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A VIEW OF THE IMPROVEMENTS AND DISCOVERIES IN THE VARIOUS BRANCHES OF MEDICAL SCIENCE.

EDITED BY

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Quærere Verum. HORACE.

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CRITICAL REVIEW.

I.—*Observations on Puerperal Inflammation, commonly called Puerperal Fever, being the subject of an Oration delivered before the Hunterian Society of London, in February*, 1830. By J. T. Conquest, M.D., Physician to the City of London Lying-in Hospital.

II.—*Des Fievres Puerperales, observees à la Maternite de Paris, pendent l' année* 1829, *des diverses Methodes therapeutiques employées pour les combattre et specialement des Mercurieux, des Vomitifs, et des Evacuations Sanguines*. Par M. Tonnelle, Ancien Interne des Hopitaux. Arch. Gen. de Med. Mars et April, 1830.

Observations on the Puerperal Fevers, observed in the Maternite of Paris during the year 1829, *with the different Modes of Treatment, especially Mercurials, Emetics, and Sanguineous Depletions*. By M. Tonnelle. Taken from the Records of the Hospital, with the consent of M. Desormeaux, Chief Physician to the Institution.

In contrasting these essays, we wish to shew the reader the opinions of two physicians who have had ample opportunities of observing puerperal fever; and leave him to draw his own conclusion as to their respective merits. The subject is of such vast importance, that we deem it unnecessary to apologize for the extent of space we devote to its elucidation. There is a great identity of opinion between our authors on many of the leading features of the disease. Dr. Conquest proceeds as follows:—

"By *Puerperal Inflammation*, correctly so called, is meant one of those affections which are known among practitioners under the vague and indefinite term of *Puerperal Fever*; a generic term, which in reality designates only a prominent symptom of disease, but which, in ordinary usage, embraces complaints having little or no

resemblance or connexion, either in their essential nature, their seat, or their treatment. For I fearlessly appeal to every cautious, intelligent, and reflecting man present, whether the term is not in daily use, equally to designate spasmodic and inflammatory affections of the peritoneal investments of the uterus and abdominal viscera; inflammation of the muscular fibres; inflammation of the veins of the uterus; phrenitis; irritative fever; diarrhœa; and spasm of the intestinal canal, so frequently confounded with inflammation. Indeed, it is truly lamentable to find among our most distinguished pathologists the greatest imaginable discrepancy of opinion on the nature and treatment of these formidable complaints. And where is the medical man, who has seen any thing of practice, who has not had painful demonstration of the correctness of these remarks, and on many occasions had to deplore the confusion of his own pathological views of this fell disease, which is so incessantly carrying heart-rending desolation and despair into the bosom of families, and cutting off, in the bloom of life, and under the most endearing and interesting circumstances of relationship, those members of society which give to it its purest pleasures and its highest joys?

"It is of moment to dissociate this disease from several others with which it is often confounded, and for which it is treated in every day practice; for, unless our diagnosis be correct, there will ever be the most conflicting statements as to the nature and seat of Puerperal Inflammation, and the utmost discordance of opinion as to the treatment to be pursued.

"Those complaints to which I more particularly refer are,

"First.—That high though transitory febrile excitement of the constitution, to which lying-in women are liable, called Ephemera, or Weed, referrible to some slight and casual disturbance in the breasts or small intestines. This is never epidemic. Secondly. Various disturbances and disorganizations of the brain. Thirdly. Derangement of the intestinal canal, constituting puerperal diarrhœa Fourthly. Remittent pain of the intestines, from detained fæces, producing violent spasm of the larger bowels. Fifthly. Irritative, fever, from a portion of retained placenta, or membranes, or coagula. Sixthly. Hysteria. Seventhly. Hysteralgia, or that alarmingly painful spasm of the uterus, characterised by the earliness and rapidity of its accession and departure, the periodical remission of pain, and the absence of rigors. And, Eighthly. All that train of anomalous symptoms, referrible to exhaustion from fatigue, anxiety, or loss of blood. All these affections are incessantly liable to be mistaken and treated for genuine Puerperal inflammation; affections in which opiates and fomentation are alone admissible."—p. 5.

"When this disease runs a very rapid and fatal course, destroying the patient within twenty-four or forty-eight hours, it is astonishing how little will be found to account for death. Perhaps there may be slight efflorescence and turgescence of parts, with a very little serosanguineous effusion, or an isolated spot of gangrene; and these disputable evidences of inflammation are sometimes confined to a fallopian tube or an ovary. These equivocal and umimportant changes

are more particularly noticed in those most distressing and untractable cases ushered in by extreme and overwhelming depression of the nervous energies, with almost irrecoverable prostration of the vital powers; and these occur in great numbers in particular districts, in lying-in hospitals, in crowded neighbourhoods, and under a peculiar condition of atmosphere, when puerperal diseases have not borne the abstraction of blood, or any other depletory measure, but with extreme caution. Under these circumstances, although there is effusion, it is small in quantity and peculiar in quality. It is like dirty red water, without any flakes of coagulable lymph, and often pervades every part of the contents of the pelvis. The uterus itself becomes unnaturally soft, and not only is there this effusion formed between the muscular parietes, and in the cellular tissue, but under the peritoneal covering. It may also be traced under the investment of the broad ligaments, ovaries, and every contiguous organ.

" In ordinary phlogistic cases, the appearances after death are very diversified. The substance of the uterus is sometimes infiltrated with pus, and becomes livid and spongy, or it may contain small abscesses; and the uterine veins, particularly those containing blood from the spermatic arteries, may be inflamed, and contain coagula or pus. At other times, spots and patches of gangrene will be perceived externally; and not unfrequently the inner surface or cavity is black, ragged, and covered with flakes of coagulable lymph. When the disease has originated with, or been principally confined to, the peritoneal investments of the uterus, bladder, and pelvic and abdominal viscera, they will be agglutinated in one morbid mass, or there will be more or less turbid serous effusion of a dirty white colour, mixed with pus and flakes of coagulable lymph.

In the chest, particularly in those cases in which respiration has been hurried from the commencement, there will be found slight effusion in the cavity of the pleura, in the bronchial tubes, and in the cellular substance of the lungs.

" But so anomalous is Puerperal Inflammation, that not unfrequently the extent and variety of mischief shall be infinitely more than could have been expected, *a priori*, from the duration or severity of symptoms during life, and only to be explained by admitting that the disease must have existed, and been making sure, though unnoticed progress before delivery; or to the possibility of the inflammation having run a very rapid course, and destroying in a few hours the vitality of parts which had been previously brought into such a condition, in consequence of the prostration of nervous energy, as to be unable to resist high excitement; and effusion or destruction inevitably and rapidly follows."—p. 7.

" In attempting to describe Puerperal Inflammation, as it is presented to us in that best of schools, the lying-in-room, I would say it attacks women irrespective of the duration, mildness, or severity of their labours, women of all ages, and during every season of the year; but the type of the inflammation will be so varied and modified by circumstances as to be scarcely recognised as the same disease in its essential character in different women, in different districts, and during

peculiar constitutions of the atmosphere. It will sometimes be strictly tonic and phlogistic, and at other times atonic and typhoid.

"I have seen some cases in which the pulse has been full and hard but *slow*, the breathing has been laborious, the countenance dusky, and every function oppressed. There has appeared to be venous congestion overpowering arterial action, and preventing the full manifestation of disease. The crassamentum of the blood first drawn, has less firmness, and it does not become buffy and cupped until the circulation is relieved by bleeding. It is true the appearance of the blood supplies but very fallacious guidance. In these cases depletion will lessen the simulated debility, and the concealed disease will become more clearly developed.

"Indisputably, this disease is often conveyed by medical men and nurses, as well as by patients themselves. We now possess unquestionable evidence to support this statement.

"The disease is most frequently epidemic during the winter and spring, and has always been most fatal during and immediately after severe and long-continued frosty weather; and yet, strange and inexplicable as is the fact, during the prevalence of cold it runs its course most rapidly, and often assumes the low type, as during this season, (1830.)

"I am particularly solicitous to establish,

"First. The momentous and influential fact, that gestation and parturition produce a change in the physical condition of the female, which so modifies disease, as to give to it a *specific character*. This is familiar to every medical man who frequents the lying-in-room, and is remarkably illustrated when puerperal patients become the subjects of Scarlatina or of any other exanthematous disease. Such women will lose their lives, although many other members of the family, labouring under the same disease, have escaped with the most trifling and unimportant indisposition. I consider this, as it were, a clue to the peculiarities and difficulties of all puerperal diseases, and if not borne in mind, I think it is impossible to understand or to manage complaints incident to parturient women. Secondly. It is of importance never to forget the inexplicable and pernicious influence of season, or the constitution of the atmosphere, and of certain situations, as they produce and characterise the inflammatory diseases of the puerperal female. This is occasionally seen when the complaints of the lying-in-room become epidemic and very unmanageable. Nothing is more common than for particular districts of this metropolis to be thus infested. Thirdly. It must ever be borne in mind, that this dire disease may, and generally does, begin during gestation, from mental depression, impure air, bodily fatigue, low living, or stimulating food, and bursts forth in its full developement after the uterus has expelled its contents. Many sporadic cases of this character must be familiar to every observant practitioner, in which he has been able to connect pre-existing, threatened mischief with the subsequent inflammatory action. How often does this occur in young women of previously good character, who have been seduced, and who suffer bitterly from mental despondency and broken spirits dur-

ing the long and tedious months of seclusion which precede their confinement.

If the uterus be primarily affected, constituting *Hysteritis*, it is manifested by severe, constant, and darting pain about the hypogastric region, greatly augmented by pressure. Constitutional excitement, with bluish-white tongue, thirst, and vomiting, are present, and the lochia become suppressed. Generally, although the inflammation begins in the uterus, sooner or later it extends to the duplicatures of the peritoneum, producing *Peritonitis*, or inflammation of the peritoneal lining of the abdomen, which often exists at its commencement, independently of inflammation of the uterus, and without suppression of the lochia. Sometimes the approach of this formidable inflammation is so extremely obscure, that extensive and important disease, amounting to destruction, will elude detection. In many cases even pain is absent, or so unimportant a symptom as not to be adverted to but in common with general uneasiness, restlessness, and exhaustion; and it is only by long-continued and deep pressure that the slightest degree of suffering can be detected. This is principally the case when the disease is epidemic, and assumes a low type; while in sporadic and phlogistic cases, either a particular part, or the entire superfices of the abdomen, will be the seat of constant, acute, and agonizing pain.

"Puerperal Inflammation usually seizes women within a few days, but sometimes not till some weeks after delivery, and is ordinarily ushered in by severe rigors, though often only by horripilatio or slight chills. The temperature of the surface is usually augmented; but, should the disease be of a typhoid character, it will be even below the standard of heat. The pulse is accelerated, though varying much in frequency, force, and fulness, being either hard and incompressible, or yielding and powerless. The countenance always expresses either anxiety or suffering; now and then, from the commencement, it puts on a distressingly saddened and apprehensive character, with severe and tensive head-ache. The tongue is not always white and foul. I have known it perfectly clean through the entire course of the malady, and have often seen amendment follow when the tongue has lost its loaded, cream-coloured appearance, and become brown and dry.

"If the disease is not checked and subdued, it generally proceeds rapidly, and the abdomen becomes tympanitic, and swollen to a size nearly equal to what it was before delivery. From the inflamed condition of the parts, and the exquisite pain which exists, the very weight of the hand or bed-clothes is intolerable; and in order to endure her distress the patient is obliged to lie on her back, with her knees bent upwards, to relax the abdominal muscles. The slightest pressure or motion greatly harrasses her. The stomach is often severely affected from the first, and vomiting is a not unfrequent attendant; regurgitation of the contents of the stomach almost always attends the disease towards its close. The bowels are constipated, but this is not uniformly the case; now and then numerous scanty and extremely offensive motions rather tease than relieve the intestines. The hepatic and intestinal secretions are not healthy. The

bladder is usually affected either with a constant inclination to empty itself, or there is a suspension of the renal functions. The secretion is turbid and high-coloured, sometimes milky, and this has been deemed a highly dangerous symptom. As the disease advances, the abdominal tumefaction augments, and great difficulty of breathing ensues. The secretion of milk, in most cases, becomes diminished, and it soon ceases altogether. The breasts are flaccid and empty, and if the uterus was not primarily concerned, now the lochial discharge is put a stop to, in consequence of participating in the disease. If the disease proceeds in its course, all the symptoms become highly aggravated; and, at last, a deceitful remission, or a total cessation of pain occurs, though occasionally the patient is agonized to the last; the pulse becomes extremely small, feeble, intermittent, and scarcely to be counted; the tongue dry and brown; the countenance wild, and expressive of great distress; the skin alternately hot and cold; and the teeth covered with sordes; cold, clammy sweats break out over the whole body; the urine and the fæces come away involuntarily; the extremities are cold; and the patient, often in full possession of her intellectual consciousness, dies within four or six days from the accession of disease,—sometimes within a few hours from the prostration of the sensorial functions, owing to inexplicable sympathy subsisting between the vital powers and the destructive process in a remote organ, however trifling may be its degree. But there is a great difference in the duration of this disease. In strictly active inflammatory cases, death occurs much more distantly from the accession of the complaint, than in those cases which commence with extreme prostration of the vital powers, and rapidly assume a typhoid character.

"Treatment. When this disease becomes epidemic, in defiance of the best concerted plans of treatment, the insatiate monster death moves on in his desolating path, without our being able to alter his course or stay his progress. At this very time, in one of our largest metropolitan hospitals, although directed by some of the most intelligent and devoted men that adorn our profession, such has been the mortality, that its inmates have been expelled, and its doors closed; in another, with which I am myself connected, it is raging like the plague; and while I am speaking, women are dying under every form and variety of this overwhelming malady, notwithstanding those intensely anxious attentions which the magnitude of the evil is securing for them. In our hospitals it is extremely difficult to detect incipient inflammation. Women become terrified by the activity of the means, the employment of which they hourly witness, and will most positively deny the existence of pain, and artfully conceal every symptom of disease.

"The epidemic of one season may differ essentially from the epidemic of a preceding and following year, and may consequently demand very different management; and it is always found that the more generally prevalent the disease may be, the more fatal is its course. Sporadic cases are managed more successfully than those more strictly epidemic. Every case must be isolated and studied

alone, and looked at by itself; and its management must depend on its type and its stage. Measures of paramount value and of imperative necessity in one case, and at some periods of the disease, will be valueless and detrimental under other circumstances. It is very unusual for any case to preserve an unwavering uniformity of character during its entire progress; and consequently, the treatment must vary with its exigencies; and if we expect to bring the disease to a satisfactory termination, we shall be compelled so to alter our course of proceeding, as to incur the risk of being chargeable, by the novitiate and inexperienced, with vacillation and indecision.

"Our treatment must be at once simple and decided; promptitude is as necessary as activity, because the curable stage rapidly passes away,—often in a few hours. Should the case be decidedly inflammatory, with a hard, unyielding, vibrating pulse, and acute, constant pain, the abstraction of blood, locally and generally, early and copiously, with the steady exhibition of purgatives, mercury and opiates, constitute the remedial means on which our hopes must be suspended; all other measures being merely auxiliary and subordinate. Much depends on the early and liberal detraction of blood. One bleeding of twenty or thirty ounces within the first six hours of the attack, will accomplish more than the loss of twice the quantity in several small bleedings after twelve hours have elapsed. *Neque temere, neque timide*, should be engraven on every lancet. Blood-letting will always be in discredit in the management of inflammation of vital parts, if used with timidity, or resorted to too late. It is owing to the inefficient influence of a small bleeding, begun too late, or repeated after too long an interval, that the natural and rapid tenoency of the disease to assume a low or typhoid character, has been supposed to be the result, or at least to have been aggravated by this invaluable, but in these cases ill-managed, remedy. The necessity of proportioning blood-letting in all cases to the actual effect which it is observed to produce on the pulse of the patient, and on her pain, and not on any arbitrary measure of ounces, if we would do justice to our patient, and obtain the full agency of the remedy, must be the only limitation of the quantity of blood to be withdrawn, provided all that is requisite be abstracted within the first twelve or twenty-four hours of the disease.

"Now I entreat you, Gentlemen, not to infer that I am a convert to the modern practice of almost indiscriminate bleeding in the majority of diseases. So far from it, I deem the present rage for blood-letting in almost every ailment to which the human frame is liable, as most injudicious and injurious.

"But to return to the disease under consideration. One early and plentiful bleeding, inducing a temporary collapse of the system, will generally suffice for an acute attack of the most active kind: the *temporary debility* resulting from *such* a bleeding may be greater, but the *permanent weekness* is certainly less. Fainting is very desirable in the abstraction of blood in this, and, indeed, in all inflammatory diseases, because it implies an almost entire cessation of circulation. This is most readily accomplished by having our patient's head raised, pre-

serving the body in a recumbent posture, and by suddenly drawing away blood from a large orifice, or permitting it to flow from two veins at the same time. It will be thus found that the abstraction of a less quantity of blood will be required for every stage of this disease, superseding the practice of small and repeated bleedings, which exhaust the strength as much as the original excitement, and inevitably accelerate the fatal termination of our patient's sufferings. Still, blood-letting is not allowable beyond a certain extent, and must not be repeated when the danger of organic mischief has disappeared, or general exhaustion rapidly ensues; immediate depletion may produce a universal and irrecoverable suspension of the vital principle, or at least leave a vacillating state of the circulation, or a hurried re-action of the heart and arteries, or congestion of the venous system, or effusion of serum; thus instituting a disease almost as dangerous as the one removed. I need scarcely add, that the application of leeches to the abdomen, and cupping from the loins, are adjuvants of considerable value; and especially when some dregs of inflammatory disease may remain after copious general bleeding.

"Yet there are unquestionably very many cases so modified by constitution, by season, and by other circumstances above noticed, and which run so rapidly towards a state of collapse, that the abstraction of blood from the arm is tantamount to signing the death-warrant of the patient. It is in these cases, and they are by far the most numerous in and about this metropolis, that *local bleeding* by leeches is an invaluable remedial measure. While *general* bleeding diminishes the force of arterial action, *topical* bleeding unloads and relieves the capillary vessels. When copious and general bleeding is inadmissible and injurious, fifty or a hundred leeches should be applied to the abdomen; and this will scarcely ever be done without sensible relief, —often to such an extent that the poor woman will again and again solicit their reapplication. In the epidemic and typhoid form, this is often the only allowable method of abstracting blood; and in every stage of this unmanageable disease, even when effusion is manifest and death is inevitable, leeches will smooth the ruggedness of the path. The bleeding may be encouraged by a large, soft, warm poultice.

"Considerable benefit will result from the application of a *blister* over the entire abdomen, when topical bleeding is no longer advisable; and sometimes very marked relief will be afforded, on the principle of revulsion or counter-irritation, by repeatedly covering the bowels with flannel dipped in hot oil of turpentine. This may be used every six hours, for ten minutes each time, until high erethematous efflorescence takes place.

"Immediately after bleeding, the most effectual means of emptying the bowels must be had recourse to, so that an evacuation once in three or four hours may be obtained for two or three days, or longer if necessary. The existence of diarrhœa, which is sometimes attendant on this disease, must not prevent the exhibition of purgatives, because the fæces are scybalous, alimy, and fetid; such only keep up an incessant irritation in the abdomen, which will be best

remedied by cathartics. *Saline purgatives* do not appear to be well adapted to this disease. They produce irritation and distention, and lead the unwary to suspect inflammation. They seem to accelerate the peristaltic action of the bowels, discharging frequent and watery stools, while the hardened scybala, in the arch and head of the colon, remain unmoved by their operation.

"A full dose of *calomel*, say a scruple or half a drachm, with or without jalap, or jalap in cinnamon water, with a little citric acid, may be exhibited. If jalap be not combined with the calomel, castor oil should be given an hour or two after it. By these means we shall completely unload the intestinal canal of its contents, allaying irritation in its course.

"Perhaps *oil of turpentine*, in all cases not admitting of much reduction of power, is the best purgative that can be given. It may be combined with castor oil and laudanum; and by this combination we shall freely unload the intestines, and produce gentle excitement and a healthy action of their mucous coat. In those alarming cases of *spasm* of the uterus and large intestines, which are constantly being mistaken for Puerperal Inflammation, this combination will act as a charm.

"*Purgative and emollient glysters* are decidedly beneficial, and fomentations to the abdomen are always found to be soothing and useful.

"*Opiates combined with mercurials* are invaluable. Opium used to be thought to afford only an insidious truce, and rather tend to obscure and prolong the disease than to contribute to its subjugation. I place great dependance on large doses of opium and calomel in all cases after bleeding and purging. They must be exhibited in such doses as will make a decided impression on the sensorial functions, and speedily bring the constitution under the specific influence of mercury; and when we succeed in doing this, the case will generally assume a favorable character.

"*Camphor* in scruple doses, combined with opium, will be found a very efficient anodyne in cases of great restlessness with comparatively little acute suffering.

"*Digitalis, Nitrate of Potass, Ipecacuanha,* and *Antimony*, are of great value as adjuvants, but cannot be exclusively relied upon, because irreparable mischief may take place while waiting for their operation. The *infusion* of digitalis is most speedy in its influence, most decided in its effects, and most capable of being controlled in its operation."—p. 16.

M. Tonnelle prefers the term puerperal fever, to peritonitis, or metro-peritonitis, because it is more comprehensive than the others; it expresses nothing by itself, and does not prejudice the nature of the disease. He commences his essay by detailing the unsettled state of opinion on the

nature and treatment of the disease, and endeavours to explain the cause of this confusion. He next observes, that it is not in a few months or years, or even an epoch, we can arrive at correct views of the nature and treatment of a disease; and cites the opinions of Sydenham on the nature of epidemics, and the influence of season on diseases. He then informs us, that his object on the present occasion is to give a succinct and faithful account of the puerperal fevers that prevailed in the hospital, and during the period already mentioned. He says—

"During the year 1829 puerperal fevers were more grave and frequent in the Maternite than at any period since the establishment of the hospital. They were epidemic in the months of January, May, August, September, and October, but it is an error to suppose cold and moisture have had more to do in causing them, because in the preceding December there was little disease. The influence of humidity admits of controversy, for though these diseases prevailed in the cold and wet months, they were equally prevalent in the spring, which was remarkably dry. The vitiation of the air of hospitals, or moral affections, will not explain the difficulty, for the disease appeared under opposite and varied conditions, when none of these causes were discoverable; it ravaged for a week, or month, then disappeared, and again returned. The influence of constitution, antecedent disease, lactation, tedious or difficult delivery, and other causes enumerated by authors, do not explain the simultaneous appearance of the disease in a large number of patients, for it often attacked ten or twelve women in the course of a day or night. Contagion does not explain the developement of those affections, inasmuch as every form of puerperal disease was to be seen in one ward, and these fevers of the worst form combined with slight affections. There was nothing to warrant the belief of the influence of contagion. Women in separate cells were as readily affected as those in the common wards. The cause is not known."

Our author observes, that peritonitis is most commonly observed in these cases, but it is a great error to think that it is constantly present.

"In many cases there is no appreciable change in the peritoneum, or it contains a small quantity of inodorous transparent citrine or reddish serosity, the first effect of inflammation, and where it has made the fugitive traces to disappear, or the simple result of the contracted respiration and circulation in these diseases. It is in the most violent and fatal cases, that the integrity of the peritoneum is most constantly observed. It exists almost always when there is alteration in the uterus, its vessels or appendages. The anatomical characters of peritonitis are not always identical; there may be slight effusion into the abdominal cavity, or vivid redness on the convolutions of the intestines, or effusion with lymph, false membrane, of

a yellowish colour; or pus such as we see in a phlegmonous abscess. The peritoneum is mostly inflamed in the hypogastric region, and is concentrated about the uterus; or it is general, or affects certain points, as the surface of the liver, mesentery, and epiploon When the last part, nodosities are presented, and perceived during life across the abdomen; sometimes the false membranes are brown, and improperly styled gangrenous, an error which pathological anatomy has done justice to, and need not be dwelt on, had not recent writers on peritonitis revived it.

"*Alterations of the Uterus.*—These are simple inflammations of the uterus and its appendages, suppuration of the veins and lymphatic vessels, and ramollissement or putrescence. The anatomical characters of hysteritis are found in its internal membrane, external or peritoneal tunic, and proper tissue. The internal surface of the uterus is almost always covered with a putrilaginous matter of a red brown colour, and often of an insupportable fœtidity. Is this product the result of inflammation? It is seen in women who die of diseases unconnected with delivery. It is probably an alteration or ramollissement of the internal membrane. We often find on the internal surface of the organ a crowd of small greyish granulations, or again a purulent matter, concrete, thick and yellow, which lines the whole of the uterus. It may favour the absorption of the lochia, or oppose their free discharge; and when detached may be mistaken for a portion of the tissue of the uterus, or be supposed a gangrenous degenerescence of the organ that does not exist. The peritoneal tunic of the uterus is crimpled, by the effusion of a sero-purulent or genuine purulent matter. This sometimes bursts, when the uterus appears uncovered, as the skin does after the removal of the cuticle by a blister. The alterations in the proper tissue of the uterus are very rare, except ramollissement or putrescence. In the most violent metritis it is not red or injected, and if pus form it is about the cervix, or where the fibres are lax. Pus is constantly observed in the cellular tissue, at the base of the broad ligaments or neck, or in the veins or lymphatic vessels. If proper care be not taken in dissection, it will be supposed abscesses of the proper tissue exist, when the vessels are affected. The broad ligaments may contain pus; it is very rarely found in the uterine tubes. The ovaries may be injected, tumefied, softened, or may contain a serous or purulent matter; in the latter there is a singular friability of their tissue. The pus more commonly is effused as in an abscess of the lung. In one case abcess opened through the rectum, in another into the abdomen; and it is not very uncommon that the uterine appendages adhere to the abdominal parietes, and it opens externally; which was observed by Ruysch, Delamotte, Desormeaux, and others."

Our author next adverts to suppuration of the veins and lymphatic vessels of the uterus, so accurately described by M. Dance, and inserted in an essay on phlegmasia dolens by the editor of this Journal in a late number. He maintains that inflammation of these vessels resembles phlebitis, and was seen in three out of five cases of puerperal fever,

and is nearly as constant as peritonitis. It may exist alone, or be combined with the preceding alterations. It in general does pass beyond the uterus, but sometimes extends to the ovarian, hypogastric, and abdominal veins. In some cases it is confined to certain veins, in others no part of the uterus can be incised without pus being effused in drops from the divided vessels. It is on the sides of the uterus and near the broad ligaments that the vessels are usually inflamed. It exists more rarely near the insertion of the placenta, though M. Dance has asserted the contrary. The lymphatics are easily distinguished from the veins by their superficial position on the sides of the uterus, by the tenacity of their parietes, by their whitish and milky aspect, their communication with the peritoneum, their contiguity to the large veins, their flectuosities, and swelling at different points. These swellings often contain pus, and may admit a cherry stone or bean. We must not confound these with abscess of the substance of the uterus. The internal membrane of these vessels is seldom changed, it may be thick and yellowish. It should be remembered that the lymphatics may take up puriform, acrid, or fœtid fluids after delivery, and become inflamed. The presence of pus in the vessels, and its necessary transmission through the circulation, causes rapidly an evident palpable infection in the mass of blood, and a certain number of phenomena which impress on puerperal fever an especial character—a characteristic physiognomy. The following cases, taken from a hundred, furnish the proof:—

Case I. *Puerperal Fever, with Uterine Phlebitis.*—Victoire Arno, æt. 22, in excellent health, was delivered after an easy labour. The fourth day she complained of rigors, and pains in the hypogastric region, which were combatted by an application of fifty leeches. 5th.—Abdomen tumid, with extreme sensibility; face red, animated, pulse hard and frequent; lochia and milk suppressed; leeches repeated, oleaginous draught and hip-bath. 7th.—Inflammatory symptoms succeeded by profound prostration, face pale, eyes dim, tongue dry, pulse small, frequent, and irregular; articulation difficult, rigors and involuntary evacuations. In the evening there was delirium. 8th.—The body covered with a viscid sweat, extremities cold, and death approaching rapidly. Mercurial frictions, in the quantity of three ounces, were used daily, calomel and hyociamus freely employed with great attention during this last period. *Autopsy*, twenty-four hours after death.—The internal surface of the uterus was covered with a putrilaginous fœtid matter, but was unchanged; the section of the organ presented the veins and lymphatics filled with pus towards the base of the broad

ligaments, the ovarian and hypogastric veins were filled with brown, fluid blood, without pus. The cavity of the peritoneum contained a small quantity of sero-purulent fluid, and some false membranes. The other organs were sound. In this and many other cases, we are told, the symptoms were at first inflammatory, but soon typhoid. There is a striking analogy between the putrid puerperal fever of the ancients and that caused by absorption of pus.

Case II. *Puerperal Fever, with Uterine Phlebitis, and rapid progress.*—The symptoms and treatment were as in preceding case. *Autopsy.*—The uterus filled the pelvis, its internal surface was coated with a putrid fœtid sanies, the neck of the organ, the broad ligaments, and the cellular tissue under the peritoneal coat were infiltrated with pus, as also most of the veins and lymphatics; the tubes were inflamed and reddened, the ovaries softened, the lymphatic glands of the pelvis and loins very swollen. The peritoneum presented no alteration, and the other organs were healthy. When fever arises from the absorption of pus afforded by external surfaces, several days elapse before the constitution is affected, while in twenty-four hours the uterus is bathed in pus, in the cases under notice, and the fever at its height. The author offers some hypothetical opinions in explanation of this fact.

Case III. *Puerperal Fever, with Pus in the Uterine Lymphatics, and Thoracic Duct—considerable Tumefaction, and Softening of the Ganglia of the Groins and Loins.*—A female, æt. 31, of sound constitution, was delivered of her first child after an easy labour, in August 25, 1829. The same day she complained of rigors, pain in the hypogastric and lumbar regions, and intense fever. M. Desormeaux ordered a copious bleeding, and fifty leeches to the abdomen. 26th.—Pains excessive, suppression of the lochia, nausea, redness of the face, and vivid febrile re-action: v. s. and leeches repeated. 27th.—Prostration, delirium, meteorism of abdomen, incontinence of urine and fæces, small and irregular pulse; death same day. *Autopsy.*—Pus was infiltrated between the folds of the broad ligaments and uterus, as also the lymphatics, near this situation. The lymphatic ganglia of the groins and loins were the size of a pigeon's egg, their texture greyish, and easily lacerable, and filled with pus. The thoracic duct was the size of a swan's quill, contained a yellow fluid, which was deemed pus. The peritoneal cavity contained about half a pint of flocculent serosity, the rest was healthy.

Case IV. *Suppuration of the Uterine Lymphatics, and Thoracic Duct.*—The patient was aged 21, was admitted in

the eighth month of pregnancy, with œdema of the lower extremities, which was followed by rigors, vomiting, head-ache, convulsions, and coma. These symptoms were relieved by active remedies, and she was delivered of a living child. The symptoms and treatment were now as already described, with the exception of free mercurial inunction, and blisters to the legs. *Autopsy.*—The internal surface of the uterus was brown and softened superficially; the cellular tissue which unites the peritoneum to the body of the organ, and the broad ligaments, were infiltrated with pus; most of the lymphatics were filled with the same fluid, and were enlarged about the latter parts of the organ. The lymphatics of the abdomen were tumefied and of a milky colour; the thoracic duct was enormously distended, and filled with a fluid like pus (*et remplie de pus en nature*). The cavity of the peritoneum contained a great quantity of puriform serosity. The left ventricle (of the heart) was slightly hypertrophied—the rest sound. The author has seen several similar cases, but the limits of his essay preclude their detail. He asks, was the pus formed first in the vessels; or was conveyed to them by absorption? He thinks both opinions may be sustained.

Case V. *Puerperal Fever, with Inflammation of the Hypogastric, Crural, and Iliac Veins.*—A healthy female, æt. 28, was seized with severe symptoms of puerperal fever, the third day after an easy delivery. The symptoms were removed on the eighth day by copious local bleeding. She was then seized with head-ache, noise in the ears, agitation, prostration, and delirium. The thirteenth she experienced rigors, and the abdominal pains returned with increased force. Mercurial frictions were used daily, to the extent of two ounces. She was relieved and appeared to convalesce, her appetite returned, but slight fever remained. On the 22d day the lower extremities were enormously infiltrated.—29th. The abdominal pains, the vomiting and febrile symptoms returned, and disappeared no more. She died on the 31st. *Autopsy.*—The cavity of the peritoneum was filled with pus, and lined with false membranes, which adhered to the convolutions of the intestines. The uterus was healthy. The hypogastric veins were considerably dilated, and filled with a great quantity of thick greyish pus; the two crural veins, the iliac, and a part of the inferior cava contained a dense clot, which contained pus in its centre—it obstructed the course of the blood. The parietes of all these vessels were thickened, unequal, and reddish—the superior part of the inferior cava, which did not participate in the alteration,

was empty, white, and remarkably healthy. The other organs were in a natural state.

The phlebitis of the large vessels, and the escape of those of the uterus, were curious features in this case It was evident that the phlebitis was developed in the commencement of this tedious disease. In the preceding cases the absorption of pus from the uterine vessels produced death without any appreciable lesion of the tissue of organs; but in the following cases the alteration of the fluids acted on the solids, and caused lesions of the most formidable character.

Case VI. *Puerperal Fever, with Uterine Phlebitis, Perforation of the Stomach, and Ramolissement of all the Organs.*—A patient, æt. 28, of a good constitution and excellent health, was delivered, after a favorable labour in July, 1829. The third day she complained of rigors and abdominal pains, for which forty leeches were applied. 4th.—She had much vomiting and fever, the abdomen was tumid and sensible, respiration anxious, pulse contracted and very frequent, prostration and stupor; leeches re-applied. 5th.—Delirium, vomiting, and she refused her drinks. Mercurial frictions, two ounces daily. 6th.—Delirium continual, face sunk, pulse small and frequent, coma, refusal of drinks, death. *Autopsy.*—The peritoneal cavity contained a small quantity of sero-purulent fluid. The uterus occupied the whole pelvis, its veins were filled with thick yellow pus, which was poured forth from all points of the organ, but especially its lateral parts; towards the superior angles numerous large lymphatics were filled with pus, which were prolonged into the broad ligaments, and ascended with the ovarian veins to the abdomen. The great curvature of the stomach was pierced by three apertures, each as large as a three franc piece, the edges irregular and ragged, remarkably soft, and of a brown colour, which gradually disappeared; some soft adhesions of recent formation united these openings to the spleen and left lobe of the diaphragm. The lungs were strewed with circumscribed nodosities, analogous to hemoptoic engorgements. The brain, the heart, the liver, and in general all the organs offered a softness and extreme flaccidity, which contrasted singularly with the fine developement and rich coloration of the muscular system. The influence of pus in the whole circulation was imprinted in strong characters on all the organs. The disorganization with perforation of the stomach appears a cadaveric phenomenon, but the symptoms observed during life, the blackish colour of the vicinal parts, the ramollissement of all the other organs, and finally the adhesions which

commenced round the perforations, exclude the idea to which we refer. The ramollissements of dissimilar organs arose from a deleterious cause exercising its baneful influence on the whole economy, as in the pestilential diseases, in typhus, in the poisoning of the blood by miasm, or in animals by the injection of putrid matter in the veins.

Case VII.—Puerperal fever, with peritonitis, and uterine phlebitis; gangrene of the lungs, softening of the mucous membrane of the stomach, abscess of the leg.

Case VIII.—Puerperal fever, with uterine phlebitis, collections of purulent matter in the psoas, iliac, and tricepy muscles.

Case IX.—Puerperal fever, with uterine phlebitis, abcess in the muscles of the leg, thigh, fore-arm, and knee-joint.

Case X.—Puerperal fever, with suppuration of the uterine veins and lymphatics, abscesses in numerous muscles and keee-joint.

Our author observes, that he could augment the number of these cases, if he would extend his dissertation. Such cases are not very rare, their progress is insidious, their symptoms so obscure as to deceive the most vigilant observer; and they are described in many works, especially those of Leake, Doublet, and even in the epidemics of Hippocrates, and especially by M. Dance on a late occasion. The reader will find the account of the last-named writer, as also of Dr. Lee and Mr. Arnott, in an editorial article on phlegmasia dolens, in this Journal, April, vol. iv. p. 325. The narrator observes, that the collections of pus under notice differ in many respects from common abscess; these seldom affect the substance of muscle, they occupy the cellular substance, which separates organs from their fascia, or the subcutaneous cellular tissue; they form rapidly, and are accompanied by violent pain. Common abscess is defined, but the collections of pus are diffused, and not absorbed. In ordinary inflammation we do not see twenty points affected at the same time, and with the same violence. Our author is of opinion that collections of pus in the muscles and joints in phlebitis are a direct and immediate effect of absorption of pus, and its mixture with the blood; that the purulent molecules fix themselves in the substance of muscle, and on the surface of serous membranes, causing inflammation and rapid suppuration—in effect as the mercurial globules, in the experiments of M. Cruveilhier penetrated the muscles. We admit that in nutrition there is a deposition of particles in the tissues, and why not of heterogeneous particles likewise? It is said on the other side, that pus is deposited, in the cases before us, without any local change; but this is difficult to be a

admitted. He has not been sufficiently explicit on both these hypotheses. The advocates of the latter hold that pus is deposited by the arteries or capillaries without inflammation; the former that pus is absorbed into the circulation, the blood is vitiated, and when deposited in the delicate tissues causes irritation, inflammation, and suppuration. Accordingly it is said that the vascular organs are most commonly and easily injured, as the lungs, liver, spleen, &c. or any organ or tissue predisposed to disease.

Cases XI. and XII.—Typhoid fever, consecutive to uterine phlebitis, terminating favorably.

Case XIII.—Typhus after hæmorrhage, death.

Case XIV.—Typhus after delivery, gangrenous diathesis, disorganization of the stomach.

Our author agrees with M. Desormeaux, that many cases of puerperal fever depend on uterine phlebitis. He discusses the question, whether puerperal diseases depend on delivery or are to be considered accidental. We need not follow him in this inquiry. He next describes ramollissement and putrescence of the uterus, and details a Case XV., which proved fatal in twenty-four hours. Two-thirds of the uterus were changed into a brown pulp, and offered no traces of organization. He then inquires whether the disease depend on gangrene or inflammation, or whether it be analogous to the softening of the brain, heart, and stomach. He concludes by observing—

"Such are the numerous alterations we have observed in puerperal fever, a disease extremely complex in its anatomical lesions, and not less so in its symptoms."

The following table will give a general idea of the different alterations:—In 222 cases, the peritoneum was affected in 193; the uterus and its appendages in 197; the alterations of the uterus and peritoneum, were differently combined in 165; those of the former were isolated in 29, of the latter in 28. The alterations of the uterus were, simple metritis, 79; superficial ramollissement, 29; profound ramollissement, 20; inflammation of the ovaries, 58; with ulcers, 4;—total, 190.

Alterations in the uterine veins and lymphatics. There was pus in the veins in 90; in the lymphatics in 32; in the thoracic duct, 3; with inflammation and suppuration of the lumbar and inguinal glands, 9; in all, 134;—total alterations of the uterus, 324.

Suppuration of the veins with those of the uterus, 32; with ramollissement or putrescence, 11; with metritis and ramol-

lissement, 5; with peritonitis without any other alteration, 34; entirely isolated, 8;—total, 90.

Suppuration of the lymphatics with the veins, 20; with those of the uterus, 13; with ramollissement of the uterus with suppuration, 6; with simple peritonitis, 3; without any other alteration, 2;—in all, 44.

Inflammation of the ovaries with simple peritonitis, 29; with alterations of the uterus, 27; with simple metritis, 8; ramollissement, 7; suppuration of the vessels, 12; with all the preceding alterations, 16;—in all, 62.

It appears from these tables, that the alterations of the uterus, taken collectively, exceed those of the peritoneum in a slight degree, but much exceed the latter if taken isolatedly, and that both are frequently combined. Another remarkable result is afforded by these tables, that in 134 cases there was pus in the veins and lymphatics. M. Tonnelle concludes by observing, that the term peritonitis, or metro-peritonitis, is not applicable to many of the alterations which he has described, while the term puerperal fever, though it does not embrace all the disorganizations, it prejudices none of them, and may be applied to all as a more general expression. He adds a table of the diseases of the different organs, observed in the cases, as pleurisy, pneumonia, &c., which were accidental, and add nothing to the elucidation of the malignant puerperal fever. He divides the fevers into inflammatory, typhoid, anomalous or ataxic, and describes the semeiology of each.

The inflammatory fever depends on phlegmasia of different organs, as the peritoneum, uterus, and its appendages.

The typhoid form, on alteration of the blood consecutive to suppuration of the vessels; or concomitant with putrescence or ramollissement.

The ataxic form, on lesion of innervation.

These we shall describe in a future number, and observe that we have condensed these clinical reports very considerably. All must agree that this is a most graphic and scientific description of the causes of the fatal diseases denominated puerperal fever; and that science is deeply indebted to the author. The solidists will learn here a lesson which must convince the most sceptical amongst them of the absurdity of ascribing fatal child-bed fever to peritonitis. They will also learn the impropriety of sneering at the opinions of those who have seen most of the disease, a list of whom will be found in our review of Dr. Gooch's work, and who maintained that the disease was not peritonitis. The disciples of Armstrong, Hey, and Gordon, and they were numerous, must now bite the dust; these men who cured the

hospital puerperal fever by antiphlogistic measures, and who denied its typhoid or putrid origin.

