132	21
From the 1st to 30th Nov. 1817	1597	1554	40	3
From the 1st to 31st Dec. 1817	1418	1368	46	4
From the 1st to 31st Jan. 1818	*691	643	46	2
Total	9171	8607	507	57

Report of the Number of Native Villagers and others who applied to the native Medical Assistants at Allipore, Bhowanypore, Soorah, and Russapuglah, and those with the Mysore Princes, &c. from the 19th Sept. 1817, to the 31st Jan. 1818.

MONTHS.	No. of Sick.	Cured.	Died.	Convalescent.
Month of September, 1817	547	489	36	22
Month of October, 1817	485	464	14	7
Month of November, 1817	164	157	4	3
Month of December, 1817	162	153	6	3
Month of January, 1818	65	64	1	—
Total	1423	1327	61	35

* The native assistants were temporally discharged during the next three weeks.

Report of Patients attacked with Cholera Morbus, to whom the native Medical Assistants in the Suburbs of Calcutta, employed for that purpose, afforded Relief, from the 25th of February to the 15th July, 1818.

MONTHS.	No. of Sick.	Cured.	Died.	Convalescent.
From the 25th to 28th Feb. 1818....	629	532	73	24
From the 1st to 31st of March.....	2197	1950	216	31
From the 1st to 30th of April	2187	1958	209	20
From the 1st to 31st of May.....	1857	1742	97	18
From the 1st to 30th June.....	1605	1510	78	17
From the 1st to 15th of July..,.....	948	887	46	15
Total	9423	8579	719	125

Report of the Number of Villagers and others who applied to the native Medical Assistants at Allipore, Bhowanypore, Soorah, and Russapuglah, and those with the Mysore Princes, &c. from the 25th of Feb. to the 15th of July, 1818.

MONTHS.	No. of Sick.	Cured.	Died,	Convalescent.
Month of February, 1818.....	172	146	11	15
Month of March, 1818.....	638	584	42	12
Month of April, 1818	337	352	20	1
Month of May, 1818	263	250	10	3
Month of June, 1818.....	256	244	6	6
Month of July, 1818	153	150	2	1
Total	1859	1726	91	42
Grand Total	21,876	20,239	1378	259

The author thinks he is justified in presuming that the number of recoveries would have been even still greater than is shewn by the preceding tables if the friends of the sufferers had been more prompt and expeditious in bringing them to the receiving posts, or in obtaining at their own houses, earlier aid of the medical assistants. These tables shew a great decrease of the disease as the winter advanced.

After a very excellent description of the symptoms, our author proceeds thus—

" It sometimes happened, that at this stage of recovery, when the patient was deemed to be proceeding towards a safe and satisfactory state, the slightest accident, or any imprudence of the attendants, or want of caution on his own part, would bring on symptoms of the most untoward nature; the brain would become affected, the pulse rise to a hundred and twenty, or a hundred and thirty in a minute, burning heat in the region of the stomach would be felt, the distressing thirst be increased, and the restlessness and agitation would return. The patient when thus affected, called out continually and impetuously for cold water to relieve the inward burning; but if this craving for cool drinks were indulged, the frightful state of collapse soon succeeded, the prostration of strength and the pain in the lower part of the abdomen returned, together with suppression of the biliary secretion, and disappearance of feculent stools. It rarely occurred that the patient long survived this unfavourable change."

This stage of the complaint we have never before heard alluded to, yet it forms a most important feature in the disease. The picture given of its devastating effects in the army of the Marquis of Hastings is so very graphic, and at the same time so interesting, that we cannot but extract it, although it is an extract even in Dr. Young's work from the Bengal Medical Reporter.

" It was here (in the grand army) that the disease put forth all its strength, and assumed its most deadly and appalling form. It is uncertain whether it made its appearance on the 6th, 7th, or 8th of the month. (November, 1817). After creeping about, however, in its wonted insidious manner for several days amongst the lowest classes of the camp-followers, it, as it were, in an instant, gained fresh vigour, and at once burst forth with irresistable violence in every direction. Unsubjected to the laws of contact and proximity of situation, which had been observed to mark and retard the course of other pestilences, it surpassed the plague in the width of its range, and outstripped the most fatal diseases hitherto known in the destructive rapidity of its progress. Previously to the 14th, it had overspread every part of the camp, sparing neither sex nor age in the undistinguishing virulence of its attacks. The old and the young; the European and the native; fighting-men and camp-followers, were alike subjects to its visits, and all equally sunk in a few hours under its most powerful grasp. From the 14th to the 20th or 22nd, the mortality had become so great and general, as to depress the stoutest spirits. The sick were already so numerous, and still pouring in so quickly from every quarter, that the medical men, although night and day at their posts, were no longer able to administer to their necessities. The whole camp then put on the appearance of an hospital. The noise and bustle almost inseparable from the intercourse of large bodies of people, had nearly subsided. Nothing was to be seen but individuals anxiously hurrying from

one division of the camp to another, to enquire after the fate of their dead or dying companions, and melancholy groups of natives bearing the biers of their departed relatives to the river. At length even this consolation was denied to them, for the mortality latterly became so great, that there was neither time nor hands to carry off the bodies, which were then thrown into the neighbouring ravines, or hastily committed to the earth on the spots on which they had expired, and even round the walls of the officers' tents. All business had given way to solicitude for the sufferers: not a smile could be discerned, nor a sound heard, except the groans of the dying, or the wailings over the dead. Throughout the night especially, a gloomy silence, interrupted only by the well-known dreadful sounds of poor wretches labouring under the distinguishing symptoms of the disease, universally prevailed. Many of the sick died before reaching the hospitals, and even their comrades, while bearing them from the outposts to medical aid, sunk themselves, suddenly seized by the disorder. Never was the impressive language of Scripture more applicable than now:—'In the midst of life we are in death.' All security of life was gone; and, as youth and vigour afforded no safety, even the healthiest man could not in the morning tell that he might not be a corpse before night.

"The natives, thinking that their only safety lay in flight, had now begun to desert in great numbers, and the highways and fields, for many miles round, were strewed with the bodies of those who had left the camp with the disease around them, and speedily sunk under its exhausting effects. It was clear that such a frightful state of things could not last long, and that, unless some immediate check were given to the disorder, it must soon depopulate the camp. It was therefore wisely determined by the Commander-in-chief, to move in search of a healthier soil and of purer air. The division accordingly marched in a south-easterly direction, towards Talgong and Sileia, and after several intermediate halts, on the 19th crossed the clear stream of the Betwah, and, upon its high and dry banks at Erich, soon got rid of the pestilence. But its line of march, during the whole of this movement, exhibited a most deplorable spectacle. Although every means had been taken, by giving up the ammunition carts, and collecting elephants and draught cattle to procure sufficient carriage, the sick were found too numerous to be moved, and were, in part, necessarily left behind; and as many who left the carts, pressed by the sudden calls of the disease, were unable to rise again, and hundreds dropped down during every subsequent day's advance, and covered the roads with the dead and dying, the ground of encampment, and line of march, presented the appearance of a field of battle, and of the track of an army retreating under every circumstance of discomfiture and distress."—p. 27

Dr. Young mentions a curious circumstance, which tends to disprove the assertions of the Westminster Reviewer in regard to the non-action of the winds on cholera. We extract the passage, and leave our readers to form their own judgment on this point.

"It is a singular fact, that throughout the whole of its process, there was always a tendency shown by the disease to spread from east to west. It was natural therefore to look for some explanation of this phenomenon in the prevailing course of the winds at that period; and it so happened,

that in a great majority of instances, and in almost every situation, it was found that the wind was blowing either from the east, or east by south, at the time of the breaking out of the cholera; and it was also observed, that the course of the winds had a very marked and decided effect on the violence and progress of the disease; for while it raged with peculiar activity during the prevalence of an easterly wind, it was frequently observed considerably to decline, and in some instances almost to disappear on the setting in of a northern or western one. This rule was not without exceptions, yet they were not sufficiently numerous to destroy the impression that some intimate connexion existed between the epidemic and certain courses or currents of wind; but whether that from the east and south-east merely served as the most ready medium of communicating this virus from place to place, or whether it possessed any other or greater influence on the disease, can only at present be a matter of conjecture."

The author next discusses the subject of contagion very fully, but as we have already said a great deal concerning it, we cannot take up any more space, which we regret exceedingly, as his arguments are full and forcible. He is a decided non-contagionist.

The following precautions for the purpose of removing the predisposition to cholera may be of advantage.

" 1st, To observe great personal cleanliness, and to wear flannel, or some other clothing of a similar texture, next the skin.

" 2nd. To be very careful in respect to diet, as to quantity and quality, using rather a large proportion of animal food; and where a vegetable diet is principally adopted, either from choice or necessity, to take great care that the different articles are thoroughly boiled.

" 3d. To avoid raw vegetables altogether, such as cucumbers, &c.; and to be sparing in the use of fruit.

" 4th. At all times to avoid excess in eating, but more especially after a long fast, or after great bodily fatigue.

" 5th. To abstain from the immoderate use of spirituous liquors, and also from sour or adulterated beer; and from all habits of dissipation and irregularity of living.

" 6th. As far as possible to avoid any unusual exertion, or such long continued fatigue as may induce the sensation of exhaustion.

" 7th. To use a sufficient quantity of bed clothes, and to avoid falling asleep while exposed to the chilling night-air.

" 8th. To avoid drinking cold fluids while preternaturally heated.

" 9th. To avoid sudden exposure to cold, by going from a heated room into a cold atmosphere, particularly into the damp night-air; or exposure to the latter while too slightly clothed.

" 10th. Powerful medicine should not be had recourse to, during the prevalence of cholera, without medical advice.

The above rules may be considered as peculiarly applicable to individuals; but there are others adapted to large masses of people, especially to large and populous towns, and to those districts of London and other cities, in which the inhabitants are most densely crowded together. It is therefore recommended,

" 11th. That those quarters of the town above alluded to, should be visited by competent persons, whose duty it should be to direct that every

sort of filth and dirt be, without delay, removed from the immediate vicinity of dwelling-houses.

" 12th. To ascertain the general state of the drains, &c. and to have the requisite repairs done to such as, from their dilapidated condition, have become noxious and offensive; and also to direct that all shallow, stagnant, and unwholesome puddles of water, situated close to inhabited houses, and which have become offensive by the decomposition of leaves and other vegetable matter, be filled up or drained.

" 13th. That the houses of the poor, in crowded districts, be thoroughly cleaned, and the walls hot lime-washed; and that every possible degree of cleanliness and ventilation be recommended to be observed by the respective occupiers,"—p. 67.

The work closes with the treatment of the disease, in which he strongly advocates the use of calomel and opium, ℈j. or ʒss. of the former, and two grains of the latter, to be repeated if necessary. The work is clear and concise, and well suited to diffuse a knowledge of the disease among the public generally, and to remove their fears in regard to contagion, while at the same time the medical practitioner will find it a good guide for practice.

Mr. Orton's work is not intended apparently for any but the profession, and to them it will be of great service. He commences with a description of the symptoms of cholera, then the post mortem appearances, and the inferences to be drawn from them, the proximate cause, analysis of symptoms, the relation of cholera to other diseases, the remote causes of epidemics, the meteorological occurrences attending the epidemic, sol-lunar influence, the primary remote cause of the epidemic, and a brief sketch of its treatment. In the supplement, the question of contagion is debated, the influence of the seasons, and evident states of the atmosphere, in producing or favouring the prevalence of the disease, the influence of marching or travelling in producing the disease, of localities on its prevalence, the prevalence of other diseases in connexion with that of cholera, the susceptibility or predisposition of the subject to the disease, and its exciting causes, and finally a comparison of the epidemic cholera of India with that of Europe, and concluding observations. An appendix is added, containing reports from his Majesty's 34th Regiment, from Sytar and Wallajabad.

In the chapter on the *analysis of symptoms*, we have a number of curious and anomalous symptoms detailed, as occurring in cholera, collated from numerous and highly respectable authorities, the meeting with which would tend considerably to perplex the practitioner; this chapter more especially is worthy of the deepest study.

Mr. Orton considers in another chapter, the relation of cholera to other epidemics; he considers that the sweating sickness, plague or pestilential fever, are very analogous to that disease, and he likewise thinks that the *Feu Sacre*, Feu de St. Antoine, Ignis Sacer, the plagues of Marseilles, and Athens, and the congestive fever of Armstrong, resemble the disease so strongly, as to be only different forms of one and the same disease; he supports his assumption with very powerful argument and numerous quotations, and we must say in justice to our author, that we think he has proved his point; we incline to his opinion, and doubt not that future investigation will prove him to be right. The next chapter is a very well written one on its relations with the symptoms of poisoning, and these are

in many instances so similar, that those who have died of this disease, have occasionally been officially examined; that the symptoms of poisoning resemble cholera, was lately evinced by the *Sunderland cholera*, as it was called; the contents of the other part of the work we have already detailed, and although highly interesting, yet from the very long review we have written, we cannot notice it more fully; the author, we perceive, in another part of the work, has changed his opinions, and become a contagionist, though we cannot see on what grounds. We heartily recommend the work to our readers, as one of great utility.

The venerable and benevolent Sir G. Blane, than whom no member of the profession in these countries has contributed more to science, by his complete reform of naval medicine, and in this way to the best interests of the nation, has again taken up his pen in defence of the welfare of his fellow subjects. He stands forth as a contagionist, but disapproves of some of the precautionary measures proposed by the Metropolitan Board of Health. He is of opinion that civilians should take a greater part in endeavouring to arrest the progress of the disease, than that advised by the Board; and he thinks that too much confidence has been placed in the police. He argues ably on the necessity of enforcing cleanliness, ventilation, and the improvement of the habits of the poor, inveighs with great eloquence against intemperance, and is convinced from his former observation, that cholera, should it visit this country, will be confined almost entirely to the poor. A spirit of philanthropy, benevolence and humanity, breathes through this little tract, which will be applauded by every one who peruses it, and which is highly creditable to the head and heart, and high celebrity of this venerable and respected individual.

Mr. Searle is of opinion that a mephitic vapour, miasm or malaria is taken in by respiration, contaminates the blood, and consequently exerts its baneful influence on every organ of the body. This hypothesis is by no means satisfactory, and is opposed to the generally received opinion that the first impression of the disease is on the nervous system, or in other words on the cerebro-spinal system. His plan of treatment is that generally employed, except that he orders a table spoonful of common table salt in half a pint of hot water as an emetic, to be repeated in five minutes if necessary. If there is much oppression of the præcordia, the patient should be bled from a small orifice, and have twelve grain doses of calomel, washed down with brandy and water. He advises persons to avoid going out in the morning, in times of cholera, without taking a cup of coffee, with or without a tea spoonful of brandy in it; and he also advises some spirit and water after supper. These are good recommendations, and had Mr. Searle advised his readers to banish all apprehension and fear of the disease, he would have acted wisely. He is not a contagionist, though he describes the cholera of Poland.

Mr. Goss strongly recommends a drachm of carbonate of soda with ten or fifteen grains of carbonate of ammonia, as he found the fluid ejected from the stomach so acid as to effervesce on the addition of the former of these medicines. He advises blood-letting, constant frictions with camphor, lytta and turpentine liniments, a mustard poultice to the abdomen, calomel and jalap, &c. He too is a non-contagionist, and so are almost all who have witnessed the disease.

Mr. Kennedy's is one of the best works on cholera which we have seen. It gives a full account of the symptoms and treatment of this disease, and is suited to the general as well as the professional reader. The author has had great personal experience in the treatment of the disease, and his opinions are therefore entitled to respect. We regret that want of space prevents us from making extracts at present, but we hope to be able to do so in our next. The author is a contagionist.

After all that we have said on this subject, it will be sufficient to place before our readers the directions issued by the *late* Board of Health, without comment.

Council Chamber, Whitehall, Oct. 20, 1831.

THEIR Lordships this day took into consideration certain rules and regulations proposed by the Board of Health, for the purpose of preventing the introduction and spreading of the disease called Cholera Morbus in the United Kingdom, together with an account of the symptoms and treatment of the said disease; and were pleased to order that the same be printed and published in the *Gazette*, and circulated in all the principal ports, creeks, and other stations of the said United Kingdom, with a view that all persons may be made acquainted therewith, and conform themselves thereto.

W. S. BATHURST.

The measures of external precaution for preventing the introduction of the cholera morbus by a rigorous quarantine have hitherto been found effectual; but as the disease approaches the neighbouring shores, not only is the necessity of increased vigilance more apparent, but it is also consistent with common prudence that the country should be prepared to meet the possible contingency of so dreadful a calamity. The intention of the following observations, therefore, is to submit to the public such suggestions as it appears to the Board of Health should either be immediately acted upon, or so far carried into operation as, that in any case the country should not be found uninformed as to the best means of providing for its internal protection.

To effect the prevention of the introduction of the disorder, the most active co-operation, not only of the local authorities along the coast in the measures of the government, but likewise the exercise of the utmost caution of all the inhabitants of such parts of the country, becomes indispensably necessary. The quarantine regulations established by the Government are sufficient, it is confidently hoped, to prevent the disorder from being communicated through any intercourse with the continent in the regular channel of trade or passage, but they cannot guard againt its introduction by means of the secret and surreptitious intercourse which is known to exist between the coast of England and the opposite shores.

By such means this fatal disorder, in spite of all quarantine regulations, and of the utmost vigilance on the part of the Government, might be introduced into the United Kingdom; and it is clear that this danger can only be obviated by the most strenuous efforts on the part of all persons of any influence, to put a stop to such practices; the utmost exertion should be used to effect this end. The magistrates, the clergy, and all persons resideut on the coast, it is hoped, will endeavour to impress upon the

population of their different districts (and particularly of the retired villages along the sea shore), the danger to which they expose themselves by engaging in illicit intercourse with persons coming from the continent; and should appeal to their fears in warning them of the imminent risk which they incur by holding any communication with smugglers and others who may evade the quarantine regulations.

To meet the other objects adverted to in the introduction, namely, to prepare for the possible contingency of the country being visited by this disorder, as well as to assist in its prevention, it is recommended that in every town and village, commencing with those on the coast, there should be established a local Board of Health, to consist of the chief and other magistrates, the clergyman of the parish, two or more physicians or medical practitioners, and three or more of the principal inhabitants; and one of the medical members should be appointed to correspond with the Board of Health in London.

Every large town should be divided into districts, having a district committee of two or three members, one of whom should be of the medical profession, to watch over its health, and to give the earliest information to the Board of Health in the town, whose instructions they will carry into effect.

3. As the most effectual means of preventing the spreading of any pestilence has been found to be the immediate separation of the sick from the healthy, it is of the utmost importance that the very first cases of cholera which may appear should be made known as early as possible; concealment of the sick would not only endanger the safety of the public, but (as success in the treatment of the cholera has been found mainly to depend on medical assistance having been given in the earliest stage of the disease), would likewise deprive the patient of his best chance of recovery.

4. To carry into effect the separation of the sick from the healthy, it would be very expedient that one or more houses should be kept in view in each town or its neighbourhood, as places to which every case of the disease, as soon as detected, might be removed, provided the family of the affected person consent to such removal, and in case of refusal, a conspicuous mark, "SICK," should be placed in front of the house, to warn persons that it is in quarantine; and even when persons with the disease shall have been removed, and the house shall have been purified, the word "CAUTION" should be substituted, as denoting suspicion of the disease; and the inhabitants of such house should be at liberty to move out or communicate with other persons, until, by the authority of the local Board, the mark shall have been removed.

In some towns it may be found possible to appropriate a public hospital to this purpose, or should any barrack exist in the neighbourhood, it might, under the authority of the Commander of the Forces, be similarly applied.

3. Wherever it may be allowed to remove the sick from their own habitations to the previously selected and detached buildings, the houses from which they have been so removed, as well as the houses in which the sick have chosen to remain, shall be thoroughly purified in the following manner:—

Decayed articles, such as rags, cordage, paper, old clothes, hangings, should be burnt; filth of every description removed, clothing and furniture should be submitted to copious effusions of water, and boiled in a strong ley; drains and privies thoroughly cleansed by streams of water and chloride of lime; ablution of woodwork should be performed by a strong ley of soap and water; the walls of the house, from the cellar to the garret, should be hot lime-washed; all loose and decayed pieces of plastering should be removed.

Free and continued admission of fresh air to all parts of the house and furniture should be enjoined for at least a week.

It is impossible to impress too strongly the necessity of extreme cleanliness and free ventilation; they are points of the very greatest importance, whether in the houses of the sick, or generally as a measure of precaution.

6. It is recommended that those who may fall victims to this formidable disease, should be buried in a detached ground, in the vicinity of the house that may have been selected for the reception of cholera patients. By this regulation it is intended to confine as much as possible every source of infection to one spot; on the same principle, all persons who may be employed in the removal of the sick from their own houses, as well as those who may attend upon cholera patients in the capacity of nurses, should live apart from the rest of the community.

It should here be observed that the fewer the number of persons employed in these duties the better, as then the chance of spreading the infection by their means will be diminished.

7. Wherever objections arise as to the removal of the sick from the healthy, or other causes exist to render such a step not advisable, the same prospect of success in extinguishing the seeds of the pestilence cannot be expected.

Much, however, may be done, even in these difficult circumstances, by following the same principles of prudence, and by avoiding all unnecessary communication with the public out of doors; all articles of food, or other necessaries required by the family, should be placed in front of the house, and received by one of the inhabitants of the house, after the person delivering them shall have retired.

8. Until the time during which the contagion of cholera lies dormant in the human frame has been more accurately ascertained, it will be necessary, for the sake of perfect security, that convalescents from the disease, and those who have had any communication with them, should be kept under observation for a period of not less than twenty days.

The occupiers of each house where the disease may occur, or be supposed to have occurred, are enjoined to report the fact immediately to the local Board of Health in the town where they reside, in order that the professional member of such Board may immediately visit, report, and if permitted to do so, cause the patient to be removed to the place allotted for the sick.

In every town, the name and residence of each of the members of the District Committee should be fixed on the doors of the church, or other conspicuous place.

9. All intercourse with any infected town, and the neighbouring country, must be prevented by the best means within the power of the Magistrates,

who will have to make regulations for the supply of provisions; but such regulations are intended only for extreme cases; and the difficulty of carrying such a plan into effect on any extended scale will undoubtedly be great, but, as a precaution of great importance, it is most essential that it should be an object of consideration, in order to guard against the spreading of infection.

10. Other measures, of a more coercive nature may be rendered expedient for the common safety, if unfortunately so fatal a disease should ever shew itself in this country in the terrific way in which it has appeared in various parts of Europe, and *it may become necessary to draw troops or a strong body of police, around infected places,* so as utterly to exclude the inhabitants from all intercourse with the country; and we feel sure what is demanded for the common safety of the state will be acquiesced in with a willing submission to the necessity which imposes it.

The Board particularly invites attention to a fact confirmed by all the communications received from abroad, viz. that the poor, ill-fed, and unhealthy part of the population, and especially those who have been addicted to drinking spirituous liquors, and indulgence in irregular habits, have been the greatest sufferers from this disease, and that the infection has been most virulent, and has spread more rapidly and extensively in the districts of towns where the streets are narrow, and the population crowded, and where little or no attention has been paid to cleanliness and ventilation. They are aware of the difficulty of removing the evils referred to, but they trust that attention thus awakened will insure the most active endeavours of all Magistrates, resident Clergymen, and persons of influence or authority to promote their mitigation, and as the amount of danger, and the necessity of precaution may become more apparent, they will look with increased confidence to the individual exertions of those who may be enabled to employ them beneficially in furtherance of the suggestions above stated.

Board of Health, College of Physicians, October 20th, 1831.

The following are the early symptoms of the disease in its most marked form, as it occurred to the observation of Dr. Russell and Dr. Barry, at St. Petersburgh, corroborated by the accounts from other places where the disease has prevailed:—

Giddiness, sick stomach, nervous agitation, intermittent, slow, or small pulse, cramps beginning at the tops of the fingers and toes, and rapidly approaching the trunk, give the first warning.

Vomiting or purging, or both these evacuations of a liquid like rice water or whey, or barley water, come on; the features become sharp and contracted, the eye sinks, the look is expressive of terror and wildness; the lips, face, neck, hands, and feet, and soon after the thighs, arms, and whole surface, assume a leaden, blue, purple, black, or deep brown tint, according to the complexion of the individual, varying in shade with the intensity of the attack. The fingers and toes are reduced in size, the skin and softer parts covering them are wrinkled, shrivelled, and folded: the nails put on a bluish pearly white; the larger superficial veins are marked by flat lines of a deeper black: the pulse becomes either small as a thread, and scarcely vibrating, or else totally extinct.

The skin is deadly cold and often damp, the tongue always moist, often white and loaded, but flabby and chilled like a piece of dead flesh. The

voice is nearly gone; the respiration quick, irregular, and imperfectly performed. The patient speaks in a whisper. He struggles for breath, and often lays his hand on his heart to point out the seat of his distress. Sometimes there are rigid spasms of the legs, thighs, and loins. The secretion of urine is totally suspended; vomiting and purging, which are far from being the most important or dangerous symptoms, and which in a very great number of cases of the disease have not been profuse, or have been arrested by medicine early in the attack, succeed.

It is evident that the most urgent and peculiar symptom of this disease is the sudden depression of the vital powers, proved by the diminished action of the heart, the coldness of the surface and extremities, and the stagnant state of the whole circulation. It is important to advert to this fact, as pointing out the instant measures which may safely and beneficially be employed where medical aid cannot immediately be procured. All means tending to restore the circulation and maintain the warmth of the body, should be had recourse to without delay. The patients should always be put to bed, wrapt up in hot blankets, and warmth should be sustained by other external applications, such as repeated frictions with flannel and camphorated spirits; poultices of mustard and linseed (equal parts) to the stomach, particularly where pain and vomiting exist; similar poultices to the feet and legs, to restore their warmth. The returning heat of the body may be promoted by bags containing hot salt or bran applied to different parts of it. For the same purpose of restoring and sustaining the circulation, white wine whey, with spice, hot brandy and water, or sal volatile, in the dose of a tea spoonful in hot water, frequently repeated, or from five to twenty drops of some of the essential oils, as peppermint, cloves, or cajeput, in a wine glass of water, may be administered; with the same view, where the stomach will bear it, warm broth with spice may be employed. In very severe cases, or where medical aid is difficult to be obtained, from twenty to forty drops of laudanum may be given, in any of the warm drinks previously recommended.

These simple means are proposed as resources in the incipient stages of the disease, where medical aid has not yet been obtained.

In reference to the further means to be adopted in the treatment of this disease, it is necessary to state that no specific remedy has yet been ascertained; nor has any plan of cure been sufficiently recommended by success to warrant its express recommendation from authority. The Board have already published a detailed statement of the methods of treatment adopted in India, and of the different opinions entertained as to the use of bleeding, emetics, calomel, opium, &c. There is reason to believe that more information on this subject may be obtained from those parts of the Continent where the disease is now prevailing: but even should it be otherwise, the greatest confidence may be reposed in the intelligence and zeal which the medical practitioners of this country will employ in establishing an appropriate method of cure.

HENRY HALFORD, *President of the Board.*

WESTMINSTER MEDICAL SOCIETY.

(From a Correspondent of the Morning Herald.)

Leonard Stewart, M. D. President, in the Chair. (Question for debate, "*Is Cholera contagious or non-contagious?*")

From the intense anxiety that now pervades the public mind as to the contagiousness or non-contagiousness of cholera, the Society's room was crowded to excess on Saturday evening, and more than a hundred gentlemen retired for want of accommodation.

The business of the evening was commenced by Dr. James Johnson, one of the Physicians to his Majesty, who called the attention of the meeting to a letter he had received from Dr. M'Whirter, dated Sunderland, Nov. 7, in which it was positively stated that the writer had used every exertion in investigating the causes of cholera in that town—had consulted Dr. Daun and other medical gentlemen, and that all had declared there was not the slightest evidence in support of the opinion that the disease had arisen from contagion, or, in other words, was imported. There was only one case since the last report, and the sufferer was a person of the most intemperate habits. There was one of the nurses in the Infirmary affected, and the malady proved fatal; but she was very much afraid of the disease. Another nurse was equally exposed, but, not fearing the malady, was not affected. There was no positive proof of the importation of cholera into Sunderland, nor did the disease exhibit any symptoms dissimilar to those of the worst form of English cholera. Dr. Johnson was therefore induced to ask the Society, whether he deserved the censure which he received for his exposure of the terrorism now so prevalent? From all he had seen of the Asiatic cholera, and all he had read on the subject, he was convinced of the non-contagiousness of the disease, though he believed it communicable under certain circumstances; for example, in low and filthy districts. This was also corroborated by a clergyman who resided in Sunderland, who stated to him that the parts of the town in which the disease appeared were infinitely more crowded and filthy than St. Giles's or Saffron-hill, and the persons affected were generally notorious drunkards.

Mr. King corroborated the statement of the last speaker, and produced two letters from Sunderland; in which it was asserted that the case of the nurse was supposed to have arisen from her having assisted the medical officers in removing the body of a man who had died of cholera to the dead house. She was a comparative stranger in the Infirmary, was greatly alarmed, and, in Mr. King's opinion, died from fear. This was the only case which warranted the belief of communicability of the disease by contact. Mr. K. went on to state that in most contagious diseases, as fevers, small-pox, &c. a poison was generated in the system which contaminated the air in the lungs after respiration, and on expiration the air was impure, and, in his opinion, capable of infecting a healthy person, more especially if predisposed to disease, or if debilitated from any cause. He was therefore a contagionist to a certain extent.

Dr. Sigmond was of opinion that, notwithstanding all he had heard, that cholera was contagious. Even one of his opponents was a contingent contagionist. Dr. Johnson had so expressed himself, and, from the history of

the disease given at the last meeting by Dr. M'Cleod and Mr. North, there was no doubt in his mind of the transmission of the disease by contact between the diseased and healthy.

Mr. Hunt regretted that the preceding discussions were exceedingly unsatisfactory, and he should declare, without intending any offence, quite useless. He trusted that the debate this evening would be more worthy of the Society. From all he had heard that evening, and during the former discussions, he was an anti-contagionist. He had maturely considered the subject of contagion, both with respect to cholera and typhus, and from deep reflection arrived at that conclusion. He had attended numerous cases of typhus, but never knew a single instance in which that disease was communicated from the sick to the healthy. He had spoken to Dr. Chambers, and also to Dr. Elliotson, and both declared that they had never known a single instance in the hospitals to which they were attached, or in private practice, in which the disease was communicated by contact or contagion. Such was their opinion; but they, of course, would not disbelieve those who stated typhus to be contagious. From all that had been stated, he was of opinion that there is no proof whatever of the contagiousness of cholera, nor that its progress could be arrested by quarantine.

Dr. Granville remarked that he was sure the Society would feel great pleasure in hearing the observations of a Gentleman who had witnessed the disease on an extensive scale—he meant Mr. Searle.

Mr. Searle rose, at the unanimous wish of the Society, and stated that he had been appointed one of the medical officers to the chief hospital at Warsaw, and had enjoyed a good opportunity of witnessing the disease. He had investigated the nature of the malady in every way in which it was possible for him to do. He had been in the hospital at four o'clock in the morning, and had returned late at night, and sometimes found all the windows of the wards firmly closed, and the smell of the rooms very offensive; and was often so fatigued as to lie down on one of the beds; but he never was attacked by the disease. There were forty French physicians, many of them professors, who also observed the malady. They made experiments upon themselves, by inoculation with morbid matter taken after death, and also on pigeons, rabbits, &c.; but in no case was the disease communicated. Many of these gentlemen were staunch contagionists, but returned staunch anti-contagionists. It was not true, as stated in one of the medical journals of the day, that the French observers were inexperienced students: most of them were professors, and every one knew the high scientific attainments characteristic of the professors of Paris. The French, Polish, German, and English medical attendants were unanimous in opinion that the cholera was not contagious. They arrived at this conclusion after the most sober and rigid examination of all the phenomena of the disease; and could have no object but the interests of science and of humanity in view. It was important to mention, that in his hospital there were thirty attendants, besides medical men, and only one out of the whole became affected; but he was a most incorrigible drunkard, who was compelled to sleep for two nights on a stone floor, without any covering, by his master, a Polish apothecary. It was said, for political purposes, that the disease was communicated from the Russians to the Poles; but this was not true. The chief physician of the Polish army had assured him, that the origin of the disease was solely referable to a detachment of the army, which was com-

pelled to make a forced march of about fifty English miles without halting, and then encamping in a marshy situation. Next morning fifty of the men had died of cholera. Upon the whole, he would assure the meeting that his views were different from those of the contagionists or non-contagionists as to the cause of cholera, but he must solemnly declare that, from all he had seen and heard of the disease in Poland, and from the result of his observations for fourteen years in India, the disease was not contagious, and could not be restrained in its progress by quarantine.

Mr. Gilbert Burnett rose and said that he was so devoid of common sense as to be unconvinced by the statements of Mr. Searle and the non-contagionists. He believed that all contagious diseases, such as typhus, small-pox or cholera, were first sporadic, that is, produced by exhalation or miasm from the earth, and were infectious and contagious under certain circumstances. These circumstances were individual predisposition, bad air, filth, &c. There were some persons who did not take such diseases, but still there was no doubt of their contagiousness. Some of the India Medical Boards held cholera contagious, and he considered that the Board of Health had been unjustly censured, as it was much better to have acted on the safe side than throw the public off its guard, and use no precaution.—Mr. North had stated an instance where an infected caravan was prevented entering a village, and performed a circuitous route, in the tract of which the disease appeared. This was positive proof of the contagiousness of the disease.

Mr. Douchez gave an account of some fatal cases of cholera that occurred in Drury-lane during the summer.

Dr, Granville maintained that the contagionists had modified their doctrine to an amazing extent since last meeting. They now gave up the idea that the disease was communicable by merchandise. Letters were no longer fumigated, and the notion was given up by Dr. Barry in his last report. [Dr. G. then read the report.] Now all knew that the plague was communicable by merchandise, and that this country was preserved from it by the judicious quarantine observed. This was also the case on the frontiers of Russia—the plague was kept off by quarantine; but had cholera been equally kept away? It had not, because it was infectious or epidemic, but not contagious. Dr. G. complained of the furious attack of the *Medical Gazette* upon the non-contagionists; but all knew that the *green* journal was the mouthpiece of the contagionists. The anti-contagionists were not to be put down by abuse. They stood upon grounds so firm that their ranks increase every day, and they had driven their opponents from many of their strong holds, for example, the fumigation of paper, &c.

Dr. George Gregory moved an adjournment, which was seconded by

Dr. Copland, who wished to ask the meeting whether enough had not been said upon contagion and infection, and whether, during the next evening, they should not proceed to discuss the mode in which cholera attacked individuals?

The President put the question, but no decision was given. The cry of adjourn became general, and the business of the evening concluded by the President observing that Dr. Copland was in possession of the chair, and would be the first heard at the next meeting.

In this debate the anti-contagionists were triumphantly victorious; among them were those who had seen the disease both in India and Poland, and

who could speak from personal experience, while the contagionists were men who had never seen the disease, but were mere theorists. The value of their opinions is easily estimated. In the whole debate there was a great confusion in the application of the terms contagion and infection. It is right to state the signification of these terms. *Contagion* is said to be a poison thrown off in the form of exhalation by putrefying animal and vegetable substances, which is diffused through the air, and infects with disease the bodies of men and animals. *Infection* is the actual contamination of a healthy body by the morbid effluvia or exhalation, or contagion. Others have reversed the matter, and use the word infection instead of the word contagion, while more employ the words synonymously. Others again apply the term infection to that cause, whatever it may be, which engenders endemic or epidemic diseases, and contagion the contamination of the system, either by inspiration of air into the lungs, by handling the sick, or by contact. Such is a sample of the ambiguity of medical writers.

The majority of the medical profession, in all countries, suppose that infectious or epidemic diseases, such as plague, typhus, yellow fever, and cholera, proceed from a cause that inquinates the atmosphere, and renders it prejudicial to the health of man. These diseases spread over districts or countries, and cannot be arrested until man can impede the progress of the winds. The history of epidemics affords the most ample attestations of this position. They have never been arrested in their progress by human intervention. I might cite numerous examples, and fill the whole of your extensive journal with quotations, but one shall suffice. A pestilential disease appeared in the empire of Cathai, in the north-eastern part of Asia, in 1348, extended through the provinces of that continent to the Delta and banks of the Nile: a south wind transported it into the Grecian islands; thence it swept along the coast of the Mediterranean, depopulated Italy, and crossed the barrier of the Alps into France. It appeared at Dorchester in August, and reached London in November, and thence gradually proceeded to the north of the island. The malady attacked the English in Ireland, but spared the natives. Scotland escaped for many months, and this circumstance gave rise to the popular oath, "By the foul dethe of the English." The disease reached them at length, and destroyed five thousand of their forces.

There is something mysterious about the diseases called contagious and infectious, which has hitherto baffled the investigation of the faculty.