In the numerous cases of uterine phlebitis, there was but one with œdema of the lower extremities, but not a word about phlegmasia dolens, which is said to depend on uterine phlebitis by a recent British writer. It is also evident, from the facts adduced in the able essay which we have placed before our readers, that the term peritonitis is fully as objectionable as the derided denomination, puerperal fever. So much for the vaunted advantage of our mania for morbid anatomy, which of late excluded all other etiology with a large portion of the profession in this empire.

III.—*Observations on the Pathology of Venereal Affections.* By Benjamin Travers, F.R.S., Senior Surgeon to St. Thomas's Hospital. 8vo. pp. 75. London, 1830. Longman and Co.

This little volume consists of an annual discourse, commemorative of the Hunterian Society, delivered by Mr. Travers at the close of his presidency of that body. The object of our author is an unsuccessful attempt to prove the identity of gonorrhœa, or we would say venereal uretritis, and syphilis—an opinion maintained by Mr. Hunter, and denied by almost all his successors. Mr. Travers has set little value on modern works on the venereal disease, indeed he has not condescended to notice one of them; and probably as there was not one that takes his view of the subject. He is also forgetful of the arguments of those who are diametrically opposed to his conclusions. In a word, there is scarcely an assertion he makes which cannot be easily refuted; and it is quite astonishing that a surgeon of his eminence could hold such heterodox opinions. His fame and eminence as a surgeon stamp an authority on his work which will insure it a general perusal; and as his conclusions are calculated to lead to the administration of mercury in common gonorrhœa—a practice unnecessary and injurious according to the universal voice of the profession, we cannot but examine his positions with great attention.

Mr. Travers argues, that as certain forms of leucorrhœa affect the husband, and cause purulent ophthalmia, therefore gonorrhœa is not referrible to any specific quality of matter. We admit the premises, but deny the conclusion.

nature and treatment of the disease, and endeavours to explain the cause of this confusion. He next observes, that it is not in a few months or years, or even an epoch, we can arrive at correct views of the nature and treatment of a disease; and cites the opinions of Sydenham on the nature of epidemics, and the influence of season on diseases. He then informs us, that his object on the present occasion is to give a succinct and faithful account of the puerperal fevers that prevailed in the hospital, and during the period already mentioned. He says—

"During the year 1829 puerperal fevers were more grave and frequent in the Maternite than at any period since the establishment of the hospital. They were epidemic in the months of January, May, August, September, and October, but it is an error to suppose cold and moisture have had more to do in causing them, because in the preceding December there was little disease. The influence of humidity admits of controversy, for though these diseases prevailed in the cold and wet months, they were equally prevalent in the spring, which was remarkably dry. The vitiation of the air of hospitals, or moral affections, will not explain the difficulty, for the disease appeared under opposite and varied conditions, when none of these causes were discoverable; it ravaged for a week, or month, then disappeared, and again returned. The influence of constitution, antecedent disease, lactation, tedious or difficult delivery, and other causes enumerated by authors, do not explain the simultaneous appearance of the disease in a large number of patients, for it often attacked ten or twelve women in the course of a day or night. Contagion does not explain the developement of those affections, inasmuch as every form of puerperal disease was to be seen in one ward, and these fevers of the worst form combined with slight affections. There was nothing to warrant the belief of the influence of contagion. Women in separate cells were as readily affected as those in the common wards. The cause is not known."

Our author observes, that peritonitis is most commonly observed in these cases, but it is a great error to think that it is constantly present.

"In many cases there is no appreciable change in the peritoneum, or it contains a small quantity of inodorous transparent citrine or reddish serosity, the first effect of inflammation, and where it has made the fugitive traces to disappear, or the simple result of the contracted respiration and circulation in these diseases. It is in the most violent and fatal cases, that the integrity of the peritoneum is most constantly observed. It exists almost always when there is alteration in the uterus, its vessels or appendages. The anatomical characters of peritonitis are not always identical; there may be slight effusion into the abdominal cavity, or vivid redness on the convolutions of the intestines, or effusion with lymph, false membrane, of

a yellowish colour; or pus such as we see in a phlegmonous abscess. The peritoneum is mostly inflamed in the hypogastric region, and is concentrated about the uterus; or it is general, or affects certain points, as the surface of the liver, mesentery, and epiploon When the last part, nodosities are presented, and perceived during life across the abdomen; sometimes the false membranes are brown, and improperly styled gangrenous, an error which pathological anatomy has done justice to, and need not be dwelt on, had not recent writers on peritonitis revived it.

"*Alterations of the Uterus.*—These are simple inflammations of the uterus and its appendages, suppuration of the veins and lymphatic vessels, and ramollissement or putrescence. The anatomical characters of hysteritis are found in its internal membrane, external or peritoneal tunic, and proper tissue. The internal surface of the uterus is almost always covered with a putrilaginous matter of a red brown colour, and often of an insupportable fœtidity. Is this product the result of inflammation? It is seen in women who die of diseases unconnected with delivery. It is probably an alteration or ramollissement of the internal membrane. We often find on the internal surface of the organ a crowd of small greyish granulations, or again a purulent matter, concrete, thick and yellow, which lines the whole of the uterus. It may favour the absorption of the lochia, or oppose their free discharge; and when detached may be mistaken for a portion of the tissue of the uterus, or be supposed a gangrenous degenerescence of the organ that does not exist. The peritoneal tunic of the uterus is crimpled, by the effusion of a sero-purulent or genuine purulent matter. This sometimes bursts, when the uterus appears uncovered, as the skin does after the removal of the cuticle by a blister. The alterations in the proper tissue of the uterus are very rare, except ramollissement or putrescence. In the most violent metritis it is not red or injected, and if pus form it is about the cervix, or where the fibres are lax. Pus is constantly observed in the cellular tissue, at the base of the broad ligaments or neck, or in the veins or lymphatic vessels. If proper care be not taken in dissection, it will be supposed abscesses of the proper tissue exist, when the vessels are affected. The broad ligaments may contain pus; it is very rarely found in the uterine tubes. The ovaries may be injected, tumefied, softened, or may contain a serous or purulent matter; in the latter there is a singular friability of their tissue. The pus more commonly is effused as in an abscess of the lung. In one case abcess opened through the rectum, in another into the abdomen; and it is not very uncommon that the uterine appendages adhere to the abdominal parietes, and it opens externally; which was observed by Ruysch, Delamotte, Desormeaux, and others."

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Our author observes, that peritonitis is most commonly observed in these cases, but it is a great error to think that it is constantly present.

"In many cases there is no appreciable change in the peritoneum, or it contains a small quantity of inodorous transparent citrine or reddish serosity, the first effect of inflammation, and where it has made the fugitive traces to disappear, or the simple result of the contracted respiration and circulation in these diseases. It is in the most violent and fatal cases, that the integrity of the peritoneum is most constantly observed. It exists almost always when there is alteration in the uterus, its vessels or appendages. The anatomical characters of peritonitis are not always identical; there may be slight effusion into the abdominal cavity, or vivid redness on the convolutions of the intestines, or effusion with lymph, false membrane, of

a yellowish colour; or pus such as we see in a phlegmonous abscess. The peritoneum is mostly inflamed in the hypogastric region, and is concentrated about the uterus; or it is general, or affects certain points, as the surface of the liver, mesentery, and epiploon When the last part, nodosities are presented, and perceived during life across the abdomen; sometimes the false membranes are brown, and improperly styled gangrenous, an error which pathological anatomy has done justice to, and need not be dwelt on, had not recent writers on peritonitis revived it.

"*Alterations of the Uterus.*—These are simple inflammations of the uterus and its appendages, suppuration of the veins and lymphatic vessels, and ramollissement or putrescence. The anatomical characters of hysteritis are found in its internal membrane, external or peritoneal tunic, and proper tissue. The internal surface of the uterus is almost always covered with a putrilaginous matter of a red brown colour, and often of an insupportable fœtidity. Is this product the result of inflammation? It is seen in women who die of diseases unconnected with delivery. It is probably an alteration or ramollissement of the internal membrane. We often find on the internal surface of the organ a crowd of small greyish granulations, or again a purulent matter, concrete, thick and yellow, which lines the whole of the uterus. It may favour the absorption of the lochia, or oppose their free discharge; and when detached may be mistaken for a portion of the tissue of the uterus, or be supposed a gangrenous degenerescence of the organ that does not exist. The peritoneal tunic of the uterus is crimpled, by the effusion of a sero-purulent or genaine purulent matter. This sometimes bursts, when the uterus appears uncovered, as the skin does after the removal of the cuticle by a blister. The alterations in the proper tissue of the uterus are very rare, except ramollissement or putrescence. In the most violent metritis it is not red or injected, and if pus form it is about the cervix, or where the fibres are lax. Pus is constantly observed in the cellular tissue, at the base of the broad ligaments or neck, or in the veins or lymphatic vessels. If proper care be not taken in dissection, it will be supposed abscesses of the proper tissue exist, when the vessels are affected. The broad ligaments may contain pus; it is very rarely found in the uterine tubes. The ovaries may be injected, tumefied, softened, or may contain a serous or purulent matter; in the latter there is a singular friability of their tissue. The pus more commonly is effused as in an abscess of the lung. In one case abcess opened through the rectum, in another into the abdomen; and it is not very uncommon that the uterine appendages adhere to the abdominal parietes, and it opens externally; which was observed by Ruysch, Delamotte, Desormeaux, and others."

Our author next adverts to suppuration of the veins and lymphatic vessels of the uterus, so accurately described by M. Dance, and inserted in an essay on phlegmasia dolens by the editor of this Journal in a late number. He maintains that inflammation of these vessels resembles phlebitis, and was seen in three out of five cases of puerperal fever,

and frequently does communicate a constitutional disease, bearing incontestible evidence of a poison analogous in general character, but milder in degree, more limited in the sphere of its operation, and from this and other circumstances capable for the most part of being distinguished from that of syphilis. The signs of distinction are becoming artificial and obscure, and the bases of them will in all probability be eventually overlooked and forgotten. Further, a sore of any kind formed on the genitals of a person whose blood circulates the gonorrhœal poison, becomes capable by its secretion *sui generis*, the type of the poison, of communicating syphilis, viz. of raising a vesicle or pustule, followed by a circumscribed, excavated, hard edged ulcer, which, if not restrained by the action of mercury, is disposed to extend in depth and breadth, and in short destroy substance indefinitely, which is the local characteristic of the most active syphilitic poison.

" From what has been stated I derive the following conclusions—

" 1. That absorption does not take place from sound surfaces, and therefore the poison of gonorrhœa, if it be one, is not developed in the system. In the very rare cases in which constitutional symptoms follow gonorrhœa in the absence of a visible sore, I refer their existence to absorption from an ulcer in the urethra.

" 2. That gonorhœal matter, though apparently the simple secretion of an inflamed surface, is capable, when absorbed into the system, as from sores, of acting as a poison in the production of constitutional symptoms.

" 3. That the venereal poison is essentially one; for analogous secondary or constitutional symptoms succeed to analogous primary sores, in systems previously healthy.

" 4. That the distinction between the gonorrhœal and syphilitic orders of symptoms, primary or secondary, is demonstrative of the difference between the secretions of a system previously healthy, and the secretions of a system already charged with a poison."—p. 27.

It may be interesting to contrast the conclusions of another distinguished surgeon with these before us, and select those of Mr. Lawrence, which were lately delivered at St. Bartholomew's Hospital. He candidly acknowledges that we know nothing of the poisons of gonorrhœa or syphilis, in the abstract, but merely by their effects, which are totally different; and therefore *he* is of opinion that the causes of these diseases are essentially different. He refers to the antiquity of the former, which was described for several centuries previous to the introduction of syphilis. He dissents from Mr. Hunter's opinion, " that the difference of the two diseases arises from the difference of the texture to which they are applied, that is, if the poison is applied to a mucous surface, as the urethra or vagina, it causes gonorrhœa; if applied to the cuticle, it causes a primary sore."

If this were true, women should almost invariably labour under gonorrhœa, as the virus is applied to the vagina, but they are as frequently attacked with syphilis. Again, men should be invariably attacked with the latter, as the virus is applied to the prepuce or glans penis; but gonorrhœa is much more common—indeed, according to Mr. Travers, in the proportion of 30 to 1. Another objection to this hypothesis is, the identity or continuity of the epidermis and mucous membrane, and if this be the fact, the idea that the same virus produces an ulcer on one part and purulent gonorrhœal discharge on another part of the same tissue, is absurd. Other arguments might be easily adduced to overturn the opinion, but enough has been said to convince the most sceptical. If gonorrhœa be the result of simple inflammation in an unbroken surface, and become a poison when ulceration occurs, and contaminate the system, then it follows that in the numerous cases of ulceration of the vagina, secondary symptoms ought to occur, which every man acquainted with obstetricy or female complaints knows is not the case. Our author reiterates his arguments in support of the preceding conclusions, and adds, that "a chancre is never produced by matter which is the production of a simple sore;" but a gonorrhœal sore, contracted by a poisoned system, that is, one charged with gonorrhœal poison, may communicate the second order of venereal symptoms, or those denominated syphilitic. When the blood is contaminated by the poison of gonorrhœa or syphilis, fresh primary sores are infectious. This is totally at variance with the preceding statements. We are next favoured with the following pathology, which appears to us purely conjectural:—

"A man having syphilis in a secondary form, provided he be free from all affection of the genitals, communicates no taint to his progeny, more than to his wife. But a healthy wet nurse getting a sore nipple from suckling a pocky child, and secondary symptoms in consequence, communicates the constitutional disease to the fœtus of which, during the existence of these symptoms, she becomes pregnant. The evidence is thus complete, the blood of the mother being contaminated, that the embryon which is nourished by it partakes of the poison, although in the absence of genital sores the party cohabiting is quite beyond the sphere of its influence. As the seminal fluid of a syphilitic male does not infect his paramour, so neither does the milk of a syphilitic nurse infect the infant which she nourishes; the natural secretions, by a most happy economy, however they may deviate from a healthy standard, not being in any case a vehicle of this poison. Had it been otherwise—had not sores been the exclusive medium of infection—how incalculably would the sum of human misery have been augmented!"—p. 33.

Mr. Lawrence and Mr. Hey of Leeds, (Med. Chir. Trans. vol. vii.) are of opinion, that a husband labouring under secondary syphilis, without sores on the genitals, may infect his wife and progeny. This has been the opinion of the best obstetric writers, and the following case offers the strongest evidence of the fact:—A gentleman, æt. 26, of a sanguine temperament and scrofulous habit, had an herpetic eruption on the prepuce, after impure connexion. His medical attendant did not consider it syphilitic; however, to be on the safe side, he administered mercury. The sores healed, and in a few months sore throat appeared. Alterative doses of mercury, with the free use of sarsaparilla, were employed until health was restored. About six months from the disappearance of the genital ulcers, the patient consulted his medical attendant whether he might marry with safety, having no symptom of the disease. He was told he might do so with safety. Soon after his marriage, his wife was attacked with sore throat, decidedly syphilitic, which withstood a free use of mercury and sarsaparilla. She was also pregnant. At the seventh month and a half she was delivered of a dead and putrid infant, the cuticle desquamated in many parts. She was a woman beyond suspicion. She was advised to continue the use of Plummer's pill and sarsaparilla, which she did for nearly six months, while she was pregnant, but again and again she had dead infants between the seventh and eighth months. She always felt the motion of the infant to the seventh month, but then it gradually declined, and soon ceased. In January 1828, we were consulted in this case, as also Dr. Joseph Clarke, the eminent physician to the Dublin Lying-in Hospital. He was of opinion that the husband and wife laboured under ill-cured syphilis, and that mercury and sarsaparilla ought to be employed by him and his wife. This he stated by letter, in which we fully concurred, but with an impression on our mind, that as the lady had missed a catamenial period and was probably pregnant, that she would again lose her infant as before. This turned out to be the case, and we then advised a separation between the parties for a few weeks, while both should give mercury and sarsaparilla a fair trial. This advice was strictly complied with, and the result was that the lady had a living child in 1829, and is in the last month of pregnancy at this period. It was a curious coincidence that this lady was always pregnant during the use of mercury until after her delivery in 1828, when she observed a marital separation as already stated. The case also controverts an opinion of Mr. Abernethy, that the fœtus in utero is unaffected by syphilis until after the sixth month; and indeed it is not a little surprizing

that so eminent a physiologist could have arrived at such a conclusion. Dr. Hamilton has long taught that ill cured syphilis in either parent was a cause of premature labour after the seventh month, and Dr. Beatty of Dublin, has published a valuable paper in confirmation of the opinion, which we have noticed elsewhere in describing this kind of labour.

"The infant, if born alive, is weak and delicate, and seldom lives—it generally dies in the womb; and its death is marked by a shivering fit, cessation of motion in it, and flaccid breasts. This sort of pregnancy frequently occurs to the same woman. A course of mercury before conception is the only remedy, when a venereal taint is suspected; and it must be used by both parents. Trans. Dub. Col. of Phys. 1824, v. 4. Also Drs. Joseph Clarke and Hamilton. I have lately met with two cases of this disease: one woman miscarried at the seventh month, with a copious discharge of amniotic fluid, and a putrid infant; she had lost six children in this way, and three at the eighth month—According to Dr. Beatty of Dublin, both parents must use a full course of mercury; and unless a large quantity be taken, a cure will not be effected. His papers, in the transactions of the Dublin College of Physicians, vol. 4, p. 24, are worthy of serious perusal. He informs us, that the Dublin physicians have held this opinion since 1792. Dr. Hamilton inculcated it in 1819 and 1820. After taking a proper quantity of mercury, healthy infants will in future be produced."—*Manual of Midwifery*, p. 183.

Mr. Hey also attests to the fact that a woman who is infected with syphilis through the medium of the breast from the mouth of a syphilitic infant, may have successive infants born with the disease. It is also well known that infants with ulcers on the lips may communicate primary sores to several women in succession. Mr. Travers asserts that the milk of a syphilitic nurse will not infect the infant which she nurses. Dr. Blundell stated in his valuable lectures, the case of an infant which was under the care of Dr. Lowder, and was twice cured by mercury; but the symptoms recurring a third time he suspected the infection was drawn from the mother's milk; the child was weaned and cured without further difficulty. Mr. Lawrence, on the other hand, relates a case which warrants a different conclusion. A nurse was infected through the breast, and had secondary syphilis; but her own infant which continued to derive its nutriment from the sound breast was not affected. When we consider the influence of depraved milk in women affected with scrofula phthisis, hepatic disease and irregular passions on infants, it is not easy to deny that a woman contaminated with syphilis must produce milk very injurious to the infant. The influence of the diet of a nurse on the infant is too well known to require illustration; neither need we refer to the writings of

those who ascribe rickets and various other diseases to deteriorated milk. But to return to our author; we find him stating his opinions on the treatment of venereal disease, and we are happy to meet him once more a practical surgeon and liberated from the reveries of hypotheses. His remarks on the use of mercury are highly important, and bear the strongest evidence of extensive and faithful observation. He proceeds as follows:—

"Mercury is its specific remedy, but neither the condition of parts nor of constitution is at all times ready to receive the remedy. Hence its incautious and premature employment aggravates instead of curing the disease. The two states absolutely prohibitory of its immediate use are, 1st. Excessive inflammation. 2d. Excessive weakness. In the first, the ordinary methods of resolving acute inflammation are to be employed, as blood-letting and purgative salts with antimony, and if much pain and irritation be present, Dover's powder, hemlock, or opium in any suitable form and required dose. In the second state, the sarsaparilla extract dissolved in the decoction is the most appropriate; indeed an invaluable remedy. If a higher tonic however be required, the extract, with the decoction and compound tincture of yellow bark, are more to be depended upon than the quinine in my experience; but a free allowance of nutrient food, wine, or porter, is most of all important.

"Whoever has witnessed in three successive cases the efficacy of mercury in arresting acute syphilis must, *nolens volens*, be a believer in its absolute controul over the disease. At least if he refuse his testimony to its power, he should be prepared to deny that of quinine and arsenic over the paroxysms of an intermittent. That the active inflammation may be arrested by continued antiphlogistic measures combined with rest and soothing applications, I do not deny; but the object is to save structure and to induce healing; and I am bound to maintain that mercury is the only remedy entitled to confidence on this ground. This is sufficient apology for having recourse to its aid, without inquiring if it renders the secondary symptoms more or less probable, or should they follow, more or less obstinate or severe. It is obvious, however, that the early cure of the primary ulcer is the object most desirable to be accomplished, as well in reference to what may follow, as to that which is in hand."—p. 41.

"If ulceration is making rapid strides, the better plan is to introduce the remedy by the skin in frictions, night and morning; and if the system resists its entrance, to aid the process by the pill. In cases of great debility, I begin with the oxymuriate or the mercury and chalk, as a test of the capability of the system to bear it. The anodyne, if need be, and the tonic of course should be continued. In most cases mercury and bark or sarsaparilla are exhibited with excellent effect at the same time. In ulcers of the throat fumigations are of the greatest efficacy. I often depend upon them alone in weakly persons, while other medicines are directed to the support of the system. They effect an improvement more rapid in

these cases than the constitutional action alone. I should say generally, that to render the action of mercury powerful over the disease, and to preserve the system from its injurious operation, the support of the patient's strength becomes the principal object of the surgeon's attention. Indeed, the successful treatment of the disease turns chiefly upon his knowledge and consistent pursuance of this indication.

"The treatment of venereal ulcers, primary or secondary, requires the same attention to the prevailing character as other sores, and nothing more than this. Their excessive irritability is best allayed by a saturated watery solution of the extract of opium. The calomel and lime water wash, with or without mucilage and opium, the dilute lunar caustic, and nitric acid washes, are the best cleansers and stimulants to healing action. The mercurial ointment with opium is also a beneficial application. In sloughy ulcers of the throat the linimentum æruginis is most effective."—p. 43.

He adverts to the recent plan of treating syphilis without mercury, and concludes that the mercurialists and their opponents discourse of very different things. He then returns to the treatment.

He enumerates the secondary eruptions, and observes that the profuse and wasting action of mercury is never called for, that we know little of its mode of action, except as a stimulant at the same time to the arterial and absorbent actions, and consequently a purgative to the whole secretory system. Our author next considers the injurious effects of a combination of the venereal poison and the action of mercury upon the system, subject to additional aggravation from scrofula and the operation of cold and intemperance. The cachexiæ thus derived are a most formidable class of diseases. The effects of mercury are the predisposing, and colds and dram drinking the exciting causes of these diseases.

The only "mercurial eruptions," according to Mr. Travers, are eczema and impetigo rodens, and the immense number ascribed to this cause by many, are almost invariably subjected to the use of the medicine which is supposed to induce them. The emaciation, pallor, fetor, the deep, eroding, foul ulcers, the worm eaten bones of the whole cranium, the sloughing of the posterior fauces, of the soft and hard palate, the falling in of the nose, the loss of the genitals, the agonizing night pains, the severe hectic, and offensive sweats, &c. are best relieved by infusion (decoction,) of sarsaparilla in lime water. "Its power," says Mr. Travers, "is the most extraordinary, more so than of any other drug with which I am acquainted. To regard it as inert, as a mere diluent, or an *inoffensive* nutrient, is either a proof of very limited experience

or a very prejudiced observation." We fully agree with our author on the last point, and are convinced were the medicine properly prepared, we should have heard much less of its failure. Mr. Travers next describes a peculiar and formidable form of venereal, which we shall place before the reader in his own words.

"I shall avail myself of this opportunity to notice a peculiar and very formidable distemper, arising from the unlimited intercourse of young and delicate girls of scrofulous temperament, chiefly with foreign sailors, many of them lascars or men of colour, frequenting the brothels in the vicinity of the East and West India and London Docks. The district of St. Catherine's (until recently converted into docks) was the most notorious for the propagation of this pestilence, and a place in that quarter called 'Swan Alley,' has given the sore that appellation in St. Thomas's Hospital. The subjects of the disease are almost exclusively females. I remember only one instance of a boy similarly affected, in whom the disease went unchecked to a fatal termination. The girls are slender, with very thin fair skins, and often light hair, and generally from 15 to 25 years of age. They have been a few months before decoyed by the Jews who keep these houses, and are systematically on the look out in the great neighbouring thoroughfares. The girls, newly arrived in London, while in search of lodgings until they procure places, become victims to these miscreants.

"They receive the visits of as many men as there are hours in the day, and are supported on scanty food and abundance of gin. Their visiters do not always restrict themselves to natural connection. When they become constitutionally ill, their keepers send them to the hospitals. The Magdalen ward of St. Thomas's is seldom without one or more of them. They have been only two or three days in the house when the character of the sore displays itself; for by reason of the previous illness they are rarely detained in their occupation long enough for the ulcer to have assumed its genuine features. It is a circumscribed irregular ulcer with an inflamed blunt edge, usually situated at the lower angle of one labium, or in the cleft of the nates. When the sore inflames, its edge acquires a dark crimson colour to some distance around; the surface is covered with a deep, tenacious, ash-coloured slough, and it extends so rapidly, as to be increased visibly from day to day. It is generally attended with excessive unremitting pain, a very rapid and contracted pulse, great paleness of the surface, total failure of the appetite, and great depression of strength and spirits. It is, in fact, acute gangrenous inflammation. Where they recover, no secondary symptom of lues appears; nor is the disease in any degree contagious. The treatment now adopted seldom fails to arrest it, unless admitted in a very advanced stage, as after the sloughing process has been some time established, when the devastation is truly terrific. In addition to the slough of the pudendum, I have seen the entire lower opening of the

pelvis deprived of its soft parts. The girl dies typhoid with a dry black tongue, and is first delirious, then comatose.

"When the pain is severe, and the disc of inflammation strongly marked, blood-letting is beneficial to both. I usually apply lint soddened in a saturated solution of the extr. opii. over this a poultice of linseed meal, and cover the whole with a fomentation flannel. This seldom fails to relieve, if not to remove the pain. The exposure of the sores and the change of dressings much augment it; the continued application of warmth and moisture as much abate it. After clearing the bowels with castor oil, I give a draught of camphor julep with a drachm of ether, and ten minims of the tinct. opii. every four hours; and half a grain of opium additionally, if the pain is very urgent. If the slough is fast, and the ulcer extends, the surface is washed freely with the strong nitric acid, and it is remarkable that very shortly afterwards the girl expresses great relief. The London treacle poultice I likewise find an excellent application, covered by the fomentation flannel. The object to be looked to for directing the application, is the colour of the surrounding skin; when this pales, the dilute nitric acid lotion, ten drops to an ounce of water, is the best application. Fresh eggs and milk, and as the stomach acquires tone, a mutton chop, and from ten to twelve ounces of port wine daily, are an appropriate support. The occasional repetition of the oil or the common enema should not be neglected under the habitual employment of opium.

"The strong acid must be repeated each third or fourth day, till the whole surface granulates. When the girl sleeps and takes nourishment, notwithstanding an immoderately quick pulse, she does well; and the sore, when once clean, heals rapidly under the dilute acid lotion and simple cerate. The bark is useful at this period, but very secondary to the opium, wine, and nutriment. The former should be gradually reduced. A lotion of the chloride of lime and caustic soda, three drachms of the first and one drachm of the last to half a pint of water, acts with magical celerity in clearing the sloughs in many cases; but I have not found it so applicable or efficacious during the stage of acute inflammation, as when it is subdued. I once saw mercury rubbed in to rapid salivation, with manifest acceleration of the destroying process, and the vital powers were further greatly sunk by it. I have seen the inflammation begin after the taking of half a dozen blue pills, one every night and morning, which had been prescribed upon the girl's admission for a sore, which was then small and indolent, in ignorance of its character and tendency."—p. 53.

The last topic illustrated by our author is the origin of the venereal disease. This being a point of no practical utility, we shall pass it by, and content ourselves by referring the reader to the original work. We cannot conclude without observing that the revival of an exploded opinion,—the identity of gonorrhœa and lues, will make very few converts;

and we regret that a man of Mr. Travers' just celebrity should be the champion of such a doctrine, as his name may influence some few to employ mercury in the cure of gonorrhœa, a practice contrary to that of the most eminent men in our profession.

IV.—*A Treatise on Deformities; exhibiting a Concise View of the Nature and Treatment of the principal Distortions and Contractions of the Limbs, Joints, and Spine; illustrated with Plates and Wood-cuts.* By LIONEL J. BEALE, Surgeon. 8vo. pp. 248. Five Plates. London, 1830. John Wilson.

(Continued from Vol. IV. p. 483.)

AFTER a minute and graphic description of the symptoms and progress of lateral curvature, our author details the anatomical characters of the disease:—

"Anatomical investigations have ascertained that the bones are seldom diseased in lateral curvature. In those cases which originate in very early life, they are usually soft and spongy, and lose their shape by pressure, but in the most frequent instances of this variety of curvature, we may consider it as established, that the bones are never altered in structure, nor is their figure changed but in old, and permanent deformities. The muscles, and ligaments, are found considerably altered both in form and texture: they are stretched and elongated on the convexity of the curves, while on the opposite side they are contracted, as is also the skin. When the deformity has been of long continuance, the muscles are found wasted pale or yellow, and flaccid. When the ribs have for many years been placed in close apposition, or ride one over the other, the intercostal muscles will be nearly obliterated, this will also be the case with other muscles, which have been totally inactive for many years. In some old cases, the tuberosity, the neck and head of some of the ribs have been found completely anchylosed with the transverse processes, the whole being enveloped in bony matter and confounded together.

"The fibro-cartilages are always reduced in thickness in the concavity of the curves. Mr. Shaw states that he never found them diseased, but that they always retained their peculiar firmness and elasticity: this is true with regard to lateral curvatures dependant principally on muscular debility. In cases resulting from the action of scrophula, or chronic inflammation of the intervertebral substance, it will be found softened and distended, its texture infiltrated with a gelatinous fluid, as the analogous structures are found in similar affections of the knee, or other articulations.

"The influence of this distortion on the animal economy can be readily imagined by considering the anatomy of the parts implicated. The functions of the lungs and heart will suffer according to the

degree of the deviation of the parieties of the thorax. The large vessels, the thoracic duct, and great sympathetic nerves, follow the course of the spine, and make the same curves. The viscera of the abdomen are also displaced and often compressed, but they suffer less in general, than in curvature forwards."—p. 151.

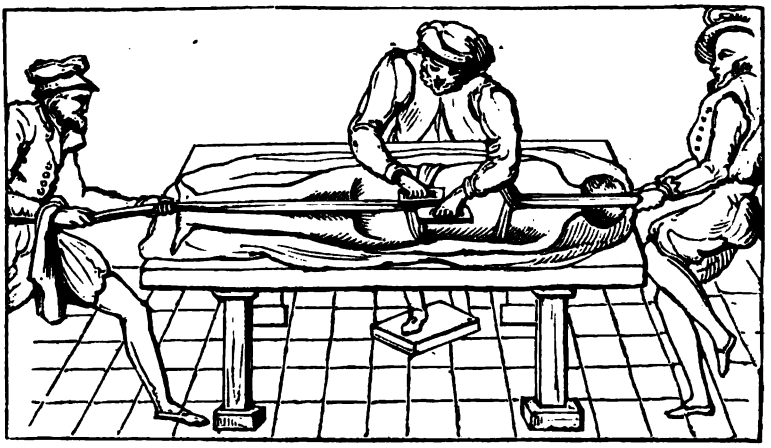
The next section is on "curvature forwards," or on the excurvation of other writers. This disease is almost as common as the last, takes place at all ages, though more rarely after 40, but from very different causes. It is common in ricketty children, and is caused by inflammation of the fibro-cartilages, or muscular debility. The bent back of rheumatic and old persons is an example familiar to all. In this form of spinal disease a few or the whole vertebræ may be affected.

"When the malady depends on muscular debility, the curvature will be most extensive: when it results from intumescence of the fibro-cartilages, there will be first a projection of only one or two spinous processes, but the disease will soon extend above and below the original seat, and if not arrested very considerable curvature will ensue. In cases arising from the disease of bone, fewer vertebræ are concerned, and we consequently have, from this cause, rather an angular projection, than a curvature.

"In many instances, where muscular debility is the principal cause, there have been no symptoms leading to any suspicion of approaching mischief, but as in lateral curvature from the same cause, the incipient deformity will first draw attention to the spine. Even where there is disease in the fibro-cartilages, or the bones, the pain is often so obscure, that the nature of the complaint is not suspected, until one or more of the spinous processes project backwards."—p. 153.

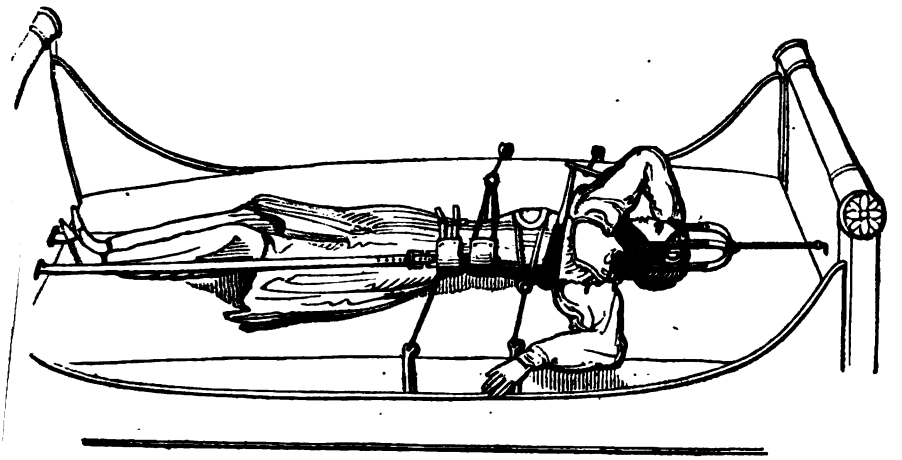
Our author next describes "angular projection," "curvature backwards," and then considers "the influence of muscular action as a cause of spinal distortions, disease of the fibro-cartilages, disease of the bones," and lastly, the treatment of these diseases. It is impossible to condense the language of the author, and it would be as unjust as unreasonable to expect that we should reprint it. Every page of the work is replete with important information, and no practical man can be without it. The machinery which is employed for the cure of deformities is so ingenious, that we cheerfully place representations of it before our readers, and this is the main point for the consideration of practitioners. Mr. Beale does not attempt to delineate a tenth part of the machinery invented for the cure of deformities, but still gives a very judicious selection. Much unjust prejudice prevails among British surgeons with regard to the

use of machinery in diseases of the spine and other deformities, but these means have been long employed in the numerous establishments on the continent, and indeed in this country, by Dr. Harrison, with great success. It is easy to conceive the dreadful consequences which must ensue from the injudicious application of machines to certain forms of spinal disease. The ill consequences of mechanical treatment were so frequently observed, that in this country we had almost abandoned the use of machinery altogether. But all these means may be beneficial when applied to proper cases, and of this fact the strongest evidence is afforded by the success of Dr. Harrison, Mr. Amesbury, and Mr. Beale. The representations of the different machines by Mr. Beale, and his concise yet comprehensive description of the different cases to which they are applicable, supply a great desideratum in the medical library. The first wood-cut represents the plan proposed by Ambrose Paré in 1649, for the cure of excurvation. The patient was placed on his face on a table, and napkins passed under his arms, and round his loins. Traction was then made by both assistants without violence, for unless such extension was made, restitution was not to be hoped for, from the faster knitting of the vertebræ. Then the prominences were forced in with the hands, or two pieces of wood were applied after the manner delineated. After the vertebræ were restored, splints or plates of lead were applied, but in such a manner as not to press on the spinous processes, but only on the sides.



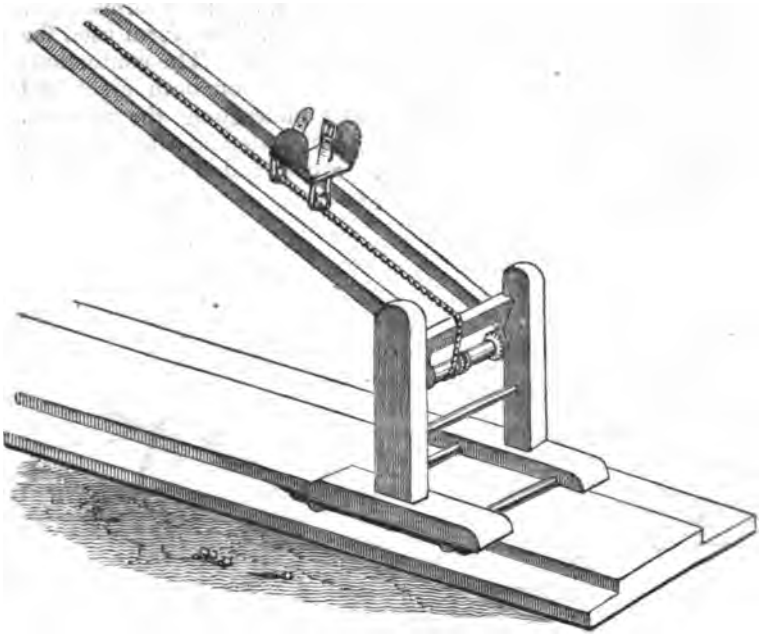
Mr. Beale next alludes to the various instruments invented for the treatment of spinal distortion, and gives a compara-

tive view of the value of each of them. He informs us of the complexity of those of France; and that form used for stretching the spine is illustrated as below. The contortions and inflections of the spine are pressed on both night and day; and a figure is represented undergoing the process, which is effected by machinery concealed in the frame of the bed. The lateral bracings are intended to operate on the respective curves of the spine.

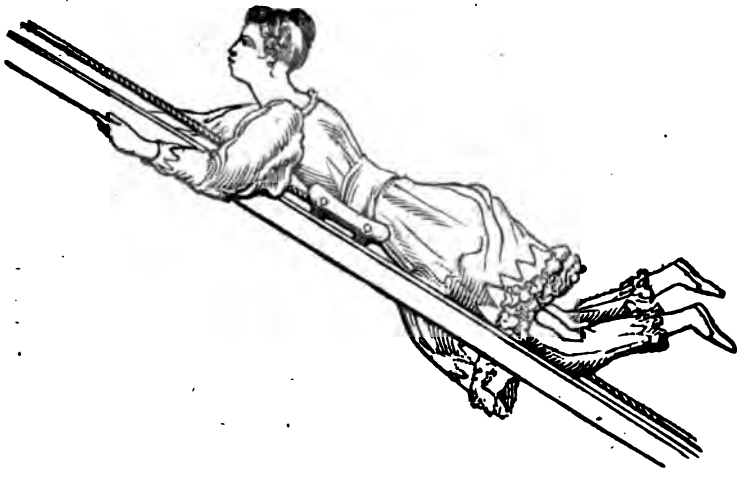


Our author states that all the advantages of this complex machinery will be effected by a screw, similar to that of the tourniquet acting on a bandage round the pelvis, the head being fixed in one of the common head-pieces of the inclined plane, or by an apparatus similar to that represented in the sketch.

The following wood-cut is copied from Delpech, and represents a contrivance by which the muscles of the arms, chest, spine, with many of those of the lower limbs, may be exercised by convalescents from spinal diseases, where the weight of the upper parts of the body cannot be allowed to press on the spine. The inclination of the machine with the horizon may be altered to suit the strength of the individual using it. When perfectly horizontal, the exertion required to move forward is trifling; by raising its inclination the exercise will be rendered more difficult, and better adapted to increase the powers of the muscles.



" The machine is supported on a basis, which moves on four rollers, in a grooved platform. The frame on which the cord is stretched, is connected with this basis by a pivot, by which the angle formed with the horizon may be altered. Below the axis there is a windlass in the frame which increases the tension of the cord. The car is mounted on the tense cord by two pullies, one anterior and one posterior; its sides cannot be supported on the sides of the frame, without impeding motion, which renders it necessary to maintain the equilibrium, by the action of the lower extremities.



"Below is a figure practising this exercise and in the act of ascending. The cord is borne down by the weight of the body, the knees are pressed against the sides of the frame to maintain the equilibrium of the car, the body is raised by the exertion of the arms pulling at the side rails. This exercise obviously calls into play most of the muscles of the arms, chest, and spine, together with many of those of the lower limbs."—p. 242.

Two other wood-cuts are given, illustrating the instruments for deformities of the feet—three of varus, valgus, and pes equinus; and two of angular projection of the spine.

We now take leave of our author with every sentiment of respect, and have only to reiterate our favourable opinion of his work. We can truly state that it is compiled with proper attention to the value of its separate parts; it is at once scientific and practical; and presents a condensed and accurate sketch of the many points on spinal and other deformities, to which every man must frequently have occasion to refer in practice.

ORIGINAL COMMUNICATIONS.

I.—*Ethics of the present Period.* By M. Ryan, M.D.

"I will never set politicks against ethicks, for true ethicks are but as a handmaid to divinity and religion."—Bacon.