It is said that contagion is the exhalation of an invisible something from the body of the sick, which is capable of communicating the same disease to any other individual who approaches or touches the diseased person, or inhales his breath, or handles his clothes; but the existence of this effluvium has never been proved or ascertained by experiment. Some say there must be actual contact with the diseased, others that a near approach to the sick is sufficient; a third, that the breath must be inspired; a fourth, that the air around the sick must be contaminated to the distance of many yards. Some say the exhalation may destroy with the rapidity of lightning, others that some hours, days, months, or years must elapse, before the healthy is infected. Such is the congruence of the contagionists, with regard to the properties of their poisonous effluvia. If any such effluvium existed, it would invariably affect the medical and ordinary attendants of the sick, and must continue until the whole human race was affected, for

it is manifestly impossible that the whole of the sick could be deserted by relatives, friends, and attendants—a thing that never yet happened. Besides, we know that the most formidable epidemics—or contagious diseases, if you please—plague, fever, cholera, yellow fever, &c. have suddenly ceased when at their acmé; that is, when nearly whole districts or nations were affected, which could not possibly have happened, had the diseased possessed the power of infecting the healthy. It appears to me to be extremely doubtful if there be such a thing in nature as a contagious disease, as some persons are never attacked with the maladies considered most contagious; nor can the faculty account for the origin or commencement of the diseases already named, of scarlatina, measles, syphilis, &c. or offer a valid reason why most of these appear at certain seasons, how their virus or contagion is preserved at other seasons of the year in a latent condition, where it is located, and how it is that certain persons are never infected by these diseases. I challenge the whole body of contagionists in existence to refute these positions. The only explanation that can be offered is, that the varieties of season caused by the revolutions of the heavenly bodies have a most powerful influence upon the earth and its inhabitants, producing various emanations from the surface of the earth, modified by soil and climate, which, for aught the medical faculty know, induce epidemic, or contagious diseases. I call upon the contagionists to explain why it is that medical men, who enjoy no exemption more than all classes of society, are not affected by these contagious diseases; why have Dr. Barry, Dr. Russell, and Mr. Searle escaped the contagion; why, in a word, are the medical practitioners of these and all countries less liable to such disease than any other class of the community? It is said because they are accustomed to contagion; but how can the profession at large be accustomed to the contagion, if there was any such thing, of the cholera, which is a new disease in this country? Such a proposition is absurd and ridiculous. Physicians are more exposed to contagion, if there was such a thing, than all other persons; but the majority of them ridicule such an idea, they fear it not—and here is the grand secret, the infallible antidote, the sole cause of their immunity. Some few of the old school are contagionists, they become affected from fear, and die of the disease. But who can doubt the influence of fear and the other passions in producing fevers, and even destroying life, without causing any evident disease? *Let the British public banish all groundless fear*—let the mind be kept tranquil, the body be kept in health by temperance, and the whole life, agreeable to Nature's dictates, and cholera, though it arrive, can do little mischief to the greatest part of the population. Besides, the superiority of the medical profession in this country, the superiority of society in affluence, comforts, climate, cleanliness, &c. will render the disease comparatively less dangerous than in the countries which it has already visited. From all we know of former epidemics they cannot be arrested, or controlled, by the restrictions advised by the Board of Health, though many of the recommendations are of the highest value—such as attention to cleanliness, temperance, &c. Whoever will calmly consider the facts stated in these remarks, must arrive at the conclusion that contagion is a fable, which, like many other monstrous fictions of human ingenuity, has had sufficient terror in its sound to terrify the world, but which has no real or substantial existence. It is merely one of those shadowy phantoms,

those airy nothings, which exist only in the human imagination, keeps up a perpetual agitation in the minds of its believers, and is communicated to a credulous and uninformed public.

Should cholera arrive in this country, it will rage among the hives of the poor, in proportion to insalubrity of situation, impurity of air, inattention to cleanliness, badness of food, poverty, and distress. It will visit filthy alleys, where there is foul and stagnant air, narrow, crowded, and unventilated dwellings, while it will scarcely appear in the open and cleanly parts of this metropolis. The last plague took the same course, and was called the Poor's Plague.

The injunctions of the Board of Health are, in some degree, extremely prejudicial, because they sanction the separation of the diseased from the healthy, and tend to sunder the finest feelings of the human heart. This body of contagionists proclaim that as soon as a person becomes affected, it is the signal for his relations to desert him, as he is a mass of contagion; instead of becoming an object of care, he becomes the object of horror and aversion. Tortured by horrible pain, lacerated by all the agonies of terror, he is abandoned by all that are dear to him; and he is committed to the superintendence of heartless strangers, at whose atrocities, during former plagues or epidemics, the human mind is horror-struck. We have the testimony of Mead, Hodges, and others, that "Those affected with the plague were committed to the care of convicts and felons, hags and villains, whose inhumanity caused great numbers to perish by neglect; many were smothered—many were poisoned—so that the attendants might glut their rapacity with plunder." It will be said that such atrocities cannot occur at present. Granted; but is there any real necessity to frighten relations, and remove them from attending the sick? There is none whatever. Is it absolutely necessary that children should forsake and be forsaken by their parents—that maternal tenderness should be deemed a heroic virtue—that wives should desert their husbands, and husbands desert their wives—in a word, that every tie of affection, and every bond of society, should be torn asunder, after a calm and dispassionate reflection on the facts stated in this article? I might prolong this communication to an indefinite length in confirming the views I have taken; but I have adduced facts and arguments enough to convince any person of common comprehension that the alarmists have far exceeded the boundaries of reason, and science, and common sense; and that the universal terror of the public is based upon a groundless foundation. I have only to add, in conclusion, that cholera, or any other epidemic, is destined to attack certain persons only; that the aid of the medical faculty is a remedy afforded by the AUTHOR OF ALL THINGS, and is sufficient to control, arrest, or extinguish the disease in the majority of instances.

THERAPEUTES.

XVII.—*Lectures on Anatomy; interspersed with Practical Remarks.* Vol. III. By BRANSBY B. COOPER, F. R. S., Surgeon to Guy's Hospital, Lecturer on Anatomy, &c. &c. London, 1831. Royal 8vo. pp. 300. Plates 4, Figures 12. Longman and Co.

THIS admirable volume contains a description of the general anatomy of mucous and serous membranes, of the abdomen and its contents, with the

sexual organs and viscera of the chest. It also embraces the physiology and pathology of the important organs of which it treats, and gives a correct and ample view of the subjects that are described.

This volume is a good treatise on physiology, so far as it extends, and reflects much credit on the ability and scientific attainments of the author. We have no doubt, when the work is complete, but it will be one of reference and authority. It is valuable to the student, and interesting to every practitioner. The plates are very well executed. It is impossible to analyze a work of this kind, but we insert a few extracts.

General anatomy of the Mucous Membranes.

" In the first and second volumes of my Lectures on Anatomy, I have treated of the bones, ligaments, muscles, and those structures which form the exterior of the human body; I shall now proceed with the anatomy of the internal cavities, and their contents.

" The *mucous membranes* form an interior lining to all the cavities and glandular structures, which either directly or indirectly have a communication with the atmospheric air. The consideration of these membranes, therefore, seems properly to follow that of the external integuments; not only on account of their actual continuation or prolongation from them, but from their being alike destined to protect the parts which they cover from the injuries of external agents.

" From these circumstances the mucous membranes have been termed the internal tegumentary system, and, as we shall hereafter have occasion to observe, they possess many characters in common with the external integuments. Indeed, in an anatomical point of view, a close alliance has been admitted, even since the time of Galen. Meckel classes them as the external and internal cutaneous systems; Beclard terms them both tegumentary membranes; while Blainville speaks of them under the general appellation of envelope or covering; from whence we may learn, that however they are classed, the characters which they present in common, form a very prominent feature.

" These membranes are the organs of some of the most important functions of life, and equally in a physiological and pathological point of view, an accurate knowledge of them is of the greatest moment to the medical, as well as the anatomical student. It is on the mucous membranes that external agents first act; in them resides that undiscovered vital power which effects the great chemical changes that are exerted in the processes of digestion, absorption, and excretion; and to them also are applied our therapeutical agents.

The term mucous membrane, was taken originally from the viscid secretion of the schneiderian membrane of the nose; but it is now extended to the various linings of the digestive, pulmonary, urinary, and genital organs, together with those glandular structures which have excretory ducts communicating with them. To these are also added the tunicæ conjunctivæ, and excretories of the lacrymal glands, the membranes lining the cavities leading from the mouth and fauces to the ear, and sinuses of the bones of the skull.

" Bichat has classed the mucous membranes in two great divisions or surfaces—the gastro-pulmonary, and the genito-urinary.

" The *gastro-pulmonary*—commences with the tunicæ conjunctivæ, at

their point of contact with the external integuments on the edges of the eyelids; two processes extend from each tunica conjunctiva,—one along the duct of the lacrymal gland, the other through the puncta lacrymalia, the lacrymal sac and duct, to its junction with the schneiderian membrane of the nose; it then lines the nasal cavities communicating with the external skin at the anterior openings of the nostrils; while upwards it sends portions which are continued into the sinuses within the bones of the cranium, and backwards it is continued into the fauces, pharynx and mouth; from the mouth processes are sent to the parotid, submaxillary and sublingual ducts; from the pharynx prolongations extend from the eustachian tubes to the cavities of the tympana and mastoid cells; while in the back and lower part of the pharynx it divides into two principal portions, the anterior of which passes through the larynx, trachæa and bronchia, to their ultimate distributions; while the posterior passes down the œsphagus to the stomach and remaining portion of the alimentary canal, terminating at its junction with the external integuments at the anus. In the alimentary canal it gives off two processes, the one to the ductus communis choledochus, proceeding from thence to the ductus hepaticus, ductus cysticus and gall bladder; the other to the ductus pancreaticus.

This completes the gastro-pulmonary division.

The *genito-urinary* division—commences at the orifice of the urethra, continues along it to the bladder, giving off processes in its passage to Cowper's gland, vesiculæ seminales, vasa deferentia, and their ramifications within the testes. From the bladder two processes proceed along the ureters to the pelves, infundibula, mammillary processes, and probably to the uriniferous tubes of the kidneys.

" In the female, this division of the mucous membrane continues, as in the male, to the bladder and urinary organs, but necessarily offers many differences in the genital organs, in which it lines, first, the vulva, then the vagina, uterus, fallopian tubes, and at their fimbriated extremities are supposed to open into the serous cavity of the broad ligaments.

" In the female there is a distinct mucous membrane, which belongs to the mammæ, extending from the nipples along the lactiferous tubes to their ultimate division.

" In the examination of the mucous membranes and their secretions, we shall find that they present a variety every where commensurate with the function of the organ with which they are connected; and so great is this variety, that one function cannot be considered, in the remotest degree, to depend upon their actual continuity with each other, or with the common integuments.

" The appearance of the mucous secretions, as well as their qualities, are widely different in the different organs, even although they are continuous and situated near to each other; as, for instance, the secretion of the schneiderian membrane and the tunicæ conjunctivæ; and again, between the secretion of either of these membranes and that which is found in the tympanum, mastoid cells and sinuses, where it is rather of an oily than a mucous nature; these latter cavities in a healthy state are filled with air, and mucous secretion is not traceable beyond the canal of the eustachian tube, either in man, or other animals possessing such structures. From this fact, as well as from the appearance of the interior of these cavities, there is reason to doubt whether or not mucous membrane

does enter them; particularly as such a secretion would probably interfere with the sense of hearing. It may further be remarked, that in certain species of the reptile tribe the tunicæ conjunctivæ are detached from the gastro-pulmonary mucous surface; and in certain fishes, the membrane lining the nasal organs is also detached.

"Those writers who insist upon the identity of the mucous membranes with the common integuments, have endeavoured to support their theories, by adducing certain analogies which are found to exist betwen the inferior orders of animals and the embryo state of the human fœtus. These analogies are traced in the changes which are asserted to take place in the progress of the growth of the fœtus, and are compared with a similar existence in different animals. There is, however, a very wide difference between analogies and real identity; and mere analogy not unfrequently proves a source of delusion, obscuring the simplicity of truth, which can alone be established on the firm basis of demonstrable fact. The circumstances here alluded to, and particularly dwelt upon by Blainville, are however extremely interesting; inasmuch as they shew the extensive power resident in membranous structures: the reader must, however, follow his own judgment in admitting the deductions of the above-named ingenious author. He commences with instances of the general envelope of living bodies in their simplest form; as in the zoophite, where one external surface, in contact with the fluid in which the animal exists, appears to serve all the purposes of nutrition, respiration, and generation. Proceeding in the scale of animal perfection, the polypus presents not only an external surface, but an inverted or internal cavity, having but one orifice leading into it; this orifice serves the double purpose of mouth and anus, and, as may be seen through the medium of a good solar microscope, both the food and the young animals are ejected by one and the same effort of contraction. In the next stage of perfection, we observe this internal cavity furnished with two openings, the intermediate space being more or less lengthened into the form of a canal,—the continuity with the external surface still remaining unbroken. As we ascend the scale, we find the internal cavity performing separate and distinct functions, being divided into numerous portions, each appropriated to separate offices. Thus the respiration becomes a distinct function from generation, and digestion is performed by organs separate from either one of them: at the same time, the membranes which compose these external and internal surfaces become more complicated in their structure, not only in certain distinct layers of which they are composed, but in the number of follicular, papillary, and glandular formations superadded to them.

"The above scale of existence is compared with the human embryo, which, during its earliest state, is supposed to consist entirely of skin and mucous membrane. The anterior part of the body and the intestinal canal are at this period open, and form a perfect continuity. The skin afterwards closes, the junction being made apparent in the existence of the mesian line of the body; at the same time the walls of the intestines unite to complete the alimentary canal: at this period, also, the mucous membranes are thinner, and more simple in their structure. Towards the sixth month, the valvulæ conniventes and convolutions make their first appearance in the intestines; while the sebaceous glands are abundantly deve-

loped in the common integuments. The surface of the fœtal body is now defended by an oily secretion, which protects it from the liquor amnii, otherwise perhaps destructive to the cuticle, which is destined for the future contact of the atmospheric air. In the intestines, also, a mucous secretion of a viscid quality is formed; at first it is of a whitish colour, but afterwards it is changed to a dark green, as is seen in those discharges from the rectum after birth, known by the name of the meconium.

"It seems most probable, that these substances are in the first instance a secretion from the sebaceous follicles, and in the latter from the mucous membranes of the alimentary canal.

"The analogies between the mucous and integumentary systems are, however, supported by the circumstances, that they both present one free and one attached surface; in other words, they are both distributed on the surfaces of other structures, forming together one unbroken connection. Their free surfaces are uneven, and furnished with superadded structures, in which they differ from the serous membranes. The most remarkable fact denoting the similarity which exists between them, is in the reciprocal convertibility of their surfaces in particular situations. Thus, when a part of the mucous membrane becomes constantly exposed to the drying effects of the atmospheric air, as occurs in certain cases of artificial anus, or of prolapsus uteri and ani, it will gradually acquire the properties of external integument, and will be covered by a cuticle and rete mucosum; on the other hand, when a part usually covered with external integument is defended from the effects of the air, in consequence of continued pressure, and is at the same time in a state of moisture from the perspiration of the part, as in certain cases of permanent contractions of joints, &c. such parts will acquire the properties of mucous surfaces. There is therefore, undoubtedly, a close alliance between these membranes; but nothing in that alliance to establish their identity. The nervous system, in its various distribution, presents a much closer alliance; but who has ever endeavoured to prove that the eye is derived, by continuity, from the ear; or the sense of the taste in the mouth, from the sense of touch in the skin? On the contrary, do not all these structures, so various in their properties and functions, prove that they are endowed exactly with those qualities, and no others, which are alone subservient to the functions they are each destined to perform?"—p. 9.

XVIII.—*The Principles and Practice of Obstetric Medicine, in a Series of Systematic Dissertations on Midwifery, and on 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, &c. &c. London. 1831. Part I. 4to. pp. 24. Plates.

We are greatly pleased with this specimen of the work before us, it is executed in the ablest manner. The high literary and scientific reputation of the author are so well known as to require no eulogy from us, and eminently qualify him for the performance of the work he has undertaken. There can be no doubt but that a system of obstetric medicine is a desideratum, and we know few persons so well qualified for the execution of such

a work as Professor Davis. This part is devoted to the anatomy of the pelvis, and we are gratified to observe that the author's arrangement of the subject is similar to our own. We must observe however, that the learned Professor would have rendered his work more complete, had he more freely employed the synonymes of various writers. Thus he has a paragraph entitled " of the inferior or small pelvis," without having previously mentioned the obstetric divisions of the pelvis. The superior or false pelvis is mentioned, but the word abdominal might have been added with advantage. The terms " articulations and fastenings of the pelvis," are nearly synonymous, and the latter by no means a happy designation: we have a similar objectionable term in the following sentence in concluding the description of the male skeleton, " for him, accordingly, nature has allotted a skeleton of a more massive carpentry."—p. 8.

We point out these blemishes, because the language is generally refined and elegant, and the terms most appropriate. We entertain no doubt of success for this system of obstetric medicine, and as we are satisfied it will be allotted a high place in the medical literature of this country, we could not refrain from noticing its trivial imperfections, with the hope that the distinguished author will duly appreciate our motives in so doing. The work will be one of reference and authority, and is published at a price so singularly moderate, considering the number of well printed pages, the beauty and accuracy of the plates, and the excellence of the paper, that it ought to have a place in every medical library in the kingdom.

XIX.—*A Practical Guide to Operations on the Teeth, to which is prefixed a Historical Sketch of the Rise and Progress of Dental Surgery.* By James Snell, Dentist, Member of the Royal College of Surgeons, Lecturer on the Anatomy and Diseases of the Teeth, Author of Observations on Obturateurs, &c. &c. &c. Plates. John Wilson, 1831. Boards. London. pp. 207.

XX.—*Familiar Observations on the Formation and Diseases of the Teeth, with Maxims in Dental Surgery.* By W. Hunt, Surgeon-Dentist. Marsh, Oxford Street, and Davis, South Audley Street. 1831. Stitched, pp. 36.

We have now before us two works on the same subject, but very different in themselves; the one apparently addressed to the medical profession, the other for the public generally; it may therefore appear strange to review them together, but in our opinion, the contrast will more than compensate for the peculiarity of that circumstance.

Mr. Snell's work is divided into the History of Dental Surgery, which occupies 55 pages, and the practical part, which takes up 152 pages. He tells us that he first meditated writing the history of dental surgery in a work by itself, for which he says there are ample materials, but he feared it would not be acceptable.

We do not think that the History of Dental Surgery would at any time prove interesting to the profession, more especially as it is impossible to separate it from medicine and surgery, with which it is inseparably connected, as our author has fully ascertained, his sketch being much more

one of the history of medicine and surgery, than of the surgery of the teeth. The remarks with which our author sets out, are of such a nature, that he must expect a severe handling, unless his work be superlative.

" From the numberless treatises on Dental Surgery already existing, it might appear to be a work of supererogation to offer another to the notice of the medical public, more especially as the title page of each work usually promises every thing that the most anxious student can desire. Unfortunately, however, the work itself but too frequently falsifies the professions by which it is introduced. Much is proposed, but little performed; and after the author has very liberally abused all other professors, and confidently announced that he alone is the man, and that " wisdom would die with him," the reader finds an intimation at the end of each chapter that if he wishes to know the author's method, he must go to his residence (as a patient), where he will be enlightened in all the mysteries of the art. In fact, with the exception of Mr. Bell's admirable work, the books which have been published for some years past, have been only literary advertisements to the public in general, to whom they have been most commonly addressed; full of nothing but assertions of the skill and knowledge of the writer, illustrated by cases suitably prepared to gain them credence. It is not uncommon for students and practitioners anxious to obtain practical information founded on experience, to procure one or perhaps several of these popular works, and after reading them, to discontinue the pursuit in disgust, and assert, with some appearance of truth, that dentists are in general little better than charlatans."—Preface, p. iv.