An obstinate adherence to an unsuccessful method of treating a disease must be owing to a high degree of self-conceit and a belief in the infallibility of a system. It has been the cause of the death of thousands. Patients ought to be indulged in every thing consistent with their safety; and if they are determined to try an improper or dangerous medicine, a physician should refuse his sanction, but he has no right to complain of his advice not being followed. A physician is often at a loss in speaking to his patients of their real situation, when it is dangerous. A deviation from truth is, in this case, both justifiable and necessary. It often happens that a person is extremely ill, but he may recover if he is not informed of his danger. Again, a man may not have settled his affairs, though the future happiness of his family depends on his making a settlement. In such cases the physician may apprize the friends, and occasionally the patient, of the necessity of the arrangement and disposal

of his property. In all dangerous cases, the real situation of the patient should be communicated to his nearest relatives, as it gives them an opportunity of calling other assistance, if they think it necessary. The patient is not to be deserted when his case is despaired of; it is as much the duty of a physician to alleviate pain, and to smooth the avenues of death, when inevitable, as to cure diseases; his presence and assistance as a friend may be both agreeable and useful where his skill is of no further avail. In some cases we should caution the indiscreet enthusiasts among the clergy against too much zeal, as they often terrify the patient and contribute to shorten a life which might otherwise be saved. Medical men should never involve their patients in private and professional quarrels, in which the sick have no concern. All personal feelings should be forgotten in consultations, the good of the patient ought to be the chief and only consideration. The quarrels of the faculty, when they end in appeals to the public, generally hurt the contending parties, discredit the profession, and expose it to ridicule and contempt. Nothing can justify the refusal to consult but want of temper, nor can such circumstances as the university where a person has taken a degree, "or whether he had any degree at all, justify the refusal." This assertion, I may observe, is at variance with the usages of the profession, though society has sanctioned it. Fellows of the College of Physicians refuse to meet graduates of all the British and foreign universities in consultation, until admitted into the College. But of this hereafter. It becomes young practitioners to be particularly attentive to the propriety of their behaviour when consulting with their seniors. Besides the respect due to age, these are entitled to a particular deference from their longer and more extensive experience.

The revolutions indeed of medical hypotheses and systems are so quick, that an old and a young physician seldom reason in the same way on subjects of their profession; although the difference be sometimes rather apparent than real, when they use only a different language to express sentiments essentially the same. But it generally happens, that the speculations which principally engage the attention of young physicians, seldom in any degree affect their practice; and therefore, as they are in a great measure foreign to the business, they should never introduce them in medical consultations. They shew equal want of sense and good manners, when they wantonly take opportunities of expressing contempt for opinions as antiquated and exploded, in which their seniors have been educated, and which they

hold as firmly established. A little reflection might teach them, that it is not impossible but in the course of a few years, their own most favourite theories may be discovered to be as weak and delusive as those which have gone before them; and this should lead them to consider how sensibly they may be hurt themselves, when they find those idols of their youth attacked by the petulant ridicule of the next generation; when, perhaps, they are arrived at a time of life when they have neither abilities nor temper to defend them.

Dr. Gregory defended the necessity of medical men being versed in all the branches of the healing art, and concludes by observing, "Every department of the profession is respectable, when exercised with capacity and integrity. I only contend for an evident truth, either that the different branches should be separately professed, or, if one person will profess all, that he should be regularly educated to, and thoroughly master of all. I am not here adjusting points of precedence, or insinuating the deference due to degrees in medicine. As a doctor's degree can never confer sense, the title alone can never command regard; neither should the want of it deprive any man of the esteem and deference due to real merit. If a surgeon or apothecary has had the education, and acquired the knowledge of a physician, he is a physician to all intents and purposes, whether he has a degree or not, and ought to be respected and treated accordingly. In Great Britain, surgery is a liberal profession. In many parts of it, surgeons or apothecaries are the physicians in ordinary to most families, for which trust they are often well qualified by their education and knowledge; and a physician is only called where a case is difficult, or attended with danger. There are certain limits, however, between the two professions, which ought to be attended to: as they are established by the customs of the country, and by the rules of their several societies. But a physician, of a candid and liberal spirit, will never take advantage of what a nominal distinction, and certain privileges, give him over other men who, in point of real merit, are his equals; and will feel no superiority, but what arises from superior learning, superior abilities, and more liberal manners. He will despise those distinctions founded in vanity, self-interest, or caprice; and will be careful that the interests of science and of mankind shall never be hurt, on his part, by a punctilious adherence to formalities.

Much stress has been laid on the formality of a physician's dress, but there is no reason in preferring one garb to

another. In some cases there is great impropriety in having any distinguishing formality in dress and manners.

The attendance should be in proportion to the urgency and danger of the disease. A patient or his friends have a curiosity to know the nature of the medicine prescribed, which it is often very improper to gratify; but other cases occur in which it may be proper to acquaint the patient with the nature of remedies, as the peculiarities of constitution require great attention, both as to the quantity and quality of certain medicines. Such are the chief of the duties of medical men, according to the amiable and revered Dr. Gregory; the observance of which cannot fail to promote the honor and dignity of the profession. He included many minor topics, which need not be recorded at the present period.

There are certain duties belonging to the learned professions which are supreme, and which no individual and no set of men can either, for themselves or their successors, violate, renounce, or neglect, without substantial injustice. These duties, so far as they relate to physicians, are comprised in the oaths required by the Universities, Colleges of Physicians, and in one of the Colleges of Surgeons, in this empire. The substance of these oaths is that proposed by Hippocrates nearly 2000 years ago, and the oath was formerly administered in all Universities in which medicine was taught, to those who were created doctors, and to those who were licensed to practise by the Colleges of Physicians. The oath required by the Edinburgh University is in the following words. After an invocation of the Deity, the graduate pronounces these words: "Tum porro artem medicam caute, caste, probeque excercitaturum, et quoad potero omnia ad ægrotorum corporum salutem conducentia cum fide procuraturum quæ denique inter medendum visa vel audita silere convenit non sine gravi causa vulgaturum. Ita presens spondenti adsit numen." "To practise physic *cautiously, chastely and honorably;* and faithfully to procure all things conducive to the health of the bodies of the sick; and lastly, never, without great cause, to divulge any thing that ought to be concealed, which may be heard or seen during professional attendance. To this oath let the Deity be witness." I believe no similar oath is required by the Universities of Oxford, Cambridge, Dublin, Glasgow, Aberdeen, or Saint Andrew's, or by any of the Colleges of Physicians or Surgeons, except those of London. The Royal College of Physicians requires the following promise from its members, fellows, and licentiates, and prescribes a code of moral statutes:—"Dabis fidem te observaturum statuta Collegii, aut mulctas tibi contra facienti irrogandas promptè persolu-

turum, omniaque in medicina facienda, pro viribus facturum in honorem Collegii et reipublicæ utilitatem." "You faithfully promise that you will observe the statutes of the College, and that you will promptly discharge all fines imposed on you for the breach thereof, and that you will do every thing in the practice of medicine for the conservation of health, to the honour of the College, and the utility of the realm." The following are the *Moral and Penal Statutes* of the Royal College of Physicians of London in 1830:—

De Conversatione Morali et Statutis Pœnalibus.

1. Nullus sive Socius, sive Candidatus, sive Permissus fuerit, Socium aut Candidatum aut Permissum ignorantiæ in arte suâ vel maleficii nomine, nisi coram judicibus legitimis accuset, aut coram quibusvis afficiat contumeliis. Si quem contrà fecisse Præsidenti et Censoribus aut eorum majori parti innotuerit, primâ vice solvat quatuor libras, secundâ vice duplicetur mulcta; quòd si tertio quis similiter diliquerit, et modo prædicto convictus fuerit, si quidem Socius aut Candidatus fuerit, expellatur é Societate nostrâ, vel è Candidatorum ordine; sin idem sit è Permissorum numero, solvat decem libras. Quam quidem decem librarum mulctam quotiescunque idem Permissus ejusdem delicti modo prædicto denuò convictus fuerit, ipsi irrogandam statuimus.

2. Nullus Socius, Candidatus, vel Permissus salutatione officiosâ, vel animi benevoli obtentu, opem medicam ultrò offerat, nedum submiuistret ægro cuilibet, quem Medici cujusvis, sive Socii, sive Candidati, sive Permissi, curæ commissum esse cognoverit, et ad quem non accersitus fuerit.

3. Si quis autem malitiæ hujusmodi convictus fuerit, præter ignominiæ notam quam isti (quantum in nobis est) inuri volumus, quadraginta solidos mulctetur à Presidente et Censoribus.

4. Si quis paciscatur cum Pharmacopolis de aliquâ pretii parte ex medicamentis præscribendis percipiendâ, si sit Socius aut Candidatus, et hujusce delicti à Præsidente et majore parte Sociorum in Comitiis majoribus sive ordinariis sive extraordinarus præsentium convictus fuerit, è Societate nostrâ, vel è Candidatorum ordine, expellatur.

5. Sin Permissus delicti hujusce à Præsidente et Censoribus, aut eorum majore parte, convictus fuerit, decem libras quotiescunque id admiserit, mulctetur.

6. Medicus quisque, sive Socius, sive Candidatus, sive Permissius fuerit, singulis suis schedulis, in quibus ægri curatio præscribitur, diem præscriptionis, ægri nomen, et su

denique nominis literas initiales adscribat; nisi causa interesit à Præsidente et Censoribus approbanda.

7. Si plures Medici curationis gratiâ convenerient, consultandum est summâ modestiâ, et non nisi semotis arbitris à re alienis. Nec quisquam præscribat, imò ne innuat quidem, quid agendum sit, coram ægro, aut adstantibus, priusquam junctis consiliis inter ipsos Medicos curandi methodus fuerit constituta. Sin autem Medici in diversas iverint sententias, ita ut in eandem medendi methodum consentire nequeant, summâ tamen prudentiâ et moderatione se gerant; eorumque dissentionem ita, ut tàm ægro quàm amicis ejus quàm minimum molestiæ pariat, ordinarius medicus ægro aut adstantibus significet.

8. Qui leges has consultandi non observaverit, et à Præsidente et Censoribus aut eorum majore parte convictus fuerit, quinque libras mulctetur.

9. Nullus denique Medicus, sive Socius, sive Candidatus sive Permissus, consilium ineat de rebus Medico propriis, in civitate Londino et intra septem milliaria in circuitu ejusdem nisi cum aliquo è Sociorum vel Candidatorum vel Permissorum numero, sub pœnâ quinque librarum quotiescunque hujusce delicti à Præsidente et Censoribus, aut eorum majore parte convictus fuerit.

10. Omnes mulctæ quæ per statuta nostra irrogatæ fuerint illicò solvantur.

1.—No fellow, candidate, or licentiate shall accuse a fellow, candidate, or licentiate of ignorance or mala praxis of his art, unless before legitimate judges, or before those concerned. If it be known to the president and censors, or the majority of them, that any person shall so act, he shall pay £4. for the first offence, and the fine will be doubled for the second; but if he transgress a third time, and be convicted in the manner mentioned, if he is a fellow or candidate he shall be expelled from our society, or from the order of candidates; and if he is a licentiate he shall pay £10. and we ordain, that licentiates shall be fined a like sum for every similar transgression.

2.—No fellow, candidate, or licentiate shall afford medical aid or prescribe for a patient whom he knows is under the care of another physician, whether fellow, candidate, or licentiate, and to whom he has not been duly called.

3.—If any one be convicted of this vice, besides the known ignominy which we wish him to suffer, he shall be fined £2. by the president and censors.

4.—If any one shall bargain with apothecaries for any per centage on prescriptions, if a fellow or candidate, and if convicted in the manner before mentioned, he shall be

expelled from the fellowship, or from the order of candidates.

5.—If a licentiate, he shall be fined £10. for each offence.

6.—Every physician, whether fellow, candidate, or licentiate, shall inscribe his initials, the date of the prescription, and name of the patient, on every prescription, unless some cause intervenes which shall be approved by the president and censors.

7.—If many physicians be called to a patient, they are to consult with great modesty, and not without the absence of witnesses unconnected with the affair. Nor shall any one prescribe or insinuate what is to be done before the sick or attendants, before he has stated his method in consultation. But as medical men have different opinions, so that they cannot agree in the plan of treatment, they are to conduct themselves with the greatest prudence and moderation; the ordinary attendant shall signify to the sick and attendants their dissention, so that it may appear as trifling, and as slightly disagreeable to the patient or his friends as possible.

8.—Whoever will not obey these rules of consultation, and be convicted by the president and censors, shall be fined £5.

9.—Finally, no physician, fellow, candidate, or licentiate shall consult in the city of London, or within seven miles thereof, unless with a fellow, candidate, or licentiate, under a penalty of £5. as often as convicted by the president and censors, or majority of them.

10.—All fines imposed by these statutes must be paid.

It is much to be regretted that the great bulk of the profession,—University graduates in medicine, surgeons, and apothecaries, have no opportunity of being acquainted with these admirable statutes, or have nothing similar to inform them of the etiquette they owe to each other. In printing these statutes and placing them before the medical public, I hope and trust I may add to the honor and dignity of the profession. The majority of the tenets maintained in them are highly conducive to the fame of every class of medical men; and if duly observed would extinguish that base and unprofessional and ungentlemanly behaviour, which of late has characterized too many medical practitioners, and has debased and degraded the profession. The disputes and calumnies of medical men have been so frequent, so violent, so notorious of late, that the character of the profession is lowered in the estimation of the public to a degree unequalled in the history of medicine. Actions against medical men by their contemporaries, or their patients, are now amongst the most frequent in our courts of justice. This

degeneracy of the profession is not confined to this country, it extends throughout Europe, and has even crossed the Atlantic Ocean; and it arises from the exclusion of medical ethics from the prescribed courses of professional education. This malignant spirit pervades every branch of the healing art, the physicians, the surgeons, and the apothecaries are the most prominent of litigants in our courts of justice. What a falling off is here! If we turn to private practice, we find those uninfluenced by the statutes under consideration, vituperating each other, "by look, gesture, and suspicious silence," and often without any disguise; and the injured individual has no remedy afforded him by the body to which he belongs, and which gravely promises him rights, privileges, immunities, and protection in the discharge of his vocation; his only remedy is an appeal to the laws of his country. But the fact is, our Colleges of Surgeons and Companies of Apothecaries have no power to protect their members; nor is there any country in the world in which the laws relative to the practice of the medical profession are so imperfect and defective as in the British empire.

But to return to the subject immediately under consideration, I have to detail the oath required by the Royal College of Surgeons in this city, which is as follows:—"You swear that while you shall be a member of the Royal College of Surgeons in London, you will observe the statutes, bye-laws, ordinances, rules and constitutions thereof; that you will obey every lawful summons issued by order of the court of assistants and examiners of the said college, or of either of them, having no reasonable excuse to the contrary: that you will pay such contributions as shall be legally assessed upon and demanded of you: that you will demean yourself *honorably* in the practice of your profession; and to the utmost of your power maintain the dignity and welfare of the college—So help you God." It is to be feared that some surgeons forget to demean themselves honorably in the practice of their profession, more especially as their rivals, the apothecaries, or as they are most unclassically denominated "the general practitioners," are under no such obligation. From the open violation of our laws relative to the practice of medicine, the surgeons act as physicians, and must become apothecaries in self-defence; the apothecaries act as physicians and surgeons, while the chemists and druggists, without any medical education whatever, act as physicians, surgeons and apothecaries; and as to quacks, they are allowed to flourish to an illimitable extent, and to destroy more than the sword, famine and pestilence united. Such is a true picture of the

medical profession in the greatest nation upon earth—in a country pre-eminent for literature, science and the arts.—Such is the state of medical practice in England.

II.—*Case of chronic disease of the Liver.*

By G. G. WARDEN, Esq. Surgeon, Limehouse Fields.

Mr. Charles Warden, of Woolwich, aged thirty-three, in the year 1821, when in Paris, was attacked with hepatitis, from which period he was never to say healthy, yet was capable of very active employment; but from the time of his indisposition a gradual increase of the size of the abdomen took place in the right side, and in the beginning of the year 1826, there were evident symptoms of some morbid growth of some of the abdominal viscera; at the latter part of the same year, the respiration became considerably impeded, attended with great debility. I saw him in this state, and on examination could distinctly trace a tumour of considerable size, extending from below the ensiform cartilage into the right hypochondriac region, but could not distinguish any fluctuation. Further advice was suggested, and Sir Astley Cooper was consulted, who pronounced the case to be "either hydatids or abscess," and recommended the empl. hydrarg. c. ammon. to be applied over the region of the tumour; and inf. rosæ c. mag. sulph. 3 table spoonsful to be taken two or three times a day; and when the skin became red over the tumour, the same was to be punctured; after continuing this mode of treatment for some time, no change in the symptoms was manifest, excepting the debility was not so great.—Mr. Fitzpatrick, surgeon of the Royal Artillery, was requested to see the case, who ordered the removal of the plaster, and directed the system to be put under the influence of mercury. The ung. hyd. fort. was rubbed over the region of the tumour, and some mercurial preparation taken inwardly, (I believe the pil hyd. submur comp.) until ptyalism was excited, from which treatment he considerably improved and gained comparative health and strength, but no apparent decrease of the size of the tumour. He continued in this state with occasional slight indisposition, until 8th of October, 1829, when very serious symptoms made their appearance; about a pint and a half of coagulated blood was discharged from the mouth whilst walking in his garden, without any pain being previously felt, or any particular feeling, excepting that of a sudden

nausea. Medical assistance was immediately sent for and refrigerating medicine administered, pulse 120 intermittent, great debility, 10th.—About 10 or 12 ounces of blood were again ejected, not so congealed and of arterial colour, pulse varying from 120 to 130. 11th.—V.S. to ʒxij. 12th.—No return of hæmatemesis, 13th.—Pulse 100, regular, debility not so great, difficulty of keeping the bowels relaxed. 14th.—Left his room and came down stairs; when sitting on his sofa, he complained of a sensation of something having suddenly burst in the abdomen, which immediately produced syncope; Mr. Fitzpatrick was immediately sent for, and on examination the tumour could be distinctly traced, and the abdomen had assumed a regularity of form. An operation was proposed, and a trochar was introduced midway between the superior spinous process of the ilium and the last inferior costa, and two pints of serous fluid were extracted. A second operation was proposed to be performed in the linea alba, a little above the symphysis pubis, but on account of the diversity of opinion of the medical attendants respecting its propriety, it was deferred. From the drawing off of the fluid, he gradually improved so much so as to be able to take exercise (the system being kept up by stimuli) until the 28th of March last, 6 p.m. when walking with Mrs. W. he requested her to lead him home, as he was losing his recollection, and expired the following day, at the hour and day he prognosticated he should die.

Necropsy of the body 32 hours after death.—On examining the contents of the thorax, no particular morbid structure was to be observed, except that there was more fluid than usual in the pericardium, and the heart rather of the larger size, but on inspecting the abdomen, a tumour of about six inches in diameter, the coat of which was of cartilaginous structure, lay directly under the scrobiculus cordis, and was firmly adherent by cellular tissue to every part in contact with it. The adhesions to the diaphragm and stomach, were so firm as required great care in separating them, several tendinous bands extended from the tumour to the peritoneum of the left hypochondriac region; dissecting down to the cardiac orifice of the stomach to the œsophagus, for the purpose of removing the intestines, the most beautiful adhesions were seen. After the removal of the intestines, which were to all appearance as if they had been macerated, the tumour was found to occupy the situation of the left lobe of the liver, and which seemed to be absorbed in the tumour. The peritoneal coat of the liver covered the tumour. The right lobe, the lobulous spigelii and gall bladder were perfectly

healthy, the kidneys were healthy, the spleen was much enlarged and hepatized; the tumour displaced the whole of the abdominal viscera. It is now in the possession of Mr. Fitzpatrick, Royal Artillery.

Query.—What was the tumour that contained the fluid, extracted in the operation, and what could have become of the coats of the tumour, as no traces of the same were to be found in the post mortem examination?

Query.—What could be the contents of the tumour now in the possession of the gentleman alluded to?

Query.—Whether the tumour was the cause of death, after so long a period had elapsed?

Query.—Whether the stimuli taken tended to shorten existence? or whether if these stimuli had not been taken the patient would have sunk from exhaustion?

It is worthy of observation that previous to his last indisposition, he was extremely abstemious, but subsequently the appetite became voracious, and the inclination for stimulating beverage excessive, although the smallest quantities seemed to satisfy him, and he never took the same article a second time.

IV.—*Observations on the cure of Animal poisons by the local application of table salt, and probably of hydrophobia.—By* The Rev. J. J. G. Fischer, formerly a Missionary in South America, communicated by Dr. Sutton, of Greenwich.

The newspapers teeming of late with most unfortunate cases of this horrible malady, I beg leave to state that since 1803, I often was determined to make known a simple remedy against the bite of mad dogs, or any rabid animal, provided the position be true, that, *whatever cures venomous serpents' bites, will also cure the bite of mad dogs,* as the general opinion is, for instance from the late use of the South American Plant, Mikania Guaco, which is held to be an antidote for serpents' bites, consequently from that general opinion physicians have lately administered it as an antidote to hydrophobia, but the trial has failed.

As to cure the bite of serpents in South America, where I was a missionary amongst the Indians for a series of ten years, viz. at Surinam, Berbice, and Demerara, between the 4th and 7th degree of latitude, I never heard there of the Mikania Guaco, but I actually and effectually cured all kind of very painful and dangerous serpents' bites, after they had been

inflicted for many hours, for immediately after I had applied *my remedy*, the pain subsided and the patient calmed, which remedy was nothing else than *common table salt*, m. soda, and I kept it on the place or wound, moistened with water, till all was healed within several days, without ever any bad effect occurring afterwards.

I for my part never had an opportunity to meet with a *mad dog*, or any *person* who was bitten by a mad dog, I cannot therefore speak from experience as to hydrophobia; but that I have cured *serpents' bites always without fail*, I can declare in truth.

If then any antidote for serpents' bites will cure hydrophobia, *my* specific salt, viz. common kitchen or cooking salt, which is in every poor man's house, will undoubtedly cure hydrophobia.

That this is not merely a supposition or opinion of my own, I beg leave to adduce the writings and trials of others.

From a paragraph in the "Courier, July 27th, 1827, taken from Dr. Sulzer's Analysis of Dr. Urban's remarks on the rabid virus, in Hufeland and Osann's German Medical Journal, among six methods, which Dr. Urban employed and by which he had performed many cures, this is the most preferable.

"A thick pledget soaked in any saline solution is to be applied to the wound and retained by a bandage, and if there be *no wound*, but merely a mark of the tooth, without tearing of the skin, be visible, the *same* pledget is to be applied and kept on every one of such spots or marks, *as* on every wound.

"The solution is to consist of kitchen salt, as this salt is preferable, as producing the greatest humidity. One ounce or one and a half ounce of salt is to be put into one pound of plain water: the wound is to be kept constantly humid with the salt.

"The lint is to be renewed and soaked twice a day, and the patient be ordered to wet the pledget every two hours, and even the places be washed by the patient, which had been bitten, so as never to forget the spot, in case of any indication of a relapse, as itching and pain should manifest themselves.

"Dr. Urban is neither a partisan of excision nor of cauterization, the method recently and successfully opposed by Dr. Schneemann.

"He also disapproves of the different modes of treatment by means of belladonna, mercury, &c."

A case of salt being an antidote to mad dogs' bites, in the county of Kent, in our immediate neighbourhood occurred,

as a Sunday Paper, "The News," London, July 29th 1827, states the following.

"From the Kent Herald and Morning Herald, July 28th. A friend of ours was some years since bitten by a dog, which a few hours afterwards died raving mad.

"Immediately upon receiving the bite, *he rubbed salt for some time* into the wound, and in consequence never experienced the least inconvenience from the bite, the saline qualities of the salt having evidently neutralized the venom, and prevented in all probability a melancholy death by hydrophobia."

Having quoted the above journals, I shall now inform the reader of what caused me to try and apply salt to serpents' bites. It is a page of the late Bishop Loskiel's, (with whom I was personally acquainted,) in his History of the Missions of the Moravian Church in North America, which says, as far as I recollect, that *at least among some tribes*, they were not at all alarmed about the bites of serpents, having always in use such a sure remedy as salt, for the cure of them *so much so, that they would suffer a bite for the sake of a glass of rum.*

It was this, that induced me to try the cure of venomous bites with salt and the trial has exceeded my expectations.

Thousand times since 1803, the first year of my residing in England, have I wished to see this remedy applied, and generally introduced and made known, and often have I applied to eminent practitioners in London, to insert my experience in their journals, but in vain, to my sorrow.

I hope and trust that I *now* shall succeed by beginning with making it known in public print, through the press, and shall never rest, until some physicians, or any other sort of men, will take up my proposals, to give *salt a general trial,* all over the kingdom.

One should suppose it impossible or incredible for medical professors and practitioners, to neglect the trial of this simple remedy. But it is so, they did lend a deaf ear to my conversations and letters, therefore I shall now apply not only to those I had applied to again, but also to the whole public, and surely some few will be struck with my information, and make use of it. It is not only to *others* we may do good, but even to *ourselves and our families* as we are *all liable* to be afflicted with such a great misfortune, as the bite of a mad dog, *and to die* of its horrible consequences.

P. S.—The advice of killing all dogs, is neither practicable, nor necessary; apply salt to man and dogs, the bitten and the biter, all will most probably be well.

A most extraordinary instance, an English Journalist said,

some years ago of the fatal consequence of hydrophobia, has occurred at Bombay.

"A gentleman was bitten by a dog, and in his parlour he bit a friend, who came to see him; both lingered some time and died."

"Can no one immortalize himself by discovering a remedy? Government indeed should offer a princely sum for a cure of it."

V.—The *Nævus Maternus* (or Mark of the Mother), cured by Vaccination.

TO THE EDITOR OF THE LONDON MEDICAL JOURNAL.

SIR,—Should this relation of a case, exemplifying the further benign extension of the property of vaccine lymph, be favoured by your approbation and insertion in a work so pre-eminently conducted and widely circulated as the London Medical and Surgical Journal, it will be highly gratifying and sensibly felt by your obedient and obliged servant,

JOHN MARSHALL.

53, Jermyn Street, June, 1830.

THE history of the following case relating to surgical practice, and connected with vaccination, may, it is hoped, be deemed worthy of communication. It proves an important fact, that *nævus maternus* may be effectually removed by the lenient means, yet powerful agency of vaccine lymph. This method of cure, in such cases, being of comparatively recent date, it may not as yet perhaps be generally known; and therefore the primary object is to assist in further extending the knowledge of the advantage derivable from the practice.

That the sufferings of mankind from small pox are greatly diminished by the substitution of vaccination, is most readily admitted by all the members of the faculty, as well as the public. But it is found to manifest its influence by obliterating the *nævus maternus* without danger or pain. This disease is obviously named after, and also attributed to the imagination of the mother, during the period of gestation, whose tender bosom is wounded by sensations of the deepest regret, while she surveys the fascinating, but disfigured features of her offspring. The distressing apprehension of danger and suffering, arising from the dread connected

with its removal, by the painful excision with the knife of the surgeon, is completely dissipated by the mild operation of *vaccina.*

The turgid and vascular state of the *nævus*, together with the surrounding blood vessels leading to the part, when divided by the knife, invariably produce an alarmingly active hæmorrhage; which is also increased through by the rapidity of the infantile circulation, and the sobbings caused by the frightful and painful horrors of the operation. Such an immediate cause of debility unavoidably occasions a tedious convalescence, and a protracted recovery of health. But excision, after all the suffering it occasions, even when skilfully performed, is sometimes little better than the disease, and therefore an adequate degree of requital is but rarely obtained, in consequence of the excavation effected by the scalpel leaving a deep cleft, surrounded by an unsightly scar; and when situate on the irritable muscles of the face, the operation is liable to induce a distorted expression of countenance, more especially during the healing of the wound, in defiance of the utmost vigilance of the surgeon. The result, however, of the following case, may effectually serve in future to assist in dispelling the apprehension of all such casualties. It will also be exemplified, that however extensive the black scab may be, nevertheless the superficial vaccine scar, even in those constitutions which are most susceptible of its impression, bears no comparison with that which is formed by the knife.

This experiment, it is freely acknowledged, was tried in compliance with those which have already so happily succeeded, under the immediate and skilful management of those excellent surgeons, Mr. Lawrence and Mr. Earle.

On the 13th of May, 1830, a healthy girl, at the age of one year and eight months, was vaccinated. On the external condyle of the right elbow a *nævus maternus* was discovered, bounded with an irregular margin, in length three quarters of an inch, in breadth full half an inch, with three angular projections, the whole resembling a parallelogram, and of a deep red or claret colour. After making five punctures on the left arm, a proposition was made to the mother, who, with a feeling of intelligence readily complied, by allowing the entire surface, as well as the surrounding vicinity of the *nævus*, to be freely punctured with a lancet, repeatedly armed with fluid vaccine lymph. It may be interesting in a practical view here to remark, that after effecting each of the punctures, whether on the left arm, at the hollow occasioned by the termination and insertion of the tendon of the

deltoid muscle, or on or about the *nævus*, an unusual flow of blood instantly followed from each orifice. In order to guard against apprehension arising from such an occurrence, of either a total or partial failure of final success, the usual precaution under such circumstances was strictly observed, namely, allowing the bleeding punctures to remain untouched, until the oozing blood had stopped and became hardened by drying, and it did not trickle downwards, but only formed a spherical drop, resting on the lips of each orifice.

On the eighth day (May 20), the numerous assemblage of vesicles, in number twenty-three, of a pinky and pearly hue, five on the left arm, and eighteen attached to the *nævus*, were all satisfactorily progressing, with only a slight ring, indicating the insipient stage of areola. The appearance of the latter cluster was very peculiar, six distinct vesicles covered the surface of the *nævus*, so closely arranged, that their circular edges were distorted into figures of triangles and hexagons, with the twelve surrounding vesicles perfectly distinct, and placed equidistant, and thus the whole contour resembling a broach set round with pearls. From the elevation of the vesicles occupying the whole surface of the *nævus*, and filled with transparent lymph, even at this early period its deep red tint was quite imperceptible; the colour, I presume, however, is confined to the *cutis vera*.

On the tenth day (May 22), the circumambient areola was rapidly advancing, but not yet arrived at its height, that surrounding the mark extending about an inch and a quarter beyond the group of its vesicles, and that on the left arm about three quarters of an inch. The vesicles had lost their pearly appearance, and were now of a turbid yellow, inclining to brown, but darker, in the central indentation. These also, on or about the *nævus*, were greatly altered in character and number by having run into each other, and thus resembling nine large vesicles. From their local situation they were unavoidably exposed, more especially during the night, to friction and pressure, which caused them to yield a glutinous discharge of lymph, which adhered to the bed clothes, but they were carefully defended from further injury by means of a bandage.

On the twelfth day (May 24), the vaccinated parts had passed their height. But the vesicles on the elbow had all conglomerated into a large scab, having a smooth and polished surface of a horny variegated tissue, in length one inch and a half, in breadth a full inch and a quarter, having an edge waving with segments of circles, and exceeding the

size of the *nævus*, as originally intended. The concentric circle, as in all other ordinary cases, bounding the extent of areola, reached its acme during the antecedent night, and it was, unexceptionably, the finest we had ever beheld, of a dull vermillion red, half an inch in breadth, the inner side softened imperceptibly away; extending from the upper margin of the crust three inches and a half, from the lower edge the same length, and four inches across its shortest diameter, and thus according to the geometrical figure of an ellipsis.

It may be asked, how came the left arm to be vaccinated as well as the *nævus?* the latter, however, was not heard of until the right was presented. But it goes still further to prove a practical axiom, that all apprehension of over doing this disease is groundless, and our experience informs and compels us to tell the truth, and again to embrace this opportunity of declaring, that the operation of vaccination has not, in divers cases, been sufficiently performed! But this experiment also unfolds to demonstration another very important practical induction, namely, that after the lapse of thirty one years, there is no discoverable decadence of the vaccine virus, and by vanquishing the *nævus maternus*, the full display of the energy of the vesicular areola and concentric circle, prove how greatly it retains its pristine force.

The patient, under the influence of so many vesicles, had a slight degree of fever on the ninth day, which continued about two or three hours.

On Friday, the sixteenth day, (May 28) the black scab having been the day before prematurely detached, in consequence of its being disturbed by the frequent movement of the joint, it afforded the gratifying opportunity of observing, that the *nævus* had entirely vanished, its original site being occupied by flesh coloured skin. A slight ulceration, about the size of a sixpence, free from inflammation, was rapidly healing; the cicatrix was quite superficial, and the child was capable of moving the arm with perfect freedom; the areola and concentric circle had wholly disappeared.

The success of the operation appears to be wholly dependant upon a large number of vesicles, sufficient to excite the action of the absorbent system, but above all by forming a crust large enough to cover the whole surface of the *nævus*, which holds mechanically in its substance the colouring vessels of the part, which during its progress, is at length cast off by a re-production of skin.

We understand that the operation has sometimes proved

unsuccessful after making thirty punctures, since only three or four vesicles resulted. Such an unfortunate dilemma is much to be regretted, though easily obviated by timely interference, because it is evident, in the event of posterior vaccination, when the vesicles have passed their climax, that the full power of the lymph is for ever comparatively lost, and that all such cases demand our utmost care and ingenuity in the manipulation. But surely the only feasible remedy in such instances of threatening failure is to follow up re-vaccination with all possible dispatch. For if either one, two, or three vesicles are allowed to proceed uncontrouled, without prompt reinforcement, they become a formidable and treacherous enemy, by rapidly advancing, defeating the operator, and achieving a triumphant, yet unwelcome victory by wholly precluding the chance of all future success by means of *vaccina*, and the sharpened blade becomes the only alternative.

The *nævus maternus* is variously defined by anatomists; the etymology of this word, however, is well understood to comprehend a natural mark, freckle, spot, blemish, or excrescence in the body. The foregoing case, although deep in colour, and of an average size, did not project beyond the natural surface of the skin, while others extend a little above, and are found, perhaps, of a more direct aneurismal affection of the cutaneous arteries. But nevertheless, they equally require removal, and the mode of operating and curing by the vaccine lymph is just the same, and applicable to all.

The *nævus maternus* has been lately extirpated by an eminent surgeon, who has most kindly communicated the principal *phenomena* that accompanied the case; which, however, fell short of the termination we had at one time reason to anticipate, as the treatment was not followed up while opportunity offered. As many of the incidents connected with the case were somewhat peculiar, they became so particularly interesting, that they were deemed worthy of promulgation; inasmuch as they may assist in illustrating the superior advantage of obliterating the disease through the innocent medium and gentle means already exemplified, and notwithstanding the total failure of the case, we may be permitted to say, "*fas est ab hoste doceri.*"

A male infant was afflicted with a *nævus maternus*, exceeding an inch in length, and forming a narrow parallelogram, situate upon the upper part of the chest, near the right collar bone. Since it was evidently increasing in size, its removal was deemed expedient by means of excision.

The operation was accompanied by a profuse hæmorrhage, and several enlarged cutaneous vessels were secured by ligature; the wound, however, quickly healed, but unfortunately, a part of the mark escaped the knife, which, by enlarging, hastily acquired the size and form of the flat surface of a split pea. The young gentleman, however, not having been vaccinated, the remaining part of the mark was freely punctured and innoculated with recent vaccine lymph; all of the punctures bled so much as to frustrate the operation. The patient having been also vaccinated in one of the arms, a solitary vesicle resulted, which, however, from the general failure of the rest caused a state of vexatious disappointment, and after all the circumstances of the case, this vesicle turned out to be an unwelcome intruder. The following plan was projected, but through the hurry of other avocations it fell to the ground, but nevertheless, the value of the intended practice remains unshaken. To prevent as much as possible the threatened diminution of the power of the vaccine lymph, both constitutionally and locally, arising from this maturing vesicle; the *nævus* was to have been re-vaccinated on the fifth day, subsequent to the original puncturing, with recent lymph from sixth day vesicles, with the confident hope of thus ensuring a higher chance of success. The adoption of this measure was strongly recommended, because we have frequently had occasion to remark, in the course of practice, that the earlier the lymph is employed, the greater is the certainty of successful vaccination. In private practice, it is readily allowed that parents and guardians are generally better satisfied with the appearance of the vesicle on the eighth day, although it partakes of ancient prejudice, yet in a case of so much importance, where the aim is humanely intended to supersede the casualties of a cruel operation, a little argumentative reasoning, with a faithful explanation, would speedily remove the objections of the most fastidious. Hence we are justified, of the charge of inconsistency in all such pressing cases, to deviate even from the golden rule of vaccination, which we have laboured to inculcate never to be acceded; or should the operation have been already, or primarily done from eighth day lymph, that in the possible event of either a total, or more especially a partial failure of the punctures, as soon as this important point can possibly be accurately ascertained, the adoption of even the fifth or sixth day's lymph had better be substituted for the eighth.

Suffice it to say, by way of concluding this subject, that the foregoing reasoning is not built on theoretical fiction, but on the solid basis of practical truth.

V.—*Cases of Rheumatism affecting the Ovaria, with Practical Remarks.* By JAMES COPLAND, M.D. Consulting Physician to Queen Charlotte's Lying-in Hospital, Senior Physician to the Royal Infirmary for Diseases of Children, &c.

I BELIEVE that the circumstance of rheumatism occasionally attacking the organs proper to the female has scarcely been mentioned by practical writers. It is an occurrence, however, of sufficient importance to have attracted notice, and is certainly not so infrequent as to warrant entire neglect on the part of the systematic pathologist. Rheumatic affections of the *male* organs of generation are sometimes met with, and the circumstance is familiar to well-informed practitioners of both medicine and surgery. Analogy, therefore, would lead us to expect occasionally to meet with similar attacks in the organs of the female also. The only writers, as far as my information extends, who have incidentally mentioned the occurrence of rheumatism of the uterus, are POUTEAU,* M. VILLENEUVE,† and M. NAUCHE.‡ Neither of these authors notice rheumatic affection of the ovaria; and M. Nauche alone gives the subject of rheumatism of the uterus that degree of consideration which it deserves. The only author who has alluded to rheumatism of the ovarium is M. MURAT,§ and he mentions it, incidentally, as rarely a cause of inflammation of these organs—inflammation of the ovaria occasionally proceeding from metastasis of the rheumatic affection. During the course of my practice I have seen several instances of rheumatic disease of the uterus, and two cases of distinctly characterized attack of rheumatism of the ovaria. To these latter only I will at present confine myself. The *first* case was not a case of metastasis of rheumatism, although the affection of the ovaria became somewhat aggravated as the disease of the muscular and aponeurotic structures abated, but rather a complication of rheumatism

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* Œuvres posth. t. iii, p. 58.
† M. Villeneuve Diction. de Sciences Medicales, t. xlviii. p. 560.
‡ Des Malades propres aux Femmes, p. 562.
§ Art. Ovaire Diction. des Scien. Med. t. xxxix. p. 15.

of the ovaria, with a similar disorder of more external parts; the former, however, greatly predominating. The *second* case was one of metastasis, and, in many respects, was similar to the first. The symptoms in the one case were carefully noted in my common-place book, after each visit, and, as may be seen from the treatment, its nature readily recognised. The history of the other was taken in the manner here stated, at the termination of my attendance, more particular details having been considered unnecessary, as the phenomena and treatment were very nearly the same as those of the first case.

Case I. July 3, 1820.—I was called at ten o'clock, p.m. to Mrs. P. residing at Walworth, aged about 30, of a full habit of body, and sanguineous temperament, married, but without children. She had been ill about three days, and she attributed her attack to having slept in a damp bed.

She complains, at present, of violent pains in her back and shoulders, also in the hypogastrium, on both sides, near the groins. The pain in this latter situation is much increased on pressure; and the pains, generally, are greatly aggravated during the night. The muscles of the right side of the chest were at first most severely affected, but the application of some leeches and fomentations, which had been resorted to before I saw her, had removed the pains from this place, but they had become aggravated in the situations in which they are now felt. She has also been distressed with nausea and vomiting this morning, and with shooting pains in both breasts. She has no head-ache, nor pain of the limbs, or joints of the extremities. Tongue foul and coated; bowels very costive; pulse 88, and oppressed. On account of the lateness of the hour the following pills and draught only were prescribed until my visit the following morning:—

℞ Hydrarg. submur:
Pulv. ipecacuanhæ aa. gr. vij;
Opii puri qr. ij;
Syrup. simp. q. s. m. fiant pilulæ iij. statim sumendæ.

℞ Mist. Camphoræ, ℥jss.
Magnes. Sulphatis, ℥ss.;
Tinc. Colchici, ℥j,
Spirit Lavand. Comp. ℥ss. m. a fiat haustus quamprimum mane capiendus.

4th. *Noon.*—The pills procured her a good night, with copious perspiration; and she had two bulky, bilious, and offensive motions this morning from the draught. She complains now of the pains more towards the lumbar region, where they are still as severe as ever; and they shoot across

the iliac regions to the inferior part of the hypogastrium, on each side, in the situation of the ovaria, where the pain is permanent and severe. It is increased on pressure. Urine in small quantity, high coloured, with a frequent desire to pass it. Darting pains in the mammæ, with nausea. Pulse 90, and oppressed, much thirst, no appetite, tongue still loaded. The perspiration continues copious, but without relief of the pain. I now directed a full blood-letting from the arm, which was performed by my friend Mr. Bryant, to the extent of eighteen ounces, and prescribed the following:

℞ Massæ Pilul. Hydrarg. ℈j.
Hydrarg. Submur. gr. v.
Extracti Colocynth. co. ℈j. m. fiant pilulæ viij.
Capiat binas statim, iterumque cras, primo mane.

℞ Mist. Camphoræ, ℥vjss.;
Tinct. Colchici, ℥ss.;
Spirit Ætheris Nitrici, ℥iij.;
Syrup Aurantii, ℥jss.; m. fiat Mist. cujus Cochlearia ij. larga capiat tertiis horis.

℞ Hydrarg. Submur. qr. vj;
Pulv. Ipecacuanhæ, qr. vjj;
Opii puri, gr. ij;
Syrup. simp. q. s. m. fiant pilulæ iij. hora somni sumendæ.

4th.—Reports herself much better from the bleeding; blood buffed, but not cupped. Pulse 88, and fuller. Tongue still loaded. The bowels have been five or six times acted on since last visit. Stools still black and offensive. Pain in the hypogastrium and iliac regions, and the sickness somewhat diminished. She perspires freely, but with little relief of the pain of the back. Urine still high-coloured, and in small quantity, but with a very frequent desire to pass it.

Continue the purgative pills and the mixture as prescribed yesterday. The pills with calomel, ipecacuanha, and opium to be repeated again at bed time.

5th.—The symptoms are nearly the same as yesterday; but the pulse is harder, quicker, and more contracted. The tongue is still loaded, notwithstanding frequent bilious evacuations have been procured since my last visit. The pain in the back is diminished, but that in the internal iliac regions and hypogastrium is much increased, so that she scarcely can bear the weight of the bed-clothes. The frequent calls, she formerly complained of, to pass the urine, have now passed to a state of strangury; and the sickness, this morning, has been more urgent; but that it is not occasioned by the mixture is evident from the circumstance of her feeling no increase of the sickness after taking it.

Upon examining the lower region of the abdomen, a small

tumour may be felt in each iliac region, rising above the pubes in the situation of the ovaria, they are painful on pressure. Complains also of the darting pains and soreness of the mammæ. The mercurial taste is now evident in the mouth. Mercurial preparations were therefore omitted.

Admoveantur harudines xviij. imo abdomini, posteaque foveatur abdomen.

℞. Aquæ Menth. Virid. ℥viss;
Magnesiæ Sulphatis, ℥j;
Tinct. Colchici, ℥vj;
Spirit Lavandul. Comp. ℥jss;
Olei. Caryoph. m. vj.

Capiat Cochlearia ij. larga tertiis horis.

℞. Pulv. Ipecucuanhæ, gr. vj.
Opii puri. gr. ijss.
Syrup. Simp. q. s. *m.*
Fiant Pilulæ ij. hora somni sumandæ.

6th.—The bowels have been freely opened, but the motions are still bilious and offensive. Tongue also loaded in the middle, but cleaner towards the edges. The pain in the situation of the ovaria is much diminished since the application of the leeches, which bled freely. Sickness also is much less troublesome. Pulse 88, and softer. Urine paler, and accompanied with less pain and difficulty to pass it. There was some appearance of the catamenia early this morning, although a fortnight before the time; but they have now disappeared.

Use a hip-bath, and a broad flannel bandage, wrapped several times round the hips, loins, and belly.

℞. Tinct. Aloes. Comp.
—— Castorei aa, ℥vj.
—— Colchici, ℥ss.
Aquæ Menth. piper. ℥vj.
Olei. Juniperi Sabinæ, m vj. misce: Fiat Mist. cujus cochlearia duo larga tertiâ quaque hora sumat.

7th.—The pains are greatly relieved. The catamenia have re-appeared and become abundant. Bowels open: tongue cleaner. She now complains of the sickness in the morning only. Thirst much diminished, and the affection of the bladder has almost altogether disappeared.

The pain still continues to shoot occasionally to the iliac regions, but is not now so readily increased by pressure in these situations; and there is still a darting pain in the mammæ sometimes felt, but the soreness has disappeared.

Continue the mixture prescribed yesterday. As she had some return of appetite, she was permitted to have some light fish for dinner.

8th.—The catamenia are now abundant; and she complains only of slight sickness in the morning, and of occasional shooting pains in the region of the ovaria, and in the mammæ. Tongue not quite clean; appetite returning. The bowels have been freely open; evacuations more natural.

℞ Infus. Calumbæ, ℥vjss.;
Tinct. Calumbæ.
Spirit Æther. Sulph. Comp. aa. ℥ss., M.
Fiat mist. cujus sumat cochlearia duo ampla tertiis vel quartis horis;
℞ Pulv. Rhei, gr. xv;
Magnes. Carbonatis, gr. xxv;
Pulv. Ipecacuanhæ, gr. j;
—— Zingeberis, gr. vijj;
Aquæ Menth. pip. ℥iss.; m. fiat haustus hora somni sumendus, prius agitata phiala.

9th.—Feels quite recovered this morning, and is now able to leave her bed. Tongue clean, and pulse but little above the usual standard. The sickness and shooting pains disappeared soon after taking the mixture. The catamenia abundant. The draught procured a copious and healthy evacuation this morning. Appetite has returned, and she complains only of weakness.

After this she continued to recover rapidly. She took regularly the mixture and draught last prescribed for some days. The catamenia were more than usually abundant. From this time she continued healthy for four years, when she was seized with inflammation of the uterus, for which I attended her. She is now in good health.

Remarks.—It will be perceived, from the details of this case, that I gave calomel, the simple powder of ipecacuanha and opium, in what has since been considered as large doses, and as being a novel method of cure in this disease. Although this case occurred in 1820, I then did not consider this mode of treating acute rheumatism as particularly remarkable, otherwise I might have given publicity to it, as well as to other cases of rheumatism, treated in the same manner even long previous to the occurence of this. But in point of fact, there was no material difference in this mode of treatment from that which I had recommended for acute rheumatism, and published as far back as 1815.

Another circumstance, deserving of notice in this case, is the relation subsisting between the affection of the ovaria, and the supervention of the catamenia, much more abundantly than usual, and before the expected period. The indication of cure which nature here afforded, was taken advantage of successfully, for the symptoms of inflammation of the ovaria,

which in this case were particularly well-marked, rapidly disappeared after the establishment of the menstrual flux. In this case I derived advantage from a plan I usually recommend in similar circumstances, namely, the use of the hip bath, and causing the patient to be somewhat firmly bound around the hips and loins, with a broad piece of flannel, sufficiently long to wrap several times around her, immediately upon coming out of the bath, which should not be of a less temperature than 100° of Fhar., and which may be raised a few degrees above this, after the patient has been in it a short time. The relation existing in this case, between the presence of the rheumatism and accumulations of bile, in the biliary apparatus, and disordered secretions and fæcal matters in the alimentary canal is very well marked. This relation I have seldom found absent in rheumatic attacks, the morbid biliary and other matters detained in the biliary system and digestive tube, being not only a powerful cause of predisposition to rheumatic and gouty attacks, upon the least exposure to the occasional or exciting causes of the disease, but even acting as an efficient and direct cause in many cases owing to the injurious impression which those matters may be considered as exerting upon the nerves of organic life, supplying the viscera and circulating system. I allude to this, as I am convinced from extensive observation, that this relation of morbid states is not sufficiently attended to in practice.

Case II.—*17th March*, 1826.—I was called to Mrs. C. residing in Portland-street, aged 34, married and the mother of three children. She had experienced two abortions, and had had several attacks of rheumatism. The menstrual secretion had been regular and abundant, and somewhat more frequent than usual. She had been, during the preceding fortnight, labouring under a severe attack of rheumatism of the left thigh and hip, and referrible chiefly to the situation of the sciatic nerve. For this she had had recourse to some liniment or embrocation which she had used assiduously, but had taken no other medicine; soon after the use of this, she was seized with severe pain in the left side of the hypogastrium and loins, with darting pain in the left mammæ: but the pain had quite left the original seat. Upon examination, by the hand a tumour of about the size of an egg could be felt deeply seated in the region of the left ovarium. She had much fever, occasional sickness: the pulse was 96 and somewhat full and hard, and the tongue loaded and furred.

The bowels were costive and had not been freely evacuated for some time. Urine scanty, in small quantities, and passed frequently and with pain. Three weeks had elapsed since the last menstrual period.

I directed twenty leeches to be applied on the hypogastric region, and these to be followed by warm fomentations. Pills of calomel, ipecacuanha and opium, similar in respect of the quantity of each of these substances, to those prescribed in the first case, were directed to be taken at night, and a purgative draught early in the morning; a mixture, consisting of mist. camphoræ, magnes. sulphas., tinct. colchici and spirit ether. nitrici. was ordered to be taken through the day; and an emollient saline enema was administered, in order to remove any fæcal accumulation and cause of irritation which might exist in the colon. These medicines acted copiously, and brought away bulky, feculent, dark and offensive motions. Considerable relief was procured from these means, which were continued without change during the 18th and 19th. The pain and tumefaction of the ovarium still, however, continued: but the symptomatic fever was diminished; the tongue was cleaner and the evacuations were of a better colour and less offensive.

On the 20th and 21st, there was little or no amelioration; she still complained of the pain in the ovarium and loins, of the frequent call to pass her urine, and of the darting pains of the left mammæ. On the latter day the hip-bath was directed to be used, and the hips, loins, and lower abdomen to be closely enveloped in several folds of flannel, immediately on coming out of the bath.

On the 22nd, she complained of an increase of pain in the left hypogastrium and breast, and in the loins, with sickness, but on the following day she had a scanty appearance of the catamenia. The same medicines were now prescribed as were resorted to at the same time in the former case; and on the 24th the menstrual evacuation was more than usually abundant. After this all the symptoms of the affection quickly subsided, and the tumid ovarium soon was no longer to be felt upon examination.

The features of this case are so nearly like those of the former, that no remarks are necessary, excepting that it furnishes one of many proofs which have come before me of the impropriety of suppressing, by means of local remedies, the rheumatic affection of an external part, without having previously carried off all morbid matters, which have been accumulated in the biliary system, and prima via; for as long as those remain, the chief source of disorder continues

in operation, and the suppression of the external manifestation of disease will often be followed either by an attack of some other external part, or by a serious affection of an internal organ.

1, *Bulstrode Street, Cavendish Square,*
26th June, 1830.

BIBLIOGRAPAHY.

ANATOMY.

1. *Irregular distribution of Arteries.*—Dr. Green, of Trinity College, Dublin, has just published "*An Account of the Varieties in the Arterial System of the human body,*"* the object of which is to direct the attention of the profession to a branch of anatomical knowledge which has been hitherto almost overlooked in these countries. He observes:—

"In proportion to the study bestowed on the Varieties in the Arterial System, they are found to be more numerous, and of more frequent occurrence; the subject, therefore, daily requires more interest and importance, not merely from constituting a curious part of the history of the structure of the human body, but from its great practical utility in Operative Surgery. It has been calculated by Meckel, that some deviation in the origin of the primary branches from the Arch of the Aorta, occurs once in eight times.†—I am convinced, by a careful examination of a great number of dead bodies, that varieties of the principal arteries in the upper extremity, exist at least as often as once in every four individuals—the variety which occurs most frequently in the human body, affects in a very important manner, the commonest operation in surgery, I mean venesection. I have so often seen the radial artery (and in some instances the ulnar), when it arises from the brachial or the axillary, pass almost directly over the place in which the operation of bleeding is performed, that it has been to me matter of much surprise, how the vessel has not been more frequently injured. The origin of the left carotid from the innominata is another irregularity, by no means very unfrequent. In this case, the vessel usually crosses, in front of the trachea, to the left side of the body, the possibility of such an occurrence every surgeon should be acquainted with, before he attempts the operation of tracheotomy.

* Dublin, 1830. 8vo. pp. 89. Seven Plates. Leckie. London, 1830, 8vo. pp. 50.

† J. F. Meckel, Manuel d'Anat. t. ii. p. 318.

"Varieties in the arterial system appear to be regulated by the same laws which govern irregularities of structure in other parts of the body. These are frequently nothing but the union of parts naturally separate, or the separation of parts naturally united. This rule is illustrated by many varieties of the arch; as the separate origins of the right carotid and subclavian; or the union of the left carotid and subclavian to form an innominata on the left side. Another law, more general in its operation, is, that departures from the general mode of formation are imitations of the structure in animals, particularly in the monkey tribe. In the muscular system, although deviations are extremely rare, this analogy is striking: thus the absence of the gemini and the gastrocnemii; the occurrence of three supinators; the double pronator teres; the accessory psoas parvus, and the extension of the rectus abdominis on the chest, are imitations of the structure in the monkey. Analogous to the structure in birds, have been found a third pectoral muscle, a double rectus lateralis, and the biceps separated into three distinct muscles. Many other examples might be enumerated, which tend to prove that one great scheme of structure pervades the animal kingdom, and that varieties are not occurrences of chance, but the adoption of one mode of formation instead of another. An attempt has been made to reduce the varieties of the arterial system under this rule: those who are better acquainted with the structure of animals will, I hope, be able to perceive many analogies which have escaped my notice. An interesting circumstance connected with the history of these irregularities is, that we have reason to suspect they are sometimes hereditary. Pelletan (Clin. Chirur. t. i. p. 101, 2,) mentions a case corroborative of this opinion: the anterior tibial artery ran superficially along the front of the leg, in both a father and daughter.

"When I commenced the description of the variations in the arterial system, I had intended to give accompanying outlines of all the deviations; but the publication of the plates of Tiedemann by Dr. Knox has rendered it unnecessary: I have therefore confined myself to the delineation of such varieties as have not hitherto been published; or, if known, have not, as far as I am acquainted, been exhibited in drawing."

The author describes varieties in almost all arteries, both from anatomical works, as well as many from personal observation, which may render surgical operations extremely dangerous and difficult. His observations evince great research, the most extensive practical experience in human dissection, and offer to the surgeon very important information. This very unassuming, but valuable work, ought to have a place in every surgical library, and is highly creditable to the zeal and industry of the author. It is published at a price so moderate, that the humblest student can possess it; while the operating surgeon will find it a worthy companion to Mr. Harrison's valuable work on the arteries.

2. *Artificial Anatomical Subjects.*—At a late meeting of the Academy of Medicine, of Paris, M. Auzou exhibited an artificial subject, intended to supply the place of the dead body, by a correct

developement of the human structure. The muscles are detached by springs, in successive layers, until the skeleton is exposed. The inventor next removes the calvarium, when the brain is presented in sections, and the origin of the nerves, plan of the eye, nasal fossæ, back of the mouth, &c. are almost naturally displayed. He removed the intestines, and demonstrated the portal and circulatory systems, the diaphragm, lungs, pericardium, and cavities of the heart, containing red and black blood. The labour of twelve years was bestowed on this grand piece of mechanism, and similar models are executed at the price of 300*f.*, or 12*0l.* This invention is valuable if it even convey general notions of descriptive anatomy: but the splendid plates of Mascagni, in which every organ and tissue of the human body are most accurately represented of the adult size, and which may be inspected at our publishers, are, we hesitate not to pronounce the most accurate delineations ever made by human ingenuity. These magnificent engravings excel those of this or former ages. They present the most complete resemblance—a perfect imitation of the human structure. They are published under the sanction of Berlinghieri, Barzelloti, and Rosini, professors in the University of Pisa.

MORBID ANATOMY.

3. A work entitled, "*A Vademecum of Morbid Anatomy, medical and Chirurgical, with pathological observations and symptoms, illustrated by 250 drawings,*" has been recently published*, and contains "Observations on, and illustrations of, the changes of structure found in the brain, thoracic, abdominal, and pelvic viscera, and of the organs of generation in both sexes. It likewise gives the pathological symptoms, by which we judge of disease during life, and a true description of the changes are exhibited after death." This is a useful work, and will be referred to with advantage by young practitioners. The plates are well executed, and illustrate many varieties of diseased structure. The symptoms of each disease are given in general with accuracy, and are placed opposite to the plate illustrative of the malady. The engravings are executed with great clearness, the morbid appearances are well represented; and we can safely recommend the work both for the accuracy of its design, and the elegance of its execution. It fills up a void which has long existed in an important department of medical science. To the profession generally, it will be found a most valuable acquisition. It is evidently compiled by a man of sound sense, practical experience, and very extensive knowledge of the subject. It is the only work of the kind in a convenient form; its materials are carefully collected and judiciously illustrated; and its price is very moderate.

OBSTETRICY.

4. *Extraordinary Obsteric Figure.*—Dr. Azenne has constructed a figure for facilitating the acquirement of obstetricy. He has suc-

* Plates, 48—Drawings, 250. Burgess and Hill.

ceeded in constructing an apparatus composed of an elastic body, which exemplifies in a wonderful manner every part of the mechanism of natural and preternatural parturitions. It represents the external generative organs, the vagina, and os uteri. When the hand is introduced, it experiences the pressure of the uterus as in natural labour, the os uteri is gradually dilated, and the membranes regularly presented, and caused to recede after the artificial contraction. In the interval of the contraction the finger feels the head of the fœtus within the membranes, and finally, the head passes gradually, as in natural labour, being adapted to the different admeasurements of the pelvis. What particularly enhances the value of this curious piece of mechanism is, that it may be made to represent, with the same fidelity, all cases of difficulty in this branch of surgery. Finally, the elastic body employed in the construction of this very ingenious apparatus is atmospheric air. The inventor has now the largest obstetric class in the French metropolis.

MEDICINE.

5. *Hydrophobia.*—Two works have just issued from the press on the nature and treatment of this formidable malady. One by Mr. Murray,* the other by Mr. Youatt, veterinary surgeon.† Mr. Murray gives a concise view of the various opinions on the nature and treatment of hydrophobia, and conjectures that the simultaneous occurrence of rabies canina in different parts of the country is connected with some universal principle. He observes, "electricity is, as far as we know, the only agent likely to be associated with a generalization so extensive. The present season remarkably confirms our observation, and we consider that the latent germs were the produce of the late severe winter." This is leaving the subject pretty much in the state in which the author found it. Mr. Murray has collected all that has been written upon the subject to the period at which we write. He mentions two facts extremely interesting in a physiological point of view, which are as follow:—A pregnant woman was bitten by a rabid dog; she died after delivery, but the child was unaffected, and grew to manhood—a fact, proving that the poison does not pass through the maternal blood to the fœtus, and thus differs from other animal poisons, as lues. A sow in farrow afforded an analogous case. She was bitten by a mad dog in December, 1826; she littered in January, and on the 24th was rabid—the young pigs did not seem affected, though it was deemed prudent to destroy them. "These cases," says our author, "evidently prove, that the milk, whether in the human or brute creation, does not taint the offspring."

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* Remarks on the Disease called Hydrophobia, prophylactic, and curative, 1830, 12mo. p. 86. Longman and Co.

† On Canine Madness, comprizing the symptoms, post mortem appearances, nature and cure of rabies in the dog and other domestic animals, 1830, 8vo. pp. 52. Longman and Co.

Mr. Youatt's observations on canine madness were published in a series of papers in the Veterinarian in 1828, 1829, and 1830, and are now reprinted in another form, which will be better known to our profession. He gives an account of the symptoms of the disease in the dog, horse, ox, sheep, swine, cat, and human subject, and also the morbid appearances on dissection. This is a very interesting production, and merits a place in every medical library. We cannot review it at any length, at this advanced period of the month, but must give a few extracts. After describing the symptoms of hydrophobia in the different animals enumerated above, our author sums up in these words: "The symptoms of rabies are very similar in man, and in all our domesticated quadrupeds. In all there is the same affection of the respiratory nerves; the same howling, or at least choaking noise; the same excessive excitability, and incessant and uncertain action; the same singular delirium, affection of the stomach, and discharge of saliva; the same inevitably fatal termination of the disease; and, I am disposed to believe, nearly the same morbid appearance after death.

"The human being, however, has a dread of water, which the quadruped has not. It is true that the dog is unable to swallow, but he flies eagerly to the water; and all other quadrupeds, with perhaps an occasional exception in the horse, drink with ease and with increased avidity."

He arrives at the following conclusions, that "rabies is an affection of the respiratory system of nerves, caused by inoculation alone —the virus must be received on some abraded, or wounded, or mucous surface—the virus resides in the saliva alone—the power of the virus dies with the animal." Several very interesting cases are detailed in corroboration of these conclusions. He also holds, that "the virus of every rabid animal will communicate the disease—comparative predisposition to take on the disease—nature of the virus—it lies for an uncertain period dormant in the wound—period between the bite and the appearance of the disease." He next details a case of rabies in a dog in which warm water was injected into veins, and bronchotomy performed, without success. Our author suggests "a tax on every useless dog" as the best preventive of hydrophobia. He tells us, that he has been bitten four times by dogs decidedly rabid, and says, "at each time I freely applied the caustic to the wound; and I am living to the present day. I have operated on more than four hundred persons, all bitten by dogs, respecting the nature of whose disease there could be no question. *I have not lost a patient.* One poor fellow died of fright, but not one became hydrophobous. To what can I so naturally attribute this, as to some chemical affinity between the nitrate and the virus, by which an insoluble and inert compound is formed?" The caustic, n. argent, *should* be applied at any period before the commencement of *the disease.* "Seventeen of my patients had been bitten more than a *week before* the operation; two more than a fortnight, and the ma*jority more* than twenty-four hours." He tells us, that one of *the surgeons* of St. George's Hospital has informed him, that he and

his colleagues, have operated on 400,000 persons bitten by dogs (he could not say that all of them were rabid) and he was not aware that one of them had been lost. "This at least, is most consolatory, whatever may become of my theory of the caustic." He also states, that excision after the appearance of the disease, may save the patient; and if the symptoms recur, they may be again subdued by re-excision. Med. Chir. Annals of Altenburg, 1821. Troillet. He prefers the caustic, but candidly admits, that it and the knife may fail, and that re-inoculation has been produced by the latter. Lastly, he describes the effects of various preventives, "the box—alisma plantago—belladonna—scutellaria—combinations of drugs—experiments on the scutellaria and belladonna combined, bleeding, cauterization of the poll, mercury, opium, ammonia, cantharides, guaco, veratrum sevadilla, the tetanus." All of which are inefficacious. We strongly recommend Mr. Youatt's very scientific pamphlet to our readers.

6. *Piperine in Intermittent Fever.*—Drs. Elliotson and Roupell have recently spoken of the value of piperine in the cure of intermittent; but the article is so very expensive in this country, that it cannot come into general use for some time.

7. *London Medical Society.*—The last meeting of this society, for the season, took place a few evenings ago, when a paper was read by Mr. Stephens, *on suppuration of the joints, after small pox*, unpreceded by inflammation. Dr. Copland alluded to cases of uterine phlebitis, in which purulent deposits took place, and he was inclined to think from the suddenness of the formation of the abscesses without inflammation. He alluded to the opinion prevalent on the continent, that pus might be eleminated from the minute vessels unaccompanied by inflammation.

Dr. Whiting opposed this pathology, and denied that pus could be circulated through the system and deposited in its ordinary form.

Mr. Lloyd, Mr. Proctor, and Mr. Dendy agreed with the last speaker.

Dr. Ryan observed that there were two opinions on the action of pus absorbed into the circulation. The one stated by Dr. Copland; the other that the blood was vitiated, and on being deposited in the extreme vessels of the different tissues, excited irritation, inflammation, and suppuration. He agreed with those who considered suppuration, in the cases before the society, as consequent inflammation.

Mr. Callaway congratulated the society on the interest of the debates during his presidency, and hoped that the next session, which would commence the last week in September, would be equally interesting.

8, *Chorea.*—M. Dupuytren has treated chorea for many years with great success by cold bath, or cold affusion. The patient is to be held in the bath for an instant, and the immersion is to be repeated five or six times in the space of fifteen or twenty minutes. The immersion produces most violent spasms of the muscles and particularly those of the chest. The sensation which the patient experiences is most disagreeable, she supposes that she must be suffocated every instant, but she is soon relieved from this feeling, she is to take ac-

tive exercise for half an hour or an hour after the bath. The symptoms become diminished in a short time, and after fifteen days or a month, a chorea that had existed for many years will be entirely dispated. Simple affusion of cold water on the head and body, repeated seven or eight times in succession, produces the same good effects. This method is preferred when women are affected. Three cases recently cured by this plan, in the Hotel Dieu, are related. The first case was that of a boy, æt. 16, who had been affected with chorea for many years. He was admitted the first week of April last; and was ordered decoction of valerian and cold baths, as already mentioned. The fourth day there was decided amendment, and in five weeks, May 15, he left the hospital, perfectly cured. The second case was one of a girl, æt. 17, who had been one month affected with chorea. Cold affusions only were applied, and in three weeks she was cured. The third case was one of a girl, æt. 13, sister to the first patient. She had never menstruated, and was three years affected with chorea. The whole body and both sides were attacked with the disease. She was subjected to twelve cold affusions on the 16th of May: they were continued till the 28th, when she had no sign of the disease. She used no other remedy.—*Journ. Hebdom. Juin.*

9. We have lately been consulted in a violent case of Chorea of the right side, and finally of the left, combined with hysteria, by Mr. Bradford, of Fleet Street. The lady was aged 16, had menstruated twice, but at an interval of some months between the periods. The right inferior extremity was constantly affected with painful spasm, and often flexed on the pelvis. The right arm was also in constant motion. There was the globus hystericus. The bowels were habitually constipated. The complaint was ascribed to excessive mental exertion at school. Sir Astley Cooper had seen the case, and recommended small doses of oxym. hyd. This remedy produced no effect; the symptoms became aggravated, the limbs were constantly affected with spasm, and the patient continually screaming from pain: such was the state of the sufferer at our visit. The bowels having been properly regulated, she was ordered carb. ferri, in doses of 15 grains, three times a day—the dose to be gradually increased—and a mixture composed of tinc. Valerian am., tinct. fœtid. tinct. castor., sulph. æther., and tinct. opii.—and the cervical and dorsal vertebræ were rubbed with ungt. tart. ant. three times daily, as recommended by Mr. Tate. This plan of treatment was continued for three days, with an increase of the iron to 25 grains, with some relief; when the hysterio paroxysm increased to the highest degree, and the patient appeared as if affected with opisthotonos for two hours. It appeared to us that this paroxysm was probably a critical change, and this opinion we communicated to the ordinary attendant on our way to see the patient. On our arrival she was much more tranquil than during our attendance; the motion of the limbs was much less; the pulse, however, 130. The relatives were so much alarmed at the late paroxysm, that they seemed desirous of having further advice, though they expressed the fullest confidence in the

attendants; but lest the case might terminate unfavourably, they should be more satisfied with themselves by having further aid. With this very natural feeling those in attendance most cordially complied, at the same time assuring the relatives that the nature and treatment of the disease were perfectly understood, and that they were quite certain there could be no difference of opinion in a consultation. Dr. Addison, of Guy's Hospital, was called in, and concurred in the plan of treatment. He advised a combination of tonics and purgatives. There was no recurrence of the hysteria from the period already described. The pustulation of the antimony appeared the day after the last paroxysm, and was an excellent illustration of the value of that remedy, as described by Mr. Tate, whose work we reviewed in our last number. It is right to mention that the patient had had no sleep for three nights previous to the intense paroxysm, and that in consequence ʒij of tinc. opii. were added to the mixture, which was taken every second hour, and she had taken about 100m. of tinc. opii. the day before the critical paroxysm. A question might arise as to the effect of opium under such circumstances, but there are few practitioners who have not seen it urged to a much greater extent in violent cases of hysteria. We reccollect a case in the Edinburgh Hospital in which ʒij were given at once, and with singular success; and this practice is very generally resorted to in such cases. In the case under consideration there was no occasion to repeat the antispasmodic mixt. with opium after the intense paroxysm, the o. of iron was continued, and in a few days the patient was convalescent. In this case the cold bath suggested itself; but such was the muscular spasms, and the sense of suffocation, that we were afraid to try it. Colocynth pill with cal. was prescribed during convalescence. The pathology of hysteria proposed by Mr. Tate was verified in this case—the uterine function was defective.—Ed.

10. *Fever in Dublin.*—We have been favoured with the perusal of the forthcoming Medical Report of the Cork Street Fever Hospital, Dublin. The records of this hospital, says Dr. O'Brien, furnish evidence that the mortality has never increased regularly in proportion to the admissions; but on the contrary, when the admissions have been most numerous, the relative mortality has, generally speaking, been least. Thus, in the three great Epidemic Fevers which occurred in Dublin, in the course of the last 20 years, the mortality in 1815, was 1 in 20; in 1818, 1 in 30; and in 1826, 1 in 28; while in the three years 1823, 1 in 1824, 1825, which present a considerable reduction in the admissions, the total mortality was 1 in 11; and in the two past years 1828 and 1829, in which the admissions were also much diminished, the total mortality was 1 in 14.

The inference from this fact is, that the majority of cases which constitute our Epidemic Fevers, are of a mild character, a dispensation by which Providence interposes to mitigate the severity of its own inflictions.

SURGERY.

11. *Ligature on the internal Iliac Artery.*—The internal iliac artery, on which Dr. Stevens operated at Santa Croix in 1812, is now

in the museum of the Royal College of Surgeons. The preparation had been sent to London several years since, and was placed in a cellar, where it might still have remained, had not the attention of Dr. Stevens been directed to it, by the doubt thrown on the operation by Mr. Lawrence, in his last course of lectures at St. Bartholomew's Hospital. The preparation was examined by that gentleman, and several other eminent surgeons, who admitted that the vessel had been tied. The patient lived ten years after the operation. The internal iliac has also been tied in this country by Atkinson, but consecutive hæmorrhage destroyed the patient: it was tied in America by Dr. Pommeroy White, in the West Indies, (the preparation sent to Sir A. Cooper, and placed in the museum of Guy's Hospital;) and also in St. Petersburg. It was said that Mr. John Bell performed this operation.

12. *Staphyloraphiy.*—Reunion of the soft palate. M. Roux performed this operation on the 4th of May, the forty eighth time with success. The opening in the palate was slight, three sutures were applied and adhesion was perfectly effected. *op. cit.*

13. *Academy of Medicine, Paris, May*, 4.—Hydrophobia. M. Parra reported on a memoir by M. Chaume, of the department of Loiret, which contained an account of *six* persons who were bitten by a she wolf in September, four of whom died, and two were now in health. They were most severely bitten, and were saved by excision of the injured parts; the mode of performing this operation was peculiar, but not described until a future sitting, when it will be fully detailed. The thanks of the academy as also their medal were awarded to the author. The wolf was killed, but no trace of inflammation discovered. *op. cit.*

14. *Aneurism of the heart and aorta.*—M. Larrey, presented a man aged from 36 to 46, affected with hypertrophy of the heart, whose state was singularly improved under the influence of mercs and sacrifications.

Physiology.

15. *Royal Academy of Medicine, Paris, May* 22d.—M. Piorry reported to the Academy, the result of his experiments on the insufflation of the lungs of living rabbits, of the lungs of sheep, and men after death. He concluded, 1st, that insufflation seldom causes rupture of the lungs unless too long and too violently continued, that death is caused by a mixture of air and blood in the heart, or by a double hydrothorax, or by the distension of the abdomen, that this insufflation may cause subpleural, but not interlobular emphysema, and that insufflation of the digestive tube is almost as promptly mortal as that of the lungs, by preventing the descent of the diaphragm and impeding respiration. 2ndly. That crepitation always indicates disease, and depends on froth in the bronchi, or on the mixture of air with an effused fluid, giving rise to rale and causing asphyxia or death. 3rdly. That the effusion of blood into the trachea from a wound is dangerous, as it is expectorated or absorbed with difficulty, and is disposed to be converted into froth. 4th. If water pass into the lungs during submersion, it is easily poured off by giving a declining posi-

tion to the superior parts of the body; but if a person respire on the surface of the water, the water which passes into the trachea will be frothy and not easily removed: it is therefore necessary to remove all water before we commence insufflation. 5th. We should remember that the fluid effused during the agony (death) may be the sole cause of extinguishing life. Many members, presented confirmatory reflections on the opinion of Mr. Piorry, as to the innoccuity of insufflation in a great majority of cases. *Arch. Gen.*

MM. Leroy, Magendie, and Dumeril are opposed to M. Piorry's opinion.

CHEMISTRY.

16. *Institute of France, Meeting, May* 10.—Salicine substitute for quinine. M. Magendie read in his own name and in that of M. Gay Lussac, a report on a memoir by M. Leroux, apothecary of Vitry-le-Francais, relative to a chemical analysis of willow bark, and on the discovery of its immediate principle as a substitute for sulphate of quinine. M. Leroux had considered this substance a new alkali, but he renounced this opinion after having experimented before the above commissioners as the extract of willow did not combine with acids as alkaline substances do, it was decomposed by them, and by commixture lost all its properties. He therefore was mistaken in thinking he had discovered a sulphate of salicine. His report was nothing more than the discovery of a substance called salicine, which in a pure state presented itself in the form of very fine white pearly crystals, very soluble in water or alkahol, but not in ether, its taste very bitter and aromatic. It is obtained by boiling lbiij of the bark, salix helix, (Defontaines), for an hour, then drying and powdering it, in Oxv of water impregnated with carb-potas ʒiv. when cold, liquid acetate of lead Oij. are to be added, when a deposit takes place; it is filtered and treated with sulph. acid. and the lead precipitated by a current of hydro-sulphuric acid. The excess of acid is saturated by the c. calcis, filtered, the liquor concentrated and saturated to neutralization by diluted sulph. acid (etendue,) it is black and filtered while hot, it is crystalised and dried without exposure to light. This operation affords an ounce of salicine, but on a large scale double the quantity is obtained. Mr. Magendie has employed the remedy on several occasions in June 1829, and has found it an excellent febrifuge. He has cured many cases of intermittents in a day, by three doses of salicine of six grains each. M M. Miguel, Husson, and Bally of the Hotel Dieu and Le Charité and many other practitioners have tried it with similar success, and all declare that from 20 to 30 grains will arrest the febrile access of whatever type. M. M. Brugnatelli, Buckner and Fontaine had experimented on this substance, but were unable to isolate it pure and crystalised, which M. Leroux only has accomplished.—*Journ. Hebdom. Mai.* 15.

HYGIENE.

17. *Vaccination.*—We have received a communication which condemns in no measured terms the manner in which vaccine disease is introduced into the system, at a certain hospital in this city. The

writer states that thirty and even forty punctures are made in a line from the middle of the deltoid muscle to the elbow; and that in consequence, the whole arm becomes inflamed during the progress of the disease; and exposes the infant to unnecessary pain and suffering. The writer requests us to explain the necessity or propriety of such operation, to which we reply that the proceeding is as barbarous as unnecessary, and contrary to the directions given by the National Vaccine Establishment. We cannot agree with him, that this method is resorted to, for the purpose of frightening mothers and rendering them averse to vaccination. Degrading and base as the practices now too common among all classes of medical men are; we cannot assent to the opinion of our correspondent. We should be rather inclined to ascribe it to ignorance, or over caution than to baser motives. The Royal Academy of Medicine, in Paris, has recently recommended vaccination in the strongest language and even addressed circular letters to the clergy of several departments of France. This distinguished body fully concurs in opinion with the eminent physicians and surgeons who form the National Vaccine Board in this country, as to the protective influence of the Jennerian discovery, and the profession throughout Europe and the vast continent of America are equally convinced of the inestimable value of vaccine innoculation.

MISCELLANIES,

18. *Royal College of Physicians*, May 31.—Dr. Turner in the chair. Dr. Hawkins read a paper detailing experiments, relative to the prevention or cure of Hydrophobia, and the bites of Serpents by Cæsar Hawkins, Esq. surgeon to St. George's Hospital. The author of this paper has arrived at the conclusion, that there are two forms of hydrophobia both in man and animals; or that the disease may be mild or severe. He remarks, that little attention has been paid to the incipient symptoms which are too often overlooked. He had employed the guaco, but with no better effect than when he had administered prussic acid, and his experiments led him to conclude that the effects of this antidote are extremely doubtful.

The Harveian Oration was delivered by Dr. Bright on 25th ulto. in the presence of a large meeting of the members of the college. The composition of the oration was truly classical; and the orator spoke with great clearness and distinctness. Two fellows and four licentiates were admitted after the conclusion of the address.

June 14.—Dr. Roberts in the chair. A paper was communicated by Mr. Chevalier on the use of quinine as a tonic in combination with purgatives in constipation. He has used it in this way for five years with success. The dose of the purgative may be gradually diminished. The following formulæ he recommends for adults and infants—

℞ S. Quinæ, gr. xxiv. Pil. Cambog. c. gr. xxxvi. fiat pill xij.

℞ Pulv. Ipecac. gr. ½ hyd. c. creta, gij. S. Quinæ, gr. ss., magnes. vel. pulv. rhei q. s. m. ter indies sumundæ.

ROYAL SOCIETY OF LONDON.

19. *Lithotrity.*—This interesting and important improvement in Surgery, is now beginning to attract universal attention. At a meeting of the Royal Society on Thursday 19th ulto., the most crowded of any which took place this season, a paper was read from the pen of Mr. W. B. Costello, entitled "*Lithotrity; its applicability, as an operation for the cure of Stone, illustrated by a series of cases.*" Mr. Costello is an Englishman, and has, till lately, been the colleague of the discoverer of this method, Dr. Civiale, of Paris, conjointly with whom he has relieved a great number of persons suffering from this malady. In France, Lithotrity has already taken its rank amongst surgical operations, and it is this gentleman's object, as he expresses it in his paper, "to endeavour to render this method of operation popular in England." Since his arrival in London, last July, several very remarkable cures have been effected by him.

Mr. Costello's paper begins by stating the importance of enquiring, whether the benefits Lithotrity pretends to offer, be not more specious than real; and for the purpose of guiding this enquiry, he submits to the Royal Society a series of cases illustrating its advantages. His paper embraces other objects. The importance of the new method of curing stone, having excited the attention of the public, a clear statement of facts is rendered necessary—"1st, in order to set bounds to the enthusiasm of those, who expect more from it than this method can accomplish; 2nd, to enable practitioners in general to discriminate those cases, which are within the scope of this operation; and lastly, to impress on the minds of the sufferers themselves, the necessity of applying in time, the cure of this cruel disease;—the new method being always certain, and attended with very little pain in its early stages.

With this view, Mr. Costello establishes four classes, whereby the different gradations of difficulty which its application may encounter, are exhibited. In the first class he places the simple cases, in which the stone is of recent formation, and the general health unimpaired. In the second, cases in which the malady has existed for some time, and has produced derangement in the general health, and commencing organic alteration. In the third class, the organs are more or less profoundly diseased—and in the fourth class, the calculous concretions are of large volume, the urinary apparatus disordered, and the general health destroyed. This last class of cases can obtain no relief from the lithotritic operation; the three former classes admit its application. In the first class, that of the simple cases, Mr. Costello gives the history of four cases of the application of this method. From the minute nature of the details, it cannot of course be expected that we shall follow him closely in his narration. Suffice it to say, that in this class the operation is fully efficacious, and not only is it exempt from danger, but almost from pain also. In one of these cases, a gentleman who had been suffering for six months was cured in three minutes; in another, the patient has been afflicted for twelve months, and was cured in five minutes; in a third, the result was equally

fortunate; and the fourth, who required two applications of the instrument for his cure, thought so lightly of the matter, that at the second sitting, he told the operator, "I have suffered severely for the last year, and I dreaded the cutting operation of all things; but I shall now take no more trouble about regimen, for if my disease return, it is only the business of five minutes to be rid of it."

Mr. Costello closes the narration of the simple cases by the following reflections:—"These cases exhibit the operation of Lithotrity in the most favourable point of view, and are well calculated to shew the safety and efficacy of this method. It is obvious, the earlier this operation is resorted to, the more certain and easy will be the cure. When time is not given to bring on the general sympathy of the constitution, with the local irritation,—and local irritation has not gone the length of producing organic alterations in the urinary apparatus, then is the application of Lithotrity certain in its effects, and attended with little or no pain, or to speak more strictly, with none beyond that produced by ordinary catheterism. The importance of an early application of this method, is well established by the results of our practice in France. In 1824, only one-third of the sufferers, who sought for relief by the new method, were considered in a fit state for its application. Progressively, their number augmented to one-half and two-thirds. During the last year M. Civiale had occasion to perform the cutting operation in only two instances out of upwards of thirty cases, and he lately observes in his correspondence with me, that he has not had any of those formidable cases so frequent in the commencement of his practice. Lithotrity in France has thinned the number of calculous patients; and those who in their turn have the misfortune to be afflicted with stone, now begin to apply in time. The establishment of a Lithotritic ward in the Hôpital-Necker, under the care of my friend, M. Civiale, will contribute mainly to the advancement of an æra in Surgery, when cutting for stone will be a rare event indeed. Though unsupported by the great dexterity and surgical tact of the inventor of this operation, yet, I venture to hope, that its progress in this country will be equally prosperous; indeed, such must be the desire of every friend to suffering humanity."

After this modest allusion to himself, Mr. Costello paid a very handsome, and, we have no doubt, a well deserved compliment to Sir Astley Cooper, for the zeal he has evinced in making this method more extensively known, and in patronising it with all the influence of his high name.

Mr. Costello ushers in the narration of the cases contained in the second class, by appropriate reflections. He candidly admits that their treatment is more tedious, painful, and difficult, than that of the cases in the preceding series; but he adds, even in these cases the success of the new method is equally certain, and free from danger. In one of these cases, the forceps of Sir A. Cooper had been employed but without success, the calculi being too large for extraction by this instrument. The patient was cured in three sittings, (the last of which took place in Sir A. Cooper's drawing-room;) and after the operation walked down stairs, in company with the medical men who had

been present on this occasion, and Sir Astley Cooper seeing him smiling, observed, "Really, gentlemen, it is extraordinary, after an operation for stone to see the patient walk down stairs with us, and laugh at it, as if it were the very reverse of serious," and again he exclaimed, "This is indeed the most splendid discovery of modern times." The coincidence is curious enough, that this patient's name should be *Stone*, and his place of residence *Folkestone*. In another case in this class, the forceps had also been used without success. The patient in this case was Captain Poulden, of Filton, near Bristol, who was relieved in four sittings, and is now perfectly cured.