A more sweeping, and we are bold to say, unjust censure, was scarcely ever pronounced. Why should Messrs. Koecker, Scott, and others, be thus condemned by a rival, and who, for aught we know to the contrary, has written this work for the very purpose he condemns, and writes thus of his dental brethren, with the intention of depreciating their works, and selling his own? Who is he, that he should speak thus, ex cathedrâ, as it were, on the merits of the great phalanx of writers on the teeth? Doubtless there are many, nay, perhaps two thirds of these works are written with that intention, and deserve all the censure that can be bestowed on them, but to bestow it so indiscriminately—telling us that no good book on this subject has been written, until Mr. Snell took up the subject—is very like the puff oblique of Sheridan. Mr. S. must excuse us, but such cannot fail to present itself to the mind of all who open his book.

Mr. Hunt assumes somewhat similar grounds; he declares roundly that he does not know that there are any works of the same description as his! Why, my good sir, there are more things in this world than either you or " ourself wot of," and your ignorance is not the criterion of the advance of science in England. We will give the *ipsa dicta* of this gentleman, so that no misconstruction may be made.

" Not being aware of the existence of any work of this description calculated for general perusal and attention, it is offered with the greatest confidence to the public,—and with the fullest conviction, that diseases, and the loss of the teeth, will diminish in proportion to the habits of cleanliness adopted."

It needs no ghost to tell us that, Mr. Hunt.

Returning now to Mr. Snell, we come to the introduction. This com-

mences with the assertion that, " it is idle to enquire with whom, or in what country, medicine took its rise." Had Mr. Snell really thought so, he would have spared the printers some additional work, himself a good deal of research, and his readers the perusal of the *sus-dits* 55 pages. He proceeds to tell us, that the practice of sacrificing animals, and employing them as food, must have taught some of the anatomy and physiology of the inferior animals, while the battles would add to this some insight into human anatomy and physiology. Verily this is the brightest idea that was ever started; our author has doubtless thus discovered the physiology of progression of the sheep, while eating a leg of mutton, and has learnt the use of the teeth, while dining on a calf's head. A page or two further on, we find mention made of Achilles, Teucer, and Telamon, as having practised surgery: this, if a fact, we never before heard. A short paragraph we cannot but extract, it has tickled our fancy mightily; it presents an excellent specimen of our author's naiveté, and of the high rank he conceives his branch of surgery to hold, far above all others. He is speaking of the gentlemen already mentioned, having also introduced Chiron, Escalapius, Machaon, and Podilirius to their company.

" It is proper to keep in mind, however, that they were all surgeons only, and not physicians; the word Ιατρος, absurdly translated physician, being derived, according to Sextus Empiricus from Ιος, a dart, because a chief part of their skill consisted in being able to *extract darts with dexterity*. Of their surgeons, by far the most celebrated in modern times, was Æsculapius, a pupil of Chiron, and a prince of Thessaly, the inventor, according to Cicero, of the probe, *and the first man to bind up a wound;* but it was reserved for the third surgeon of that name, according to the same author, to venture, for the first time, *upon the more important step of drawing a tooth.*—p. 4.

We thus see our author considers it more important to draw a tooth than to extract a dart, even if that dart have pierced an important part. He tells us, further on, that the description of the bones and *teeth* by Hippocrates, is by far the best part of his anatomical writings. In short, in every part of the work, this naiveté appears—he seems to consider his branch by far superior to all others, and that both medicine and surgery are dependant on it. He tells us, p. 6, " that in no country whatever was the division of labour better understood than in ancient Egypt, and in no profession was it more displayed than in medicine: it was here, accordingly, that the dental art, as a distinct branch of the profession, had its origin." Our author does not appear to believe the saying, " that medicine is one and indivisible," which we have been endeavouring to inculcate for a long while, and of the universal prevalence of which we have at present great hopes; but it was to be expected that a person practising a distinct, or rather a separate, branch of the profession, should advocate such a doctrine, but we think that even Mr. Snell will allow that it is almost absolutely necessary for a man who would be a good physician, surgeon, obstetrician, oculist, dentist, &c. to be well acquainted, or at least partially, with the different sciences appertaining to and connected with medicine; no one can deny that an oculist must be acquainted with the general symptoms of disease, for instance, of disease of the brain, to be able to distinguish amaurosis dependant on external causes, and that consequent on

tumours or other diseases within the skull. How often is the disease of the eye dependant on dentition, a disordered state of the alimentary canal, &c. and to be cured only by attention to these causes.

Proceeding further with this sketch, at page 14, we find our author calling the intellectual and heroic Romans, " a race of savages from first to last," because for 500 years, there was not any medical man within the walls of Rome. Mr. Snell takes up the club to defend the professors of a science, from which, a few pages before, he appears very desirous to separate. The first who settled in Rome, was a Grecian, of the name of Arcathagus, who, when he arrived, was called Vulneravius, or healer of wounds, but soon after, he was stigmatized as an executioner, because the hardy Romans disliked the knife and cautery, and he was banished from the city. Cato, the Censor, appears to have laboured under a great perversion of intellect, in regard to medicine, which he decried with stupid ferocity, and two hundred years elapsed after the time of Erasistratus and Herophilus, ere another medical man, Asclepiades the Bythinian, the friend of Cicero, and the founder of the methodic sect of physicians, established himself at Rome. The first time explicit directions for treating injuries of the teeth was about the commencement of the Christian era, by the celebrated Cornelius Celsus, and as these are curiosities in their way, we cannot avoid extracting them.

" About the commencement of the Christian era flourished at Rome, the celebrated Cornelius Celsus, deservedly called the Latin Hippocrates, not only because his work on medicine is in a great measure, an epitome of those of the Father of Medicine, but because it contains almost every thing known respecting the practice of the art, at the time it was compiled. It is in Celsus, that we meet with, for the first time, any thing like explicit directions with regard to the extraction of the teeth. " Si vero," says he, " dens doloret movet, eximique eum, quia medicamenta nihil adjuvant, placuit, *circumradi debet*, ut gingiva ab eo resolvatur, tum is *concutiendus est*: eaque facienda donec bene moveatur. Nam dens hærens cum summa periculo evellitur, ac nonumquam maxilla loco movetur. Idque etiam majori periculo in superioribus deptibus fit; quia potest tempora oculosque concutere. Tum, si fieri potest manu, si minus, forfice dens excipiendus est: ac, si exesus est, ante id foramen *vel linamento, vel bene accommodato plumbo replendum est*, ne sub forfice confringatur. Recta vero forfex ducenda est, ne inflexis radicibus os rarum, cui dens inhæret, parte aliquâ frangatur. Neque ideo nullum ejus rei periculum est; utique in dentibus brevioribus, qui fere longiores radices habent: sæpe enim forfex cum dentem comprehendere non possit, aut frustra comprehendat, os gingivæ prehendit et frangit. Pretinus autem, ubi plus sanguinis profluit, scire licet aliquid ex osse fractum esse. Ergo specillo conquirenda est testa, quæ recepit, et *vulsella* protrahenda est: si non sequitur, incida gingiva debet, donec labans ossis testa recipiatur," &c. In this paragraph, to say nothing of the attempt made to supersede the necessity of a natural loosening of the teeth, by well shaking them before proceeding to extraction, besides the names of the instruments employed, and sufficiently full directions in other respects, we find mention made, for almost the first time, of scarifying the gums, and of stopping carious teeth with lead, and other substances; though the latter practice seems to have been hitherto resorted to only for the purpose of pre-

venting their breaking, during the operation of extracting them. The valsella, mentioned above, is said by Scultetus, to have been a kind of forceps; the pincers of which were, in appearance, like the bill of a parrot, and toothed, so as to take a firmer hold."—p. 17.

A diagram of the instrument described is given, and it appears to resemble the hawk's or crane's bill of modern dentists. Mr. Snell proceeds then with the history rather of medicine, than of dental surgery, of which, however, there is a small sprinkling here and there, with occasional diagrams of the instruments employed. Passing these, we come to the really dental part of the work, which commences with a description of the operating chair; after describing the why and the wherefore, a peculiar operating chair is required, we learn that it should " first, afford the means of placing the patient in all the various positions which may be conducive to his ease, and the convenience of the operator; secondly, it should have attached to it all the more cumbrous articles which may be required in operating, and which cannot be held in the hand, or otherwise disposed of, without inconvenience; all of which should be so arranged that they will be, as it were, dumb waiters upon the operator; thirdly, to ensure the firmness of the patient's position, an apparatus must be affixed, upon which the feet may rest, which should be capable of being accommodated to varying circumstances, as whether the patient is sitting high or low, or whether his legs are long or short."—p. 59.

Our author then gives a description of his own chair, and of which a plate is given; it appears to us to be highly useful, and we recommend its use to the practical dentist. The next chapter on extraction of the teeth is one of great practical utility, and we would willingly extract the whole, but as our space will not allow of this, we must content ourselves with the directions for removing stumps. In this chapter he describes the different instruments in use, his modifications of them, and the proper manner of employing them, the teeth to which they are to be applied, &c. He does not appear to approve of the key instrument, and is much better pleased with the forceps: this appears strange to us, for we have always extracted teeth with greater facility and less pain, aye, and had them extracted likewise by the key, than the forceps.

" In removing stumps, left either by the accidental fracture of the tooth in extraction, or in consequence of the total destruction of the crown by disease, it is requisite to use a double or single elevator. The double elevator which I use, is an instrument composed of two blades with spear points, turned at right angles with the handle of the instrument.

" When considerable power is required to be used in removing the fangs of teeth, it is not only safer, but the power can be more favourably applied, when the adjoining tooth is made the fulcrum against which the instrument takes its purchase. This instrument is particularly useful in removing the dentes sapientiæ of the lower jaw when much decayed.

" The application of the instrument is simple. The points should be separated, and introduced one on each side between the tooth to be removed and the one adjoining. The handles should then be closed, and the points pressed firmly down between the fang and the edge of the socket, the handles being depressed at the same time, when the tooth or fang will be easily raised out of the socket.

" The single elevator, is an instrument formed simply of a piece of steel, set firmly in a handle large enough to suit the hand of the operator, with the point terminating in a shape similar to a small gouge, very sharp at the edge, and of well-tempered steel. The operator should be provided with two or three, the cutting edges of which should differ in breadth, to suit the size of the fang to be removed."—p. 104.

In the next article, on the " accidents occurring from extraction of the teeth," we were much amused with a re-appearance of his *naivete;* he remarks that " many general practitioners have lost more reputation by an accident in extracting a tooth, than by the unfortunate termination of a labour;" our author seems to consider it much worse to break a tooth while extracting it, than to have a woman and child die on one's hands. To be sure the grave covers the latter, while the former is continually reminding his doctor of the injury. In that view it may be worse, but in another———. Our author continues his remarks, and casts a slur on the country general practitioners, which we do not think they merit. We quote his words, and a case or two of the more dangerous accidents:—

" It is indeed surprising that a general practitioner will risk his reputation by performing, for one shilling, an operation, for which, if he would confess the truth, he has an utter aversion. This aversion, on the part of the medical man, frequently induces him to allow this important operation to be performed by his apprentice; or, in the country, if the patient be poor, he is picked up by the village barber or blacksmith, and he who has the strongest arm is too often the most appoved operator. Could a perfect catalogue be obtained of the accidents which have occurred to this class of operators, such an enumeration of broken and distorted jaws would be frightful. Unfortunately it is not to these practitioners alone that such accidents occur; they are met with by others of a more respectable description. Through the medium of my gratuitous practice, I have had opportunities of witnessing such cases beyond most men. When looking over my minute book, I find, amongst a number of others, the following cases, which will give some idea of the effects of the key instrument in the hands of the ignorant.

" A poor man, named Thomas Green, applied to a hair-dresser, famed for his skill in the art, to extract the first molar tooth on the right side; in doing which the alveolar process was fractured to the extent of three teeth. The bicuspis on one side to the dens sapientiæ, and the two anterior incisores, were pressed out of the socket with the shaft of the instrument. Before this case got well, the teeth, of which the processes had been fractured, became so loose as to render it necessary that they should be removed. The unfortunate patient, therefore, lost six teeth for his shilling (the barber's fee) instead of one.

" A carpenter, named Thomas Dayly, applied to the apprentice of a country practitioner, to extract an upper canine. The key instrument was applied inwards; and, after several violent efforts, the tooth was removed. Inflammation ensued, extending over the face; the eyes were closed, the whole countenance presenting a frightful appearance, which continued until a large discharge of pus took place from an aperture in the palate behind the place from which the tooth had been removed. At this period the case came under my care. The inflammatory symptoms after a week somewhat subsided; but matter continued to flow in considerable quantities from the socket of the tooth. The three adjoining teeth became loose; the discharge

became of the most offensive kind, and continued until a large piece of the inner plate of the maxillary bone, with the three teeth, exfoliated. This being removed, the poor man recovered, after suffering dreadfully for nearly three months."—p. 110.

" The worst case that ever came under my care was that of a farming man. He applied to me, with a violently swelled face, accompanied with a highly offensive discharge of sanies from the mouth, produced by the exfoliation of a large portion of the lower jaw, extending from the anterior incisor to the ascending spine of the coronoid process. He stated that he had requested a medical man in the country to extract one of the teeth in the lower jaw. After applying the instrument, and using considerable force, the crown of the tooth was snapped off. A second, though unsuccessful attempt, was made to remove the stump, when the patient distinctly felt the jaw crack, and desired the operator to desist. He persisted, however, in another attempt, which was successful, but was followed by the most severe and excruciating pain, extending over the whole side of the face. On the following day, the face, eyes, and head, were highly tumefied, and the pain was intolerable. These symptoms continuing to increase in violence during several days, an abscess formed at the symphisis of the jaw, which pointed and burst externally. The orifice soon healed, and the matter passed into the mouth through several openings.

" At this period I first saw him. Upon examining the mouth, I found a portion of bone, extending from the anterior incisor to the dens sapientiæ, and comprising the whole base of that side of the jaw, rapidly exfoliating. The mouth was horribly distorted, the integuments having retired from the portion of bone almost to its base, the whole being accompanied by a continual discharge of offensive matter, which mixing with the saliva, continued running out of the corner of the mouth.

In six weeks the bone became sufficiently loose to be readily removed. I directed for his mouth the frequent use of lotions of infusion of roses, with borax and tincture of myrrh. Healthy granulations were observable, and the part near the symphisis soon healed. A considerable discharge was still kept up from two different sinuses at the posterior part of the jaw; these were dilated into one, and injections of diluted nitro-muriatic acid were constantly used. During the following week two smaller pieces of bone were extracted, and the whole of the left side of the jaw, from the symphisis to the angle of the base, being now removed, mastication was performed in a very imperfect manner on the healthy side.

" As the parts gradually healed, a substance of cartilaginous consistence could be distinctly felt, situated between the divided ends of the bone at its base. The head was now bound up, so that the remaining parts of the jaw might be kept, as nearly as possible, in their natural situation; and the former lotion with infusion of roses, was substituted for the acidulous one. The substance between the ends of the bone gradually increased in size and firmness, and in a fortnight the cavity between the fracture was nearly filled up. The two ends being firmly united, mastication was performed, on the healthy side, with scarcely any inconvenience. The discharge soon ceased, and the patient perfectly recovered. The deformity of the countenance was very trifling, being scarcely perceptible.

" One peculiarity in this case was, the rapidity with which nature effected the processes of exfoliation and reproduction."—p. 114.

Fractures of the jaw, in every instance in which our author has examined the instrument, are caused by using too large a claw. Padding the bolster is very uncertain; the operator should ascertain whether his instrument be a proper one: if the claw is too large, a fracture of the alveoli may be the consequence; if too small, and the tooth firmly set, immense force will be required, and probably the crown of the tooth will be broken off, or the instrument give way. A very slight degree of force is requisite even for the largest teeth, when it is properly applied. Mr. S. observes that, accidents from the forceps are rare, when they are well made, judiciously chosen, and used with steady confidence. He knows only one instance of an accident more serious than the breaking of a tooth; this is apparently in favour of the forceps, but it must be recollected that an instrument is not to be condemned because ignorant persons commit injury with it. When a tooth is broken off in extracting it, the operator must not lose his confidence, as too commonly happens, but must immediately proceed to remove the stumps. A patient will always go away dissatisfied, if the stumps are allowed to remain; and although he may suffer more pain in the operation than was anticipated, still if the mouth is divested of the tooth, he will generally consider it a sufficient recompense. Hæmorrhage, after extraction, is not to be attributed to the unskilful performance of the operation. It will happen occasionally, when very little force is employed. Our author cites a case of an old gentleman, in whom hæmorrhage followed the extraction of a tooth, which nothing could stop, and, at the end of a week, the patient died, the bleeding having continued without intermission until his death. In a case, in which severe hæmorrhage ensued, the carotid artery was tied, and with success. A variety of remedies are recommended, such as alum, turpentine, muriate of iron, cuprum, and others, none of which can be depended upon. Well directed pressure can alone be confided in. This, however, is not certain. Of the application of pressure, our author speaks as follows:—

"Pressure may be made in various ways: the most certain is to clear out the socket, from which hæmorrhage arises, from coagulum, and with a long strip of lint plug it up from the bottom, pressing the lint firmly in with a stopping instrument. When the whole of the socket is well filled, place a small compress of linen over all, and direct the patient to close the upper teeth upon it. This will generally succeed; but cases occur requiring some variation of this method. The patient may be a child, or a maniac. In the former case it becomes necessary for the professional man or nurse to make the pressure upon the compress with the thumb, continuing to do so until a coagulum is formed and the mouth of the vessel contracts.

"The latter case is one of much greater difficulty. I once met with a most troublesome patient of this kind. A gentleman, a perfect maniac, was brought to me, attended by his keeper, to have a tooth removed. The operation was performed, and the unhappy man bore it very quietly. In the evening I was sent for by the friends of the patient to stop the bleeding, which had continued. It appeared they could not prevent him from sucking the gum. He had lost a considerable quantity of blood, and it was then literally running in a stream from the socket. He had also become so violent as to render it necessary to put on the waistcoat. He would allow nothing to be done, and it was dangerous to expose the fingers to his mouth from his efforts to bite. As, however, it was essential that the bleeding

should be stopped, I was at length obliged to place an iron gag in his mouth to enable me to stop the socket, and finally to place a piece of hard wood across the mouth over the compress, which was tied under the chin and round the back of the head. This was kept in the mouth until the following day; he then became calm, the gag was removed, and the bleeding had ceased."—p. 124.

Mr. Snell condemns *de toto* excision of crowns of the teeth. He characterises it as a clumsy and unscientific operation.

"It is at best exchanging carious teeth for stumps; the inconvenience from which frequently becomes intolerable. The injurious consequences resulting from allowing the stumps of teeth to remain in the mouth, are too frequently exemplified by cases of the most obscure yet distressing kind, which come under the care of the physician and surgeon—cases which can only be effectually relieved by the removal of the stumps,—to need any further remark on my part.

"The practice had its day, but it has declined since the case of lock-jaw occurred in consequence of performing the operation upon the teeth of a lady. The case terminated fatally, which somewhat damped the ardour of the advocates of excision, and allowed reason and science to resume their influence."—p. 127.