The third series, embraces cases in which the obstacles to the success of Lithotrity are serious indeed. We the more readily pay attention to Mr. Costello's opinions on this point, as they seem to be exposed with no other view, than for the benefit of science. If he had brought forward a pretension, that no difficulty was opposed to the application of Lithotrity, and that his success was certain in all cases, we should have distrusted his statements altogether: science is best served by candour, and in this respect we have no room to find fault. Before he enters on the narration of the cases contained under this class, he says, "hitherto, we only considered those cases in which the success of Lithotrity is certain; but unfortunately, our task is not always so pleasant. Cases too frequently occur, which require the greatest care and caution in its application, and in which nevertheless, the result is doubtful. In this class, the case of Mr. Hall, of Dartford, will be read with great interest. This gentleman was operated on in France." Mr. Costello terminates this case by saying—"Mr. Hall has shewn his gratitude to Lithotrity, and at the same time evinced the high opinion he entertains of it as a curative method, by introducing to me, since my return to England, two other gentlemen, labouring under the same disease: they are not only cured, but are here present at the meeting of the Royal Society. One of these gentlemen who had been more than ordinarily affected by the danger of his situation, and took the trouble of going to Dartford to see Mr. Hall, was re-assured by him in the following words:—'There is nothing terrible in this operation; be of good cheer, your life is in your own hands.' The case of Mr. Kearn, parish priest of Rathfarnham, near Dublin, aged 74, is also a very interesting one. That of Hannah Stewardson, operated on at St. Bartholomew's Hospital, was one of great difficulty, and is mentioned as the first instance in which this operation was performed in any public hospital in England; but the case of Mr. W. Bowdery, bookseller in Oxford-street, exhibits the triumph of lithotrity in the most marked manner of any in the series. This patient had several calculi, together with an adventitious growth within the bladder. He had laboured under this complaint for six or seven years. Mr. Costello triumphed over the numerous difficulties of this case, in a manner highly creditable to his skill and patience, as well as to the method which he is so laudably engaged in propagating. He terminates the narration of it by the following words:—"Mr. Bowdery's case presented a very serious, and happily a rare complication. The treatment was long. It is

true, it might have been considerably abridged; but the patient lived near me, in town, and for his sake as well as of that of lithotrity in England, I felt bound not to be precipitate, lest I should have exposed myself, or the method, to a chance of failure." There is another case to which we deem it proper to advert, though in as few words as possible; it is that of Mr. J. V. Batley, a young painter of great promise. This gentleman had laboured under this complaint for the space of ten years, the calculus had attained the size of a hen's egg (the largest which Mr. Costello's instrument can grasp,) and he was wasted to a skeleton; notwithstanding these unfavourable circumstances, Mr. Costello effected his cure.

The paper, which was of considerable length, was listened to throughout with the deepest attention.—The thanks of the Royal Society were voted to Mr. Costello for his valuable communication. A second demonstration of his very ingenious instruments took place subsequently in the Library of the Society.

20. *Medico Botanical Society*, June.—Mr. Houlton, Professor of Botany to this Society, delivered his introductory lecture at the last meeting in May, and took a most extensive view of the subject. He was listened to with great attention.

Dr. Clendenning, Professor of Toxicology, delivered his introductory lecture at the succeeding meeting, in which he evinced an intimate acquaintance with the primitive records of medicine, especially the works of Hippocrates, Galen, Dioscordes, &c.—while his quotations from the earlier Greek and Roman works proved his attainments in classical literature. The lecture evinced great research, and drew forth an unanimous vote of thanks from the society, and a request that it might be published for distribution among the members.

Mr. Houlton gave a demonstration of several medicinal plants, which were on the table.

Dr. Whiting, Professor of Materia Medica, explained the medical uses of the most important of those described by the lectruer on Botany.

BOTANY.

21. *Protraction of Vegetable Life in a dry state.*—Mr. Houlton, produced a bulbous root, which was discoveredi n the hand of an Egyptian mummy, in which it probably had remained for 2,000 years. It germinated on exposure to the atmosphere; when placed on the earth it grew with great rapidity. After a meeting of the 22d, Mr. H. demonstrated several medical plants, hyocm. digitalis belladonna, conium, &c. and stated the very important fact that hyociamus of the first year's growth is usually sold in the market, and is inert, that of the second year, collected in June or July, can alone be depended on. This readily accounts for the uncertainty of the remedy. Mr. H. has also observed that digitalis does not always flower the second year, as stated in books, and he shewed a specimen of the plant in flower of the third year's growth. He is of opinion that both digitalis and hyocia-

mus should be in flower when collected for medical use, without reference to age. A paper was read from Dr. Hancock on a South American plant, which he has found as valuable as cinchona, and he doubted very much the febrifuge properties of the latter.

Dr. Whiting also very much doubted the tonic power ascribed to this and other medicines.

Dr. Sigmond strongly advocated the received opinion, and called on Dr. W. to state his reasons for differing from the general opinion.

Dr. W. did not consider himself at liberty to enter into a debate, as the constitution of the society was against discussion. The matter here dropped. It would perhaps be as well if the professors of this society confined themselves to an exposition of the received opinions; for if they indulge in theorising or opposing the received doctrines, they cannot expect that many talented physicians who hear them will listen to such declarations without replying to them.

Mr. Everet was unanimously elected professor of chemistry to the Society.

22. *Prospectus of the Metropolitan Society of General Practitioners in Medicine and Surgery.*—While almost all public bodies, whether professional or commercial, form associations, corporations, or companies for the purposes of legislating for their mutual protection and for the advancement of their prosperity, it is found that no association of the numerous class of medical men comprehended under the term *General Practitioners*, has yet in any manner been formed for the protection of their particular interests.

Various branches of the medical profession have colleges, charters, and corporations, from which the General Practitioner is either altogether excluded, or attached as an appendage only; he is not admitted to a participation in their *councils*, or to share in their honours; as a General Practitioner, he belongs exclusively to no one branch, and is, therefore, virtually excluded from all.

A Society has, therefore, been formed, entitled "THE METROPOLITAN SOCIETY OF GENERAL PRACTITIONERS IN MEDICINE AND SURGERY," which is intended as an union of the Pactitioners of this class throughout England and Wales, for the protection of their mutual, and individual interests; having the following objects;—

1st.—Such alteration of existing laws and customs as shall promote the prosperity, and respectability of the general body of practitioners.

2nd.—The adoption of such measures as may be conducive to the advancement of medical science, and of professional information.

3rd.—The periodical assembling of the members for literary and scientific discussion—for the cultivation of social intercourse, and for the consideration of general measures relative to the Society.

4th.—The creation of a fund to be appropriated to the protection of the Members and for the general exigencies of the Society.

5th.—The establishment of a *benevolent* fund, by contributions from Members of the Profession at large and other charitable persons, for the relief of distressed medical men and their families.

The limits of a prospectus will not allow of a full detail of the objects contemplated; but it may be observed, in addition to the foregoing general statement, that it is intended, as soon as practicable, to effect some regulation respecting the mode of professional compensation; and, if necessary, to procure a legislative enactment to authorise the General Practitioner to make a fair and open charge for his services. It is also intended to protect, individually, those members who may become involved in questions which may be considered by the Committee to affect the interests of the Society as a body.

Notwithstanding that there are numerous charitable funds for relieving distressed members of particular branches of the Medical profession, it is found that there are many Members of that Profession who are not objects of relief from any of those funds; and it is, therefore, to supply this desideratum, that the Plan of a General Benevolent Fund has been adopted, the applicatoin of which, it is intended, *should not be confined to this Society exclusively*, but should be extended, at the discretion of the Committee, *to every Member of the Profession.*

The affairs of the Society are under the management of a President, Vice-President, and a Committee.

A house, or chambers, will be engaged, as early as possible, for the use of the Society.

The Society will meet at such stated periods, and in such manner, as will be hereafter determined.

The foregoing is a brief statement of the views of the Founders of this Society, and of the advantages intended from its institution, the plan of which may be enlarged, or curtailed, according to the support it may receive.

The Committe of Management entertain a confident hope that the Society will be of great utility to the general body of Practitioners, whose attention to this subject is earnestly recommended.

WILLIAM GAITSKELL, President.

23. *Ophthalmic Hospital, St. Petersburg.*—From May 1828 to May 1829, 5751 individuals presented themselves at the hospital; of these 3797 were men, and 1954 women, the number of their visits was 17,687. The number of the operations was 520—4 for artificial pupil, 78 for cataract, 205 for contraction of the eyelids, 34 extirpations of tumours, 131 extractions of foreign bodies, 5 operations for staphyloma, 10 punctures of the cornea, 1 for fistula lachrymalis, and 43 for different operations.

24. *Diagnosis from the appearance of the Tongue.*—M. Piorry has arrived at the following results from his observation. When the pulse is strong, frequent, full and developed, the conjunctiva, cheeks, lips, pharynx and gums are red, the tongue partakes of the coloration. After large evacuations of blood, and after chronic diseases, all the tissues are pale, and also the tongue. The gastritis, enteritis and dysentery attended with slight fever, the tongue is more or less pale, in the traumatic fevers, in acute pneumonia without gastric symptoms;

the tongue is generally of a vermillion colour, and sometimes very red. It becomes pale after repeated bleedings, or when the stomach or liver become consecutively affected. This coloration of the tongue does not often exist but at the edges, the middle may be of various colours, but when these are removed, the whole organ is of a uniform colour. The apex does not often redden but by the effort, which the patient makes to protrude the organ; when the muscles of the organ relax, the redness disappears immediately. The dryness of the lingual surface arises from the evaporation of the liquid which moistens it. Every cause which obliges respiration by the mouth tends to dry the tongue. In coryza and all diseases of the nasal fossæ, the tongue is dry. All causes which force the air through the buccal canal, induce dryness of the tongue. Accelerated respiration produces this phenomenon. The tongue is very dry in general in intense pneumonia, especially if accompanied with coryza, also in pleurisy. Fever accompanied by frequent contraction of the heart, and consequently frequent respiration, disease of the liver, stomach, peritioneum, constraining the descent of the diaphragm, and accelerating respiration will have the same effect. The repeated observations and experiments on the saliva and mucus treated by heat, have convinced M. Piorry that the formation of the various coatings of the tongue and teeth arise from the different degrees of exsiccation of the fluids which lubricate them. He thinks the coats of the tongue depend on the elements of the blood, as the saliva and buccal mucus must of course depend upon the vital fluid. So in diseases of the liver, all the tisssues are coloured yellow, the urine and sweat in the same manner, and it is probable that the fluids of the mouth partake of the colour and cause the appearance of the tongue in such cases.—Abridged from the *Journ. Hebdom.*

25. *London Medical and Surgical Journal.*—We felt not a little flattered, on looking over the two numbers for January and February, 1830, of the above Journal, to find that its editor has taken no less than eighteen articles from the Quarterly Summary of our October number, *verbatim et literatim.* It is really a matter of no small self-gratulation, that the intelligence contained in our digest from the continental Journals should still be in time, after re-crossing the Atlantic, to meet the wants of a British editor, and gratify the curiosity not only of British, but London readers. We dare hardly trace this success of ours in manufacturing the raw material from France and Germany, so as to meet the wants of the London market, to the tariff; for in this case so far from our having a premium for our labours, we have not even the marketable return of acknowledgment—no credit having been given to our Journal for the articles borrowed.—We would venture to suggest to the editor of the London Medical and Surgical some slight deviation from the words of our Quarterly Summary, at least when we refer to a former volume and page, otherwise the reader of his work will be somewhat puzzled at finding the total inapplicableness of the reference.—*North Amer. Journ.*

Worthy Jonathan, " lay not the flattering unction to thy soul," that the *London Medical and Surgical Journal* has drawn on the pages of its homonyme in North America to the extent, or any thing like the extent stated. The mercantile form into which this reclamation of our trans-atlantic contemporary is thrown, most happily shadows up the good old counting-house form of a " bill of lading," at which, in all probability, *he* may have tried his hand, previously to his exaltation to the editorial dignity. This suspicion is strongly borne out, by an adroit insinuation, that he had a hand in framing the tariff, by his lugging in the technicalities of " raw material" and market, with the familiarity of a sturdy pacer upon 'change. We meet this seer on his own ground; and now for the facts. So far from having done him the honour to quote so largely from him *without acknowledgment*, our first article was a condensation of the substance of a very verbose one of his, spread over eighteen pages, to which we thought ample justice might be done in fourteen lines, and which we duly acknowledged. So much for the verbiage with which his readers are regaled, and so much for his notions on copying *verbatim et literatim*. The next extract occupied thirty-two lines, and contained three articles, not one of which was original in his Journal, but perhaps by some form of ratiocination peculiar to himself, he may deceive himself into the belief that the periodicals from which these scientific gleanings were extracted, were not as accessible to us as to him. We pity the delusion under which he labours, when he chuckles at the very silly idea, that we, or any of our contemporaries in London, chose him as our oracle, to be informed of the progress of science in Europe.

The idea is so ridiculous as to admit of no other explanation than that it is the offspring of a diseased brain, and yet we know of no malady in the Nosology, to which we may refer his politico-literary *niaiserie*. In truth, the part of our Journal into which his name has crept, and which we are persuaded. notwithstanding his querulousness, he will ever remember with gratitude, is that which is devoted to the *hors d'œuvre*. It is occasionally confided to subaltern hands. We have, however, given strict charge that none of the insipid *entremets* of the North American Journal be found there in future.

In commencing another volume of this Journal, we hope we may be excused for offering a few remarks on our past labours. We have to acknowledge with gratitude the many encomiums which have been passed on our exertions; and we feel deeply sensible of the approbation and patronage which the profession in this and foreign countries have been pleased to bestow upon this periodical. Such flattering rewards are powerful motives to urge us to render the work more worthy of attention. Our great object has been to exhibit a view of the progress of discovery in Anatomy, Physiology, Pathology, Medicine, Surgery, Obstetricy, Materia Medica, Chemistry, Pharmacy, and Medical Jurisprudence; and we refer to our two last

volumes for the best and most convincing evidence that this object has been accomplished. The variety of arrangement which we have adopted, and the varied information which we communicate, have given our work so decided a preference in public favour, that its circulation has increased to an extent which we did not expect or anticipate. The terms in which our reviews have been spoken of, are of the most pleasing description. In our Analysis of works, we impute praise or blame to authors with candour and equity; we assert the truth, and maintain it by argument and fact; we vindicate the best authenticated doctrine; we affirm what we know; assert what we believe; aver facts, attest them by evidence, and assure from conviction. However distinguished in rank or talents, or eminent in the profession an author may be, if he contradicts the received opinions without the most positive proof of the validity of his own, he receives no fulsome adulation, no delicious flattery, no ill-deserved compliments from us. On the other hand, we encourage and advance works of utility, whoever may be their authors. We endeavour to give fair and impartial reviews of all works at the earliest possible period after publication, and especially those of practical interest; and here it may be stated with truth, that we often anticipate most of our contemporaries. We defend our criticisms by argument, justify them by reason and authority, and establish their fairness by proof. We fearlessly impugn false theories, idle fancies, and dangerous doctrines, by sober argument or ridicule. We censure and correct faults, and endeavour to rectify errors and mistakes. We praise every work that is meritorious. We never disparage the abilities or rank of authors or rivals; we do not detract from their merit, traduce their characters, or depreciate their understandings or acquirements. Our sole object is impartial criticism, and not personal animadversion. Among our Original Communications are essays of great practical interest; and here we gratefully acknowledge our obligations for the accession of eminent contributors, and take this opportunity of soliciting contributions from every rank in the profession. Our Bibliographical department is enriched with all the additions made to science by the most illustrious writers of the present age, comprising many subjects unnoticed by our contemporaries. Every article in this department is either abridged or carefully revised before its insertion; and here we submit the latest intelligence in recent inquiries and discoveries, as we aspire to detail the progress of all the branches of the medical sciences. This section of our Journal condenses whatever the learning, the skill, the industry, and the genius of eminent men abroad and at home may produce, for the interests of science and mankind. Our last department is entitled, Miscellanies; and comprehends original reports of the proceedings of our Colleges and Societies, medical police, regulations of education, literary intelligence, lists of recent publications, &c. In a word, *The London Medical and Surgical Journal* comprehends every branch of medical science; contains an abundance of scientific and practical matter, and includes every thing of importance. It will be found a valuable compilation to those who live at a distance from

large towns, and who may neither have opportunity nor pecuniary means of becoming acquainted with the multifarious medical productions, domestic and foreign, which daily issue from the press. This Journal can be procured through the Clerks of the Roads, General Post Office, at a trifling additional expense. It is published the 1st of every month, the price 2*s.* 6*d.*

Appeal to the Profession on behalf of a distressed Member.

A gentleman advanced in life, who received his education in the Medical School of St. George's Hospital, under the illustrious Hunter, Cruickshank, Baillie, and the splendid galaxy of talent of their day, has through unforeseen events been reduced to great distress. However numerous the appeals of this description are unfortunately of late, we hope and trust, that the wonted benevolence of our profession will be displayed on the present occasion, and that those who enjoy the advantages of fame and fortune will not forget that *esprit de corps* which has ever distinguished their predecessors, and, we hope, will always continue to distinguish our profession. The most satisfactory documents, in proof of the literary and scientific attainments and *deplorable* condition of the gentleman whose cause we advocate, may be seen at our publishers', where contributions will be received.

The London University.—We are sorry to perceive that a serious misunderstanding has occurred between the Council of the London University and its Professors. The cause of the existing differences has not transpired, and fame with her thousand tongues has of course been active on the occasion. Mr. Bell has resigned, as he considered the promises made to medical students in his introductory lecture could not be fulfilled. We cannot understand the force of this reason, as every candid man must admit that the medical professors in their respective departments are men of the first rate talents, and as a body stand unequalled in the medical schools of this metropolis. Every one of them has his name inscribed in the annals of science—a fact that deserves consideration from those who attempt to depreciate the character of the medical department of the University. The establishment of a royal rival institution may have some effect on those who are so very prominent in the ranks of the opposition; but we very much doubt whether the embryo college will equal its predecessor. *Tempora mutantur, &c.*

BOOKS RECEIVED DURING THE MONTH.

1. Remarks on Nervous and Mental Disorders, with especial reference to recent Investigations on the subject of Insanity. By David Uwins, M. D. London, 1830. T. and G. Underwood, Fleet Street. 8vo. pp. 41.

*** Dr. Uwins has devoted great attention to the study of mental disorders, and is among those who are averse to the separation of insanity from other maladies which are allied to it in nature, and differ from it in degree. We shall defer further remarks on this production, until our notice of other works on the same disorder, in our next number.

2. Modern Medicine, influenced by Morbid Anatomy: an Oration delivered at the Fifty-seventh Anniversary of the Medical Society of London. Also, an Apology for Medical Nomenclature. By Leonard Stewart, M. D., &c., Physician to the Farringdon Dispensary, and Vice President of the Medical Society of London. London, 1830. Longman and Co., and Burgess and Hill. pp. 56.

*** This Essay is at once literary, scientific and instructive.

3. Cholera, its Nature, Cause and Treatment; with original Views physiological, pathological and therapeutical, in relation to Fever; the Action of Poisons on the System, &c. &c. By Charles Searle, Surgeon of the Hon. East India Company's Madras Establisdment. London, 1830. 8vo. pp. 255. John Wilson.

4. A Popular Description of the Aldinian Defensive Dresses, &c. &c. for rescuing Human Life and Property from Injury or Destruction in Cases of Fire. London. pp. 24. J. Ridgway.

5. A Manual of Descriptive Anatomy. By Cloquet, translated by Thos. King, Surgeon. Part IV, with Plates.

7. An Inquiry concerning the Indications of Insanity, with Suggestions for the better Protection of the Insane. By John Connolly, M.D. Professor of Medicine in the University of London. London, 1830, 8vo. pp. 496. John Taylor.

*** An accurate, well digested, well written work, evincing deliberation, research, judgment and fidelity.

8. Flora Medica, No 31. London, 1830. John Wilson.

9. A Practice of Physic, comprising most of the Diseases not treated of in "Diseases of Women," and "Diseases of Children. By Wm P. Dewees, M. D. Adjunct Professorof Midwifery in the University of Pennsylvania, &c. &c. &c. Philadelphia, 1830. 2 vols. 8vo. pp. 833.

*** The eminent author of this work is favourably known to the profession in every country, and the present production adds much to his reputation as a practical physician; while it demonstrates the fallacy of a ridiculous rule, long abandoned by all sensible men, that obstetric physicians should not practise medicine generally. We shall review this excellent work in our next.

10. On the Diseases and Injuries of Arteries, with the Operations required for their Cure—being the Substance of the Lectures delivered in the Royal College of Surgeons in the Spring of 1829. By G. J. Guthrie, F. R. S. Professor of Anatomy and Surgery to the Royal College of Surgeons, Surgeon to the Westminster Hospital, to the Royal Westminster Ophthalmic Hospital, &c. &c. London, 1830, 8vo. pp. 416. Burgess and Hill.

*** A work of great practical utility.

The following Journals are received regularly—

11. Medico-Chirurgical Review and Journal of Practical Medicine. Edited by James Johnson, M. D. &c.

12. The Edinburgh Medical and Surgical Journal. July.

13. The London Medical Gazette, June.

14. The Midland Medical and Surgical Reporter. May.

15. The American Journal of the Medical Sciences, Feb. 1830. Philadelphia.

16. The North American Medical and Surgical Journal. Published under the auspices of the Kappa Lambda Association of the United States. April, 1830.

17. Gazette Medicale de Paris, Journal de Medecine et des Sciences accessories paraissant tous les samedis. No. 1 to 14.

18. Bulletin des Sciences Medicales. Par M. le Baron de Ferussac.

19. Revue Medicale Francaise et Etrangere. Mai and Juin, 1830.

20. Journal des Progres des Sciences et Institutiones Medicales en Europe et Amerique. Tome i, 1830. Paris.

21. Annales de la Medecine Physiologique. Mai.

22. Journal Universel des Sciences Medicales.

23. Journal Generale de Medecine Juin.

24. Nouvelle Bibliotheque Medicale. Juin.

25. Archives Generales de Medecine. Juin, 1830.

26. Journal de Chemie Medicale de Pharmacie et Toxicologie. Juin.

27. La Lancette Française. Juin.

28. La Clinique, Annales de Medecine Universelle. Juin.

29. Journal Hebdomadaire. Juin.

30. Journal der Chirurgie und Augen Heilkunde. Herausgegeben von C. F. V. Graefe und Ph. V. Walther.

31. Archiv fur Anatomie und Physiologie. J. F. Meckel's.

32. Journal der Pratischen heilkunde. Hufland & Osan's.

33. Magazin fur die gesammte heilkunde. Rust's.

34. Annali Universali di Medicina del Dottore Omodei. Milan.

35. Remarks on Hydrophobia prophylactic and curative. By John Murray, F. S. A. F. L. S. &c. &c. London, 1830. 8vo. pp. 82. See Bibliography.

36. On Canine Madness; comprising the Symptoms, Post-mortem Appearances, Nature, Origin, and preventive and curative Treatment of Rabies in the Dog, and other domestic Animals By W. Youatt; V. S. & F. Z. S. Lecturer on Anatomy and Diseases of domestic Animals, &c. &c. London, 1830. Longman and Co. 8vo. pp. 52. Reviewed in this Number.

37. Account of the Varieties in the Arterial System in the Human Body. By P. H. Green, A. B. M. D. Trin. Coll. Dublin. Seven Plates. Dublin, 1830. 8vo. pp. 39. J. M. Leckie. Reviewed in the present Number.

38. Neurology of the Human Body. By Barremans, revised and adapted to the English Nomenclature. By Thomas King, late House Surgeon to the Hotel Dieu, Docteur en Medecine de la Faculte de Paris, Member of the Royal College of Surgeons in London, and Lecturer on Anatomy at the Aldersgate Street Medical School: Ten splendid Plates, with description. London, 1830. 8vo. pp. 16. Feuillet, Dumus, and Co. Leicester Square.

*** These splendid plates can be so arranged as to represent the body of the adult size. They not only illustrate the minutest ramifications of the nervous system, but various other tissues and organs. They are beautifully and accurately executed, both plain and coloured; and the adaptation of the description to our nomenclature is highly creditable to the attainments and industry of Mr. King. They are rendered at a price so moderate as to be attainable to students, and are well worthy of a place in every medical library, lecture room and private surgery.

Communications have been received from Dr. Sutton of Greenwich, Mr. Marshall, Dr. Stoker of Dublin, Mr. Boyle of Dublin, Dr. Dewees of Philadelphia, Mr. Foote, Mr Warden, &c.

All Communications and Works for Review are to be addressed to the care of Messrs. Underwood, 32, Fleet Street; or to the Editor, at his Residence, 61, Hatton Garden.

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CRITICAL REVIEW.

I.—*A Practice of Physic, comprising most of the Diseases not treated of in "Diseases of Females," and "Diseases of Children."*—By William P. Dewees, M. D. Professor of Midwifery, in the University of Pennsylvania, &c. &c. Philadelphia, 1830. Vol. II. pp. 833, Carey and Lea.

II.—*A Manual of Therapeutics.*—By L. Martinet, D. M. P. translated with alterations and additions, by Robert Norton, M. D. Extraordinary Member of the Medical Society of Edinburgh. London, 1830. 12mo. pp. 323, William Jackson.

The first work on our list requires no formal introduction to the medical public. The former productions of Dr. Dewees have been so eminently successful, that any work of his will be favorably received by the profession. In the volumes before us, he evinces his usual good sense, sound judgment, great research, and the result of his experience after forty years observation. He has done for medicine in America, what Dr. Mason Good, has accomplished for it in this empire; but being a practical physician of much greater experience than our countryman, whose profound erudition and distinguished literary attainments were pre-eminent, his practical precepts are entitled to more attention and respect. But Dr. Good is unequalled in the purity and elegance of style, in the classic beauty of his nomenclature, and in elaborate research, and happy condensation of his authorities, and produced a work, which stands a splendid monument of learning industry, and talent, and whose utility if equalled, is not surpassed by any modern publication. Dr. Dewees

on the other hand, has solely directed his attention to pathology and therapeutics, omitted nosology altogether, and considered style and composition of secondary importance, so that his work is totally different from Good's "Study of Medicine." Its chief merit is in pathology and therapeutics, it is deficient in semeiology, and it sets all nosological arrangement at defiance. Thus we have rubeola after typhus, next apoplexy, and then scarlatina; erysipelas is placed after dropsy, next phlegmasia dolens, then hæmorrhages, epilepsy, chorea, paralysis, colic, scrofula. Though all nosological arrangement is liable to objection, yet surely the description of diseases of different kinds can answer no useful purpose in the order adopted by our author. The work contains a description of those diseases, not treated of in the author's treatises "on Diseases of Females and Children," and these are so few, that the production, as a system of practical medicine is much more limited, than those of Cullen, Thomas, Gregory or Good. Those who possess all our author's works have a complete system of medicine, well worthy of a place in the library, with the systems of this and other European countries. The work under notice contains much important information, and will be perused with advantage by the most experienced practitioner. It embraces excellent descriptions of the following topics:—"General observations on the duties and qualifications of nurses; faithful administration of medicine; of giving drinks and nourishment; cleanliness, quiet, and ventilation of the sick chamber, examination of the excretions, management of patient, and various other duties in the sick room. Chapter i. of Fever in general; ch. ii. Intermittents; ch. iii. Remittents; ch. iv. Yellow Fever; ch. v. Continued Fevers; ch. vi. Typhus; ch. vii. Rubeola; ch. viii. Apoplexy; ch. ix. Scarlatina; ch. x. Urticaria; ch. xi. Phrenitis; ch. xii. Hydrocephalus internus; ch. xiii. Diseases of the Eyes, conjunctivitis, sclerotitis, corneitis, &c.; ch. xiv. Catarrh; ch. xv. xvi. xvii. Cynanche, and species of; ch. xviii. Pertussis; ch. xix. Diseases of the Chest; ch. xx. Pericarditis; ch. xxi. Peritonitis, Puerperalfever, hysteritis, enteritis; ch. xxii. Dysentery; ch. xxiii. Diarrhœa; ch. xxiv. Rheumatism; ch. xxv. Gout; ch. xxvi. Dropsy; ch. xxvii. Erysipelas; ch. xxviii. Phlegmasia dolens; ch. xxix. Hæmorrhages; ch. xxx. Epilepsy; ch. xxxi. Chorea; ch. xxxii. Paralysis; ch. xxxiii. Colic; ch. xxxiv. Scrofula, prescriptions, glossary of terms, &c. The author has conferred an important advantage on the profession by this able production, which adds much to his well-earned reputation as a practical physician; while he has demonstrated the fallacy of a once foolish rule, that

physicians who devote themselves to the practice of obstetricy, should not teach or practice medicine generally. He had only to refer to France, Germany, and Italy, for precedents, where he found the first physicians and surgeons and most eminent writers, practical obstetricians. But in this country we have our artificial distinctions so well illustrated by the documents recently published by the obstetric society, and which prove to demonstration our love of standing still, and venerating antiquity, while our contemporaries in other countries are in rapid motion. How long in the name of science and common sense are such antiquated inanities to continue? But we are digressing, and must return to the work which gave rise to these observations. We have only to add in conclusion, that we have no hesitation in recommending it as decidedly one of the best systems of medicine extant. The tenour of the work in general reflects the highest honour on Dr. Dewees' talents, industry, and capacity for the execution of the arduous task which he had undertaken. It is one of the most able and satisfactory works which modern times have produced, and will be a standard authority.

The second work at the head of this article is M. Martinet's Practice of Medicine, which is a proper companion for his well known and justly esteemed Manual Pathology. This is an excellent compendium of the French practice, while it is adapted to our own by the emendations of Dr. Norton. We have not met a work for a long time which contains in the same space so much useful matter; and we strongly recommend it for its accuracy, perspicuity, and the valuable practical precepts with which it abounds. The grounds upon which it founds its claims to approbation are, brevity, accuracy, and natural arrangement. We are satisfied that no medical man, young or old, can peruse this work without gaining much information and knowledge.

"It will be proper," says Dr. Norton, "and it may obviate prejudice on account of its foreign extraction, to mention, that this work is not an exact translation, for professing to offer to the English student a manual of practice, I considered it necessary to sacrifice the duty of a translator to that of an instructor, whenever the two seemed incompatible." Professor M. Martinet adopts the following arrangement in this work, which is more natural, more simple, and of course more useful than any of the nosologies. He commences with the diseases of the brain, arachnitis, acute hydrocephalus, chronic hydrocephalus, apoplexy, encephalitis, softening of the brain, epilepsy, hysteria, chorea, catalepsy,

hypochondriasis, mania and nightmare. He next describes the diseases of the chest, including those of the lungs and heart, diseases of abdomen or digestive organs, diseases of the tissues, mucous serous, and cutaneous, next general diseases, as scorbutus, syphilis and scrofula, then the fevers, and lastly, the treatment of poisoning. This excellent and graphic work ought to be bound with its predecessor, the Elements of Pathology, and is still more valuable. The information it contains is so extensive, so various, and so judicious, that the work cannot fail to be encouraged by every class of medical practiticners. We understand it has a great sale, and it well deserves it.

III.—*An Inquiry concerning the Indications of Insanity, with suggestions for the better protection and care of the Insane.*—By JOHN CONOLLY, M. D. Professor of Medicine in the University of London. London, 1830. 8vo. pp. 496, John Taylor.

THERE is nothing more worthy of fixing the attention of a physician or philosopher, than the constitution of the human understanding. This is a truism attested by the primitive archives of the healing art, as well as by the annals of medicine in all succeeding ages. We have shewn in our review of Dr. Pring's work* that many of our best metaphysicians were members of the faculty. Without troubling the reader with citations in proof of this position, we may briefly remark that Locke, Hartley, and Brown, of Edinburgh, were physicians. It affords us much pleasure to see the author of the work before us enter the arena, and are happy to state that he has acquitted himself with great ability and unprecedented success. His work is purely metaphysical, without any mystical jargon, and yet has all the interest of a romance, qualities which cannot fail to render it acceptable to the general reader, the lawyer, the statesman, and even especially to the medical practitioner. He has traced the progress of the mind from its simplest to its most perfect state, and has founded his conclusions upon common observation and sound sense. He has ably described the faculties of the mind, and appealed to the experience of mankind for the truth of his positions, he has not involved himself in assumptions, or in wild and gratuitous reasonings, he has avoided all inquiry as to the seat of

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* Intellectual and Moral Relations, 1830 See our Jan. No. vol. iv, p. 23.

thought, and by induction and careful analysis, he has happily contrasted sanity with insanity. The style is pure and unadulterated English, no slight merit in these times, while the tone of the work is manly, unprejudiced, and impartial, and impresses the reader with a very favourable opinion of the head and heart of the author, who has thrown the shield of reason and philanthropy over that unfortunate class of beings who are deprived of the chiefest faculty of our species, which makes man the lord of the creation, and elevates him far above its transient and useless concerns. We have no hesitation in declaring this to be one of the most able and satisfactory works on the philosophy or rather physiology of the human understanding which has been hitherto produced. Dr. Conolly has done for this branch of science what Dr. Arnott has done for physics; he has produced a work which will have an honourable place in the annals of medicine, while it reflects great lustre on the splendid institution to which he belongs. We must however observe that it is not a finished performance, for it is silent on the pathology of insanity, a defect which we did not expect in a production by the learned and experienced author. All our metaphysical writers have included as much pathology as he, but he has exceeded all in the simplicity, beauty, accuracy, and fidelity of his description of the constitution of the human mind. Instructive and interesting as his description is, we must decline to attempt its analysis, as the majority of modern readers are much more partial to practical than to theoretical details, and will be satisfied with being informed of our author's conclusions. In justice however to him and to the favourable opinion we give of his work, we must make a few extracts, most strongly recommending the original to every class of medical men.

The contents of the volume are as follow:—Introduction—the present condition of lunatic houses and lunatics—the constitution of the human understanding—the various degrees of perfection in which the faculties of the understanding are possessed by different individuals—inequalities, weaknesses and peculiarities of the human understanding which do not amount to insanity—modifications of the intellectual activity and power by various stimuli, by disease, by age—insanity—application of the inquiry to the duties of medical men when consulted concerning the state of a patient's mind—suggestions for the better protection and care of the insane.

In a well written introduction our author dwells with great force on the facility with which men may be consigned to mad houses, and on the difficulty when they are once con-

fined of regaining their liberty. He also comments with much reason on the inattention paid by students to mental disorders, and on the defects of medical education upon this point. He commences his introduction in these words:—

"For many years past, during five of which I held the appointment of Inspecting Physician to the Lunatic Houses for the County of Warwick, I have availed myself, both in this and in other countries, of such opportunities as presented themselves to me of examining the correctness of the opinions contained in the following pages.

"In offering them for the examination of others, my desire is to render the recognition of insanity less difficult, by showing in what it differs from those varieties of mind which approach the nearest to it; and to point out those circumstances which, even in persons decidedly insane, can alone justify various degrees of restraint.

"That an inquiry of a difficult nature, and opposed, in this country, by peculiar obstacles, must be incomplete, I freely admit. The interests of the public greatly require that medical men, to whom alone the insane can ever properly be entrusted, should have opportunities of studying the forms of insanity, and of preparing themselves for its treatment, in the same manner in which they prepare themselves for the treatment of other disorders. They have at present no such opportunities. During the term allotted to medical study, the student never sees a case of insanity, except by some rare accident. Whilst every hospital is open, every lunatic asylum is closed to him; he can study all diseases but those affecting the understanding,—of all diseases the most calamitous. The first occurrence, consequently, of a case of insanity, in his own practice, alarms him; he is unable to make those distinctions which the rights and the happiness of individuals and of families require; and has recourse to indiscriminate, and, generally, to violent or unnecessary means; or gets rid of his anxiety and his patient together, by signing a certificate, which commits the unfortunate person to a madhouse. In the plan of his medical study, therefore, attention to diseases affecting the mind forms hardly any part; and it has thus happened that many individuals have been ignorantly confined, and unjustly detained in houses for the reception of lunatics; and persons of all ages, suffering under temporary mental derangement, from temporary causes, shut up with the incurable; nor is it any exaggeration to say, that such treatment has in many cases destroyed all hope of recovery."—p. 3.

He animadverts on the conduct of those who grant medical certificates to consign their fellow-subjects to seclusion, on the exaggerated and self-interested misrepresentations of relations, and graphically describes the influence of irritation and domestic quarrels on patients who are about to be visited by medical men, outrages that often make sane persons furnish abundant proofs of undeniable madness. He points out the

conduct of keepers of asylums with a degree of fidelity that bears conviction to the mind of every candid man; and clearly demonstrates the caution which ought to be observed by those who are called to give certificates in cases of alleged insanity. The subject of our author's inquiry is important to every man, and for the solid reasons assigned by him.

"Every man is interested in this subject; for no man can confidently reckon on the continuance of his perfect reason. Disease may weaken, accident may disturb, anxiety may impair it; and if every departure from sound mind may subject the person so affected to an indiscriminate treatment, including deprivation of property and personal liberty, no man can be sure that he may not, with a full conciousness of his sufferings and wrongs, be one day treated as if all sense and feeling were in him destroyed and lost; torn from his family, from his home, from his innocent but eccentric pursuits, and condemned, for an indefinite period, to pass his melancholy days among the idiotic and the mad."—p. 9.

Want of leisure and of space preclude us from analysing the different chapters of the work before us, nor indeed is it at all necessary, as this production will find a place in every medical library. We pass therefore to the chapter on the constitution of the human understanding, in which the author attempts to give an intelligible statement of the healthy functions and natural actions of the human mind. He proceeds as follows:—

"Observation of what passes in ourselves and in others, shows us that man derives his principal knowledge of the things around him from the exercise of certain senses, by means of which his mind becomes impressed with the ideas of certain properties, existing, or deemed to exist, in surrounding objects. These senses are so ordered as not merely to contribute to the preservation, but to the enjoyment of the individual; and so along as they are in a healthy state, he receives such impressions of form, colour, number, distance, consistence, dryness or moisture, temperature, sound, odour, flavour, &c. through the medium of what are called the Five Senses, as agree with the common experience of these impressions in the generality of mankind; and accompanied with such emotions of pleasure, or of uneasiness or pain, as the generality of mankind derive through them.

"Each of the sensations excites that state of the mind which is called Attention; that is, each excites a momentary attention; but if we continue to attend to the sensation, the act of so doing is voluntary, either arising from a wish to prolong a sensation which is agreeable, or to understand it, in consequence of a desire, which *seems to be* very early developed in the human mind, of learning the *nature of* the things which affect it. We can direct our attention to a sensation, or withdraw it; we can direct it to one of many sensations arising at the same time from one object, to the smell of a rose,

or its colour, or to the arrangement of the petals; to the smell of a cyst of musk, or to its globular form, or the nature of its strong and bristly covering; to the spires of a distant city, or to the variegated beauty of the intermediate plain; to the lowing of cattle in the pastures, or the tinkling of a sheep-bell, or the sound of carriage wheels advancing or dying upon the ear. We can attend to each of these separately, and to each alternately, according to our inclination.

"When the impressions of any sense have been experienced, we find that we have the wonderful power of recalling both the impression made by the sensation, and by the object which excited it, in the absence of such object. The rose, the musk, the landscape, are recalled with all the sensations belonging to them, although no rose, no musk, no landscape, is before us.

"When, instead of merely recalling past objects and sensations, we receive new impressions from other objects, and sensations either resembling those experienced before, or differing from them; we can pay an alternate attention to the new sensations, and to those which we can recal to our minds, just as we could to those presented at one time to us. This alternate attention constitutes Comparison."—p. 41,

"This alternate attention, or comparison, consequently produces a decision, or an opinion, or judgment, concerning the relative nature or degree of all objects and all sensations, present or recalled. This decision, or opinion, or judgment, when exercised, as it commonly is, concerning the relative power of objects or impressions to produce pleasure or pain, is productive of choice, or preference, or desire.';—p. 42.

"In these operations, we observe, then, the offices of Sensation, Attention, Comparison, and Memory, with a limited exercise of the Imagination; the act of recalling impressions with the objects which first excited them seeming to be conjointly performed by this faculty and the memory.

"But, if we attend to what passes in our own minds in almost every instant of our lives, we shall perceive, that not only do the memory and imagination, in conjunction, revive past impressions in connexion with the objects with which they were first presented to the attention; but can continue to revive, and are continually recalling successive images in a long associated series; and that this operation is performed very often without any evident desire of our own, or involuntarily. One object, or image, or impression, is revived, or recalled, or suggested, after another, in consequence of the slightest bonds of resemblance, contrast, or other connexion. The image with which the chain commences may be an external object acting on a sense, or an internal recollection, or the memory or imagination of any object formerly the subject of sensation.

"Over these chains of thought we can still exercise some power; we can direct their revival, by a voluntary effort, according to the order in which the first impressions were made; we can retain some links of the chain, dwell upon them, abandon them at will. Or we can give indulgence to the imagination, which then exerts unlimited

power over them, disconnecting and uniting the several links in an infinite number of series.

"In these processes we see, then, what appears to be a conjoint office of the memory and imagination, which has been sometimes called the Association of Ideas. We see also another operation, in which, if the Memory has still some part, the Imagination takes a very preponderating share."—p. 45.

Further citations are unnecessary to prove with what perspicuity and force Dr. Conolly treats his subject. It must be admitted by the most fastidious and cynical critic that his descriptions are faithful, his deductions natural, his reasoning conclusive, his arguments decisive, his proofs convincing, and his conclusions legitimate. He has avoided the wild and extravagant reveries in which former writers on the human mind so invariably indulged—he has appealed to the observation and experience of every man. In his account of the modifications and inequalities of mind in different individuals he has cited the works of ancients and moderns illustrative of the eccentricities and oddities of mankind in every age; and has afforded us an amusing and instructive narrative, in a style not surpassed by our best novelists. He has adduced numerous cases of this kind from personal experience, and concludes, that in many instances persons are insane on a certain point, though sensible in the ordinary affairs of life. He arrives at the following conclusions on the nature of insanity:—"The judgment is but the result of comparison; comparison is alternate attention; attention is a faculty dependent on the brain—the judgment is perverted in insanity, though in different degrees. *The impairment of any one or more of the faculties of the mind, accompanied with, or inducing a defect in the comparing faculty is insanity.*"

He illustrates these conclusions by a most minute analysis of an immense number of cases of insanity detailed by others, and arrives at the conclusion that men were insane on a certain point, though rational on all others. But he is of opinion that no man ought to be confined, unless he is disposed to injure himself or others. He proves by the best reasoning, that many of those who were consigned to madhouses on account of some harmless eccentricity, should have been left at liberty, and were perfectly competent to manage their affairs. This part of the work will be perused with great interest and advantage. We cannot conclude our remarks on this section of the work without observing, that our author has shewn an intimate acquaintance with general as well as medical literature, of both the past and present ages.

The next chapter is entitled "Application of the inquiry to the duties of medical men, when consulted concerning the state of a patient's mind." The cautions and advice which are given under this head are deeply interesting, and worthy of universal adoption. The author inveighs in the strongest terms against the practice of signing certificates in alleged cases of insanity, and authorising force in cases in which the patient has never been seen. He clearly and forcibly demonstrates that no man, however respectable, is exempt from the danger of being consigned to a mad-house, by the conduct of any man who calls himself a practitioner. The whole duty of a medical man resolves itself into two parts. 1. To determine whether the individual in question be of sound mind. 2. To give an opinion concerning the treatment required, and especially concerning the necessity of restraint, *and the degree and nature of the restraint.* In visiting such patients we should present ourselves to them with the same openness of manners, and the same good intention with which we approach the bed-side of a patient in a fever. Our author describes minutely the conduct of medical men in the vast variety of cases of insanity, which we regret our inability to condense or copy, from the extent of the subject; but we have placed his principal opinions before our readers. The last chapter is devoted to "Suggestions for the better protection and care of the insane;" in which our author has proposed many valuable improvements. However interesting his opinions are as topics of state medicine, they cannot prove so to medical practitioners in general, and therefore we decline inserting them. In taking leave of our author, we have to reiterate our favourable opinion of his work, which is executed with consummate skill and accuracy. We think no reader, medical or civil, can rise from its perusal, without the conviction that it is the production of a highly gifted and benevolent mind. It may be productive of great benefit to society, as it will be perused by the many eminent statesmen who are among the council of the University, of which our author is one of the professors, and who most probably may propose to the legislature the great improvements suggested for the care and management of the insane. Were this object effected, the author would have much cause of gratification; but on other accounts, he has rendered the profession and the public his debtors.

IV.—*On the Diseases and Injuries of Arteries, with the operations required for their cure; being the substance of the Lectures delivered in the Theatre of the Royal College of Surgeons, in* 1829. By G. J. GUTHRIE, F. R. S., Professor of Anatomy and Surgery to the Royal College of Surgeons, Surgeon to the Westminster Hospital, to the Royal Westminster Hospital, &c. &c. London, 1830. 8vo. pp. 416. Burgess and Hill.

THE work before us does not admit of analysis, and we cannot explain the author's object in publishing it better than in his own words.

"MY object in the first part of the following work, is to demonstrate the value and importance of that portion of the pathological collection in the museum of the Royal College of Surgeons, which relates to the subject of Aneurism; and to prove, that the labours and researches of Mr. Hunter anticipated nearly all the observations which have been made by his contemporaries and successors.

"I have entered more fully in the subsequent part into the consideration of the nature and treatment of Wounds of Arteries, illustrating these points principally by observations and cases which occurred during the late war in Portugal, Spain, France, and the Netherlands; and I would fain hope it will give to this part of surgery a precision which it has not hitherto universally attained. I have endeavoured to be as concise as possible, compatible with clearness of expression, and have avoided, as far as lay in my power, quotations and references, which would have made made a book, already larger than I expected, of twice its present size.

"The matter contained in this part has been many years announced as preparing for the press; and although it has not been published, it has been annually promulgated in my surgical lectures for the last fourteen years; and if any practical information which it may contain has been delayed, it has certainly not been withheld."—p. vi.

That a work of this description is much wanted, as Mr. Hodgson's excellent production is long out of print, must be admitted; and we are happy that a man of Mr. Guthrie's talents and experience has undertaken the task of supplying the want. If his first paragraph be correct, and we have no reason to doubt it, what must the profession think of the College of Surgeons, who have voluntarily withheld for a period of 30 years, the promulgation of the claims of Mr. Hunter to the correct pathology of aneurism. What ought the profession think of men who suppressed such important information, and allowed foreigners to claim a priority of discovery, to which it appears they have had no just title? Who can view such conduct without indignation. Our

medical corporations in this empire have zealously imitated the oligarchy mentioned by Aristotle, whose oath was, "We will do the multitude all the evil in our power:" and not one of these bodies but may shake its drowsy head, and exclaim, "thou can'st not say, but I did it." And so the multitude of your brethren accuse you. But to return to our author, who is one of the legitimate heads of the College of Surgeons, we find him admitting with great *naiveté*, that after all the disputations which have agitated the medical world during the last half century, on the pathology of aneurism, Mr. Hunter had anticipated nearly all the observations which had been made by his contemporaries and successors. Verily this discovery comes almost too late. There is not a single point in the pathology of aneurism described by our author, which has not been admitted and recorded by French writers. Yet the work will be new to many readers. It contains a great deal of information, and is a valuable addition to the surgical library. It is a work of great practical utility, indeed of standard authority. It is the production of a man of distinguished rank and talents, and of eminence in his profession—of one to whom surgical literature is already much indebted. It is of course a compilation with many claims to originality; and enriched with the very extensive observation of the author. After having described the anatomy of arteries, we are next informed of their diseases, arteritis, phlegmonous and erysipelatous, calcareous deposits in the middle-coats. Atheromatous and steatomatous depositions are next described. Our author agrees with the continental writers, that none of the exclusive theories of aneurism are correct, there being several ways in which the disease may occur, "a conclusion," says Mr. Guthrie, "which surgeons in England might have arrived at thirty years ago, if they had taken the trouble to examine the specimens of aneurism in the Hunterian collection." We have no doubt of the fact, but surgeons were allowed no opportunity of examining the Hunterian museum—a right which was withheld from them until within a few years. Our author has for the first time described several preparations in the Hunterian museum, which attest the truth of this assertion. When the whole circumference of an artery is dilated, Mr. Guthrie applies the term, *preternatural dilatation*, but when the vessel is dilated partially, for example on one side, this he holds is aneurism. It would be well if writers agreed in the use of terms. The French deem these terms synonymous, the former they apply to true aneurism,*

* Diction. de Med. et de Chir. Pratiques. Art. *Anevrysme.*

and they maintain that facts the most numerous and authentic have proved this to be the cause of aneurism, as well as rupture of the internal coat of the vessel. This is the opinion of our author, who also asserts that no coagula occur in preternatural dilatation, but are seen after the abrasion or rupture of the inner coat, "a distinction," says he, "established particularly in England, for the sake of clearness of expression, without being of any practical utility, and the same may be said of all internal aneurisms." p. 49. This distinction is not confined to this country, it is also held in France,* and is said to be of great practical utility, simply because, if concentric layers or coagula occurred in the former, they would prove fatal. Our author calls partial dilatation of the vessel *true* aneurism, and here he is again at issue with our Gallic contemporaries. He is very properly opposed to Scarpa's opinion that rupture of the inner and middle coats of an artery is the sole cause of aneurism. We shall not follow him in his description of the various kinds of aneurism, but observe that he considers chronic irritation or inflammation the most probable cause of all. He has not explained the modus operandi of such causes; but we may remind the reader that chronic inflammation diminishes the force of cohesion of the parietes, deprives them in a great degree of their contractibility, which in the natural state enables them to resist the impulse of the ventricle. This property being weakened in any part of an artery, dilatation is inevitable, and may be complete or partial, according to the degree of arteritis. The intensity of the circulation on the arches of arteries may cause aneurism; and our author, as well as Scarpa, has shewn that the most powerful causes of the disease are calcareous, terreous, atheromatous, and ulcerous conditions—all the results of arteritis. Mr. Guthrie next considers "the termination and spontaneous cure of aneurism," which may be, 1, by coagulation of its contents; 2, by sloughing; 3, by accidental pressure of the sac upon the artery. These methods are well illustrated by our author. He proves the certainty of their occurrence, but is unable to explain it satisfactorily. He next considers the "symptoms of internal aneurisms," and clearly shews that the diagnosis in such cases is extremely difficult. The succeeding section is on the "symptoms and diagnosis of external aneurisms; and in such cases the disease is of course more readily discovered; and numerous cases cited which must be familiar to every surgeon of ordinary observation. The "medical treatment of aneurism" is next described, which consists of rigid abstinence, approaching to starva-

* Op. Cit.—Art. *Anevrysme.*

tion, repeated venesection, leeching, &c.; and when the symptoms are abated, the food and drink are to be gradually increased, and mental emotions, stimulating food and drink avoided. This plan has been found successful by Valsalva, Albertini, Morgagni, Lancisi, Guattani, Sabatier, Corvisart, Pelletan, Laennec, and Hodgson. Mr. Guthrie devotes his next section to the influence of "the collateral circulation," contrasts the ancient and modern opinions, and arrives at these conclusions.

"1. That the collateral vessels are at all times and under all natural circumstances capable of carrying on the circulation in the upper extremity, whatever disease or injury may affect the principal trunk. Whenever the reverse takes place, it is an exception to the general rule.

2. That after operations for aneurism in the lower extremity, the collateral branches are almost always equal to carry on the circulation through the limb.

3. That when the principal artery of the lower extremity is suddenly divided, without any previous disease having existed, mortification is not an uncommon occurrence, and is more likely to take place in old than in young persons.

4. That when under such circumstances the principal vein is also divided, mortification seldom fails to be the consequence." p. 141.

Our author next gives a lucid account of "the surgical treatment of aneurism." He exposes the prejudice of the French surgeons, and their attempts to deprive the illustrious Hunter of the honour of his operation for aneurism; and after an able analysis of the facts of Mr. Wardrop's plan, he arrives at the conclusion, that it is not only dangerous by causing arteritis which may extend to the heart, but also objectionable from the well-known fact proved by John Hunter, that in aneurism the artery is generally diseased, between the dilated portion and the heart. His conclusions are so just and incontrovertible, that we must place them before our readers.

"1. Whenever the operation for aneurism succeeds from placing a ligature below or beyond the tumour, it does so by giving rise to inflammation in the aneurismal sac and in the artery both above and below it; and unless it does this, it fails.

"2. That this operation, as well as all others, is exceedingly dangerous in the vicinity of the heart, from the facility with which the inflammation may be communicated to that, as well as to the neighbouring organs.

"3. That it will not effect a cure, in cases of aneurism of the innominata or arch of the aorta, although it may give temporary relief by the partial diminution of the tumour.

"4. That being as likely to destroy the patient as to give this relief, it ought never to be performed until the life of the patient is

in extreme danger from the size of the tumour, when the person may have the opportunity of choosing between a more sudden death or a temporary relief; but the chance of a cure should never be calculated upon.

"I have watched two cases of aneurism, supposed to be of the innominata, for the last two years, on both of which it had been proposed to perform this operation, but which the patients refused to undergo. They are still nearly in the same state; and although in many instances the disease proceeds with rapidity, it is in others slow in its progress, occasionally receding and again increasing in size, until at last a new impulse seems to be given to it, which tends rapidly to a fatal termination. It is then only that an operation of this nature should be thought of, and the result, even as to temporary relief, must always be very doubtful." p. 208.

The next Section is on "Wounds and injuries of arteries," in which our author gives a concise yet comprehensive summary of the various opinions of ancient and modern surgeons, on the means adopted by nature for suppressing hæmorrhage. He observes—

"In the different theories I have noticed, and especially in that of Dr. Jones, it does not appear that the gentlemen who proposed or maintained them have ever conceived that there was a difference in the means employed by nature, according to the size of the artery injured or divided; that the difference of structure between an artery, such as the carotid or the inguinal, and the tibial or the radial, could cause any deviation from the process they described as taking place, and as they presumed in one invariable manner in all arteries. I shall venture however to say, that on the size and variation of structure of the artery, the process employed by nature essentially depends; that it is not the same in large as in small arteries; and that it is not even quite the same in the upper and lower ends of the same artery.

"An artery of moderate dimensions, such as the tibial or brachial, and particularly all below these in size, are in general capable by their own intrinsic powers of arresting the passage of the blood through them without any assistance from art, or from the surrounding parts in which they are situated. This overthrows at once the whole theory which relates to the sheath of the vessel and its offices, and in a great measure to the importance derived from the formation of an external coagulum." p. 223.

He proves by a variety of cases, in which large arteries were wounded, as the axillary, posterior tibial, radial, ulnar and femoral, that hæmorrhage will be arrested through their own efforts; and he has no hesitation in declaring that the power or influence of the heart over the circulation has been greatly over-rated, and the sooner surgeons undeceive themselves upon this point the better. "The heart exerts a

comparatively trifling influence over the circulation, a fact which may be easily proved by any one disposed to take the trouble of examining it."

"If the axillary artery be laid bare, previously to an operation for amputation at the shoulder, and the surgeon take it between his fore finger and thumb, he will find that almost the slightest possible pressure will be sufficient to stop the current of blood through it. Retaining the same degree of pressure on the vessel, he may cut it across below his finger and thumb, and not one drop of blood will flow. Further, let the artery be fairly divided by the last incision, which separates the arm from the body, without any pressure being made upon it, and the result will be, that it will propel its blood with a force more apparent than real. All that is required to suppress this torrent, is to place the end of the fore finger directly against the orifice of the artery, and with the least possible degree of pressure consistent with keeping it steadily in one position, the hemorrhage will be suppressed; and what is more important is, that if the orifice of the artery, from a natural curve in the vessel, or from accidental causes, happens at the same time to retract and turn a little to one side, so as to be placed in close contact with a solid piece of muscle, the very support of contact will be sufficient to prevent its bleeding. These are facts, the two first of which I have placed beyond a doubt twenty times in my life." p. 227.

Even a divided femoral artery will cease to bleed by the formation of a coagulum, as Mr. Guthrie has repeatedly seen during the Peninsular war. This part of his work is so important, that it is worth the whole price of the volume. It establishes a fact of great interest and value, namely, that surgeons have no need of fright and alarm on seeing a wounded artery. He proves by repeated observation, that the contraction and retraction of the extremity of a wounded artery favor the formation of a coagulum, which extends to one or two inches. The external orifice of the artery is covered by a yellowish green coloured matter or lymph, which soon becomes organized, p. 248. Numerous cases are detailed illustrative of the preceding statements.

Another curious and interesting fact is attested by our author, that the lower end of a divided artery is more prone to secondary hæmorrhage than the upper, so much so, indeed, that when bleeding occurs after four hours, it takes place in all probability from the lower end. This is known by dark blood flowing in a continous stream, and not with any arterial impulse. Mr. G. is inclined to think the contraction and retraction of the lower extremity of a divided artery are less permanent and perfect than of the upper, and that the collateral circulation when active, soon fills the former, and causes the blood to regurgitate. Whether this

explanation be correct or not, the fact is certain. A practical hint of great importance is the following:—

"When an artery is merely cut or torn, but not completely divided, it is in the same state with regard to hemorrhage, as if it had given way by ulceration. It can neither retract nor contract, and will continue to bleed, unless pressure be accurately applied and maintained, until it destroys the patient. The practice to be pursued is to divide the vessel if it be a small one, such as the temporal artery, when it will be enabled to retract and contract, and the bleeding will soon cease. If an artery of larger dimensions be wounded, a ligature should be applied above and below the wound, and the vessel may or may not be divided between them, at the pleasure of the surgeon." p. 253.

Mr. Guthrie next describes "operations on wounded arteries," and animadverts with much force on the plan recommended for tying the posterior tibial artery, which consists of a tedious, painful, and complicated piece of dissection, from the unnecessary alarm of dividing the gastrocnemii muscles. He shews that such fear is highly ludicrous, that in wounds of the gastroenemius and soleus muscles, union will take place as in other wounds. He criticises Mr. Harrison's directions for tying the posterior tibial artery, and proposes cutting down upon the vessel as in other cases of wounded arteries. This plan is more simple, and therefore preferable.

The opinions of Mr. John and Charles Bell are next as severely animadverted on, and pronounced "to be contrary to the true principles of surgery," 268. M. Dupuytren's opinions on the application of ligatures are keenly contested, and his proverbial want of candour well illustrated in his ascribing to Anel what was due to Hunter. Mr. Guthrie convicts the worthy Baron on his own admission, and places him in a most pitiable condition. The Baron, like many of "the race who write," has published opinions already on record, and by his contemptuous silence on the just claims of British surgeons, exposes either ignorance or envy, and richly deserves the lash of criticism, which has been freely applied on the present occasion. Mr. Guthrie illustrates his operations on wounded arteries by numerous cases, and arrives at the following conclusions, which are so important that we place them before our readers:—

"1. When a large artery is divided and bleeds, the wound should be enlarged if necessary, and a ligature placed on both the divided ends; but if the artery be only injured and not quite divided, the ligatures should be applied one above, the other below the injured part. The artery may or may not be then cut across, at the pleasure

of the operator, but the limb or part must be placed in the relaxed position. A bandage should not be applied, and the edges of the wound should be simply brought together by adhesive plasters, which do not extend completely round the limb.

" 2. If muscular fibres intervene between the artery and the surface, they should be divided, if they cannot be readily turned aside, so as to give a clear and distinct view of the wounded vessel and its accompanying veins or nerves.

" 3. If the wound pass indirectly to the principal artery, from the back of the thigh for instance to the femoral artery in front, or from the outside of the arm to the humeral artery on the inside, the surgeon may (on satisfying himself of the part likely to be injured, by the introduction of a probe) cut down on the vessel opposite that part supposed to be wounded, by the most simple and approved method. When the artery is exposed, the probe will point out the spot at which the vessel has in all probability been wounded. Pressure made below this spot on the artery, will cause it to be distended and to bleed, if the flow of blood be not prevented from above; when the artery is to be secured by two ligatures, and the lower one should if possible be applied first.

" 4. A tourniquet should never be applied in an operation for aneurism or for a wounded artery. Compression by the hand is allowable in the course of the vessel when wounded.

" 5. The blood from the upper end of a divided artery, or that nearest the heart, is of a scarlet arterial colour.

" 6. The blood from the lower end of a divided artery, or that which is furthest from the heart, is of a dark or venous colour, when it happens to flow immediately after the division of the vessel. At a subsequent period it may assume more of the colour of arterial blood, but it rarely does so for several days after the receipt of the injury, and always flows, or at least until a very late period, in a continued stream.

" 7. This regurgitation or flow of blood from the lower end of a divided artery is a favourable sign, inasmuch as it shows that the collateral circulation is in all probability sufficient to maintain the life of the extremity.

" 8. The collateral circulation is in almost every instance capable of maintaining the life of the upper extremity when the axillary artery is divided.

" 9. The collateral circulation is not always capable of maintaining the life of the limb when the femoral artery is injured. It is scarcely ever equal to it when the vein is divided at the same time, or rendered impervious.

" 10. The collateral circulation is sufficient to maintain the life of an extremity in almost every case in which an aneurism has existed for seven or eight weeks, although it might be incapable of doing this if the principal artery had been suddenly divided, without any previous disease having existed in the part.

" 11. The theory and the operation for aneurism are never to be applied to the treatment of a wounded artery, whilst the external

wound communicates with the artery, unless it is impossible or impracticable to tie the bleeding vessel.

" 12. When an artery is wounded, and the external opening heals, so as to give rise to a diffused or a circumscribed aneurism, it is to be treated according to the theory of aneurism occurring from an internal cause, with this difference, that as the artery is sound the operation may be performed close to the tumour; and that if any doubt exists as to the capability of the collateral circulation to support the life of the extremity, the operation should be performed at the injured part, as in a case of wounded artery. See Mr. Collier's case, page 310.

" 13. When a circumscribed or diffused aneurism has been opened, whether by accident or design, it is then placed in the situation of a wounded artery, and must be treated as such, unless the wound can be permanently closed. If the aneurism has arisen from disease of the vessel, and the wound or opening into it cannot be permanently closed, the limb is in a worse state than if the artery had been wounded by accident; because a ligature or ligatures placed on a diseased artery is little likely to be successful. It is liable to all the difficulties and inconveniences attendant on the old operation for aneurism.

" If a case of the kind should occur in a poplitial or femoral aneurism, situated at or below where the artery passes between the triceps and the bone, amputation will be the best remedy. If the swelling should occur higher up, and the opening can be closed with a prospect of its healing, a ligature may first be placed upon the artery above it; but on the recurrence of hemorrhage, the artery must be tied below, or recourse be had to amputation. It is, however, to be observed, that amputation under these circumstances, when resorted to as a third operation, rarely succeeds.

" 14. When an artery is wounded with a simple fracture of a bone, or with a comminuted fracture of smaller bones, with an external comminuting opening, both ends of the artery are to be secured, and the limb is to be treated in the usual manner.

" 15. When the bone broken is the femur, and the artery divided is the femoral artery, the operation of amputation will generally be advisable. It will always be so if the fracture is a comminuted one, or the shaft of the bone is extensively split.

" 16. When the broken bone injures the artery and gives rise to an aneurism, the treatment is to be first of the fracture and then of the aneurism, as soon as circumstances render it advisable or necessary to have recourse to the operation for aneurism.

" 17. When mortification takes place in addition to, or as a consequence of a wounded artery, amputation should be had recourse to forthwith.

" 18. The place of operation should be in almost all cases at the seat of the original injury, but there may be an exception; *viz.*

" 19. When the injury has been a mere cut, just sufficient to divide the artery and vein, immediately below Poupart's ligament,

and mortification of the foot supervenes, amputation should be performed at the place of election just below the knee.

" This rule is founded on the observation, that great efforts are made by nature to arrest mortification a little below the knee. Sometimes they succeed; when they fail, death is inevitable; and on the fact that amputation at this part or above the knee is less dangerous than at the great trochanter. The life of the part of the thigh left between the injury and the amputation will in all probability be maintained; and under the worst of circumstances, a chance yet remains by the high operation.

" The nature and extent of the original injury may admit of some variation in the practice, but the general rule only is given.

" 20. When mortification has commenced, and has continued for several days, and is spreading without having once stopped, the constitution of the patient being implicated as marked by fever; the amputation should not be performed until the mortification has been arrested and the line of separation has been formed. But,

" 21. If the mortification has once stopped and then begins again to spread, it will never again cease to extend, and an amputation may give some chance of life.

" 22. When an aneurismal tumour mortifies, it is unnecessary and improper to tie the artery above the tumour, because it will be obliterated if the mortification is arrested by the efforts of nature, which the operation may interfere with, and even prevent. Whilst, if the mortification spreads, it will be a matter of supererogation, and only hasten the patient's dissolution. When an aneurism inflames, and is opened by ulceration, it is a proper case for amputation, if such an operation can be performed. See No. 13.

" 23. When mortification takes place after the operation for aneurism, the surgeon must be guided by the state of the patient's constitution, in resorting to or refraining from amputation.

" 24. When hemorrhage takes place from the surface of a stump, the artery should be tied at the part from which the blood comes; but if the bleeding proceeds from several small vessels, and cannot be arrested, the principal trunk should be tied above the diseased part, and the patient removed to a purer atmosphere." p. 340.

The remainder of the volume is devoted to the description of operations on the principal arteries, and contains a vast deal of valuable information. Want of space prevents us from farther analysis. We recommend the work for its accuracy, perspicuity, fulness, and practical details on all points connected with diseases of the arteries. It is a work of great practical utility, and should be in the possession of every surgeon. It will add to the author's well-earned reputation, and we hesitate not to say it will be a work of standard authority.

V.—*A Treatise on the Nature and Cure of those Diseases, either Acute or Chronic, which precede change of Structure, with a view to the preservation of health, and the prevention of organic diseases.* By A. P. W. PHILIP, M. D., F. R. S. L. & E. &c. London, 1830. 8vo. pp, 432. Longman and Co.

THE eminent author of this work is long known to the profession in every country, from his many valuable contributions to medical science, which are familiar to every erudite member of the faculty. His object in the present production is to place the facts which have fallen under his own view, and the inferences deducible from them, before the medical public, without indulging in speculative doctrines. The present treatise is in a great measure a republication of the former works of our author, at least constant reference is made to them, but technical language is avoided, as he wishes to be intelligible to the general reader. In this last intention our author has failed, for he is too learned to be a popular writer on medicine. He tells us that in his treatise on the vital functions he gave a view of the functions of the animal body, which enabled the general reader to understand all that is said in it, and in the second part of this treatise he has endeavoured to render the practical part intelligible to the same class of readers. In this laudable intention he has not succeeded, and we must take leave to state, that not a man out of the profession can comprehend it. Indeed the whole work is nothing but a running commentary on certain parts of the theory and practice of medicine, and affords no information which is not known to every well educated practitioner. Our author attests this statement. He says, "I do not offer it to the members of our profession as a regular treatise on the subject, or as comprehending all its parts, but merely as the result of my own experience, not during a few months or years, but nearly half a lifetime." Preface IX. We need scarcely observe, that so far as the work extends it is ably executed; but what can be said on the treatment of diseases of the head, chest, and abdomen, which is not well known, after the numerous treatises we have upon these subjects. As a popular treatise this is a complete failure, and as a professional one we are at a loss to state to what class of the faculty it can be interesting. It is neither a text book, nor a book of reference, it is too abstruse and difficult for the student, and only calculated for the erudite and experienced practitioner. Yet it is an original work and contains many peculiar notions on the nature and treatment of many dangerous diseases; but we apprehend there will be little found in it which does not exist in the author's former publications.

VI.—*A Treatise on the Pathology of the Animal Fluids and Solids.* By WILLIAM STOKER, M. D., &c. &c. Dublin, 1830. 8vo. pp. 123.

AMONG our original communications will be found a letter from Dr. Stoker, explaining the cause of the imperfections of this volume, which arose from it having been printed in Scotland, and consequently his inability to revise and correct typographical errors. The object of this production is a reply to the Strictures of the Medico Chirurgical Review, and Hamburg Magazine of Literature, on the author's late work, with further proofs deduced from morbid anatomy in support of his principles, and some interesting clinical reports on the efficacy of millefoil, yarrow, (Achillis millifolium, Lin.) in dropsy, pompholyx diutinus, pemphigus, gangrenosus, or burnt holes and other eruptive diseases. Our author apologises for the marks of haste in this and his former works, and states in excuse that in one of the institutions with which he is connected, during the period of a quarter of a century, considerably more than 80,000 patients have been received into its wards, and the number of applicants has been 120,000. Yet this is the physician who has been gravely told by a writer in our esteemed contemporary, that he knows nothing of fever. He cites the last works of Mason Good, Armstrong, Burne, Clanny, Lawrence's Lectures, and this Journal in support of his opinions. He says,

"I shall begin with the 'London Medical and Surgical Journal,' as on many accounts it demands my first attention, and I willingly avail myself of the opportunity of making my acknowledgments to the writer of the critique in it, on my works, for his liberality to one who had not the honour of being previously known to him, and for the urbanity with which he expressed his difference of opinion from mine."—p. 15.

After citing all our remarks; he turns to those of a writer in our contemporary, for the able editor had not written the article, and reiterates all the charges we made against the reviewer, of misconception and partial quotations from the work on which he was commenting. With these recriminations we have nothing to do, and have only to observe that our author has convicted the reviewer of partiality and special pleading.

In illustration of his opinions on the pathology of the fluids, he narrates a case of hydrophobia, which is so graphically detailed that we place it before our readers.

"*Case of Hydrophobia, by Mr. Kirby, Lecturer on Surgery.*—James Conner, twenty-four years of age, was admitted into St.

Peter's and St. Bridget's Hospital, on the 7th of April, four weeks after he was bitten by a dog, which in a fit of drunkenness he provoked, but he does not believe to have been mad. The wound healed in a fortnight. He continued in health until yesterday morning, when he was seized with his present disease, which he is disposed to attribute to having got drunk with beer on the preceding night.

"There does not appear any particular expression in his countenance, though he sometimes smiles and wonders at his own sensations. He seems to watch every person with great attention as if he was apprehensive that they designed to surprise him. Countenance pale; eye lively and unusually shining, but not in the least suffused; pupil greatly dilated. He complained of no particular pain, except a slight uneasiness in the wound, extending in a trifling degree towards the axilla, and which was excited by the motion of the arm. He was very restless and refused any solicitation to go to bed, saying 'that it would be useless, as he knew that he could not sleep.' He often observed, he would give any thing for a drink of water, and yet that it was strange when he saw it or attempted to take it his breathing was always so affected he was obliged to desist. He referred much of his distress on these occasions to his throat and præcordia. When I laid my hand on the latter, he was violently convulsed. But he used to say with a smile that 'he was amused at his cutting so many capers, without knowing why or wherefore.' He frequently alluded to the manner, in which he passed the preceding night. Spoke of his dozes broken by hideous dreams, and the terror which seized him whenever he tried to compose himself to sleep. He seemed rather to court than to avoid society. He was not in the least disturbed by a crowd of pupils whose sympathy and curiosity it was impossible to restrain, and when asked whether he would rather be left alone, he replied in the negative. His skin was of moderate temperature; and though he wished for a fire in his room he did not make any complaint of being cold. Tongue clean and can be thrust from the mouth, without exciting spasm. Pulse 96, regular, rather full.

"The frequency and severity of the paroxysms yielded to the application of a tourniquet to the affected arm, and while it was applied, he said 'egad, I think I could eat a morsel now if I had it,' and he appeared to drink with a little less difficulty. This instrument, however, produced so much pain that he refused to bear it. He feels very hungry, has called for some bread which he can chew and swallow without much inconvenience. One morsel must be introduced before the first is swallowed, otherwise he feels that he could not continue to eat; after he had used his bread he wished for some water. When it was given him in a tumbler, he raised it above his head, and then gradually brought it down by his ear towards his mouth. He then made a sudden effort to swallow it, and succeeded, remarking that he had paid dearly for the gratification of the thirst he had felt;' and truly so, every one must think who witnessed the severity of the agony he appeared to suffer. He used

to reply with great sharpness, seemed very talkative, and heard with unusual acuteness. He would look upon a watch and observe the time without disturbance, unless it was suddenly pushed towards him, and then he made a retiring movement, from which after a few seconds he returned. The noise of fluids in the vessels which contained them produced no unpleasant effect, and were observed by him with indifference.

" He contrived with considerable agitation to swallow a bolus, containing ten grains of calomel and jalap. Three drachms of mercurial ointment were rubbed in, in the space of two hours, between two and nine o'clock in the evening, he had taken without any visible operation, five grains of the extract of Stramonium, with nearly a drachm of blue pill; a cathartic enema was administered by which he was dreadfully excited.

" By this time he was rather worse, accused a severe cold as the cause of his suffering; he never once attributed his illness to the bite he received. He readily submitted to any operation I might think it right to perform on his finger. I accordingly seized the opportunity of his consent to remove one inch of each of the digital nerves. From the effect produced by the application of the tourniquet the hope was entertained both by my friend Mr. Kirby, and myself, that some alteration of the symptoms would take place. He bore the operation with resoluteness, complaining but little, unless when the nerves were touched, or caught in the forceps, on which occasions he screamed loudly, and was thrown into convulsions. On observing him to rinse the sponge that I might wipe the wounds, he advanced his hands to the bason without any effort, but was greatly agitated the moment he touched the water. As the symptoms continued with unabated virulence, I dissected the trunk of the nerve in the fore arm, and removed a piece from it. During the operation he felt great pain in his thumb. The power of bending the hand and fingers was destroyed in a great measure. The violence of the disease, however, was not abated. The Extract of Stramonium and blue pill were continued until twelve o'clock. He was then worse. Complained of thirst and hunger. The paroxysms were more frequent and were accompanied with shorter and more sobbing inspirations. He was more talkative and more apprehensive. He sat on his bed with his body bent forward, but he could not be prevailed on to lie down. At length he said he would oblige me, by trying to sleep. He now placed himself upon his side in a horizontal position, and seemed for a few seconds to be completely composed. He then in great alarm and agitation, suddenly started up and turned quickly round to them who stood behind. He could not be induced to lie down a second time: endeavoured to smoke and chew, but could not swallow. For a short period after this, he was so tranquil and felt so well that he was surprised at the calmness he experienced. 'I am now,' said he, 'quite well, and I could take a drink of water if I had it.' It was brought to him in a tin porringer, at which he looked without disturbance. He desired it to be placed at some distance from him on his form, until he could bring his mind to take it. After

some hesitation he exclaimed in despair, 'Well I cannot. Is'nt it a wonder how well I am now until I go to take this villainous water.' Still he persevered, turning his head away from it, and stretching his hand towards, until he seized it and swallowed its contents in a fit which it was terribly distressing to witness; when the spasm ceased he asked, 'did I not do that cleverly, but faith I cannot drink that well.'

"At one time on this evening I found him sitting near the fire, the heat of which he said he found very comfortable. He looked at it steadily, and was not at all disturbed by its blaze, and yet he could not endure the approach of a lighted candle, from which he withdrew suddenly, making a succession of short sobbing inspirations. When I inquired how he did, he replied, 'Egad I am middling, Sir, I would be very well only for breath, and if I could drink, but I can do that some better than I did. To show me how much he was improved in this particular, he called for some water. 'Give me some water, that I may shew Mr. Kirby the capers I'll cut in swallowing it.' The effect, however, was followed by consequences as frightfully violent as those which had taken place at any preceding period. At twelve o'clock at night his pulse was stronger than in the morning; less easily compressible, and fuller. At palf-past twelve, blisters were applied to the back of the neck, throat, and interior part of the thorax. In an hour afterwards he was very delirious; he refused to take his pill, and endeavoured to sing a favourite air. He grew calm before two o'clock, expressed his gratitude for all the attention that was paid to him, attributed his tranquillity to his blisters, which he thought the 'best job yet that happened to him,' but still refused his medicine. At two he swallowed his bolus, compound of Stramonium, and Pil Hydrarg.; and had a motion, at which circumstance he was much pleased. He drank some water from a sponge, and he thought his breath much stronger.

"At three o'clock, he took his medicine again; drank another sponge full of water, and felt better.

"At half-past three he drank another sponge full of water; was induced to sleep, and observed that he could swallow his spittle. Between this period and half-past four o'clock, he had some sleep, interrupted however every ten minutes, by frightful dreams and sudden startings. He often imagined that he was haunted by a *black* man, and some times 'that he was burning in the fire.' He took his medicine twice, and two sponges full of whey, but not without much obstruction and sudden and violent effort. Before nine o'clock it was necessary to remove the blisters; so great was the irritation they produced, that he became furiously violent, he threatened to beat the pupils who were in the room with him, and declared that he would be revenged for the uneasiness I had created. After the blisters were removed he again became calm, and said he felt better. His countenance was still pale; his eyes were more brilliant than at his admission, and were altogether obedient to his will. They did not exhibit the slightest marks of suffusion; the pupils continued dilated. At this period he was troubled with a

short cough, which appeared to proceed from a voluntary effort to discharge a viscid phlegm, which clung among the fauces. Every attempt of this nature was accompanied with short sobbing inspirations and stampings with his feet. He spit out with great violence, and always on the ground. One yellow rather solid motion; skin in a slight degree warmer than natural. Pulse 130, full and strong; its regularity was now interrupted whenever the sobbing inspirations returned.

" When he next called for his sponge soaked in whey, I gave him one which contained half an ounce of tincture of opium, which he continued to suck from it, but with the usual difficulties. After he returned the sponge I pressed from it about one drachm of laudanum. He now complained of slight giddiness, refused to take any more of that medicine, desired some drinks, and suggested 'that perhaps he could take it out of a pipe.' I fixed a tin to a gum elastic bottle filled with water. When I moved towards his mouth he turned away from it, and in an irresistable manner begged 'I would not hurry him but let him take his time.' The attempts to drink by this contrivance were as painful and as fruitless as the former. His violence now began to increase and for the first time he showed his aversion to some of his attendants. He was pleased to see his brothers, shook them continually by the hands, and then desired them to go away. On hearing his mother's voice he was distressed a good deal, and wished to have her with him.

" What had been done hitherto having availed nothing, it was proposed to take a large bleeding from the arm; upwards of thirty ounces were drawn accordingly, in a full and rapid stream. The blood was so unusually florid and issued with such force, that it might be imagined it issued from an artery. It likewise coagulated more slowly than usual, formed but a very small proportion of serum, and did not exhibit the least appearance of buff. Though his pulse grew much weaker, his strength was not reduced, nor did he feel debilitated by the evacuation.

" Returning to him at eleven o'clock, I found five of his relations in the ward, I expressed my disapprobation at the presence of such a number, and wished that two only should remain with him. These commands threw him into a violent fit of passion, he flew from his bed towards me and swore he would murder me if I turned one of them away from him. His anger quickly subsided when he perceived that I desired them to sit down, and he then introduced each of them to me, calling one girl his sister, to whom he was to have been married in a few days. He returned to his bed, sat upon its edge and turned his legs into it, desired to be left alone and drew the bedclothes over him. I placed myself at the foot of the bed to observe him, this annoyed him, he frequently asked what I looked at, and desired that I would not watch him. At length he bid me 'get out of that' in a fretful and hurried tone. I did not at first obey him; he then said he would kick me if I did not—when I moved he addressed me, 'I beg your pardon, Mr. Kirby, I cannot help myself sometimes, I would have kicked at you had you remained there,

though all the time may be I'd think you were at the Black Rock, and my heart would not let me injure you.' Having expressed a wish to feel his pulse, he stretched his arm cheerfully to me and smiled; it then beat 140 and was weak. When I had done with my examination he shook my hand affectionately, was unwilling to let it go, and thanked me for the 'great attention I gave him.' At one time he imagined he could take a drink of butter-milk, and he desired his intended wife to procure some. After it was set before him, he deliberated for some time as if he was summoning resolution to drink it. In an under tone and in great despair, he was heard to say, 'I'd give a pound I could drink it,' and then he repeated the same words in a loud and emphatic exclamation.

"It was now evident that every thing which had been hitherto done made no impression on the disease, and that he seemed to resist the medicinal powers of every remedy that had been used. In a conversation with Dr. Leahy, Mr. Daniel, and Mr. Brumley, it was proposed to administer the Prussic acid, with which I was obligingly furnished by Mr. Moor, Apothecary of South Anne-Street, whose laboratory yields every thing prepared with the greatest accuracy. Ten drops of acid were administered on a lump of sugar by Mr. Daniel.

"Every minute henceforth added to the frightful severity of his disease. Every thing excited a paroxysm. He felt a constant inclination to offend and injure whoever approached. Those whom he caressed some hours before he now warned away from him. The sight of a stranger disturbed him exceedingly. At last I was obliged to leave the room, so painful was the effect my presence seemed to produce.

"At nine o'clock in the evening, Dr. Leahy and I visited him, with a view to get him to take some wine. He was then sitting on his bed without his coat and vest. His relations were at tea, of which we were told he had partaken. On our entering the room he lost his calmness, and rushed towards the window, in a dreadful burst of passion. I was alarmed by the apprehension that he would throw himself out of it, but we soon learned that it was done with the view to retain himself from the feeling of suffocation. It did not appear that the coldness of the night ever was perceived by him. Returning to his bed he sat with his back towards us. He would sometimes turn round sharply and angrily. He seemed as if he suspected some sudden surprise from behind him; his inspirations were very short; he was very talkative; looked wildly—was quite pale—the glossiness of his eye increased—he was greatly agitated when he heard a whisper among his friends, though not in the least disturbed at the noise of the tea things, or at their presence. Some wine, butter-milk, and tea, being placed before him on his form, while we all observed a dead silence, he looked at them with attention, turned round and took a suspicious view of us, and then he gave the following delirious sollioquy:—'There is wine, nay, there are three happy couples, that now happy people, but I'll not touch it—and there is butter-milk that another happy couple, its very good,

but I cant drink it—and there is tea,' he then flew into a dark adjoining room and called hard to his brother Pat, 'follow me with the tea.' His brother having disobeyed him in taking wine to him, he became very furious, attempted to strike him, and was with great difficulty appeased. He frequently accused him of treachery, 'he thought he might depend his life on him, but he found he deceived him. Why would you bring me wine.' He renewed his affections for his brother, by often kissing his hand, which he latterly pressed too closely to his mouth. When he found this disposition increasing he suddenly set his hand at liberty. His fury was now excited by every thing. He grew tranquil whilst they sung some favourite airs to him. He desired them to pray for him, and appeared to be relieved while they continued in a posture of devotion. He was incessantly striving to *hawk* up the phlegm which accumulated in his throat. Pulse 160. Skin of no unusual temperature; as the disease advanced, every time he walked he reeled and was unsteady as a man intoxicated."—p. 89.

Dr. Stoker argues that in cases of hydrophobia the interval between the insertion of the rabid poison and its effects on the system, implies absorption and mixture with the circulating fluids. He is not an advocate for exclusive solidism or fluidism, but contends that one system is as well established as the other. He observes,

"That morbid changes in the blood were manifest, I endeavoured to shew, by first giving the descriptions of that vital fluid in its healthy state, and then comparing it with the blood drawn in various forms of disease; and with respect to the destruction of fluids and solids, I preferred the simplest definitions I could find for them in works of science. The primary causes of the morbid changes were not involved in my enquiry, which was directed much more to the consequences of these changes. That some of them, however, such for example, as the sizy or buffed blood, was the result of functional derangement, was, I think, quite apparent, and rendered still more obvious by the distinctive characters of the buffy coat on blood drawn in Gastric, Pulmonic, and Hepatic diseases.