He thinks it is only applicable to the front teeth, when other teeth are to be pivoted in them, instead of removing the crown by sawing or filing, which is exceedingly tedious and painful. He recommends steel mirrors highly polished, in preference to glass; they should be warmed before they are applied to the mouth, and then the breath, which is so troublesome on a glass mirror, will not affect the surface of the steel.

The next chapter on the use of the file is most excellent, and highly important; we must however refer our reader to the work itself, for a description of the operation, its proper application, difficulties, &c.

In the article on "stopping," we have the following remarks, which have been just, but we believe they are too severe for the present times, at least in London.

"There is no subject connected with dental surgery of more importance than that of stopping. There is none better deserving the attention of the student, nor is there any in which the dentist may more successfully display his professional skill. Were we to judge indeed from the almost innumerable cases of failure which occur, we might conclude that the uncertainty of the operation was so great as essentially to diminish its utility and importance. These cases, however, generally occur under the management of ignorant persons, who are alike incompetent to the mechanical and surgical part of the operation, and who are equally incapable of choosing a proper time for its performance.

"It would be both illiberal and unjust to cast a general imputation on the profession, and inasmuch as it is my own it would be foolish; but it must with pain be confessed that there is no profession which contains so many persons grossly ignorant of the principles of their art as are to be found among dentists. No other profession presents such a heterogeneous mixture of information and ignorance. It is no unusual thing for the work-

men of eminent dentists—men who are mere mechanics—to commence practice and challenge public confidence by using the names of their former employers, to whom they state themselves to have been assistants. Many of these men have been originally jewellers, watchmakers, or ivory turners; and in some instances even the coachmen and footmen of celebrated dentists have taken up the profession of their masters.

" It would be well if this motley group of professors confined their labours to the making of artificial teeth; but unfortunately this is a field too narrow for their ambition and their essay to perform operations. For there they of course possess neither scientific knowledge nor manual skill. The majority of the various species of operations, they have never even seen performed by their former employers; and if they at length acquire a degree of mechanical dexterity, it is obtained by experiments made at the expense of the unfortunate persons who become their patients. We need not feel surprised that such men should continually fail in performing operations which distinctly belong to the surgeon-dentist, a title which in truth belongs of right to very few, though in the present day it dignifies every one who chooses to assume it. It is true that mechanical skill is essential to a dentist; but this alone is by no means sufficient. It is the union of surgical with mechanical knowledge which constitutes the accomplished practitioner."—p. 153.

To stop a tooth with any chance of success, the mouth must be in a healthy state, and the extent of the disease must be ascertained to discover whether stopping is the proper remedy; and if so, whether the tooth can bear the mechanical power required by the operation, and whether a previous surgical treatment of the membrane lining the internal cavity of the diseased tooth is necessary. To ascertain this, introduce a pointed instrument into the carious part; if it be not tender, mechanical assistance is alone required. If however the tooth is tender, it may be concluded that the membrane is more or less exposed or injured by disease. This may be so slight that the careful eradication of every portion of the decayed part may be sufficient, and the tooth be then stopped. Mr. S. thinks that there is only one thing perfectly suitable, and that is gold: he considers that cements are only useful in retaining other remedies in the cavity; they are chiefly mastic, or substances analogous to plaster of Paris. The metallic are of two kinds; fusible and granulated metals; the latter too worthless to be named, the former may be employed as palliatives, as although the tooth must be finally removed, yet they will postpone the evil day much later. By the heat necessary to apply it, it will inflict more injury on the bony parietes, yet it will frequently preserve a tooth for some years. Our author next describes the instruments for, and the operation of stopping, passing over which we come to the treatment of that state of the tooth, where the tenderness is extreme.

When on removing the whole of the carious part the tenderness disappears, it is of course to be presumed that the lining membrane is not diseased. It is then to be stopped. The membrane may be acutely or chronically inflamed, or even in a state of ulceration. The inflammation is to be conquered by leeches, purgatives, &c. and the caries then removed, avoiding injuring the membrane; the tooth then is to be stopped. When the membrane is wounded the bleeding should be allowed to subside, and

and then the actual cautery is to be applied. When ulceration has occurred, the actual cautery must be made use of, to destroy its sensibility, before the caries is removed; our author describes very fully the operation of applying the cautery, to the due performance of which he attaches great importance. We perceive that Mr. S. condemns very strongly acid applications to whiten the teeth, they destroy the enamel and render the teeth honey combed:—He recommends the following tooth powder, after condemning those which are proposed for the purpose of whitening the teeth, as containing acids:—

℞ Pulv. cretœ præp ʒiij.
Saponis hispanici ʒj.
Pulv. rad. iris flor. ʒij.
Sodæ carbon. ʒj. Misce.

When the tartar has been carefully and completely removed, this powder used once or twice a day keeps the teeth free from it.

Ligatures are occasionally employed when the teeth become loose, or to retain false teeth in situ: Mr. Snell condemns their use, and thinks they are the most objectionable of all the means employed. He recommends a gold plate fixed at the back of the loose teeth, extending beyond them to one or two of the healthy, over which a gold cap should be prepared. An elastic gold band is then to be fitted along the anterior surface of the teeth, and attached at each end to each of the gold caps. But this is to be employed only when the patient refuses to have the disease eradicated by surgical means. The plan is feasible.

We consider this work to consist in reality of two parts, one absolutely useless, the other highly useful; the history not only might be dispensed with, but should be omitted, and we hope that in a future edition it will: we highly approve of the dental part of the work, and think that that part of the work will be of incalculable advantage; the plates are well executed, but why that carving around the handles? It does not look well. We have dealt rather hardly with the sketch, because it is misplaced, is not what it professes to be, and cannot but increase considerably the price, which is always a great evil, and may prevent many students purchasing the work, in whose hands we should like to see it. The practical observations are excellent throughout, and we wish it an extensive circulation.

Mr. Hunt's pamphlet is from its nature incapable of review, and we can only say of it, that its enunciations appear to be correct, and that as a popular treatise, it may be of use in awakening the public to the danger of allowing disease to proceed in the teeth, without attending to them.

XXI.—*A Synopsis of the Bones, Ligaments, Muscles, Blood-vessels, and Nerves of the Human Body.* By William Sands Cox, Surgeon to the Dispensary, and Lecturer on Anatomy and Surgery, at the School of Medicine in Birmingham. J. C. Barlow, Bennett's Hill, Birmingham; and Longman, Rees, Orme, Brown, and Green, London. Boards. Plates. pp. 310.

We have been very much pleased with this little work; it is neatly drawn up, and, notwithstanding several typographical errors, it is a work calculated to be of considerable benefit, more especially to students, for whom

it is especially written. It is dedicated to the students of the Birmingham School of Medicine, as a tribute of gratitude for the kindness and partiality they have shewn the author, on all occasions, as their teacher. We are glad to perceive that such a spirit is now abroad, and that reciprocal feelings of kindness and friendship are again to be met with between teachers and their pupils, and we are heartily desirous that such a spirit should spread. While on this subject, we may mention, that at two of our London schools, plans for the formation of such a spirit, have been followed up in a manner highly praiseworthy and creditable to both lecturers and pupils. At the Gerrard Street School, a medical society, called the "Western Medico-Chirurgical Debating Society," has been established, to consist of the lecturers at the West End, as many as will join, to be presidents alternately, of medical men, and of the students attending the classes at the West End, thus encouraging a greater intercourse between the students and their professors, and placing them on terms of friendship, to which otherwise they would not have attained.

XXII.—Dr. Ryan *on Artificial Parturition. (From Ryan's Manual of Midwifery.* With Plates: pp. 750. 1831.)

Article XV.—Dystocia, Difficult, Preternatural Labours, Mechanical, Manual, Artificial, &c.—(continued.)

Artificial Parturition.—Operative obstetricy may be divided into three parts.—1. The operations which preserve the integrity of the organs of the infant and mother; 2dly, the operations which require some solution of continuity of the organs of the fœtus; 3, operations which require some solution of continuity of the maternal organs. Such is the division of M. Duges, which is the best hitherto proposed. I have divided obstetric operations into two classes; 1, Chiragotocia, manual labour; 2, Organikotocia, instrumental labour.

Chiragotocia, manual extraction of the fœtus. Version—Turning.

There are two species of version, one in which the head, and the other in which the feet are extracted first.

Hippocrates advised version by the head in all presentations; and Celsus maintained that by the feet, after the infant was dead. Ætius and Paulus Eginetus followed the practice of Celsus when the fœtus was living, as also did Wolf, Franco, Parè, and Mauriceau. Guillemeau proposed to perform version by the feet when presentation of the head was accompanied with accidents. Version by the feet is decidedly preferable. The circumstances favourable to the performance of this operation are dilatation of the cervix uteri, without rupture of the amniotic sac, or bag of waters, or immediately after rupture has happened. The most favourable moment for the performance of version, is while the amniotic sac is entire, and the uterine orifice is dilatable. The best position in which to place the woman is on the side, according to British and American writers; but the back is preferred by the French, and the pelvis should rest on the edge or foot of the bed. The operator may be seated, or kneel upon one knee; some advise to take off his coat sleeve, others to turn up his cuffs; and in former times he wore a napkin as an apron. The last appendage is seldom em-

ployed at present. The sleeve of the coat should be taken off, as pulling it above the elbow causes so much pressure upon the arm, as to impede its free motion. The object to be effected is to pass the hand into the uterus, to seize the feet, and bring them through the pelvis. The operation is required in all transverse presentations, when any part of the infant, from the base of the skull to the breech, presents. Others advise us to push up the trunk with the palm of the hand, and thus effect a rotation of the fœtus, so that the feet may be brought over the uterine orifice. The former practice is in general preferred. The choice of the hand cannot be determined before the rupture of the membrane; and when the hand is introduced, and cannot be employed conveniently, it is to be withdrawn, and the other introduced.

When the feet, knees, thighs, and posterior region of the fœtus are at the left side of the strait, the left hand should be preferred; and when the positions are inverse, we use the right.

When the vertex presents in the occipito-pelvic position, the left hand must be used, and the right in the inverse position; in the antero-posterior positions of the head, either hand may be employed.

In shoulder presentations, the left requires the left hand, and the right hand must be employed when the right shoulder descends. The right hand is to be preferred when the sternum or back presents, the head being to the left, and in the opposite cases the left hand is to be chosen.

Some distinguished obstetricians recommend the introduction of the hand in a state of semi-pronation, so that the palm may be turned towards the abdomen and feet of the fœtus (Baudelocque, Lachapelle, Duges, Desormeaux, Major de Lausanne, &c.); but this rule is liable to exceptions; it is not perfectly applicable in presentations of the pelvis, back, or shoulder (Velpeau).

Others recommend the hand which is naturally turned to that side of the pelvis in which the feet are placed. Dr. Breen, of Dublin, prefers the left hand in all cases, in order that the right may most commodiously aid the the uterine action by pressing on the hypogastrium. The choice of the hand should be determined according to the former rule; and this selection may be facilitated by changing the position of the woman on her sides, abdomen, or back.

The hand being chosen, it is to be smeared with oleaginous or mucilaginous substance, both to render its introduction less painful, and to guard the practitioner against infection from contagious diseases. The back of the hand may be lubricated with lard, pomatum, butter, oil, mucilage, &c. as this part only can produce pain; and the palm ought to be dry, as it is to be applied to the surface of the infant, which is moist and slippery. This was the precept of Rœderer, and is generally followed. The forearm must be also lubricated.

Introduction of the Hand.—The fingers are to be brought together in the form of a cone, and gradually introduced into the vulva and along the axes of the inferior and superior straits. This must be accomplished very slowly in the absence of pain, if possible, for unless this caution is attended to, uterine action may be excited, and the operator rendered incapable of proceeding. The palm of the hand is to be passed along the shoulder, side, thighs, legs, and to the feet, and both feet brought down into the pelvis, though sometimes one foot only can be grasped. In bring-

ing down the foot or feet, the body of the fœtus undergoes an evolution, and hence the origin of the term turning.

In effecting this evolution or mutation, care must be taken to bring down the inferior extremities on the anterior surface of the fœtus, by seizing the knees or ancles in preference to the feet (Burton, Delpech, Breen).

Extraction.—When the feet, legs, and thighs are extracted through the vagina, they are to be enveloped in a napkin. The thighs and hips must be turned to the long diameter of the inferior strait or outlet; that is, in the ischio-pubic, or partly towards the pubis and coccyx, and must be elevated and depressed until the lower or posterior hip is first expelled; the hands are to be applied over the ilia or hips, but not on the abdomen, and the thumbs upon the loins. The lateral regions of the trunk should be in the long diameter of the outlet, or nearly so, until the infant has descended into the axillæ, when its abdomen should be turned towards the spine of the mother. As soon as the umbilicus has passed the genital fissure, the navel-string must be drawn down and liberated, or the pressure of the external genitals will speedily interrupt its circulation, and kill the infant.—If it cannot be loosened, it should be cut, and the labour finished (Hatin.) If uterine action commence, so much the better; and if it fail, it is to be induced by the ergot of rye.

The Extraction of the Arms next claims attention. The arms are on the sides of the head, and are situated differently in relation to the pelvis, according to the position of the infant. If the abdomen of the infant is turned to the spine of the mother, the occiput will be to the pubis, the forehead towards the sacrum, and the arms towards the iliac bones, and sometimes on the neck (Duges.) If, upon the other hand, the abdomen of the infant is turned to the thigh of the parent, then one arm will be towards the pubis, the other towards the sacrum. The practice in either position is to introduce the index and middle fingers over the shoulder and on the elbow joint, and then gradually extract the arm, supporting the perinæum at the same time. The first position, in which the limbs face the hips, is recommended in these countries, and renders the extraction much easier than in the last position, which is the ordinary one according to Duges. In it the lower arm should be extracted first, and to accomplish this, the body of the infant must be elevated towards the maternal abdomen.

The operation of extraction would be rendered exceedingly difficult, if the back of the infant was towards that of the mother; and it would also be difficult to extract the head in that position.

Disengagement of the Head.—When the forehead rests on the promontory of the sacrum, the long diameter of the head is to the short of the pelvis (see p. 15), and our object is to adapt the long diameter of the head and brim, or superior strait of the pelvis to each other, which in general can be easily accomplished by turning the forehead to either sacro-iliac symphisis. The head being thus brought into the cavity of the pelvis, we have next to imitate nature, by turning the face into the concavity of the sacrum. The body of the infant should now be raised towards the abdomen of the mother, by placing it on the left arm of the operator. Velpeau says it should be first depressed towards the perinæum, to facilitate the escape of the occiput. The index and middle fingers of the right hand are to be placed on the neck, and the index of the left in the mouth, to depress the chin, and after-

wards the finger on each side of the nose; when in general gentle traction in the axis of the outlet, during uterine action accomplishes delivery. If there be no uterine pain, we should excite it by friction on the abdomen, or by the ergot, or the pressure on the navel string will kill the infant.—The chin, face, forehead, vertex and occiput escape in succession, so that the back of the infant must be gradually elevated until placed on the abdomen of the mother. The following cautions are to be attended to in performing the operation of version. The hand should not be introduced during pain, as it would be benumbed and partially paralysed. According to British practice, it must be passed during the interval of pain (also Desormeaux and Velpeau). By observing this precaution, Middleton succeeded in version when all others had failed. He boasted of having had a secret, which he revealed in his old age; and this was a large opiate to tranquillize the uterine action. The sedative preparations of opium, as the sedative solution, morphine, &c. are to be preferred in this case, as the common tincture often excites instead of allaying uterine action, and sometimes fails to produce either effect. I have known a drachm of the sedative liquor of opium to be exhibited in a case of cholera, in the space of eight hours, with the effect of arresting the vomiting and diarhœa; and yet well-marked uterine action commenced, which was removed by a starch clyster only. The patient was under the care of my friend Mr. Holloway, of Leather-lane.—*(To be continued.)*

ORIGINAL COMMUNICATIONS.

I.—*On the use of the Spirit Air Bath in the Cure of Cholera.* By Charles Turner Thackrah, Esq. Surgeon, Leeds.

To the Editor of the London Medical and Surgical Journal.

Sir,—The spreading of the Asiatic cholera urges me to offer a few hasty remarks on the agency of the spirit-air-bath. This remedy I have employed for several years, and with marked success, in morbid discharges from the bowels, in cases of internal congestion, of fever with mucous membrane-irritation, and in almost all diseases in which a determination to the skin is indicated for cure or relief. I have also used it extensively as an anodyne and soporific. In many cases, where opium and other narcotics have failed or disagreed, the spirit-air-bath has been promptly and repeatedly successful.

This agency is not, I believe, noticed before, well deserves the attention of the profession.

The bath may be obtained without much cost or trouble. Several years ago, having heard of an apparatus, used in London, but not having the opportunity of seeing one, I contrived a simple machine, which is now extensively employed in this neighbourhood. It consists of a tube of thin sheet iron,* about the diameter of a man's arm, and with a curve or

* Tin I have not found to succeed as well as iron, for the tube itself. The joints in my machine are plated, as those of stove-pipes.

elbow in the middle. The upper end is open, and the lower closed; but at the side is an aperture for the admission of a spirit lamp. To the upper edge of this opening a sliding door is affixed, by which the current of air may be regulated. Round the upper part of the tube is a loose cylinder of sheet iron or tin, to prevent the scorching of the bed clothes. The mere tube and spirit-lamp are all that are *essential*, but the additions render the apparatus much more convenient, and do not greatly increase the expense. The whole may be had for 10*s*. 6*d*. *No cradle of basket work—no frame of any kind is required to support the bed clothes.* To raise the upper sheet or blanket from the lower, we use only a short stick, or a common kitchen rolling pin, and even this is scarcely necessary. The upper end of the tube is put in the bed, with its mouth near the stick or pin, and the lower is placed on a chair. A spirit-lamp, with two wicks, is lit, and introduced into the tube. The apparatus may be applied either at the foot or side of the bed, as we wish to determine blood at the lower extremities, or produce a quick and general effect on the surface. The degree of heat, or rather the quantity of heated air, is promptly regulated by depressing the slide. A thermometer held close to the mouth of the tube indicates nearly 200°; yet the patient feels no annoyance, unless he touch, or almost touch, the iron itself. A protection from this little accident is afforded by two slips of metal projections from the cylinder or envelope, and crossing each other over the end of the tube. I wish I could have described this very simple apparatus in fewer words.

After the bath has been applied for a few minutes, a pleasant glow is felt on the surface, partially at first, but soon extending over the whole body, and in from half an hour to an hour, there is an universal and warm perspiration. Profuse sweating, with some oppression of the chest, and throbbing in the head, result from the rapid and long-continued evolution of the spirituous vapour.

I am far from considering the remedy as a mere hot air bath. The application to the skin, and the inhalation of the vapour of alcohol, are principal points in its agency, and those to which I should especially refer its soporific effects. To procure this most decidedly, the bath is administered for a longer time, and with a smaller quantity of heated air, as with one wick only of the lamp lighted, or the whole much lowered—and bed-time is of course generally preferred. For perspiration or sweating, on the contrary, seven or eight, a. m. is the best period, a full current of heated air admitted, and the effects expected in half an hour or an hour.