"Of the great importance of the distinctive characters of the buffy coat as diagnostics, not only between different diseases, but also between different stages of diseases, I am fully convinced, and am the more gratified to find the share which I have had in bringing it into notice, recognised in an able and liberal criticism on my last work, in the 16th and 17th numbers of the London Medical and Surgical Journal, October, 1829, and even this observation, which I deem mainly the result of my experimental inquiry into the effects of the function of the Liver on Sanguification, establishes the utility of that observation in pathology at least; but I still indulge hope, that its utility in physiology also will yet be as liberally recognised."—p. 82.

Our author next enters into a long disquisition in support of his opinions, and concludes by describing the effects of Yarrow, Millefolium, in dropsy, rheumatism, and certain cutaneous affections. He recommends the following formulæ.

℞ foliorum recent Millefolii ℥ij.; infunde per horam in Aquæ bullientis quantitati sufficiente ut coletur. unciæ duodecim, et colaturæ adde.

Syrupi aurantii ℥j.

Dosis uncia quater in die.

℞ folior. recent millefolii.

Adipis preparatæ aa ℥j·

Adipis ovili ℥j.

Folia adipe incoque leni calore donec crispentur dein exprimendo cola ut fiat unguentum quo curentur partes affectæ his in die.

In cases of anarsarca, chronic rheumatism, and pompholyx this is used with great success, and seems well worthy of attention. In taking leave of Dr. Stoker, we do so with every respect, for we think him entitled to great credit for the assidui y and zeal with which he has prosecuted his enquiries. He has not gone to the length of others, who ascribe fevers to a dissolved state of the blood, but merely contends the blood is diseased as well as other constituent parts of the body. Thus far he has gone, but no farther.

VII.—*Supplement to the London, Edinburgh, and Dublin Pharmcopœias.*—By D. SPILLAN, A. M. M. D. Dublin, 1830. Hodges and Smith, pp. 218.

IT affords us much pleasure to observe the profession in Dublin shaking off that lethargy which has so long and so unaccountably oppressed them, and at length contributing to the records of medicine. The works which have issued from the Irish press have justly received great encouragement, and are among the best extant. The Hospital Reports, Transactions of the College of Physicians, the works of Carmichael, Harrison, Cheyne, Mills, Stoker, Townsend and West, Dublin Dissector, &c. &c., are valuable contributions to science, and afford ample proof of the validity of our assertion. The various productions of the alumni of the Dublin Schools, both in the public service, and in private practice, in this and other countries, fully attest the fact. But the members of the profession are one great family, to whom the ample volume of nature is open, and all may profit by its perusal. We have been led into these remarks, by the very valuable work before us. Dr. Spillan has written a very interesting and

instructive volume, which is merely an abridgment of a systematic work, whose publication only awaits the judgment of the profession on the present production. The work before us consists of a concise view of the Atomic Theory and doctrine of Definite Proportions, with the application of this doctrine to pharmaceutical purposes, and an epitome of the last edition of M. Magendie's Formularly of the New Medicines. The remainder of the volume is devoted to the consideration "of the action of Medicinal substances on the living system," in which the author has given a satisfactory exposition of this important and neglected department of medical sciences, and explained in a simple and concise manner, the rules which ought to be observed in prescribing. He has treated his subject in a masterly manner, and may be confident that a systematic treatise on therapeutics executed in the same style, cannot fail to obtain applause, and ensure him a niche in the republic of medical literature. In justification of these remarks, and to shew that our praise is not hyperbolical, we shall place our author's views before our readers. In describing the action of medicines on the human body, he proceeds as follows:—

"Medicinal substances produce effects on the living system only when placed in contact with some part of that system; and the parts of that system adapted to receive these medicinal substances are always covered either by the skin or by a mucous membrane. The principal parts of the human body to which medicines may be applied, are, 1. The stomach and small intestines. 2. The large intestines. 3. The skin. 4. The surface of the eyes. 5. The pituitary membrane. 6. The interior of the mouth. 7. The vast extent of the air passages. 8. The meatus auditoribs. 9. The interior of the urethra and bladder. 10. In the female, the vagina, and, in some cases, the cavity of the uterus.

"With respect to the relative importance of all these parts for the reception of medicinal agents, the *gastro-intestinal surface* obviously holds the first place, as well from the vast number of absorbents with which it is supplied, and which take up the medicinal particles into the system, as also because of the great number of nerves which it receives from the cerebral and ganglionic systems, by which either surface is connected with the brain, spinal cord, heart, and lungs, so that the impressions made on it by medicinal agents are communicated to all these organs.

"From the universal sympathies thus established between the stomach and the rest of the system, we need not wonder that it should be affected in almost all diseases.

"The practitioner should well consider the state of the stomach when about to administer medicines, as the pathological conditions in which it may be, modify very much their action as well as their

effects. Thus, for instance, when the stomach is in a state of irritation,* nothing could be more mischievous than the exhibition of medicines possessing tonic, stimulating, or acrid properties.

" *The large intestines,* though by no means so favourably circumstanced for therapeutic purposes as the stomach and small intestines, still, from the great supply of nervous filaments distributed over their surface, by which they are connected through the great sympathetic, with the rest of the system, and also from their great absorbing powers, great advantages may be derived from the application of medicinal substances to their surface. By acting on this surface, on the principle of revulsion, great advantage has been derived in affections of the head, lungs, and of the stomach itself. The precaution above alluded to, with respect to the stomach, should be observed when the surface of the large intestines becomes the seat of irritation.

" The *skin,* amply supplied as it is with absorbing vessels, presents very favourable means for the introduction of medicines into the system, more particularly, when the state of the stomach would not warrant their internal exhibition. Thus, when the gastro-intestinal surface is in a state of irritation, should the practitioner wish to bring the system under the influence of mercury, he introduces that substance through the skin.

" With regard to the other surfaces, to which medicinal substances may be applied, they neither possess the same interest, and moreover, the effects to be produced by application to them are merely local.

" With respect to the way in which medicines act on the living body, we may set it down as a principle, proved both by clinical observation and physiological experiment, that medicines act on the living body, 1. by a direct impression on the organs which receive them; 2. by their molecules being absorbed into the mass of blood; 3. by the play of sympathies; 4. by contiguity of organs; 5. by revulsion.

" In illustration of the *direct* action of medicines, we may instance the different astringents and tonics, which, when taken into the stomach, cause a contraction in the muscular fibres of that organ, and thereby give it strength to perform its functions. The different collyria, applied to the surface of the eye, may also be quoted as instances of the *direct* action of medicinal agents.

" *On the absorption of the particles of Medicinal Substances.*— That the particles of medicinal substances are taken up by *absorption,* carried into the blood, and thence distributed through the system, to the different organized tissues, are points which now appear established by the experiments of several physiologists. Thus the colour of the urine is obviously affected by taking rhubarb or saffron; when nitre has been taken into the stomach, its presence is detected in the same excretion. The pulmonary transpiration

* This gastro-intestinal irritation often exists, in the course of phthisis, in organic diseases of the heart, intermittent and continued fevers; a circumstance which should modify the treatment to be adopted.

contracts the odour of garlic, onion, alcohol, or other such substances. The bitterness of wormwood is detected in the milk of these animals who eat it: it is well known that some of the purgative principles of senna are deposited in the nurse's milk, three or four hours after she has has taken any of the preparations of this substance. That all these phenomena take place by the absorption of the molecules of these substances, and their being carried into the blood, and thence conveyed to the several secreting and exhaling organs, are matters too clear and too striking to admit of serious objection. For though we may suppose certain direct communications, by which the molecules of the several substances were conveyed from the stomach to the breasts and bladder, still we must admit that in order to arrive at the cutaneous and pulmonary surfaces, these molecules must have traversed the blood vessels.

"As medicinal substances are taken into the circulation, the phenomena which they excite in the animal economy must be attributed to the impression made by their molecules on the organic tissues. Some have denied the existence of these particles in the torrent of the circulation, in consequence of not being able to detect their presence therein; this, however, may be explained by the consideration, that these particles, dispersed through the entire mass of blood, cannot be found in any part in a quantity sufficient to be detected by chemical re-agents. The experiments of Majendie, of Tiédmann and Gmelin, have decided the question, these physiologists having detected the odour of alcohol, camphor, musk, and other substances in the blood of animals, to which they had administered these substances.* With regard to the readiness or facility with which this absorption takes place, several objects of consideration present themselves. 1. Intimate contact between the medicinal substances and the mouths of the absorbents is necessary. 2. As the absorbents do not act with the same vigour on all surfaces, the practitioner should consider the absorbing power of the surface, to which he applies a medicinal substance. 3. He should consider, whether the surface proper for the application of the medicine be in a morbid state or not. 4. As the contact of the substances with the surface

* It may not be amiss here to state, that some physiologists deny the entrance of medicinal substances into the circulation; among others, Dr. Chapman, Professor of the Institutes of Medicine in the University of Maryland, in his "Elements of Therapeutics," has advanced several very plausible arguments against the doctrine, considering it a mere relic of the humoral pathology. That medicines enter the circulation, however, and in this way frequently produce their sanitive effects, is the opinion of the first pathologists of the present day. Mr. Andral, in his recent work on Pathological Anatomy, in describing passive congestion of the lung, succeeding acute pneumonia, which frequently remains stationary, notwithstanding the use of antiphlogistics and repulsives, and yet yields immediately to the use of tonics, such as decoctions of polygala or cinchona, expresses himself thus: "Is it not reasonable to conclude, that those substances, WHEN ABSORBED AND CARRIED INTO THE CIRCULATION, produced the resolution of the pulmonary congestion, either by directly stimulating the coats of the pulmonary vessels in their passage through them, or else by exciting the centres of the nervous system, &c. &c." See the elegant translation of this work by Dr. Townsend and Dr. West, vol. i. pages 58 and 59.

may be painful to the organ receiving it, it may happen that it may be expelled, and so escape absorption: as when a medicine may be rejected from the stomach by vomiting; or when, after arriving at the intestines, it excites the muscular contraction in them, and is then expelled the system, so as to escape absorption. 5. A plethoric state of the system has been found to retard absorption.

"*On the Action of Medicines, as affected by Sympathy.*—All medicines do not derive their activity from absorption; the nerves, on some occasions, appear to be the conductors of the action of medicinal substances. We oftentimes see a medicine influence all the functions of life immediately after arriving in the stomach. Medicines acting by sympathy make an impression on the nerves of the surface receiving them; this impression is propagated to the brain, and thence transmitted to the other parts of the system, and thus the brain being in direct correspondence with all the living tissues, renders general an impression which was at first isolated and local; thus ipecacuanha or squill being given as expectorants, first acts on the stomach; this impression, by sympathetic action, is transmitted to the pulmonary organs, and thus their expulsive power is awakened. Some medicines appear to act both through the medium of absorption and sympathy; as alcohol, and other stimulants. In the administration of medicines, which we consider to derive their influence from sympathetic action, it is important, 1. to consider the extent of the impression made by this agent on the part of the body receiving it. 2. To consider the relations and connexions subsisting between this part and the principal organic apparatuses. Lastly, the actual state of the surface to which the medicinal substance may be applied; viz. whether its sensibility be greater or less than natural, as in the former case both the physiological and therapeutic effects of any given medicine will be much more intense and more strongly marked, and in the latter much less so, than in the natural state of the part.

"*On the Action of Medicines, as effected by Contiguity.*—Experience has proved, that, when a medicinal substance comes in contact with any part of the body, its action is not confined to the mere part, but often propagates itself through the subjacent tissues to deep-seated organs. On this principle, when the liver and bladder, or other internal organs are affected, emollient applications are made to the surface over them. On the same principle, cataplasms, ointments, &c. covering tumours, swelled glands, &c. are found useful. Physiology proves to us, that by irritating the excretory duct of a gland, the secretions of that gland are excited and accelerated. Thus, purgatives, when they enter the duodenum, irritate the ductus choledochus, and thereby cause the liver and pancreas to secrete more abundantly.

"*On the Action of Medicines by Revulsion.*—When a medicinal substance, applied to any part of the body, irritates that part, it causes an afflux of blood to it, and thereby a proportional diminution in the quantity of that fluid contained in the vessels of the contiguous parts.

This principle is often taken advantage of in the removal of irritations and inflammations. In this way, sinapsisms, blisters, rubefacients, &c.* prove efficacious in removing inflammations of the thoracic or abdominal viscera. On the same principle, also, purgatives, by exciting a temporary irritation in the intestines, are found useful in some affections of the head and chest. Diaphoretics, diuretics, and emmenagogues may also be considered as acting on this principle. By exciting the action of the cutaneous vessels, of the urinary and uterine organs, they exercise on the other organs a revulsive influence.

"*On the Power of Habit over the Action of Medicines.*—If the same medicinal substance be applied every day without interruption to the same part of the body, it is observed to lose its power by little and little, and to fail in affecting parts in which it had previously excited the most striking effects. As the medicinal substance itself has obviously undergone no change, and as it still retains all its properties, both physical and chymical, it must be the vital state of the living tissues, and the susceptibility of the parts to which the medicine is applied, that has undergone this alteration. This phenomenon, curious as it is in a physiological point of view, is still more important, when considered in reference to therapeutics. We may learn from it, that we should progressively augment the dose of these medicines, whose use we intend to continue for any length of time, if we wish them to retain the same uniformity and extent of action, and also that we should suspend their exhibition from time to time, lest the different organs may, from the power of habit, become insensible to their impression. It may not be amiss here to observe, that narcotic medicines are much more under the influence of habit, than those of a stimulant or irritating property. Whilst the power of habit may thus render one surface insensible to the action of a medicine, it will not necessarily exempt the other parts of the system from its influence, provided its molecules have been taken up by absorption. This independence of the general on the local action does not however hold good with respect to the effects arising from sympathy, which take their origin in the organ immediately receiving the substance. The sentient extremities of the nerves of this organ being no longer affected by the medicine, the nervous communications which transmitted its virtue to distant parts are broken off, and then the sympathetic effects are no longer produced.

"*On the effects of Medicines.*—The *effects* of medicines are of two kinds. 1st. The *immediate* or *physiological*. 2. The *secondary* or *therapeutical*. By the former are meant those changes produced in the movements and functions of the different organs, the direct and immediate consequence of the impression made on the system, whether through the medium of the absorbents, or through the communicating powers of the nerves.

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* It may be observed here, that blisters should never be applied at the commencement of an inflammation, as, from the irritation they necessarily excite, they would rather augment than diminish the evil. The constitutional symptoms should be first subdued by the proper measures.

"By the *secondary* or *therapeutical* effects are meant those modifications and changes produced in the movements and functions of the several organs, whereby, in a body actually diseased, some important result may be produced, which shall counteract and arrest the efforts of the disease, and excite those of an opposite character, which may prove salutary

"The *immediate* effects of medicinal substances comprise all the changes, which the development of their activity may produce in the animal economy. Their influence extends to all parts of the system, though the phenomena produced are not so obvious or demonstrable. Thus the modifications which the blood and the organic elements undergo will ever remain concealed from the scrutiny of our senses; it is only by the manner in which the several functions are discharged, that we can appreciate the nature of the impression made on the tissues of our organs by the several medicinal substances When the body is subjected to the influence of a medicine, the action of the latter may be exerted. 1st, on the fluids of the body; 2d, on its solids; 3d, on the movements of the several organs. With regard to the first, viz, the action of medicines on the fluids of the body, as little can be advanced that is not conjectural and hypothetical, we shall say nothing.*

"The only way in which we can conceive medicinal substances to exert their actions on the *solids of the body*, is by their producing a change in the physical disposition, in the length, cohesion, density, &c. of the elementary fibres which constitute the tissue of our organs. As the elementary fibres constitute by their approximation and interlacement the several tissues, so these several tissues form the organs, whose aggregate constitutes the entire living structure."—p. 118.

Our author further adverts to the immediate effects, produced on the tissue of organs by medicines.

"Thus, when we observe a stimulant produce an agreeable feeling of heat in the epigastric region, excite an appetite and accelerate digestion, is it not obvious that this agent has stimulated the tissue of the stomach, has developed its vitality, and increased its natural powers? whereas, when we observe an opiate to destroy all desire for food, which had previously existed, or to suspend the process of digestion which was already commenced, is it not evident that it must have, as it were, stupified the fibres of the stomach, or at least perverted their proper action? In the same way, when we see an alcoholic medicine accelerate the pulse, does it not prove that the tissue of the heart then receives an impression which atimulates its fibres? It may here be observed, that all the living solids or organic tissues are not equally sensible to the impression of medicinal substances. The parts most susceptible of these impressions are the

* The principal advantage which the practice of medicine has derived from a knowledge of the action of medicines on the fluids, is in the case of preventing and obviating the *lithic acid diathesis*, viz. by saturating with an alkali the free acid, which precipitates the lithic acid from its combinations.

tissues of the digestive and respiratory organs, those of the heart, arteries, and capillaries, that of the brain, and its appendages, those of mucous and serous membranes and of the secretory organs, whilst on the other hand, the cellular tissue, the lymphatic ganglions, aponeurotic and cartilaginous structures are nearly insensible to all such impressions. It is of great importance, in a therapeutical point of view to remark, that disease modifies very much the susceptibility of all the organic tissues. Thus, in fever and inflammation, the brain and circulatory apparatus, the lungs, stomach and intestines, &c. are much more sensible to the action of medicines, than in the state of health. Nay more, so great is the difference which disease induces in the operation of medicines, that when any organ is inflamed, it is to it almost exclusively that the entire power of the medicine seems to be directed. Thus, if a tonic be administered in any inflammatory affection, the part so affected feels an increase of heat, pain, and tension, whilst the ordinary tonic effects of the substance so given are not at all perceptible in other parts of the system. Thus a person having an ulcer in any part, experiences in that part lancinating pains, after taking more stimulating food or drink than usual."—p. 120.

From what has been said on the actions of medicines, on the several tissues, it is obvious, that the only true way to ascertain the medicinal properties of each substance, is to observe the modifications produced by it in the functions of the organs. This constitutes the physiological effects of medicines; which are local or general. Thus a tonic acts on the stomach, a collyrium on the eye, &c. or medicines act on the functions of digestion, circulation, respiration, secretion, &c., and modify them, and upon such modifications the therapeutic effects mainly depend. We thus possess great dominion over the animal economy, in regulating and modifying its functions to a considerable extent. The following luminous exposition of these points, is worthy of attentive consideration, indeed of general adoption, and especially that part, which we have marked in italics, or as our contemporaries on the other side of the Atlantic would say, italicised.

"Thus let us suppose each of the organs of the body in its natural state; should we wish to accelerate the functions of digestion, we may do so by administering a stimulant; should we, on the contrary, wish to retard or suspend that function, this can be accomplished by means of a narcotic. Again, do we wish to strengthen the stomach, and to render it more able to discharge its functions, we can effect this by means of a tonic. Over the circulation of the blood the physician has equal dominion; he can accelerate it by some substances, and retard it by others. We know that animal heat is also under the influence of medicinal substances. The respiration too can be accelerated or retarded by certain medicinal agents. The

secretions and exhalations are likewise under the influence of the physician. We know that by the exhibition of a purgative or emetic the liver is stimulated to a more copious secretion of bile; the cutaneous system, as also the action of the kidneys, can be excited at will.

"It is, however, with regard to the cerebral apparatus, that the physician should attentively study the action of medicines. The impressions made directly by them on the cerebrum, cerebellum, and spinal cord, and also the sympathetic influence propagated to these parts from other organs to which medicinal substances may have been applied, are the sources of numberless phenomena which develope themselves in the mental faculties, in the muscular movements, and even in the circulation, respiration, &c. It is well known how, when the brain, spinal cord, or their membranes are excited, the vitality of other parts is also developed: should the impression thus made be confined to the brain, and be continued too long, its functions become disturbed; if the spinal cord or the great sympathetic be the seat of the impression, we observe corresponding alterations in the functions of the parts connected with them; the action of the heart becomes irregular, the pulse unequal, respiration becomes difficult, and the functions of the stomach and intestines are disturbed.

"When we thus consider the power which medicinal agents exercise over the animal economy, we have sufficient reason to be surprised both at its extent and importance. By means of it the physician appears to have all the organs of the body, and their respective functions, as it were, under his control. Through it he possesses manifold and valuable resources, by which if he cannot always destroy the cause of disease, he can frequently attack morbid lesions with success, combat the prevailing symptoms which threaten to prove fatal, and by opposing a medicinal to a pathological disturbance, arrest the further progress of the disease.

"With respect to the secondary effects of medicinal agents, they are, as has been observed, consequences of the primary; they are dependent on them, and both these effects stand to each other in the relation of cause and effect. We have seen these agents, by the properties they possess, submit the animal economy to an operation more or less marked, more or less extensive, the several organs have experienced a temporary change in their state and in their functions; these changes must be attended with some results. In a state of health, this disturbance passes off after a time, and is no longer perceptible after the medicine has ceased to act. But in disease, where the functions of life are disturbed, and the movements of the several organs are deranged, these effects become much more important. It is in the midst of this pathological disturbance that the medicine produces that state of the system which corresponds to its properties. It is impossible that this its action should not influence the development and progress of the disease; it will alleviate some affections, and exasperate others; this change so effected constitutes the secondary effects. The necessity of carefully distinguishing between the primary and secondary effects of medicinal agents, will appear, if we consider the confusion and seeming contradictions

which occur in works on therapeutics, from the want of this distinction. When any medicinal agent is said to have the property of strengthening the tissue of an organ, or of relaxing it, of accelerating or retarding its functions, of irritating the surfaces to which it is applied, its immediate effects are designated; but when it is said to possess a febrifuge, antiscorbutic or antispasmodic property, a different order of effects is meant, which can be obtained only on those who are affected with fever, scurvy, or spasm; in fact, the secondary effects are thus designated.

"When we compare the primary and secondary effects of medicines, the following distinctions present themselves: every medicinal substance contains in it an active force, depending on the chemical principles which constitute it; *whilst the secondary or curative effects are not at all connected in this way with the chemical constituents of the substance, and are merely devised to explain the advantages derived from these substances.* Again, the primary or immediate effects are always constant and the same, and should any dissimilarity appear in them, this will always be found to regard the *degree* rather than the *kind.* For example, senna acts with different degrees of intensity on different individuals, producing on some but slight, on others excessive purging, whilst in others it excites vomiting. Still its physiological operation is the same, that is, it irritates the gastro-intestinal surface.

"Such constancy and uniformity cannot be attributed to the secondary or therapeutical effects which are, for the most part, relative or conditional. It too often happens that the medicine, from which experience has taught us to expect the greatest benefit, produces an effect diametrically opposite: the same remedy, instead of relieving the patient, will render his state much worse. It was to this instability in the therapeutic effects of medicinal substances that Hoffman alluded, when he said, that the same medicine, employed in the same disease, with the same precautions, in the same dose, and at the same time, is oftentimes serviceable to one individual, useless to another and pernicious to a third.

"To the question whether there are such medicines as absolute tonics, i. e. substances which constantly and uniformly produce an increase of vigour in the animal economy, and a more free and easy discharge of its functions, we would answer no. Such an effect is always conditional, and regard must be had to the state of the system at the time of their administration: it is clear these medicines, classed under the head of tonics, would produce effects entirely opposite, if administered during the existence of inflammation of any organ. The last distinction which we shall here remark between the primary and secondary action of medicinal agents is, that the former is always single, whilst the latter are often observed to be manifold; thus, in the practice of medicine we daily find a substance whose primary action is stimulant, to possess the virtue of a stomachic, antiscorbutic, vermifuge, febrifuge, laxative, &c.

"The ancients considered that medicines acted on the *causes* of disease; whilst they are now more properly considered to act on the

organs. They attended exclusively to their *curative* effects; we shall attend first to the changes which they effect in the movements of the several organs in the exercise of their functions, and from these we shall make their curative effects to flow. These curative effects depend on the immediate effects which they cause, whether their action be local, or general, or at once both local and general. Some medicines are no doubt useful by reason of their possessing a specific influence on the causes of disease. These, however, are few in number, and confined to a very small number of diseases. Vermifuge medicines seem to belong to this class. Sulphur, found so useful in some skin diseases, seems to produce its good effects by acting directly on the cause; perhaps mercury also may derive its beneficial effects in syphilitic affections by acting directly on their cause. We shall confine our attention here, however, to those medicinal agents which derive their therapeutic properties from the impression they make on our organs, and the changes thereby brought about in the exercise of their functions."—p. 127.

Dr. Paris, and many other pharmacological writers, have long since shewn the absurdity of attending to strict chemical principles in prescribing medicines. Indeed every man who is at all conversant with the treatment of disease, is well aware of the fact, that many unchemical prescriptions produce the best effects in the alleviation or cure of disease. Those who object to such medicines are generally theorists or chemists, and seem to forget their absolute ignorance of the changes, which the most chemical formulæ must undergo, before mixing with the circulating fluids. We are not surprised at this; for mankind high and low, have in all ages been led astray by theorists. The chemical physician exclaims against the combination of acetate of lead and opium; the clinical physician finds it a most efficacious remedy. We might illustrate this diversity of opinion, by innumerable examples; but it must be unnecessary to adduce proof of a position universally admitted. Here we close our extracts for the present; but shall resume in our next, with the following very interesting corollory, "medical substances possess not any specific property, distinct from their physiological action, and to which the curative effects, following their use can be attributed." The opinions maintained in this little work are so conclusive and valuable, that we thought it but justice to allow the author to introduce himself to our readers; and we are happy in being able to congratulate him on the ability he has shewn in the execution of his task. He has revived the consideration of a neglected region of science, and decidedly the most important that can occupy the attention of the practitioner. We strongly recommend this work to students and junior members of the profession.

ORIGINAL COMMUNICATIONS.

I.—*Case of Poisoning by the Lancaster or Black Drop, a preparation of Opium.*

On Saturday the 5th of September, 1829, Mr. J. Foote was summoned to attend a man, resident in Bartlett's-court, Bow-street, reported to have taken poison. On the way there he was informed by the man's wife, that she had called on several medical gentlemen in the neighbourhood, the whole of whom refused to attend when they learnt it was a *poison case*, alleging that they did not like to attend inquests. [A short time before a poor girl was taken to a medical man's shop, as I am informed, having taken oxalic acid, and all assistance was refused, the same excuse being alleged—in fact, few medical men will attend to such cases, unless in the higher ranks of society, because they are unwilling to subject themselves to the insults and petty authority of every Jack-in-office and his satellites, losing their time without the slightest prospects of remuneration.]

When Mr. J. Foote got there, he found the man perfectly sensible, complaining only of drowsiness and head-ache, and expressing a great desire for sleep. On questioning the family as to what poison he had taken, his wife said, that finding him taking something out of a small vial, she knocked it out of his hand on the tiles of the house, where it broke in pieces, so that she could not tell what it was. The man hearing this, said, "I'll tell you what it was; it was a small bottle of the Lancaster Drop," the contents of which he had taken about a quarter of an hour ago. [One part of the Lancaster drop is equal to four parts of the Tinct. Opii. of the London Pharmacopœia, so that, if, as he averred, he had taken half an ounce of the Lancaster drop, he took a quantity of opium equal to two ounces of laudanum.]

An emetic of twenty grains of Sulphate of Zinc in two ounces of distilled water was instantly administered, and a stomach pump sent for:—this emetic having no effect in ten minutes, while the drowsiness and inclination for sleep were rapidly increasing, another emetic of the same strength was administered, and this likewise failed in its emetic effect. The stomach-pump (Weiss') being now brought, was immediately introduced, but, owing to the struggling and exertions of the patient, it was some time before it could be brought into play: the œsophagus-pipe being introduced at least half

a dozen times, and each time the patient by a sudden jerk drove it out again, notwithstanding he was held in his chair by several powerful men—even when the piston was in action he grasped the pipe in such a manner that it prevented the fluid from flowing several times: the pump was used several times for the space of two hours, until the fluid ejected was no longer coloured by the poison. He drank plentifully of warm water in the intervals. [And let me now pay a just tribute to Mr. Weiss, for a more excellent instrument, when in action, I never beheld.]

When the stomach was cleared, he was left for a time, his friends having directions to keep him awake and walking about. He was likewise directed to take the fourth part of the following mixture every four hours.

℞. Acet. Destill. ʒj.
Aquæ Destill. ʒv.
Mft. Mist.

11, p. m. Reaction has taken place; the pulse has risen, is freer from drowsiness, and complains of severe head-ache, bowels confined.

Fiat Venæsectio.
℞ Acid. Citric. gr. xxx.
Pulv. acaciæ. ʒij.
Aq. Puræ. ʒv.
Syr. Croci. ʒiij.
M. ft. Mist, de quâ sumantur cochlear; ampl: tria, omni tertiâ horâ.

He was likewise directed to take some strong coffee, and he was to be kept awake as long as possible; a dose of castor oil early in the morning, and repeated until the bowels were freely opened.

Sept. 6th, free from head-ache—bowels open—going on well. He now proceeded to a cure, without any bad symptom, as far as regarded the effects of the poison; he remained under treatment for a short time for a rheumatic affection of the loins.

II.—*Case of mental disturbance, caused by disorder of the stomach.* Communicated by Mr. Foote, Jun.

H. S., æt. 26, a waiter at an hotel, of tall stature, and pale countenance, accustomed to drink freely, but never to intoxication, arose from sleep on May 22d, in his ordinary good health. About 10, A.M., he became much agitated,

face flushed, eyes bright and glistening, skin, especially of the scalp, hot, very loquacious, and calling for his acquaintance, "that they might take warning by him." He was apprehensive of losing his speech, and continually changing the subject of his discourse; but frequently reverting to his previous ideas; in addition to which, he was fretful and impatient, flinging his arms about, and striking his thighs: tongue rather furred, pulse did not deviate much from the natural standard; did not complain of pain in the head or giddiness. He was bled from the arm to sixteen ounces; his hair was cut short, and cold water was applied to the head—when this was done he was very anxious to see himself in the glass, but was pacified on being told he was not much changed in appearance.

℞ Hydrarg. submur. gr. v.
Confect. Rosæ. q. s. ft. pilula, statim sumenda.
℞. Magnes. sulph. ʒij.
Infusi Sennæ ʒij.
Magnes. carb. ℈j.
M. ft. haust. ½ horæ post pil. sumend.

When the pill was brought to him, he exclaimed, "O, tis of no use, I do not want medicine, I want better advice; send for Charles (an acquaintance) tell him to take warning by me." After a little time spent in this manner, he became sick, and vomited some green viscid bile, after which he was better. Soon after this he took the pill, exclaiming, "that it would not do him any good," and about twenty minutes after this he had the draught, which was soon rejected, unmixed with bile or any other matter. As a marked amendment took place after each vomiting, an emetic was administered.

℞. Pulv. Ipecac ℈j.
Antim. Tart. gr. ij.
Aquæ, Destill. ʒij. M.
Fiat haustus emeticus statim sumendus.

He took it readily, observing that he knew it would do him good—it began to act in about ten minutes, and he brought up a great quantity of green viscid bile: during the vomiting and previously, his face was flushed, but directly after it had ceased, the face became pale, and the heat of the scalp much diminished.

1, P. M., The vomiting continued frequently, bringing up large quantities of bile—he was now calm and sensible, and could recollect a great part of what had passed. The flinging of his arms had ceased, he was free from pain in the

head or giddiness, complained only of the unpleasant sensation of emesis, and some faintness.

3, P. M. He complains only of the emesis, which still continues, he vomits small quantities of bile, and at considerable intervals—countenance pale, skin of the scalp a little hotter than that of the body, eyes still glistening, though not so much as they were. A few minutes ago he had a copious bilious stool, which has greatly relieved him.

℞. Potass. Carbon. ℥ss.
Aq. Destill. ℥ix.
Syrupi, ℥j. M.
℞. Acid. Citric, gr. xvj.
Aq. Destill ℥ss. M. his additis moxque in ipso actâ effervescentiæ hauriat, et post horam repetend.

Half-past 5, P. M. The first effervescing draught quieted the stomach, and stopped the emesis, since when a desire to sleep has arisen, and been indulged in until now—complains only of weakness—let him have the other draught.

7, P. M. Is going on well—is allowed toast and water, and soda-water.

℞. Hyd, Subm. gr. iij.
Extr. Colo. Comp. gr. viij. M. ft. pilulæ ij. h. s. s.
℞. Magn. Carb. ℈j.
Syr. Simp ℥j.
Potass. Subcarb. ℈j.
Succi. Limon. ℥ss.
Aq. menth. vir. ℥j. M. ft. haust. horâ nonâ vespertina, et primo mane sumendus.

23d. Has not slept much during the night, owing to the action of the pills, which have brought away several stools with great quantities of bile. Another source of irritation was the disturbed state of the sensorium, continually presenting objects before him whenever he closed his eyes, which, with the noise inseparable from a frequented hotel, prevented sleep during the greater part of the night. His present symptoms are, pulse 86, tongue rather furred, but not dry, skin hotter than usual, no head-ache, bowels freely open, the pulse of the radial and carotid arteries synchronous—has not vomited, is quite free from pain.

℞. Liq. Potass. Citrat. ℥ss.
Magn. Carbon, gr. xv.
Aq. M. Vir. ℥vj.
Potass. nitrat. gr. iv.
Syr. Simp. ℥j. M. ft. haust. ter die sumend.
℞. Hyd. Submur. gr. ij.
Extr. Colo. C. gr. vij.
Pulv. Antim. gr. ij.
Ol. Carui, gtt. j. M. ft. pil. ij. h. s. s.

He is perfectly sensible, and is about to leave town.

24th. Slept the first part of the night, after which his sleep was disturbed, dozing only; felt a little nausea this morning, which, since the operation of the pills, has gone off—pulse 76, and soft, tongue cleaner, no head-ache, appetite pretty good, is quite collected.

ROYAL WESTMINSTER OPTHALMIC HOSPITAL.

III.—*The Oleum Terebinthinæ in Diseases of the Eye.*

From the extensive trials which have been given to this remedy in deep-seated inflammations of the eye, there can no longer be any doubt as to the beneficial influence it exerts in these complaints, and the numerous advantages which arise from its introduction into practice. It is very valuable in those cases, which sometimes occur, in which the administration of mercury would be dangerous, and even in every other case, the unpleasant effects which occasionally arise from turpentine, and which may be very quickly relieved, are far more to be endured than the disgusting state invariably attending the use of mercury. This, however, will not be considered, from the certain cure which we confidently expect from the exhibition of the latter, until repeated evidence from experience shall prove, that the former is nearly as efficacious, and at the same time much less unpleasant and injurious in its *modus operandi.*

With this view the following cases may perhaps prove interesting.

Case 1. James Brown, æt. 24, admitted June 20th, 1830. Last April was attending at this Hospital, with iritis of the right eye, which was speedily cured by the oil of turpentine. He had gonorrhœa at the time, but the discharge from the urethra ceased soon after the eye became inflamed, and has not appeared since. His left eye is now attacked by the same complaint; says, that it has been inflamed for the last three days, accompanied with pain and dimness of sight. The iris is discoloured, pupil slightly irregular and dilated, and there is a bright zone of pink vessels round the cornea. The other tunics remain comparatively healthy. Complains of severe pain round the orbit, and slight intolerance of light; sight very dim.

Habeat, Ol. Terebinthinæ ʒi. ter die.

June 23d. Pain much relieved. Inflammation and dimness of sight, however, remain, as before. Has taken the medicine regularly without any uneasiness in the urinary organs. Ordered to continue the turpentine.

24th. Not so well. Circumorbital pain worse. Conjunctiva and sclerotica more inflamed and pupil more irregular. Complains of slight strangury. To continue the turpentine, but to drink plentifully of linseed tea. To lose also twelve ounces of blood from his left temple.

26th. Much the same. Pain and inflammation not relieved by the cupping. To take a drachm of the turpentine four times a day.

July 3d. Has taken his medicine regularly, with the precaution of drinking plentifully of linseed tea, and has not experienced the slightest strangury. He may now be considered as cured, only a slight tinge of redness of the sclerotica remaining. The pupil is regular and acts freely. He says that he suffers no pain, and that his sight is completely restored. As the turpentine gives him no inconvenience, he is directed to continue it a day or two longer.

Case II. Jane Spittle, æt. 36, was admitted May 18th, having syphilitic iritis of the right eye, accompanied with sore throat, and eruptions on the skin. She was ordered a pill composed of three grains of calomel, and a quarter of a grain of opium, three times a day. Had not applied here again until now, June 29th, and says that she had only taken four pills when her face became very much swollen, and she was confined to her bed for three weeks, suffering under a dreadful salivation, from which she has not yet quite recovered. Her eye and throat, however, gradually got well, during that period. She has now returned with a similar attack of inflammation of the left eye, which has been gradually getting worse for the last week. She complains of the most acute pain over the brow, and extending down that side of the face, so intolerable at night that she cannot sleep. The conjunctiva and sclerotica are very much inflamed, leaving, however, a very distinct white line round the margin of the cornea; iris much darker than natural; pupil of the same size as the other, but rather irregular and fixed. Cornea remains clear. The lids are rather swollen and inflamed. Three days back to relieve the pain she was cupped, and took a drachm of the Vinum Colchici at night, but without benefit. She complains also of great weakness with sickness and loss of appetite; pulse quick and small; bowels confined.

Habeat Pulv. Jalap. Comp. ʒj. statim.
Capiat. Ol. Terebinth. ʒj. ter die, et.
Pulv. Ipecac. comp. gr. x. nocte.

July 1st. Inflammation continues much the same. Pain however has been much less severe at night. To continue the medicines.

3rd. Says that she suffered more pain last night and attributes it to not taking her medicines yesterday, the turpentine having caused a good deal of nausea and strangury, bowels very much confined. To continue the turpentine, and drink plentifully of linseed tea.

Sumat. Pulv. jalap. Comp, ʒiss. statin.

6th. Much better. Inflammation considerably diminished. Very little pain now at night.

Rep. med.

8th. Nearly well, very little redness remaining, pupil rather small, but regular. Says that she is quite free from pain, and her sight very much improved.

Rep. med.
Applicetur Empl. Bellad. tempori. sinistro.

10. The eye appears perfectly healthy. She is to continue the medicine, however, a few days more, as her sight is not quite so distinct as it was.

III.—*Dr. Stoker on the Pathology of Dropsy.*

To the Editor of the London Medical & Surgical Journal.

Sir—Having been much gratified by your approval of my principles and practice, I would have thanked you before this time for the liberal support you gave them in your truly scientific and excellent Journal, had I not been engaged in writing the "Treatise on the Pathology of the Animal fluids and solids," which I have the pleasure of sending you, and in which I have availed myself of the aid and encouragement with which you have favoured me. A friend induced me to have it printed in Scotland, and this fact I state in attenuation of the misprints with which it abounds, and for which I solicit your indulgence. I regret however to add that some of the manuscript was mislaid, and that I am now under the necessity of stating facts of importance which have been omitted in this communication.

I endeavoured to oppose the strictures in the Medico Churgical Review, on my attempt to arrange facts; by those of the Westminster Review and Hamburg Magazine for not generalizing enough towards a system. Secondly, to show that by contrasting the practice in the Dublin Fever Hospi-

tals, with those of London, as stated by Dr. Hawkins; I offered arguments deduced from morbid anatomy, for the principles I have adopted, in preference to those lauded by the London criticism; but a leading object of the publication was to prove by cases that the ratio symptomatum was available, in suggesting the ratio medendi. The cases which I selected, were from private and hospital practice and were chiefly those of dynamic dropsy and appeared to me well calculated to shew that morbid condition of the blood, returned to the greater circulation, by the vena cava from the want of few changes in its passage through the liver becomes the source of morbid actions or embarrassment in the functions of the viscera of the chest, and of consequent dropsy there and elsewhere, and the successful employment of medicines by these principles tended further to establish them. The application of leeches to the verge of the rectum, to diminish the accumulation of dense veinous blood in the mesentery, of blisters to the region of the liver, and the use of warm mercurial purgatives, to relieve the biliary system in general, and remedies to restore the healthy functions, have frequently removed symptoms which have been generally attributed to diseases of the heart. I also stated my experience in the use of millfoil, yarrow, (Achillea Millefolium) in dropsy and gangrene, as a rubifacient and hydragogue, and as a restorative of the function of sanguification and the aqueous secretions. I request you will have the goodness to forward a copy imperfect as it is to the editor of the Medico Chirurgical Review mentioning to him the circumstances under which it is presented and I hope that gentleman will perceive there is no object in view besides the promotion of medical knowledge; and therefore will receive my explanation in the proper feeling in which it is offered. I cannot conclude without offering you my best thanks for the kind observations with which you have favoured me, which are the more valuable as I have not the honor of your acquaintance, both in your reviews of Dr. Good's work, of Dr. Southwood Smith's, and more recently of Dr. Steven's essay on the blood.

I have the honor to be Sir,
with great respect and esteem,
your obedient servant.
W. Stoker.

21, York Street, Dublin,
June 25th 1830.

It affords us much pleasure that our reviews, on the present and indeed almost every occasion are admitted impartial,

and we are proud to state as yet we have received no reclamation. We feel deeply sensible of the very complimentary terms in which so eminent a writer as Dr. Stoker has been pleased to speak of us, which will be further seen in a preceding part of this number.—EDITOR.

V.—*Ethics of the present Period.* By M. RYAN, M. D.

"I will never set politicks against ethicks, for true ethicks are but a handmaid to divinity and religion."—BACON.