From these general remarks on the application and agency of the spirit-air-bath, I turn to the statements of the Indian practitioners relative to Asiatic or spasmodic cholera. From these, it appears that the greatest danger results from the congestion of the heart, the large blood vessels, and the lungs. For the removal of such congestion, I conceive no remedy, except bleeding, so well calculated as the spirit-air-bath. Rapidly determining blood to the surface, it cannot fail to relieve the gorged state of the internal organs. Its effects in the secretions are also important—but I must not here enlarge. Allow me, without discussing the alliance of the worst forms of English cholera, with the dreaded disease of India, briefly to relate a case of recent occurrence:—

A tenterer of stuffs, aged thirty, of a temperate habit, was awoke out of sleep at two o'clock in the morning by sickness, and to this succeeded

vomiting and purging of a pale fluid, cramp in the legs, and dizziness. The prostration of strength was sudden, and so great that he could not raise himself from the bed, even for the evacuation of the bowels. My assistant saw him three hours after the attack, and found the countenance sunk, the extremities cold, pulse scarcely perceptible at the wrist, and faintly beating 112 at the carotids. The patient vomited a yellowish matter, and afterwards a fluid resembling the washings of meat. He was insensible to the presence of his attendants. I visited him about seven o'clock. At this period there were the same characters of countenance, and of circulation. Nose and ears contracted; eyes sunk; *tongue cold as a stone*: voice a whisper; vomiting very frequent, but no evacuation from the bowels: continual jactitation; stimulants had been given by my assistant, from the first, and the spirit-air-bath was applied soon after six o'clock. At nine, a. m. the patient was considerably relieved; countenance improved; consciousness restored; pulse stronger, and extremities warm; perspiration free, but thirst was urgent, and vomiting frequent and copious. This continued in such a degree, that at twelve o'clock, though he had not drunk more than half a gallon, he was supposed by his relatives to have ejected between five, and that hour, about two gallons.

Though I think this estimate too high, I do not remember to have seen a case in which the vomiting was so great. To settle the stomach, lemon juice was given, and soon with decided effect. After this period, each hour exhibited an improvement. His only complaint was slight cramp in the right foot. Food was taken and retained. He had, however, a restless night, though gr. ij. extract of opium had been given at bed time; but there was no return of urgent symptoms, and he soon recovered.

Although stimulating medicines were freely employed in this case, no medical observer would have hesitated in ascribing the cure chiefly to the agency of the spirit-air-bath. I should add, that the application was continued from two to three hours.

I am, Sir, your obedient servant,

Leeds, Nov. 9, 1831. C. Turner Thackrah.

[We are much indebted to our talented correspondent for the above communication, which, like all his contributions to science, is of great practical value. The spirit-air-bath which he recommends, must be extremely valuable in the congestive forms of cholera, typhus, in the cold stage of ague, and in the great variety of cases in which there is a determination of blood from the surface of the body to the internal parts. It is highly valued on the continent, and in Russia it forms the principal and daily luxury of the people. In all cases of extreme congestion, when the surface of the body is cold, the pulse scarcely perceptible, the blood no longer flows through the capillaries of the external surface, there is probably no remedy so powerful as the spirit vapour, which determines the blood to the skin, removes the accumulation about the heart, lungs, and internal organs, and, in a word, restores the circulation to its healthy condition. The efficacy of this remedy deserves much attention in those puerperal cases, in which there is a profound and fatal collapse after uterine hæmorrhage, in cases of apparent death by narcotic poisons, by cold, asphyxia from irrespirable gases, suspension, strangulation, submersion, and suffocation, and perhaps we might find this remedy of much value in the inflammations of head, chest, and abdomen.—Ed.]

II.—*On the Use of the Air Bath in Cholera.* By Mr. La Beaume.

Mr. La Beaume has invented an apparatus, termed "The Portable Sudatory," which has been employed under the direction of eminent practitioners with unexpected success. By means of this machine, the body may be enveloped in atmospheric air, heated to a degree of temperature which never fails to produce perspiration, which may be regulated by increasing or diminishing the temperature of the air. It is more certain in its effects, and more convenient to use than the warm bath. By occasioning a determination of blood to the surface of the body—producing an evaporating surface—and by equalizing the circulation, it has been employed in cases of internal congestion, and a variety of diseases attended with increased heat and dryness of skin, with wonderful advantage. The importance of this invention must appear obvious to every practitioner who has met with many cases of rheumatism and gout, and witnessed the bad effects of the stomach and general health, of antimonial preparations, ipecacuanha, and opium, administered to excite perspiration; and of their frequent failure in producing the desired effect. In many a case of typhus fever, have these remedies, given to excite perspiration, proved highly injurious, by exciting nausea, and reducing the vital powers. We have met with cases of typhus fever, and irritative fever of infants, in which antimonial wine and ipecacuanha, administered in nauseating doses, proved very injurious. In the Sudatory we have a certain remedy for exciting perspiration without disordering the stomach by nauseating medicine. In typhus fever, gout, chronic rheumatism, diabetes, and all cases of local congestions or determinations of blood to any particular part of the body, we have no hesitation in saying, that the Sudatory is a most valuable invention.

Mr. La Baume has favoured us with an inspection of his newly invented spirit vapour bath. It consists of three pieces of wicker-work, which slide over each other, and when drawn out form a whole of about five feet in length. One extremity is closed by a thin board, in the centre of which is an aperture for the admission of a tin tube, and the other end of which is an opening, in which a small saucepan, containing the spirit, is placed, after being ignited. The wicker work is applied over the body or limbs of the patient, and this is covered with a blanket. In this way the vapour of spirit can be freely applied to the surface of the body.

Thus we have a powerful means of determining the blood to the surface of the body, when there is congestion of the internal organs and large blood-vessels; and can therefore possess a powerful remedy in the congestive cholera, typhus, and in the cold stage of an intermittent fever. We are happy to learn that the discverer is about to give a full description of his invention, while we can assure our readers, that cases of the most violent English cholera, which were considered beyond hope, by the late Dr. Armstrong and others, were cured by this bath. Should cholera appear, the spirit vapour Sudatory will be of infinite importance. It was exhibited at the Westminster Medical Society, on the 26th Nov. and highly approved of by the numerous meeting then present.

III.—*Cases of Puerperal Fever, or Metro-Peritonitis, successfully treated.* By Dr. Ryan.

Mrs. B. æt. 25, of a delicate constitution, was delivered of twins on the 5th September last, since which time to the 14th, she has had severe pain in the hypogastric region.

14th. 5, p. m.—She complains of violent continued pain in the uterus and lower part of the abdomen, greatly increased by pressure, which was preceded by rigor. Pulse 120, sharp, skin hot, severe pain in the occiput, carelessness about her infants, countenance anxious and distressed, tongue white and moist, secretion of milk very much diminished, lochia suppressed.

Mr. Appleton, of Holborn Hill, had seen her this morning, and having considered the case one of hysteritis, bled her from the arm, exhibited a dose of castor oil, which produced a natural dejection. She had a draught of hyosciamus and ext. papav. and twenty-four leeches to the hypogastrium. As these remedies, however, afforded no relief, he requested my attendance. It was uncertain how long she had been labouring under the symptoms narrated above, as she was attended by a midwife up to this date. It was perfectly obvious that she laboured under puerperal fever, or more properly metro-peritonitis. The symptoms were excessively violent. She was ordered the following remedies:—

Habeat statim haustum.
Ex olei ricini, ʒvj.
—— terebinth. ʒiv. et post horam.
Pulveres sequentes.
℞ Hydrar. submur. ϑij.
Pulveris camphoræ, ϑj.
Acetatis morphiæ, gr. ss.
Pulv. aromat. ϑss.
In chartulas iiij. divide, sumat ij. et horis sex alteram nisi alvus prius soluta sit.
Foveatur hypogastrium oleo tereb. calido per quartam horæ partem.

The objects in ordering these remedies were to produce counter-irritation in the mucous intestinal membrane by the draught, to mercurialize as soon as possible, which affords the only chance of success in this disease, according to the French obstetricians. The effects of large doses of calomel are well known, and are accelerated by the camphor, according to Dr. Musgrave (*Edin. Med. and Surg. Journ.* 1827, v. 28); while the morphia was given to prevent the action of the mercury on the bowels, and also to allay the severe pain. This medicine was contra-indicated, as hyosciamus was supposed to have increased the head-ache; but this might have been imaginary, or the result of idiosyncrasy. The beneficial effects of large opiates in abdominal and pelvic inflammations, so amply attested by Mr. Bates, in a late work, and formerly by the late Dr. Armstrong, induced me to employ it, and more especially as personal experience, in similar cases to that under notice, had convinced me of its great value. The terebinthinate fomentation was employed to produce sudden irritation, as too much time would be lost in waiting for the action of a blister.

Ample personal observation has proved to me the great value of this remedy. Six o'clock, p. m. was called suddenly, as the fomentation had produced great irritation, which the patient compared to a burn. She was screaming violently in consequence of the pain in the surface of the abdomen. She felt little pain in the uterus; there was an extensive erythema of the abdomen; had taken two powders and the draught. A napkin, dipped in cold water, was applied over the abdominal surface, and kept moist; which, after an expiration of a quarter of an hour, afforded considerable relief. The abdomen was wiped dry with a soft napkin, and flour applied; she then took another powder.

9, p. m,—External and internal pains greatly reduced; feels much easier; abdomen considerably tumified; no fluctuation, and less pain on pressure. Is inclined to sleep; has taken three-eighths gr. of morphia since 5, p. m. and also ʒss. of calomel, and 15 grains of camphor. Bowels opened once; dejection of a brown colour. To repeat the flour to the abdomen.

15th, 8, a. m.—Feels much better; no pain in the surface of the abdomen; that of the uterus much diminished; pressure produces less suffering; abdomen less tumid; surface wrinkled. Slept well; tongue cleaner; less head-ache; milk suppressed; pulse fuller and softer, 120; has not evacuated the bladder since last evening; no mercurialization.

Let her have the fourth powder, simple fomentation to the hypogastrium and catheterism, if necessary. Let ʒij. of the ung. hyd. fort. be rubbed on the inside of each lower extremity every hour.

9, a. m.—Was informed that there was an unpleasant taste in the mouth, and that the bladder was evacuated. Has taken the powder.

9, p. m.—Feels almost free from pain; bears considerable pressure on the hypogastrium; countenance greatly improved; tongue cleaner; two dejections; urine passed freely; skin moist: has passed a good day, and thinks herself nearly recovered. There is no mercurial odour, or tenderness of the gums, but the disagreeable flavour continues. Pulse full and sharp, 144; has been very comfortable since four o'clock.

℞ Syrupi aurant. ʒj.
Acetatis morphiæ, gr. ¼.
Liq. ammon. acetat. ʒij.
ɱ ft. Haustus statim sumendus.

The morphia was repeated to procure a good night's rest, and from its former good effects. Let her have farinaceous food, such as arrow-root, sago, tapioca, gruel prepared with milk—no other medicine. From the improved appearance of the countenance, and all sensations, she is much better.

16th.—Has not slept, though was very tranquil; bowels opened twice, but colour of the dejection not ascertained; mouth and gums sore; no ptyalism; high tenderness of the hypogastrium; copious purulent discharge from the vagina; tongue clean on the edges; pulse 104, softer; wishes for toast, gruel, &c.; cough troublesome.

Habeat ol. ricini, ʒj.
℞ Mucilag. acaciæ, ʒij.
Aq. menth. pip. ʒiv.
Syrupi scillæ, ʒj.
Morphiæ acet, gr. ¼.
ɱ sit mistura. Dosis coch. med. urg. tussi.

From this time the patient convalesced. I have succeeded in saving several cases of well marked metro-peritonitis by this plan of treatment. Mr. Kenny, of the Strand, will recollect a case in point, which we saw at Battle Bridge.

IV.—*Letter from* Dr. Epps *to a Medical Journal.*

To the Editor of the London Medical and Surgical Journal.

Sir,—Having seen in the wrapper of the *Lancet* some hints, respecting the want of any necessity on the part of the *London Medical and Physical Journal*, to change the name of the said Journal, I immediately perceived that the hints referred to had relation to the *London Medical and Surgical Journal*, formerly the *Medical Repository*.

Having been one of the three who edited the latter Journal under its changed name, I beg to state a fact which will shew that if any one has been injured by the *change of name*, the publisher of the *London Medical and Surgical*, now your Journal, Sir, has been the sufferer. When the name was changed, the editors recommended several of their friends to take in the Journal—and several did, in the town and the country. Frequently, however, we had communications stating that there was a mistake, the *Medical and Physical* being sent instead of the one wanted, the *Medical and Surgical*. This mistake was likely, the *Medical and Physical* being the one that had been longest in circulation.

In addition, I beg to add, that so far were the editors, who changed the name of the *Medical Repository* to that of the *London Medical and Surgical Journal*, from endeavouring to bear themselves along on the strength (!!) of the *Medical and Physical Journal*—auxiliary (?) name, that they never thought of that Journal, except as a proof that the supply of food therein contained was not sufficient to satisfy medical men, on account of the advanced state of medical and surgical science. The editors of the changed-name Journal, selected the name "*The London Medical and Surgical Journal*," because they thought the adjectives, "*Medical*" and "*Surgical*" expresssed most efficiently the contents of a Journal circulated principally among the members of the medical profession. They felt also that the adjective "*Physical*," applied to the Journal so entitled, was most absurd, because who will pretend to assert that the contents of the said Journal refer to or contain any information on, the various branches of scientific knowledge, generally known under the name of "Physics."

It may be imagined that some presumption, existed in giving to the Journal the metropolitan title of "*The London Medical and Surgical Journal.*" But it should be remembered that the editors determined, so far as was in their power, to render the Journal worthy of the name. In effecting this object, the editors were much impeded by the publishers, who started many objections to the plans. One fact may be mentioned, the *wood-cuts* contained in the Essay on the Development of the Nervous System, cost, I think, *nine* guineas, which one of the editors paid.

I have written this, Sir, not with the view of giving my sanction to all the views which may *now* be published in the Journal, but with the view of shewing that the change of name has been rather a benefit than an injury to the parties complaining.

John Epps, M. D.

V.—Ryan's Midwifery.

To the Editor of the London Medical and Surgical Journal.

Sir,—At a moment when bad men conspire to dispossess you of that public esteem which you have so honourably won, it cannot but be important to you to know what good men think about you.

By a strange coincidence, after having perused the pretended "review" of your valuable work on Jurisprudence in the *Lancet*, on Tuesday evening, I proceeded to Dr. Conquest's lecture, in the theatre of St. Bartholomew's Hospital. Judge of the gratification which I felt, when I heard from the lips of that amiable and eminent Professor, in the course of his lecture, the following words, which I took down at the moment:—

"Gentlemen, with respect to the process of impregnation, I am inclined to say but little upon it at the present moment, since, however interesting the subject may be in a physiological point of view, it can scarcely be said to have any necessary connection with these practical details, to which I consider it my duty exclusively to attend. But those who are desirous of gratifying a natural and praiseworthy curiosity on this point, will do well to consult the writings of Blumenbach, but particularly Ryan's very useful work on Midwifery."

Allow me Sir, to congratulate you on the singular good fortune for which you have been destined. To be praised by such a man as Conquest, and to be abused by the *Lancet*—can eulogy go further?

Sir, your obedient servant,
A Pupil of St. Bartholomew's Hospital.

Nov. 2, 1831.

Sir,—I perceive by the repeated attacks made on you in the *Lancet*, you have, by your impartiality and independence as an author and an editor, disobliged the partizans of that publication. There was a time, Sir, when such attacks would have been injurious, but that period has gone by. The unfairness of allowing several attacks against you by anonymous scribblers, reflects no great credit on the candour and boasted impartiality of the *Lancet*, and can do you no injury.

I am, Sir, your obedient servant,
A Borough Student.

Nov. 10, 1831.

BIBLIOGRAPHY.

MEDICINE.

1. *On a New Practice in Acute and Chronic Rheumatism.* By J. K. Mitchell, M. D. one of the attending Physicians of the Pennsylvania Hospital.—In the autumn of 1827, a patient affected with caries of the spine, was suddenly attacked with all the usual symptoms of acute rheumatism of the lower extremities. One ankle, and the knee of the opposite leg tumefied, red, hot, and painful, afforded as fair a specimen of that disease in its acute stage as is usually met with. The usual treatment by leeches, purgatives, and cooling diaphoretics, with evaporating lotions, had the effect of transferring the symptoms to the other ankle and knee, and finally to the hip. Disappointed in the treatment, I began to suspect that the cause of the irritation might lie in the affected spine. The difficulty of cure, the transfer of irritation from one part of the lower extremities to another, without any sensible diminution of disease, and the fact of the existence of caries in the lumbar vertebræ, which lie near the origin of the nerves of the lower extremities, rendered probably the opinion, that in the spinal marrow lay the cause of this apparently indomitable and migratory inflammation. Under this impression, I caused leeches to be applied to the lumbar curve, and followed them by a blister, placed on the same spot. Relief promptly followed these remedies, and the pain ceasing to be felt in the limbs, was perceived only in the immediate vicinity of the spinal curve. After the blistered surface covered its cuticle, a few leeches placed over the diseased spine removed the pain, and left the patient in the usual state of indifferent health attendant on such forms of spinal disease.

Striking as were the benefits of the applications made to the spine in a case of apparent inflammatory rheumatism, they did not lead my mind at the time, to the general conclusions which, viewing the case as I now do, they ought to have suggested.

In the beginning of the ensuing winter, another case of a similar kind presented itself. A little female patient, having curvature of the cervical vertebræ, was attacked in the night with severe pain in the wrist, attended with redness, tumefaction, and heat. As on the appearance of these symptoms, the pain in the neck, to which she was accustomed, subsided, I easily persuaded myself of the spinal origin of this inflammation, and accordingly applied leeches to the cervical spine, with the effect of procuring a prompt solution of the disease of the wrist.

This case led me very naturally to the reflection that, perhaps other cases of rheumatism might have an origination in the medulla spinalis, and depend on an irritation of that important organ. In the following spring an opportunity of testing by practice the truth of this opinion presented itself. William Curran, a respectable livery stable keeper in Marshall's Court, had been for upwards of two years afflicted with rheumatism of the lower extremities, which gradually deprived him of the use of his limbs, and finally confined him to his chamber. Regular medical aid, and many

empirical remedies had been procured, without an abatement of the pain, which became at length intolerable.

On my first visit I found him in his room, in a paroxysm of pain. His legs were swollen from knee to ankle, and the enlargement of the periosteum and integuments, gave to the anterior face of the tibia an unnatural prominence. In that place the pain and tenderness on pressure, were particularly developed. He was also suffering severely from pain in the scalp, which had existed for a short time previously, and was at length almost insupportable. Along with these symptoms appeared the usual febrile action with its concomitants.

Notwithstanding the significant hints given by the spine cases referred to, I treated this case for a time in the usual manner—depleted freely, purged actively, blistered the head, and having caused an abatement of fever, administered corrosive sublimate and decoction of sarsaparilla. Defeated in all my efforts, I at length suggested to my patient the possibility that his disease was so unmanageable because we had not applied our remedies to the true seat of disease, and that by addressing our measures to the spine, success might yet be found. According, on the 16th of January, 1828, nine days after my first visit, I had him cupped at the neck, and as he could not bear any more direct depletion, inserted a large seton over the umbar spinal region. The cupping, followed by blisters to the back of the neck, relieved his head, and as soon as the seton began to suppurate freely, his legs became more comfortable. From the 25th, nine days after the insertion of the seton, I visited him but seldom, although I had seen him once or twice a week until that period. Indeed, I paid him but seven visits after the 25th. The last was on the 29th of March. Soon afterwards resumed his usual pursuits, and about the beginning of June the seton was removed. Since that time he has not had a return of his complaint, and is at the date of this paper, in the full and vigorous exercise of all his physical faculties.

I could scarcely doubt as to the cause of the cure in this case, because the treatment applied to the spine was that alone which had not already been fully and fairly tried, either by me or those who had preceded me. Indeed, the last applications were made with some hope of success, and the grounds of that hope were expressed to the patient, who was fully persuaded that the spinal treatment was the chief, if not the sole agent of restoration

No other well-marked case of rheumatism presented itself in my private circle of practice, until in the winter of 1830. Mr. Teale's work on neuralgic disease reached this country, and began to attract towards the final marrow a greater share of medical attention. Although in his essay, I found nothing *directly* calculated to sustain me in the opinion, I felt disposed to adopt concerning the spinal origin of rheumatism. I rose from its perusal with increased confidence in that opinion, and resolved to experimentally examine its truth.—*Amer. Journ. of Med Sci. May*, 1831.

MEDICAL JURISPRUDENCE.

2. *Medico-legal Examination of two Cases of sudden Death from Wounds.* By Alexander Watson, Esq. Fellow of the Royal College of

Surgeons, Edinburgh, &c.—The following cases are interesting in medico-legal point of view. They illustrate what is necessary in the investigation of such cases; and they also show the importance of attention to the minutiæ of medical evidence.

It is necessary to premise, that in Scotland, when any death happens under suspicious circumstances, upon information being given to the Sheriff of the county, the case is immediately investigated. And on medical gentlemen being appointed to inspect the body of the deceased, they are simply told, "there is the body of a person suspected of having died a violent death; report upon the cause of death; and if by violence, state in what manner, and by what means." The task, therefore, is often difficult, and requires the utmost attention even to very minute particulars; for circumstances apparently trifling in the medical evidence, often turn out to be of great importance in elucidating and connecting the moral evidence either of the innocence or guilt of the accused.

The first case is that of Ann Rennie or Pollock, who resided at Gifford Park, at the south side of Edinburgh, whose husband was tried in the High Court of Justiciary, 13th February, 1826, and was convicted of having murdered her, but contrived to strangle himself in jail previous to the day of his execution.

The body of this unfortunate woman was inspected by Mr. Newbigging and myself on the 13th November, 1825. We were informed of her having died suddenly. She seemed to be about fifty years of age, of stout form, of very low rank, having lived in a small, dirty, ill-furnished house, having only some shavings and straw upon the floor, covered with a rug, for a bed. The clothes in contact with the private parts were stained with blood. No appearance of injury could be perceived on any part of the body externally, but upon separating the *labia pudendi*, a wound about an inch and a quarter in length was observed upon the inner side of the right nympha. This wound was evidently recent, its surface being covered with coagulated blood. Externally, it consisted of a remarkably clean, straight incision, parallel with the nympha. Internally, the finger could be introduced in four different directions, to the depth of about $2\frac{1}{4}$ inches in each; upwards and backwards towards the division of the iliac artery; backwards towards the tuberosity of the ischium; laterally towards the hip-joint, and upwards towards the *mons veneris*. In each direction the wound was of nearly the same diameter, which readily admitted the finger, and had distinctly an obtuse termination. By injecting warm water into the large vessels we found that none of them had been wounded, and the penetrating instrument seemed to have been forced only through the cellular tissue. The weapon had passed up to the peritoneum at the right side of the pelvis, under which there was a considerable effusion of blood, but had not penetrated it. Another very small, but also very clean, external incision was observed at the side of that above described.

The cavities of the cranium, thorax, and abdomen, were each examined, and their contents found to be quite healthy and natural. The hæmorrhage, therefore, which had taken place from the wound was the only cause which we could assign for her death; and this, we knew from the nature and structure (erectile spongy tissue) of the parts cut, must have been profuse.

Respecting the probable instrument with which this wound had been inflicted, it was obvious from the cleanness of the cut that the external part of the incision had been made with a remarkably sharp-edged instrument; and from the very obtuse termination of each of the internal wounds, their small depth, and the absence of any injury of the important neighbouring parts, it was highly probable that, though the instrument that inflicted the wound must have had a very sharp edge, it had a round or blunt point. Now, the only very sharp-edged instrument which I conceived such persons were likely to have possessed was a *razor*. This instrument has also a blunt point, and could not be inserted to a greater depth than two or three inches, on account of the fingers holding its blade in so using it. I also conceived that, after the external part was cut, any sort of knife could have been thrust into the parts, so as to have formed the wound above described. This I verified by experiment with a razor upon the dead body.

It was proved by evidence, at the trial of the husband for this horrid crime, that two old rusty table-knives had been found in the house, as also two *razors*. One of these razors had its blade and handle covered with blood, and was found concealed in a piece of green cloth. These particulars rendered it almost certain that this had been the weapon used; so that the nature of the wound previously pointed out the probable instrument with much accuracy; though the circumstance of such having been found in the house was then quite unknown to the medical witnesses.

In this case two other points occurred for the consideration of the medical jurist. Could she have inflicted this wound herself? Several circumstances which appeared in evidence rendered this impossible; 1st, she was in a state of intoxication at the time; 2d, her husband was in the house along with her,—saw her state,—went for a surgeon (Mr. George White), and never alleged this at the time; 3d, no lethal weapon was found near her; 4th, the *pudendum* was a very extraordinary place for a suicide to inflict a wound.

It was also alleged and pled for the prisoner, that she had fallen upon a piece of broken earthenware and cut herself. Could this wound, then, have been occasioned by such an accident? It was impossible to conceive that any broken piece of earthenware in common use could, by the woman accidentally sitting down upon it, have inflicted such a clean external incision, and produce the wound in the different directions above-described. Such a portion of earthenware, if sharp-pointed and advantageously placed, might certainly have produced a pretty severe wound of the part; but it would have been a *lacerated* wound, not of any great depth, and not larger internally than externally, and in no part greater than the size of the wounding body; and it was very improbable that it would have had different directions internally.

The second case, which is very similar to that just detailed, is that of Mrs. Bridget Calderhead, who resided at Dunbar Street, near the Canal Basin, and whose sudden death was occasioned by a wound received on the morning of the 1st January, 1831. Mr. Mitchelhill, surgeon, had been called in to see this unfortunate woman soon after the accident, but found her dead when he arrived. At the request of the sheriff, I accom-

panied Mr. Mitchelhill in the examination of the body, which we performed on the afternoon of the 1st January, in the Police-office, to which place her body had been carried.

We found the body of this woman dressed in her ordinary day-clothes, and covered with a blanket. We removed her clothes very carefully. They consisted chiefly of a printed cotton gown, two flannel petticoats, (one blue, the other white) and a shift. These seemed almost quite new, and had no wound or tear in any of them, with the exception of the blue petticoat, in which there were some small worn holes. The lower part of all these garments had been drenched with blood, with which they were still wet.

We then discovered that the hæmorrhage had proceeded from a wound upon the left *labium pudendi.* Externally, this wound consisted of a very clean incision, about three-quarters of an inch in length, having a straight direction parallel with the margin of the *labium.* When the finger was introduced into this wound, it entered into a bloody cavity sufficient to have contained a small hen's egg; and from this cavity the finger passed to a greater depth in three different directions,—viz. upwards towards the under part of the *symphysis pubis,*—downwards towards the *perineum,* and backwards by the side of the vagina and rectum. Its greatest depth at any of these parts was between two and three inches. When the internal part of the wound was laid open, the divided orifices of several pretty large arteries and veins were seen, and particularly the divided extremities of the large artery going to the clitoris. The orifices of these vessels, as well as the internal surface of the wound, had the appearance of having been very clean cut by a sharp instrument. I removed the wounded parts, and preserved them in spirits.

On the back part of the head there was the mark of a contusion, which had occasioned the extravasation of a small quantity of blood upon the anterior surface of the brain. The cavities of the chest and abdomen were quite natural.

There could be no difficulty in this case in ascribing death to the excessive hæmorrhage occasioned by the wound at the *labium pudendi.* We therefore gave this as our opinion as to the cause of death. The other question then arose, What was the probable instrument and manner in which the wound had been inflicted? From the straight, very clean incision externally, in length corresponding exactly to the breadth of many of the knives most in common use, as well as from the extent, cleanness of the wound internally, and its different directions, it appeared pretty evident, and most probable, that it had been inflicted by some kind of knife; and, indeed, it obviously could only have been produced by several thrusts of a knife in different directions. Some pieces of a broken wine-glass, however, had been found adjoining to some of the blood the woman had lost at the foot of the stair where she had received the wound. It therefore became a question of importance, whether or not the wound could have been occasioned by her having fallen upon these broken pieces of glass?

1. Let us consider, Is it *physically possible* that any of the portions of the broken wine-glass, or of any wine-glass in common use, could have made such a wound? A portion of glass capable of forming such a wound must have been between two and three inches long, about three-fourths of

an inch broad, having a sharp cutting edge, and some degree of point; and it must also have possessed sufficient strength to permit its having been moved about and thrust in different directions, without breaking. To form such a piece out of a common wine-glass, is evidently beyond the utmost ingenuity of man; far less, then, could such a portion have been formed by accidental fracture.

The broken portion of glass found, consisted of the stalk of a common wine-glass without the foot, having at its upper part the bottom of the cup of the glass, of about an inch in diameter, attached to it transversely. Nearly the whole of the glass was broken off, leaving only a few fragments of the sides projecting upwards from the bottom which remained. The part of the stalk of the glass which remained was about an inch or an inch and a-half in length, and its lower part had been clean broken across, leaving no sharp point. It was, therefore, quite obvious that this fragment of glass was completely incapable of forming the wound in question; for, the length, form, and sharpness which were requisite, were completely wanting; and any wound which could have been occasioned by it, must have been quite different in its character. A wound from such a piece of broken glass would have been a *larcerated wound*, not a *clean incision*, not larger internally than externally, and could not have had several different directions internally. The upper end of the glass would have made several small lacerated wounds, while the lower end could not have made any wound at all. I therefore came to the conclusion, that it was physically impossible for the wound in question to have been produced by any portion of a broken wine-glass such as that found.

2. But supposing that it had been physically possible for such a wound to have been occasioned by a fragment of broken glass, was it in any degree *probable* for it so to have happened in this particular case? In order to have accomplished this, the requisite portion of glass must have been standing ready to receive the fall of the wounded part upon it; the person must have either sat down, or fallen forward upon it, and her clothes, at the time, must have been completely out of the way, as there were none of them wounded; and moreover, the penetrating piece of glass must have thrust itself in different directions, making clean incisions internally as well as externally. So that a concurrence of circumstances highly improbable, nay, almost miraculous, would have been required, in order that the wound in question could have been occasioned accidentally.

From a careful consideration of the foregoing circumstances, I came to the conclusion, that it was neither physically nor morally possible that the wound received by this unfortunate woman, could have been caused accidentally by her having fallen on the portion of wine glass alluded to; and such I believe, were also the opinions of Mr. Mitchelhill and of Dr. Christison, who gave his opinion on the case at the trial. But it could not be denied *to be within the verge of possibility*, that the wound might have been occasioned by her having fallen upon some other piece of glass or sharp body, and therefore we each, individually, thought proper in giving our evidence at the trial to qualify our opinion upon this point, by saying that we considereded it to be *scarcely possible and very improbable*.

I was also asked at the trial, whether or not this wound could have been produced by her having fallen accidentally on a pair of scissors; to wnich

I stated, that I did not think it could by any of the scissors in common use. For, it is obvious that, to have produced such a wound, the blade or blades of the scissors when together, must have had the sharpness of a knife, as also the requisite length and breadth; besides being in an erect position when fallen upon, and afterwards moved in different directions to form the internal wounds,—a combination of circumstances which, as already mentioned respecting the glass, I conceived to be nearly impossible. I may add, that neither scissors nor pockets were found about the person or clothes of the woman.

By the evidence adduced at the trial of two young men, brothers, of the name of Duncan, for the murder of this woman, it was obvious she had received a wound at the first floor of a common stair, almost immediately after which, she was precipitated headlong to the bottom of the stair. When she was there found, upon being set up, blood was observed trickling down her legs. Much stress was laid by the counsel for the pannels, upon there being no blood seen upon the stair. But when it is recollected that she had on her two thick flannel petticoats, a gown and a shift, which were each drenched with blood, it is obvious that the clothes, absorbing the blood when it first flowed, and her rapid progress head forward down the stair, easily explain this circumstance.

The above are two cases very similar in their principal features, and appear to me to be highly interesting in a medico-legal point of view. From the details here given it is obviously necessary, in such cases, for the medical jurist to form an accurate opinion whether the death had been occasioned by violence or by natural causes; and, if by violence, to say whether most probably by accident, suicide, or murder. These form considerations of the highest importance to medical men, as upon their evidence the lives of others frequently depend.

In the above cases, it is also obvious, how very accurately the nature of the nature of the wound may point out the probable weapon of its infliction; and how very important this circumstance is, in establishing the criminal design with which such wounds may have been inflicted.

In both of the above cases, I removed and preserved the wounded parts, by cutting out along with them a considerable portion of the soft parts; at the same time, carefully preserving entire the external wounds. This I consider to be a matter of considerable importance in all such cases; 1*st*, That the wounded parts may afterwards be examined more minutely; 2*dly*, That any lethal weapon or other sharp body afterwards found and supposed to have occasioned the wound may be compared with it; and, 3*dly*, That the nature of the wound may be seen by any other medical jurist who may afterwards be consulted in the case, either by the Crown or in behalf of the accused.

Before concluding, I shall make a few remarks on wounds inflicted in the situation of the cases just detailed. In both the above cases this part of the body seems to have been selected by the murderers to effect their design secretly. For in both, but particularly in the first, the wound was concealed to a superficial observer. And they may have had an idea, from the frequency of "flooding" in females, that their deaths might have been supposed to have happened either from this cause, or by accidentally injuring themselves by sitting down upon some sharp body. For, it is a

curious fact, that in both cases the probable murderers were the first to go for medical aid to the deceased.

Both cases also shew, that wounds of the external parts of generation in the female may prove fatal by excessive hemorrhage; the peculiar structure of the parts, consisting of erectile spongy tissue, which is very vascular, giving rise to a continued, steady, though not very rapid, flow of blood.

In both cases the defence set up by the pannel's counsel of the deceased having cut themselves by having accidentally sat down upon broken sharp bodies, was certainly plausible, and could only be controverted by the careful examination of the nature and form of the wounds, and a comparison of them with the alleged inflicting bodies. In both cases this was of great importance, as the deceased did not live to narrate the causes of their wounds; and in both, it appears to me, that the inferences deduced were beyond the possibility of doubt.

MISCELLANIES.

3. *Museum of the Royal College of Surgeons.*—We have great pleasure in informing our readers that this Museum will in future be open on each Wednesday, from twelve till four o'clock, in addition to Mondays and Fridays, as heretofore. It is not generally known, that all members of this College not only have the right of visiting the Museum, but also of admitting their friends by tickets.

4. *Meetings of Societies. Medico-Botanical Society, Nov.* 22. *Mr. Titus Berry in the Chair.*—Dr. George Glendenning, one of the secretaries, read the minutes of the last general meeting, held on the 22d of June last, which were then signed. The list of visitors was then read, and the permission of the Society obtained for them to be present during the discussion. Several donations were then announced, as having been received during the recess, and the thanks of the Society were ordered to be returned in the usual way, by one of the secretaries, to the respective donors thereof.

Dr. G. G. Sigmond, one of the secretaries, then read a communication from Dr. Walsh, of Malta, a corresponding member of the Society, on the Fungus Melatensis. This fungus has attracted the attention of many botanists, among others, that of the celebrated Linnæus, who gave a very full description of it in his work. According to the traditions of the island, it is said to have been discovered by some loose women, who were banished to the Isle of Gozo, where it is found on the summit of a rock, and it is said, that it exists no where else. These women are said to have discovered that it possesses astringent properties, and applied it to the cure of leucorrhœa. According to other reports, its properties are said to have been made known by certain slaves from the neighbouring coast of Africa, who, possessing in their own land a fungus somewhat similar, which is astringent, thought this might have similar properties, and by their means, its uses were discovered. Be this as it may, the Knights of Malta considered it of such value, that they forbade any one approaching the rock, within a certain distance, and then appointed a *custode*, whose duty it was to gather it when ripe, and transmit it to the government, by whom part of it was sent in presents to the different monarchs, and the remainder was transmitted to the hospitals. When Malta came into the hands of the

English, this rock became government property, and this practice of preventing access to the rock, &c. was kept up; the salary of the *custode* being a regular item in the government accounts. By the kindness of Dr. Somerville, one of the agents on the island, Dr. Walsh was enabled to approach the rock, and examine it, while growing. The rock, on which it grows, is almost two hundred yards high, very precipitous, and separated by the sea from the Island of Gozo. The only access to it is by a very curious machine, which the Doctor has described. About two thirds up the precipice, two strong cables are attached, and fixed firmly on either side; on these is a stong wooden box, capable of containing one person, to either end of which, ropes are attached, which serve as *gyes* in the passage of the box. In this frail conveyance, over a sea apparently boiling between the rock and the island, at a height equal to Dovor cliff, did a Maltese peasant entrust himself, and he speedily ferried himself over. The Doctor then entered, and, to use his own words, was soon shot over. They then ascended up a few natural steps in the rock, until they came to the platform; this is nearly half an acre in extent, and is covered with a few inches of soil, on which luxuriate great varieties of sea fungi, and other plants, rendering it like a garden in appearance. After seeking for it some time, a specimen was found, appearing like a knob of rusty iron peering out of the earth. It was not then ripe, and fit to gather, this occurring in the month of May. The Doctor obtained some specimens, much against the will of the Maltese, who thought it next to sacrilege to gather it before it was ripe. When ripe, from eighty to one hundred plants are obtained. The Doctor observes that, the rock is of a sandy nature, and that the sea water is gradually undermining it, as evinced by the overhanging precipices, which in some parts exceedingly overshelve the lower part. It is supposed that in the course of time, the base being destroyed, the rock will fall, and with it, of course, the fungi, and if there are none such elsewhere, this plant will be extinct. He judges that some such a process was the cause of the original separation of the rock from the island. The root is administered generally in substance, although a tincture has been prepared, but it is supposed not to have so beneficial an effect; it is recommended in hæmorrhagies, more especially of the uterus, on which organ it is supposed to exert a peculiar influence. It has been applied in powder as an astringent to wounds to stop the hæmorrhage, and, before the tourniquet was employed, to the surface of stumps. It is not much employed by the English practitioners at Malta, or in the naval and military hospitals, but chiefly by the Maltese physicians.

The thanks of the Society were then ordered to be returned to Dr. Walsh for his interesting communication.

Dr. G. G. Sigmond then intimated that a dissertation had been received in French for the *silver medal*, which would be submitted to the Society, and that dissertations would be received until the 30th of Dec. 1831.

A Member enquired, if it was intended to give the *gold medal* this season, and if so, what was to be the dissertation?

Dr. G. G. Sigmond stated in answer, that as yet no dissertations, that could be called such, had as yet been submitted to the Council, and that the subject was, *the description of plants for the cure of hydrophobia*; dis-

sertations on which would be received until the 31st of December, 1831. The essay for the silver medal, was to be, *on the medicinal uses of various plants.*

The President then desired to know if any gentleman was desirous of making remarks on the paper that had been read; this not being the case,

Dr. G. G. Sigmond stated that a paper had been sent to the Council, which was in course of translation, and would be read at the next meeting, by M. Bonaster, on the plants and fungi found in the Sarcophagi of the mummies in Egypt.

Mr. Gilbert Burnett, Professor of Botany to the Society, then rose, and said, that as no remarks had been elicited, and no other business was before the Society, he would say a few words on some observations he had made during the summer. It had been observed that homo-morphous plants were generally homo-geneores, but in the order *papilionaceæ*, the plants belonging to which were generally very esculent, there were five or six which were highly poisonous. He narrated a case in which symptoms of poisoning were induced by taking some of the flowers of the laburnum; he considered that there must be some distinctive mark, although it had not yet been discovered, by which the noxious and innoxious might be distinguished; he conceived that our ignorance of this was owing to a faulty acquaintance with the natural orders; also in the order *umbelliferæ*, which was a very nutrient class, there were numerous poisons. He stated that a gentleman, whose name we could not catch, had attempted to account for this, by referring to the poison being in the immature juices of the plant, as in the roots of some, for instance, the *œnanthe crocata*, and the leaves of others, as the *conium maculatum*, and this explanation appeared to be very feasible; but, on turning the matter over in his mind, he recollected that the roots of some, as the carrot, and the leaves of others, as the parsley, in which the immature juices must also reside, were edible, and therefore that theory could not hold good. The only conclusion to which Mr. Burnett could come was, that there was a portion of this poison, more or less, in all of the umbelliferæ, and that it was in proportion to the quantity that its effects were manifested.

These remarks of the learned Professor not appearing to excite any discussion,

Dr. G. G. Sigmond said, that the Soeiety would be much obliged, if the Professor could state, when he should commence his lectures, according to the plan of the Society.

Mr. G. Burnett fixed on the meeting after next, as he was desirous of finishing at the King's College, ere he commenced at this Society.

The President then announced that the meeting was dissolved, and the next would take lace on Tuesday, Nov 29th, 1831.

DR. RYAN'S REPLY TO DR. ELLIOTSON.

To the Editor of the Lancet. Sir,—In your last Journal, No. 430, Nov. 26th, I was much gratified to observe nearly seven pages devoted to a series of attacks on so humble an individnal as myself, in which I am assailed by the unfair reviewer of Mr. Bransby Cooper's excellent work on Anatomy,

next by Dr. Elliotson, and lastly, by one of your reporters. To endeavour to reply to so many assailants, when my time is as much occupied as any one of them, and especially as an Editor of a monthly Journal, at the hour in which it is about to be published, is giving them a decided advantage. I cannot however remain silent, inasmuch as Dr. Elliotson obliges me to answer.

I am very much surprised at the uncandid manner in which Dr. Elliotson has acted towards me, when I consider that at the very time he was arranging his criticism of my work, we were in frequent consultation, and yet he indites the following passage, as if he had never known me.

" In a *Manual of Medical Jurisprudence*, just published by a Doctor of Medicine, we read as follows"—[here follows a quotation from my work]; and, instead of citing my own language, as an honest controvertist would have done, he grossly mutilates several sentences; he substitutes incorrect and inappropriate language for mine; he distorts some passages; he makes palpable and erroneous mistatements; he misplaces my punctuation, inserts a full period in the middle of a sentence, and misrepresents my language as often as fourteen times in a single citation. Now for the proof. In p. 289, he inserts " all religion," instead of " all religions;" " however disputed," for however " disguised;" he places a period, instead of a semicolon, after the word " sentiments;" he advisedly falsifies the following sentence—" unbelievers, in general, wish to conceal their sentiments; they have a decent respect for public opinion, are cautious of affronting the religion of their country, fearful of undermining the foundations of civil society."—*Man. of Medical Jurisprudence*, p. 16.) Now for the crafty garbling—" Unbelievers, in general wish to conceal their sentiments. They have a decent respect for public opinion, are *courteous* of affronting the religion of their country; fearful of undermining the *civil institutions* of civil society."—*Lancet*, p. 289. Again, he distorts the following passage—" that remorse of conscience which can never be the result of a handful of organised matter;" is rendered " a headful of organised matter." Thus are my sentences craftily mutilated and garbled, and with so much shamelesness that I am utterly astonished how any man, much less a physician of some standing and reputation, and with any pretension to candour and fairness, could be guilty of such disengenuous behaviour. But mark his comment: " Can the preceding long quotation have been written in the 19th century? Yes, in 1831. Can it have been written in Europe? Yes, in London. Can it have been written by a person of decent education? Yes, by a graduate of some university."—*Op. cit.* 290. In reply I demand in turn, " Can such gross mutilations and misrepresentations of my language have been made in the 19th century? Yes, on the eve of 1832. Can they have been written in Europe? Yes, in London. Can they have been written by a person of decent education? Yes, by a graduate of some university, by a professor of another university, by a man whom one might consider incapable of such unfairness. This candid critic might have suppressed in some degree his astonishment in the above comment, for mutilated and garbled as the quotation is represented, it evinces much stronger proofs of a decent education on the author's part, than the loose and inelegant style of the commentator. Let any scholar compare it with the critic's opening sentence of eighteen lines, without a semicolon, the words

badly arranged, the notions of the writer almost as numerous as his words, and then form an opinion upon the decent education of the contending parties. His production, in which he treats others so very unceremoniously, is nevertheless a studied one, entitled "A paper read by Dr. Elliotson," &c. the style and composition of which are beneath literary criticism. He should have recollected this when he ventured to enquire whether the subject of his criticism had received a decent education; and as to the graduation in some university, it is a piece of superciliousness unworthy of notice. I am grieved to make these remarks, which are called for by the acerbity and and morbid sensibility evinced in the strictures on my work.

I am much flattered on perceiving that my strictures on phrenology should have elicited the occupation of ten columns of your journal in reply to them, and more especially from the pen of the chief supporter of this visionary hypothesis. He must have had his organ of combativeness very much excited when he penned this production, for it shews that poor human nature had conquered his philosophy, and impelled him to censure his opponents with an acrimony of feeling, an asperity of reproof, and a harshness of expression, as unjustifiable as unwarrantable in scientific disputation. He must therefore expect that others can employ these weapons as well as himself. If I am to educe conviction of the utility of phrenology from the acrid production before me, I fear I must remain in my present darkness. Time does not allow me to expose all the groundless statements and the sophistry and error which appear in this paper; but a few of them call for exposure. This writer observes, "it (phrenology) leaves all questions of spirit and matter, soul and body, immortality and mortality, future responsibility and irresponsibility, natural and revealed religion, untouched and exactly as he finds them—no less than anatomy, astronomy, chemistry, and all other sciences do." Now let us hear Gall and Spurzheim: Gall maintained there was an organ of murder, which his successors finding injurious to their science, mollified into the organ of destructiveness. "It gives," says Spurzheim, "the propensity to pinch, scratch, bite, cut, break, pierce, devastate, demolish, ravage, burn, massacre, strangle, butcher, suffocate, kill, poison, murder, and assassinate."—*Work on Phrenology*, 1815, p. 317. Here then we are told the Deity has created an organ with so diabolical a function, or in other words that its possessor is destined to murder, butcher, assassinate, &c. though the divine law is, "Thou shalt do no murder." It is supposing God to be the author of evil, that he creates an organ which impels the owner to murder a fellow-creature. If this is not in opposition to natural and revealed religion, I do not know what is. If men have irresistible propensities, then it would be unjust and cruel in a just and beneficient Creator to lay down laws for their guidance, which they could not obey. "If any being has *only* one power, he acts in one way, and can have no choice."—*Spurzheim's Lect. in Lancet*, No. xv. The same writer in speaking of the organ of destructiveness, observes, "it leads to the most irresistible desire to kill. This doctrine may shock sensibility, but it is not less true."—*Work*, p. 306. Is not this the doctrine of necessity and fatalism? Gall informs us, that "as it (theft) exists, it was not against the will of the Creator."—*Op. cit*, 325. Then I ask, what is the use of the commandment "Thou shalt not steal?" Nevertheless we have the declaration of Dr. Elliotson that phrenology "leaves

all questions of soul and body, future responsibility and irresponsibility, natural and revealed religion, untouched and exactly as it finds them." He tells us also that persons of all religions are phrenologists; but who are the physicians of any note except himself and Dr. Epps, among the London phrenologists? He next proceeds to prove that the mind depends on the brain, is gradually developed, becomes perfect at manhood, and declines with old age. Who doubts it?

Phrenology, we are informed, appropriates each function of the mind to a different part of the brain. Let us inquire how these functions were located. Gall informs us that he placed the organ of amativeness or sexual love in the cerebellum, because the idea of amativeness was suggested to him by some of the inferior animals, pigeons, sparrows, rabbits, and cocks, in whose heads he had observed a large posterior protuberance, and as these were fond of "billing and cooing," he considered the bump an established proof, and transferred it to the human cranium. He had also discovered a large protuberance on the occiput of a hysterical widow, and this was sufficient. Such is the proof adduced, which was amply sufficient to induce Dr. Elliotson to state in a cilinical lecture, that he coincided with Gall as to the cause of hysteria; for a young female affected with that disease, having muttered the name of James, her lover, a wit of the Doctor's acquaintance observed, he, Dr. E., should have ordered her James's Powder. It reminds me of a worthy medical friend of mine in the army, who, on being converted to phrenology, ordered the occiput to be shaved and covered with a linseed-meal poultice in gonorrhœa, as the best practice imaginable; when the officer of the day inspected the hospital, he inquired of the hospital serjeant how it was, that young strong men had their heads bound up, and the reply was, "it was a new touch the Doctor had learned in London." Nor was my friend the only one who had blundered as a phrenologist, I might without much difficulty name others. It is well known that the head of Corder, the cold-blooded murderer, wanted the organ of destructiveness; and the horrible villain Burke, the notorious resurrectionist, had the organ of benevolence most developed; at least, so say the phrenologists of Edinburgh. Again, is it not a fact that a certain famous phrenologist of London examined a skull, and after two hours deliberation, pronounced his opinion with great gravity, that the organ of philoprogenitiveness predominated, or in other words, the love of offspring predominated; and marvellous to relate, the said skull was that of a female who was executed at the Old Bailey a few days before, for the murder of her only child. Yet this happened in Europe, and in London, and in the 19th century, to a man who, doubtless, received a decent education, and was a doctor in medicine of some university. My antagonist avows that many phrenologists believe in the immortality of the soul, in a future state, and in future rewards and punishments; and if this be the fact, these persons cannot be true disciples of Gall and Spurzheim, for the reasons already stated. How many phrenologists on the other hand deny all this belief? My opponent makes a profession of his faith, which affords satisfactory proof of his belief in Christianity, though he does not trouble himself with dark disquisitions about liberty and necessity, or whether the soul is or is not a distinct substance from the body. In this avowal he falls little short of the Christian belief, but he quotes Bishops Watson, Law, Jeremy Taylor, Tillotson, and Sherlock, in support of his

opinion; but were I to quote the bishops and theologians on my side, their names would fill all the Lancets you have ever published.

This sagacious critic remarks—and where do phrenologists speak against Christianity? Where against a future state? Where in favour of materialism? Where, but in every page, in which they contend that the actions of men depend on development of certain parts of the brain, and are irresistible.

"Will society believe," says my opponent, "that our writer asks, of what benefit to humanity would be the establishment of phrenology? and replies we answer, none." What, if a science is established, explaining the office of the most wonderful works of the Almighty's creations, the functions of the brain of all animals, and of man, of man, the first being on the earth—if we learn why the Almighty gave one animal this shape and size of brain, and another animal that, if we learn the purposes of the various portions distributed by the Almighty in the human brain—if a science is established which unfolds the most glorious and stupendous work of the creation. It is nothing. But I blush;" and well you may blush, for attempting to persuade your readers that phrenology is established. Were I disposed to criticise this sentence I have ample opportunity; but I shall spare my opponent, and merely remind him, that he should have employed the subjunctive mood after his four *ifs*; for nobody, except the dozen phrenologists, whom he addressed, admit the establishment of his favourite science. Yes, if phrenology had accomplished a single point in the catalogue, it would be worthy of consideration; but it has not yet done so.

He might as well have said, "if, or rather, when, the sky falls, we shall catch larks."

A true friend to the writer would remind him, that these pretended philosophic arguments have no real foundation; that he is opposed by almost the whole profession; that the most eminent cultivators of the medical sciences in all civilized countries are his opponents; and that the venerable Blumenbach, whose work he has thought fit to translate, and the vivisector "Magende," and a host of others equally eminent, are the staunch opponents of phrenolgy. Professor Blumenbach, the distinguished German physiologist, when asked his opinion of phrenology, replied—

"What is *true* is not *new*,

And what is *new* is not *true*."

I am Sir, your humble servant,

M. RYAN.

Hatton Garden, Nov. 28, 1831.

LIST OF BOOKS RECEIVED DURING THE MONTH.

1. History of the Plague in London in 1665, with an Introductory Preface by a distinguished writer, By Daniel Defoe, with a Portrait. London, Nov. 1831, Renshaw and Rush.

This rare and highly interesting work appears opportunely and deserves the attention of the public and the medical profession. It is beautifully and graphically written, and received the highest praise from that prince of writers, Sir Walter Scott. It contains the best account of the progress and horrible effects of the disease of which it treats, and is calculated to impress the public mind, now so much alarmed by the dread of another formidable epidemic, with the necessity of attention to preventive measures. The work is one of great interest at the present moment.

2. Lectures on Anatomy, interspersed with Practical Remarks. Vol. III. By B. B. Cooper, F. R. S. Surgeon of Guy's Hospital, Lecturer on Anatomy, &c. &c. &c. London, 1831. 8vo. pp. 300. Five Plates. Longman & Co.

*** See our Review Depaetment.

3. Cicatrisations des Plaies Artérielles sous l'influence du Liquide Hemostatique. De M. M. Tabrich et Halma, Grand, Docteurs Medicins. Paris, 1831.

We understand that these talented Physicians have applied their stypic to a divided carotid in a sheep, in the presence of the pupils of St. George's Hospital, and completely suppressed the hemorrhage. The artery was incised longitudinally, and the fluid was applied on lint.

4. Observations on Cholera, comprising a description of the Epidemic Cholera of India, the Mode of Treatment, and Means of Prevention. By T. J. Pettigrew, F. R. S., F. A. S., F. L. S. Surgeon to the Royal West India Infirmary and Charing Cross Hospital, &c. &c. London, Nov. 1831. 8vo. pp. 37. S. Highley.

A well-written, concise, and excellent account of the Nature and Treatment of Cholera, This essay reached us too late for our Review Department.

5. An actually practised and effectually successful Mode of Treatment of the Cholera. Translated from a letter of Dr. Ewertz, of Dunaburg, in European Russia, addressed to Baron E. F. Von Graefe, Body-Surgeon to the King of Prussia. London, 1831. A. Schloss.

Friction of the epigastrium, with camphorated spirit after the attack, and venesection, are the remedies proposed by this writer.

6. Obstetric Medicine, its Principles and Practice, in a series of Systematic Dissertations on Midwifery, and on the Diseases of Women and Children. By David D. Davis, M. D. Professor of Midwifery in the University of London.

7. Sir Astley Cooper.—A Portrait and authentic Memoir of this eminent Individual will be given in the forthcoming number of the National Portrait Gallery. The Portrait is engraved in the most finished style, by J. Cochran, Esq. after the original Painting by Sir Thomas Lawrence; and forms an appropriate companion to the much admired Portrait of the late Mr. Abernethy, published in No. 18 of the same popular Work.—Fisher, Son, and Co. Newgate Street; and Highley, Borough, London.

8. A Synopsis of the Bones, Ligaments, Muscles, Blood-vessels, and Nerves of the Human Body. By Mr. W. S. Cox, Lecturer on Anatomy and Surgery in the Birmingham School of Medicine, and Surgeon to the General Dispensary. Also, in royal folio, with eight plates (dedicated, by permission, to Sir A. Cooper, Bart.) Maingault's Illustrations of the different Amputations performed on the Human Body, with alterations, by Mr. W. S. Cox. (See our Reviews.)

9. Remarks on the Subject of Lactation; containing Observations on the Health; and Diseased Conditions of the Breast Milk; the Disorders frequently produced in Mothers by Suckling; and numerous Illustrative Cases, proving that when protracted it is a common cause in Children of Hydrencephalus, or Water in the Brain, and other various complaints. By Edward Morton, M.D. Cantab, late Physician in the Western Dispensary, and to the Royal Metropolitan Infirmary for Children, &c. &c. London, 1831. Longman & Co. (An instructive Work.)

10. Remarks on the Cholera Morbus; containing a Description of the Disease, its Symptoms and Causes; with plain Directions for Guarding against the attacks, and the proper Methods to be adopted for its safe Treatment and Cure, expressly designed for the Use of the Public. By Henry Young, M.D., formerly of the Bengal Medical Establishment. London, 1831. Smith & Co.

NOTICE TO CORRESPONDENTS.

In reply to some of our Correspondents we beg to state, that all Works sent us for Review are noticed as soon as possible after we receive them, Some of the Booksellers are extremely negligent in forwarding New Works, especially if not their own property; and sometimes they appropriate to their own use the copies intended for review. The day after the publication of our last number, we received some of the works whose titles are now inserted, and we assure our Correspondents that no delay or inattention is ascribable to our Publishers, than whom none are more attentive and punctual in attention to business. We have reason to suspect that some of our communications find their way to another quarter; and if we detect this to be the fact, we shall fully expose it. Authors may rest assured that all works received by us are acknowledged, and noticed on the earliest opportunity. We are not in the habit of putting them on the shelf like some of our contemporaries, or of unfairly criticising them—we speak of them as we find them. The following works have not been received :—

Hamilton's History of Medicine.
Kennedy on Cholera.
Davies's Translation of Edwards's Materia Medica.
Searle on Cholera.

We feel much pleasure in acceding to the request of M. Miquel, of Paris.

Dr. Spence's Essay on Cholera is under consideration. We feel much obliged to Dr. Harrison for his communication.

All Communications and Works for Review, are to be addressed to the care of Messrs Renshaw and Rush, (near Exeter Hall) 356, Strand; or to the Editor, at his Residence 61, Hatton Garden.

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