That medical men should practise *cautiously*, *chastely*, and *honourably*, and observe strict secrecy in all delicate cases, and in all domestic affairs, which may fall under their notice during professional attendance, is not only consonant to the usage of the profession, but to common sense and justice. It would be highly improper to divulge the nature of certain diseases, or expose the affairs of families, to gratify idle curiosity, impertinence, or serve the purposes of an interested knave. The law however compels us to violate these principles; and hence the exception in the Edinburgh oath, "not to divulge without weighty reasons." In such cases the violation or renunciation of our moral and professional duties is compulsory. Chastity and honour are general moral duties, and not peculiarly belonging to any one profession. The duty of *caution* in practice means "care not to expose the sick to any unnecessary danger." The best rule of conduct on this important point, is the simple and comprehensive, religious and moral precept, "do unto others as you would they should do unto you." Whatever the practitioner does or advises to be done, for the good of his patient, and what he would do in his own case, or in the case of those who are dearest to him, if he or they were in the same situation, is not only justifiable on his part, but it is his bounden duty to do. The patient should have the chance, whether it be 100 to one, or only one in 100 in his favour. Whatever may be the result, the practitioner has the greatest of all consolation—the consciousness of rectitude, "mens conscia recti."—this will be his solace, should the case terminate unfavourably, when the vulgar, the ignorant, the envious, the malicious, and the interested, will not fail to blame him for the death of his patient. But if he administered a dangerous medicine, merely to gratify his own curiosity or zeal for science to ascertain the comparative advantage or disadvantage, of some new remedy, either proposed by himself or suggested by others; he is held guilty of a breach of ethics

on this important point, is the simple and comprehensive, religious and moral precept, "do unto others as you would they should do unto you." Whatever the practitioner does or advises to be done, for the good of his patient, and what he would do in his own case, or in the case of those who are dearest to him, if he or they were in the same situation, is not only justifiable on his part, but it is his indispensable duty to do. The patient should have the chance, whether it be 100 to one, or only one in 100 in his favour. Whatever may be the result, the practitioner has the greatest of all consolation—the consciousness of rectitude, "mens conscia recti."—this will be his solace, should the case terminate unfavourably, when the vulgar, the ignorant, the envious, the malicious, and the interested, will not fail to blame him for the death of his patient. But if he administered a dangerous medicine, merely to gratify his own curiosity or zeal for science, to ascertain the comparative advantage or disadvantage of some new remedy, either proposed by himself or suggested by others; he is held guilty of a breach of ethics and of a high misdemeanour, and a great breach of trust towards his patient; and if the patient died, I apprehend, he might be severely punished. Medical men have tried the most dangerous experiments upon themselves, from their zeal for science; and even sacrificed their lives, but patients in general have no such zeal for science, no ambition for such a crown of martyrdom, and generally employ and pay their medical attendants for the very opposite purpose. It must be admitted that men who would try experiments upon themselves, would be very apt to try experiments on their patients. It is a melancholy truth, but cannot be denied. The profession however, has always reprobated such conduct, and the medical phrase of reproach and contempt for it, "*corio humano ludere*," to play with the human hide, abundantly testifies in what abominaton it has been held by the faculty. It is unnecessary to dwell upon this point in this age, because all experiments are made upon the inferior animals; and the just reproach entertained by the faculty, in former times, is now inapplicable. But every man of common understanding well knows, that neither physic, nor surgery can be practised without some danger to the sick. It is universally known that many surgical operations are dangerous to life; and that all our most powerful remedies are highly dangerous, and more especially when improperly employed or when they cannot be borne. A safe medicine is often extremely dangerous, from the peculiarity of constitution; and the great and urgent danger in many diseases

requires the immediate use of dangerous remedies. It is admitted by the best practitioners, that many remedies are still wanted for the cure of disease, and this want leads us most justifiably and almost inevitably to try new remedies on many occasions; and such experiments are not blameable, for they are necessary: *sic enim medicina orta; subinde aliorum salute, aliorum interritu perniciosa discernans a salutaribus.* From these causes, there results much inevitable danger in the practice of physic. From this acknowledged danger, results the important duty of caution in a physician, or care to make the danger as little as possible. Whatever is best for the sick, it is the indispensable duty of a medical man to do for them. It is his duty and obligation, "faithfully to do all things conducive to the health of his patients;" and this is so complete and indefeasible, that it cannot be set aside by any motion whatever. Such is the code of ethics which ought to influence medical men, both in public and in private practice; "but it is matter of question," says Dr. Gordon Smith, "whether it has in reality an existence."* This is a truism that cannot be doubted; and yet the rising members of the profession are expected to support the honor and dignity of the faculty, without any rules to guide them, without having heard a single word upon the subject, during their education. Hence the cause of that improper conduct which has degraded the profession to a degree unparalleled in the annals of British medicine. I shall not prosecute this subject at present, as it will be more properly considered in my account of the laws relative to the practice of every branch of medicine in this country, and of the constitution of the faculty.

From the preceding brief account of the ethics by which medical men are directed, it is obvious that the profession of medicine is the most noble and disinterested of human avocations. This has been admitted in every age and country, since the foundation of medicine as a science. History attests the fact. It now only remains to apply the noble principles of medical ethics to public and private practice, and here Dr. Percival shall be our guide, but we will endeavour to condense his precepts, without destroying the spirit of their meaning.

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* Analysis of Medical Evidence.

Of Professional conduct relative to hospital and other medical charities, and in private practice.

HOSPITAL physicians and surgeons should display tenderness, steadiness, and condescension in enforcing their authority. They should allow the sick to choose their favourite practitioner, or at all events call him into consultation occasionally, and thus ensure the patient's confidence. The feelings and emotions of the sick ought to be regarded as much as in private practice; and the discussion of the nature of their diseases, in their presence, ought to be avoided. Delicacy in female cases, should be ever regarded. Parsimony in prescribing medicine and diet, should never have influence. A discrimination between medical and surgical cases should invariably exist; and new remedies or operations are justifiable under the circumstances already mentioned. The history of every important case should be recorded, and the nature of the disease, the *ratio symptomatum* and *ratio medendi*, should be noted and explained to medical students when they attend. This is the only safe mode of initiation into the healing art, a practice unattended to in all the London hospitals. The medical officers should examine and approve of all medicines, but ought to take no part in the management of the domestic affairs of hospitals, or other public institutions to which they may be attached. They should consult in all dangerous cases, and no capital operation ought to be performed unless sanctioned by the majority of the physicians and surgeons of the institution. The junior physician or surgeon should deliver his opinion first, and the others in the progressive order of their seniority; a majority to be decisive; but if the numbers are equal, the attendant should decide. In mixed cases, the junior surgeon should deliver his opinion first, and his brethren afterwards, according to seniority, and then the junior physician. This is agreeable to the rule "*incipiat junior medicus, concludat senior*," The attendant is to state the case. The order of seniority may be determined by the date of admission into the colleges, or appointment to the hospital; due notice should be given of a consultation, and no one should be present but the medical officers, unless with their consent. It is improper to hold consultations on Sunday, or perform operations unless in cases of urgent necessity. It is improper to have a stated day for operations, as it may cause improper delay or unjustifiable anticipation, "when several operations are to take place in succession, one patient should not have

his mind agitated by the knowledge of the sufferings of another. The surgeon should change his apron when besmeared; and the tables or instruments should be freed from all marks of blood, and every thing that may excite terror." Morals and religion must be attended to in hospitals, but all indiscreet zeal is not only injurious in dangerous cases, but even fatal. Intrusion on the religious opinions of the sick is highly improper, and is too often allowed or encouraged in many hospitals. The sick should choose their own clergyman. In many cases it is necessary to advise the patient to make a will, as the inmates of hospitals are often possessed of property, or in expectation of it, and their heirs might lose it.

The relief afforded by hospitals, though they are institutions of the most benevolent kind, is procured with difficulty; patients are admitted only one day in the week, no matter how dangerous their cases, fees are often required, the sick are removed from their families, the nurses are strangers. These defects are so manifest, that the public have wisely established dispensaries to obviate them. In these establishments medical assistance is obtained with the greatest facility every day; it is afforded to one parent, without removing him from the means of earning support for himself and family, and to the other without withdrawing her from the superintendence of her domestic concerns. Besides the natural affections which every philanthropic mind must wish to see cherished, are reciprocally called into exercise, and strengthened, where the parent is the patient, where the wife becomes the nurse, and the children assistants, and medical aid is rendered more efficacious when the mind is relieved from the anxieties necessarily attendant upon a separation from family, and a removal from home. The early application on the first feelings of indisposition prevents the diffusion of contagious diseases; and pestilence, which once stalked forth, spreading terror and desolation around, is now arrested in its progress, or strangled in its birth; and it is not too much to assert that the general healthiness of the metropolis, and the less frequent recurrence of contagious disorders, are to be in a great measure attributed to their early suppression in the abodes of poverty, by the activity and vigilance of the medical officers of dispensaries. It is also apparent that without the medical assistance thus afforded the poor, the demand on parochial rates would be increased in a very considerable degree, and the medical establishments of every parish would be increased to double their ordinary expenditure.

It is quite contrary to the objects for which hospitals and dispensaries are founded, to render them subservient to those

in affluent circumstances, an abuse which exists in every one of them. This is an imposition on charity, and a direct injury to the profession, yet the medical officers connive at it. It is a fact, which cannot be controverted, that a large proportion of the patients admitted into the hospitals, especially of this city, and relieved at dispensaries, are not real objects of charity, and are often the relatives or personal friends of the governors or subscribers; and thus the junior members of the profession are seriously injured. This abuse exists in every part of the empire, but to a vast extent in this metropolis. I have often remonstrated with my colleagues, and with governors on this impropriety, but the reply was ready, "these things are tolerated in every public institution." Dismissing the subject for the present, I have to allude to the conduct of medical men in the various public situations in which they are placed, in lunatic asylums, prisons, &c. &c. The same principles of conduct should guide them in public and private practice, and these have been amply detailed in the preceding pages. A few observations may be made on points relative to private practice, not hitherto considered.

Punctuality in visits to consultations should be always observed. This was well exemplified by Dr. Baillie, as is related by Sir Henry Halford, in his observations on his departed friend, delivered at the College over which he presides, "Such was his condescension, that he often incurred great inconvenience to himself by his punctual observance of appointments with the humblest practitioners. In consultation he was candid and liberal in the highest degree; and the physician who called him in never failed to find himself in the same possession of the good opinion of the family, as he was before the circumstances of the case made a consultation necessary."

Consultations, says Dr. Percival, should be promoted, in difficult or protracted cases, as they give rise to confidence, energy, and more enlarged views in practice. On such occasions no rivalship or jealousy should be indulged. Candour, probity, and all due respect should be exercised towards the physician or surgeon first engaged; and as he may be presumed to be best acquainted with the patient and with his family, he should deliver all the medical directions agreed upon, though he may not have precedency in seniority or rank. It should be the province, however, of the senior physician, first, to propose the necessary questions to the sick, but without excluding his associate from the privilege of making farther enquiries, to satisfy himself, or to elucidate the case.

As circumstances sometimes occur to render a special consultation desirable, when the continued attendance of another physician or surgeon might be objectionable to the patient, the gentleman of the faculty, whose assistance is required in such cases, should pay only two or three visits; and sedulously guard against all future unsolicited interference. For this consultation a double gratuity may reasonably be expected from the patient, as it will be found to require an extraordinary portion both of time and attention.

In medical practice, it is not an unfrequent occurrence, that a physician is hastily summoned, through the anxiety of the family, or the solicitation of friends, to visit a patient, who is under the regular direction of another physician, to whom notice of this call has not been given. Under such circumstances, no change in the treatment of the sick person should be made, till a previous consultation with the stated physician has taken place, unless the lateness of the hour precludes meeting, or the symptoms of the case are too pressing to admit of delay.

In cases of doubt or danger, the medical man who refuses a consultation must be extremely arrogant or inhuman, and probably both. The patient has an undoubted right to call as many of the faculty as he pleases, though it is often very difficult to make him understand that he is not the property of his attendant, and that on the contrary, the services of the latter are not his property. In general, consultations are objected to in small towns, where the faculty are obliged to scramble for fame and fortune, and daily bread, and whose rivalships, and disputes, and altercations, too often end in open quarrels and implacable animosities. The sick ought never to suffer by such disputes, and hence we find men who are not on speaking terms, meeting in consultation. It has been a maxim with the faculty that a practitioner of *standing*, a senior, should be called over the ordinary attendant. This rule is often violated, and indeed it is not an easy matter to observe it on many occasions. The late eminent Dr. Gregory, of Edinburgh, has commented with his usual force on this point. He says, but mere *standing* or seniority, superadded to the most complete and regular education in the profession, will neither procure confidence from the public, nor success and employment to any person. We are well accustomed to see many juniors surpass, and most deservedly surpass their seniors, perhaps even their own instructors; and leave them so far behind, that, before half their race is run, they can have no farther hopes of success.

Some individuals soon shew by their talents, and the use which they make of them, that they can profit more by seven

years of observation and experience, than others could do in the longest life. And very many soon shew that they are incapable of ever improving; from a real natural want of those faculties which would enable them to observe accurately, to compare different observations together, to reason acutely and fairly, and ultimately to draw just and useful practical inferences from what they had observed. Many, not naturally deficient in their intellectual powers, become so from defects or improprieties in their education; especially the want of that general preliminary education which improves the faculties, while it extends the sphere of knowledge, and directs the attention to proper objects. And many more, who have no such excuse either from natural or accidental defects, never improve, and soon shew that they never will, purely by their own fault. They think the knowledge or improvement they had acquired, when they first entered on the exercise of their profession, sufficient for all purposes, or at least for their purpose; they find the effort of attention in observing, comparing, reading, and thinking, too laborious; and, as they flatter themselves it is unnecessary for them, they soon cease to make it.

Of course, all chance of improvement in them is at an end; they grow older, and yet grow never the better or wiser. On the contrary, as they often become more negligent, they grow worse in every respect, and really become more ignorant, forasmuch as they acquire no new knowledge, and forget much of what they had formerly learned.

They become a kind of drones, content to do their business in a humdrum workman-like sort of a way; by which they have the best chance of escaping reflections or censure. Their faults are much more frequently sins of omission than of commission. For once that they do any thing positively and immediately pernicious, they miss, from negligence, or ignorance, or both, an hundred opportunities of doing good. None but those in the secret have any notion how faithfully many physicians and surgeons go on for thirty or forty years, or longer if they live longer, employing, even in the commonest diseases, the remedies which they were taught when young, though useless at best, if not pernicious; how faithfully many great and grave writers have transcribed from their predecessors, from generation to generation, the same frivilous, absurd, or dangerous precepts, the same useless or pernicious prescriptions, and the same silly remarks; how tenaciously many practitioners adhere to old receipts, so extravagantly absurd as to contain perhaps fifty or a hundred ingredients, of which probably not more than three or four are of any use; and how manfully they fight against the in-

troduction of other remedies, the most simple, powerful, and safe; which they reprobate, and will not employ, for no other reason but because they are new.

Men of such talents, characters, and habits, whether physicians or surgeons, can neither improve by experience themselves, nor contribute to the instruction of others, and the improvement of their art. They are peculiarly unfit to practise in an hospital, where, on account of the great number and urgency of the cases to be treated, the greatest extent and accuracy of knowledge, the greatest quickness, precision, and discrimination in applying it, and, in one word, the greatest effort of attention and thought is required. Any deficiencies in them, which in private practice might well have escaped observation and censure, must soon become conspicuous on so public a stage; just like those of a lawyer at the bar; and will not only bring on themselves reproach and contempt, but will in some measure affect the character of the hospital itself. Whatever lessens the confidence of the public in the administration of it, and of the patients who resort to it, in the skill of those to whose care their health and lives are entrusted, tends strongly to frustrate the benevolent purpose of the institution, and is, in truth, a very great injury to the public. Some men, naturally of good sense and quick discernment, and active, vigorous minds, who attend accurately to what passes around them, are distinguished even at an early period of life for sagacity, prudence, decision, and quickness in conduct, and a thorough knowledge of the characters of men, and the management of business. They are accordingly respected in the world, and often consulted on nice and difficult occasions by those who are acquainted with them, and who very wisely rely more on the judgment of such men than they would do on their own.

But such men are not the majority of mankind. An infinitely greater number are either so deficient in natural talents, or so culpably negligent in the use they make of them, that they appear to acquire no improvement at all by their experience of men and things. At the age of fifty or sixty, they are a good deal more dull, but not a jot wiser, than they were at twenty-five or thirty. They become as arrant drones in common life as any are in law, or physic, or surgery. No man of sense, who knows them, would ever think of consulting them, or relying on their judgment, in any business whatever, any more than he would think of consulting a lawyer when he was sick, or a physician when he was engaged in a law suit.

A man of such a character never can deserve respect, or confidence, or employment, even in his own profession: and

there are many such in law, in physic, in surgery, and in all the employments of life.

It must be unnecessary to enter into serious proofs of the importance of consultations. The mere want of medical assistance, says the distinguished physician whom I have just quoted, is in many cases so bad, as to imply almost certainly very pernicious, if not fatal consequences. In such cases to withhold it voluntarily, would be almost as criminal as to suffer a wretch to perish by withholding food from him. This point being proved, a few words may be said on the utility of numerous consultations. The opinion of Dr. G. is so excellent upon this topic, that it must be quoted. With respect to physicians and surgeons both, and their patients, it is plain that all the good that can be expected from a consultation may be obtained from one of two, or three, or four, at the utmost, at least as well as from one ten times as numerous; and I should think it almost as plain, that much of that good may be prevented, and much positive evil done, by a very numerous consultation.

On this point, I presume, without vanity, to know as much as most men. For full half of my life, I have been a professor of physic in the University of Edinburgh, during which time consultations have been a great part of my business, to the number certainly of some thousands. Nineteen times out of twenty at least I have been the youngest physician of the consultation; and of course, when any written directions were to be given to the patient, have had the honour to put them in writing, to the number, I presume, of two or three hundred at least. I can say with confidence in point of fact, that I never knew any good come of a very numerous consultation; and I doubt much whether any physician or surgeon of competent experience will give a different account of the result of what he has observed. The conduct of physicians and surgeons, when themselves or any of their families are sick, affords a still better proof and illustration of the same truth, and is indeed supreme and decisive authority with respect to what is useful, or what is useless, or worse than useless, in medical consultations. With us all considerations of economy are out of the question. Bad as we may be thought, we are not such Cannibals as to prey on one another. We may all have, for nothing, to ourselves and our families, as much assistance in point of physic and surgery as we choose. We feel strongly, that we have not sufficient calmness and firmness to judge and act properly, when the lives of those are at stake in whom we are most tenderly interested: and as to ourselves, when sick, we all

know, for it is a long settled point in physic, that every man who doctors himself, has a fool for his patient.

For these reasons we are all accustomed, when ourselves or our families are sick, to ask the assistance, not of all, but of some of our professional brethren. A numerous consultation is a kind of debating society, in which the patient's welfare, which ought to be the only object in view, is nearly forgotten. The illustrations of such consultations by Moliere, Le Sage, Fielding, and many others were just, though inapplicable at present. In former times the *odium medicum* was as violent as the *odium theologicum*, even matters went so far that the disputants resorted to arms; but there is little danger of modern theorists taking the field in support of their opinions, though they war with words fully as bitterly as their predecessors.

Great caution should be used by the practitioner called in as to the character of the former attendant. Dr. Percival has illustrated this point with great ability. Officious interference, in a case under the charge of another, should be carefully avoided. No meddling enquiries should be made concerning the patient; no unnecessary hints given, relative to the nature or treatment of his disorder; nor any selfish conduct pursued, that may directly or indirectly tend to diminish the trust reposed in the physician or surgeon employed. Yet though the character of a professional busybody, whether from thoughtlessness or craft, is highly reprehensible, there are occasions which not only justify but require a spirited interposition. When artful ignorance grossly imposes on credulity; when neglect puts to hazard an important life; or rashness threatens it with still more imminent danger; a medical neighbour, friend, or relative, apprized of such facts, will justly regard his interference as a duty. But he ought to be careful, that the information on which he acts, is well founded; that his motives are pure and honourable; and that his judgment of the measures pursued is built on experience and practical knowledge, not on speculative or theoretical differences of opinion. The particular circumstances of the case will suggest the most proper mode of conduct. In general, however, a personal and confidential application to the gentleman of the faculty concerned, should be the first step taken, and afterwards, if necessary, the transaction may be communicated to the patient or to his family.

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,

If physicians will consult with apothecaries and meet them at the appointed hour, on successive days, during the whole course of a long protracted fever, what are the public to infer? The natural inference is, that the physician must derive some information from the apothecary, and that he does not consider the absence of the apothecary from his shop as a matter of any consequence. This again leads to other conclusions, until at last it is supposed that the apothecary having seen so much of the physician's practice, must be as well qualified to prescribe as the physician himself, Of course, on all future occasions he is applied to, and the physician no more thought of, until symptoms of the most urgent nature have presented themselves, and the apothecary begins to consider it not altogether prudent in him to allow his patient to die, unattended by a physician.

After a physician has been thus called in over an irregular practitioner, and when he performs merely the part of a useless pageant in the gloomy scene which is soon to follow, his want of firmness, and of steady adherence to that candour which his duty to the profession, and the public, requires, by no means tends to promote even his private interests. He gives occasion to the very person, who perhaps objected to him in the first instance, to observe that there was little use in employing him, and that it was evident he could have done nothing more than had been done before he was consulted. Thus are the public deceived; thus is the respectability of medicine injured, and thus are more lives annually sacrificed, than it would be possible to calculate.

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 freely 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.

The presence of the apothecary has also a decided influence over the physician with respect to the medicines which he prescribes, so that, however honest his intentions, he cannot avoid ordering more than he otherwise would. If a physician were to pay two successive visits to a patient, when an apothecary was in attendance, without prescribing any medicine, what would be the consequence? It would probably be suggested that he knew nothing of the disorder, or that he

wished to protract its duration, by not ordering such medicines as some other physician had prescribed, with the greatest success, in a case exactly similar: that it was a proof of the greatest avarice and illiberality to take his fee for doing nothing;—in short, that he ought to be immediately dismissed, and that Doctor ———— should be sent for.

BIBLIOGRAPHY.

ANATOMY AND PHYSIOLOGY.

1. *Globules in the humours of the eye.*—MM. Ribes and Donne, have lately discovered globules in the humours of the eye, of a smaller size than those of the blood. There are three orders of them; the first are in sinuous chaplets and very apparent; the second are isolated larger than the others, and surrounded by a black circle; the third or last distinct, and resemble a kind of mist. The authors are disposed to question the utility of so many parts of the visual organ in the production of impressions on the retina. It is known that the removal of the crystalline lens by extraction, does not destroy vision. The rays of light must be considerably modified by the globules of the humours.—*Arch. Gen. de Med. Mai.*

2. *New Theory of Vision.*—Dr. Reae, of Cork, has recently delivered a course of lectures on the anatomy and the physiology of the eye, at the Mechanics Institute in this metropolis, in which we understand, he has proposed a new theory of vision. He has paid great attention to opthalmic diseases, and is about to publish the result of his experience; we have been informed by one of his auditors that he holds the cornea to be the seat of vision; but we cannot surmise upon what reasoning he could have arrived at this conclusion. We think there are many fatal objections to his theory, but refrain from urging them until his work appears. We have had the pleasure of being introduced to him at the Royal Westminster Opthalmic Hospital, and in a conversation with Mr. Guthrie, he mentioned an operation for fistula lachrymalis, which obviates all inconvenience in that disease. It consists in making a small puncture in the superior part of the lachrymal sac, and keeping this puncture open. He produced a patient on whom the operation had been performed eight years ago, and so little of puncture remained that it was impossible to decide which sac was affected. On pressing the affected sac, the tears gushed forth freely through an aperture not perceptible to the naked eye. Mr. Guthrie observed that he had performed a similar operation on a Spanish Marchioness whom he named, and with equal success.

MORBID ANATOMY.

3. *Official Report of the Morbid Appearances, which were observed at the post-mortem examination of the body of his late*

Majesty George the Fourth.—The body exhibited but little sign of putrefaction; and the anasarca had disappeared, excepting some slight remains of it in the thighs.

Notwithstanding the apparent emaciation of his Majesty's person, a very large quantity of fat was found between the skin and the abdominal muscles.

ABDOMEN.

The omentum, and all those parts in which fat is usually deposited, were excessively loaded with it. The *abdomen* did not contain more than *an ounce of water*.

The stomach and intestines were somewhat contracted; they were of a darker colour than natural, in consequence of their containing mucus tinged with blood, and in the stomach was found *a clot of pure blood*, weighing about *six ounces*.

The liver was pale, and had an unhealthy granulated appearance.

The spleen, although larger than usual, was not otherwise diseased, and the pancreas was in a sound state.

The sigmoid flexure of the large intestine had formed unnatural adhesions to the bladder, accompanied by a solid *inflammatory deposit* of the *size of an orange*,

Upon a careful examination of this tumour, a sac or cavity was found in its centre, which contained an *urinary calculus* of the size of a filbert, and this cavity communicated by means of a small aperture with the interior of the bladder at its fundus. In other respects the bladder was healthy, and the prostate gland did not appear to be enlarged. The kidneys were also free from disease.

THORAX.

Two pints of water were found in the cavity of the *right side*, and *three pints and three quarters* in the *left side* of the chest. The left lung was considerably diminished.

The lower edge of each lobe of the lungs had a *remarkable fringe*, which, upon examination, was found to be formed by a deposit of *fat*.

The substance of the lungs had undergone no change of structure, but the *mucous membrane lining the air tubes* was of a *dark colour*, in consequence of its vessels being *turgid with blood*.

The pericardium contained about *half an ounce of fluid*, but its opposite surfaces in several parts adhered to each other from inflammation at some remote period.

Upon the surface of the heart and pericardium there was a large quantity of fat—and the *muscular substance* of the *heart* was so *tender* as to be *lacerated* by the slightest force. It was much larger than natural. Its cavities upon the right side presented no unusual appearance, but those on the *left side* were much *dilated*, more especially the *auricle*.

The three *semilunar valves* at the beginning of the aorta were *ossified* throughout their substance, and the *inner coat* of that blood-vessel presented an *irregular surface*, and was in many parts *ossified*.

The original disease of his Majesty consisted in the *ossification* of the *valves* of the aorta, which must have existed for *many years*, and which, by impeding the passage of the current of blood flowing from

the heart to the other parts of the body, occasioned *effusion of water* into the cavities of the chest and in other situations. This mechanical impediment to the circulation of the blood also sufficiently explains those other changes in the condition of the body which were connected with his Majesty's last illness, as well as all the symptoms under which the King had laboured.

The immediate cause of his Majesty's dissolution was the rupture of a blood-vessel in the stomach.

HENRY HALFORD.
MATTHEW J. TIERNEY.
ASTLEY COOPER.
BENJAMIN BRODIE.

4. *Post Mortem Examinations of the Kings of France from Charles IX. to Louis XVIII. From authentic documents arranged by Dr. Henry Dupuy.*—There is a disposition inherent in the human mind to invest those removed from the common sphere of life with attributes that appertain not to ordinary mortality. Who that reads the exploits of Alexander, can picture to himself the Macedonian demigod subject to those little corporeal annoyances that chafe the temper of Mr. Thomson or Mr. Smith—can imagine Hercules troubled with constipation of the bowels—or Julius Cæsar plagued with corns, albeit

He had a fever whilst he was in Spain!

But human nature is human nature still, however the grand, the moral, the intellectual *spiritus* may dazzle the eyes of the astonished world; and a hero and a costermonger suffer in no very unequal degree from those bodily inconveniences and ills to which flesh is heir. Sylla was destroyed by the lousy distemper—Napoleon le Grand, l'Invincible, as a foolish universe once thought its scourge, died of a *malignant* disease—and our own race of kings have notoriously suffered from the complaint which is usually the property of the squalid and the needy—scrofula. Some very curious and interesting documents have been published in France, respectiug the examinations of the bodies of their kings, from Charles the IXth to the last Louis. Previously to the time of Charles the prejudices of the people and the opposition of the clergy restricted the examination of bodies to that of executed criminals. It was not to be supposed that the haughty sovereign of a feudal nation should descend to the level of felons, of those whom the ideas of the times would scarcely have ranked in the same class of beings as himself. It required some extraordinary event to establish the necessity for royal dissections, and such an event presented itself in the remarkable death of the ninth Charles. This Gaulish representative of the Neros and Domitians of the world, is execrable to all time by the massacre of the Hugonots at Paris, on St. Bartholomew's day, in 1572. When the hour for that dreadful outrage approached, being upbraided with indecision by the savage Catherine de Médicis in his mother and the regent, he exclaimed, " well then let not one be left to reproach me with breach of faith!" He even fired with his own hand on the miserable wretches endeavouring to escape across the Seine. It was said that from this

time to his death, which took place in May, 1574, he never enjoyed a tranquil hour, and various reports were bruited about respecting the mode of his decease. Many regarded the event as a punishment for his enormous crime, and asserted that he fell the victim to a *sweating of blood*; others on the contrary attributed it to the machinations and ambition of the Duke d'Alençon. In order to set at rest all rumours and dispel these suspicions, Catherine decided that the body of her dear son should be examined, and Charles was thus the first king of France, the first descendant of Charlemagne, whose body was profaned by the scalpels of his subjects. From that time to this, the examinations of their monarchs after death has become a matter of court-etiquette in the French dominions. Before we proceed to the account of the dissection of Charles, it will be interesting to recite a few particulars respecting his mortal illness.

P. Masson, a writer of those times, states that Charles X. fell ill in the month of October, 1573, whilst attending his brother, afterwards Henry III, on his departure for Poland. He was first attacked with pains in the chest, which were not all understood by his medical attendants, and continued to increase; he was worn down by an "erratic" fever, sometimes quartan sometimes continued; and in spite of all that Mazille, his first physician, could do, the disease proved fatal. L'etoile gives an interesting account of the last days of the suffering king. On the Friday, says he, preceding the Sunday when Charles died, about two o'clock in the afternoon, he called for Mazille, and after complaining of the pain he endured, inquired if it was not possible for him, and the many other physicians whom he had in his kingdom, to procure some alleviation of his miseries. Mazille replied, that all which depended on their art had been done, that the very day before the faculty had assembled for the purpose of giving relief, but that, to speak the truth, God was the only, and sovereign physician for such diseases to whom he could have recourse. "I believe," said the king, "that what you tell me is true, and that you know of nothing else. *Tirez moi ma custode, que j'essaye a y reposer.*" It is reported by Guy Patin, and other writers, and with every appearance of probability, that poor Mazille narrowly escaped *hanging* by order of Catherine, for not having called a consultation sufficiently early. We cannot help thinking, that if some such plan were adopted now-a-days, it might save some patients at the expense of a doctor or two, and otherwise be attended with much service. The Latin account of the post mortem examination is curious.

"RAPPORT DU CORPS MORT DU FEU ROI CHARLES IX.

"'Anno domini miles, quinquent. septuag., quarto pridii kal. junii, hora a meride quarta, facta est dissectio corporis Caroli IX. regis Galliarum christ., assidentibus medicis hic subsignatis et chirurgis qui eam administrarunt, in qua accuratè hæc observata et deprehensa sunt.

"'1. Hepatis totum parenchyma arefactum, exangue, et extremis lobis ad simas partes vergentibus nigricans.

"'2. Folliculus fellis a bile vacuus, in sese considens, subater.

"'3. Lien nullo modo malè affectus.

" ' 4. In ventriculo nulla noxa, et stomachi cum pyloro integritas.

" ' 5. Intestinum colon flavum colorem contraxerat, cæteris benè habentibus.

" ' 6. Epiploum malè coloratum, supramodum extenuatum; parte aliqua ruptum, et omnis pinguidinis expers.

" ' 7. Ren uterque nullo vitio obscessus, nullo similiter vesica, nullo ureteres.

" ' 8. Cor flaccidum et velluti contabescens: omnis aquoso humore, qui pericardio contineri solet, absumpto.

" ' 9. Pulmo qui in partem sinistram thoracis incubebat, a costis illegitimis ad claviculas usque totus lateri adhærebat, ita firmiter et obstinatè, ut avelli potuerit sine dilaceratione, et discerptione cum putridine substantiæ, in qua sese prodidit vomica rupta, è qua colluvies purulenta, putrida et graveolens effluxit, cujus tanta fuit copia, ut in asperam arteriam redundarit, et præclusa respiratione præcipitis et repentini interitûs causam attulerit.

" ' 10. Alter pulmo sine adhæsu fuit, magnitudine tamen naturalem constitutionem, turgidus et distentus superans (ut et sinister superabat in substantia, insignem corruptelam præ se ferens) parte superiore putris, refertus et conspurcatus humore pituitoso, mucoso, spumoso, puri finitimo.

" ' 11. Cerebrum omni vitio carens."

" Medici qui præfuerunt,

" *Regii* Mazille. Vaterre. Alexis Gaudin. Vigor, Lefevre, Saint Pons.

" *Parisienses.* Piètre, Brigard, Lafilé et Duret.

" *Chirurgi regii qui administraverunt,* Paré, d'Ambroise, Portail, Eustache, Dioneau Dubois, Lambert et Cointenel."

It appears to us from the foregoing account, that Charles IX. died of inflammation and suppuration of the left lung.

HENRI III.

This prince died from a wound inflicted by the knife of an assassin in the hypogastrium. He lived for about eighteen hours after the injury, and suffered from frequent fits of weakness, suffocation, fever, intolerable thirst, and the greatest agony. We learn by the notes of the dissection, that a portion of the ileon was pierced through and through by the knife, and that the mesentery was also wounded in two places, with incision of its vessels. The contents of the thorax, abdomen, and head, were otherwise healthy.

HENRI IV.

The Alfred of France, Henry the Great, was stabbed in his carriage on the 4th of May, 1610; he died almost immediately, after uttering a few words and discharging blood by the mouth.

On the left side of the chest, about the level of the second and third rib, was a wound capable of admitting the finger; it ran on the pectoral muscle towards the nipple for the length of four inches, but did not penetrate the chest. Below this was another wound between the fifth and sixth rib, about two fingers' breadth, penetrating the thorax, piercing one of the lobes of the left lung, and wounding the

trunk of the pulmonary artery, a little below the left auricle. There was much blood extravasated in that side of the chest, and both lungs were filled with it.

Louis XIII.

This document is written in Latin, and grâces de Dieu such Latin, by the *doyen* or dean of the Ancient Faculty of Medicine, which from the dissection of the present King downwards, has been required to assist at the mournful ceremony.

A circumstance is related of this Louis on his death bed, which is worth transcribing. "When," says the historian, "his physician, at his earnest desire, numbered the fleeting minutes that remained, and pronounced that his life could not exceed two or three hours, he received the intelligence with resignation and even satisfaction; and looking fervently up to heaven, added, "Well! I consent with all my heart." Here is the account of the dissection.

"Postero autem die (id est 15 mensis maii 1643), hora sexta matutina defuncti regis cadaver apertum præsentibus serenissimo principe ac domino de *Nemours*, marescalco sive castrorum præfecto primario; domino de *Vitry*, domino de *Souvre*, primo cubiculario nobili sive inter nobiles, regi a cubiculis primario, medicis regis ac reginæ primariis aliis quoque medicis et chirurgis, ex *utraque* familia chirurgorum Paris....Atque in hoc regis cadavere ulcera plurima pure sania ac tabo manantia reperta sunt, variis partibus inusta, mesocolo intestinis omnibus crassioribus, sed unum colo extremo insederat, quod intestinum ipsum exederat et perforaverat, unde purulenta multa ex putrefactis prædicti mesocoli glandulis et vasis emanans et alvo inferiore, coercita et cumulata trium librarum semisestariorum parisiensium mensuram implere poterat. Deprehensus quoque in rene dextro abscessus sed exiguus, et fermè nihil faciendus. In fundo ventriculi lientre abraso vicinis grandior et alii perexigui plures, et humoris fusci, fuliginosi atque ex viridi nigritantis copia insignis, quo, aut simili omnia ad unum intestina, usque ad extremum rectè referta erant.

"Vesicula fellea hepati subjecta et imis ejusdem partibus, affixa ab humore bilioso crassiore propè vacua Hepar exsuccum planè ac retorridum....*simile* quod et duriusculi contra ventrem lanabat et solvebatur in grumos. Pulmonis sinistri lobus, pleuræ firmiori adherens et affixus ulcere maximo et profundissimo, pure plurimo confertus, et putrefactus apparuit."

Louis XIII. would thus appear to have died of phthisis pulmonalis with ulcerations of the bowels.

Louis XIV.

Sectio Cadaveris.—The whole of the left side of the body appeared gangrenous, from the extremity of the foot to the top of the head. The epidermis was generally detached from the cutis, the right side was gangrenous in several places, but less so than the left, and the belly was excessively blown up.

On opening the abdomen, the intestines, especially those on the left side, were found "altered," with some marks of inflammation; the large intestines were enormously dilated. In the left kidney was

a small stone, similar to what the King had frequently voided during life, without any evidence of pain. The liver, spleen, stomach, and bladder, were healthy.

On opening the chest, the lungs were sound, as was the heart. The extremities of the blood vessels, and some of the valves, were ossified; all the muscles of the throat were gangrenous.

On opening the head, the whole of the dura mater was found adherent to the cranium, and the pia mater had two or three *purulent spots* along the falx. The brain was otherwise healthy.

The left thigh internally was in a state of mortification, as were the muscles of the hypogastrium, and indeed this condition existed as high as the throat. The blood and lymph were *universally fluid* in the vessels.

The disease of which the King died, appears to have been an extreme degree of the gangrena senilis.

Louis XV.

No examination of the body of Louis was instituted, on the following singular, and somewhat ludicrous account:—

The superstitious fears entertained regarding small pox completely drove the attendants in the palace from the body of the dead monarch. The first gentleman of the bed chamber, more faithful or more bold than the rest, demanded of Lamartinière, then chief surgeon, why he did not proceed to examine the corpse, and added, that he *must* do so. "My Lord Duke," answered Lamartinière, with his usual *brusquerie*, "your office renders it imperative upon you to hold the head of the deceased during the process. I declare to you, that if it is opened, neither you, nor I, nor any one of those assisting, will be alive eight days afterwards." Need we add, that Monsieur le Duc said no more about the matter!

The seeds of the revolution which had been sewn in the immoralities and arbitrary acts of the preceding reign, ripened into the unequalled horrors and atrocities of that of Louis XVI. With him the guillotine took the place of the scalpel, the executioner's report was substituted for that of the Dean of the Faculty of Medicine, the remains lay rotting in a lime pit, instead of reposing amidst the dust of Charlemagne and Henri Quarte, at St. Denis. Like the body of the Roman, it *vanished in the tempest!*

Louis XVII.

The son of the last king never ascended the throne of France, but died whilst young, in the durance of the regicides and revolutionists. That no foul play, at least no overt violence, was inflicted, the account of the dissection, and the respectable names of Dumangin, Pelletan, Lassus, and Jeanroy are sufficient guaranty. The document signed by these gentlemen purports, that in pursuance to a warrant from the Committee of General Safety, they repaired to a second-floor apartment in a tower of the temple, where they found the body of the son of the deceased Louis Capet. He *appeared* to be about ten years old, and was known to two of the subscribed, who had attended him for *some days* during life. They were told that he had died at three o'clock on the preceding afternoon, and putrefaction was commencing on the belly, the scrotum, and inside of the thighs.

The whole frame bore the aspect of marasmus; the belly was tense and tympanitic. On the inside of the right knee was a tumour without change of colour of the skin, and another smaller tumour over the os radius over the left hand. The tumour of the knee contained about two ounces of greyish matter, a mixture of pus and lymph, situated between the periosteum and the muscles; that over the radius contained matter of the same kind, but more consistent.

On opening the abdomen, about a pint of yellowish and very fetid seropurulent fluid flowed out. The intestines were blown up, pale, adherent to one another, and to the walls of the abdomen, and studded with a great number of tubercles of different sizes, which contained the same description of matter as that in the internal tumours. The omentum and mesentery were filled with "lymphatic tubercles" like the former, and others were dispersed over the peritoneum. The interior of the stomach and intestines, the liver, the spleen, the pancreas, and the kidneys were sound.

The lungs adhered universally to the sides of the chest, the diaphragm, and the pericardium, but their substances was sound and only a few tubercles were found in the neighbourhood of the trachea and œsophagus. The heart and pericardium were natural. The brain and its appendages were also sound.

The reporters add that the disease of which this unfortunate young prince died was evidently chronic in its march and scrofulous in its nature. It was chronic inflammation and tubercular affection of the peritoneum.

Louis XVIII.

Sectio Cadaveris.—The bones of the anterior part of the skull were very thick, whilst those of the posterior part were thinner than usual The brain was very large, but the left side was more developed than the right.

The lungs were perfectly healthy—the heart large, flabby, and empty of blood.

The stomach was very large, distended by gas and mucous matters, and it presented small red patches on its internal surface. The intestines were sound, but a steatomatus tumour of considerable size was found in the folds of the mesentery; it had occasioned no pain during life, and its existence had not been indicated by any perceptible symptoms. The other viscera were healthy.

The superior and inferior extremities were much wasted; the left thigh shewed on its inner side the mark of an ancient blister. Both legs, from the knees to the extremity of the feet, were converted into a yellow lardaceous substance, in which the cellular, the muscular, and even the osseous structures were confounded. A knife penetrated easily into the bones themselves. The right foot and the small of the leg were sphacelated, the bones softened, and four toes had been successively detached in the progress of the gangrene. The left foot was sphacelated likewise, but only as high as the tarsus.—*Revue Medicale; Sept.* 1829.—*Med. Chir. Rev.*

Medicine.

5. *Treatment of Puerperal Fevers.*—M. Tonnellé, whose valuable observations we published in our last number, has given a report of

the remedies employed in the cure of puerperal fevers at the Maternite. Of all the remedies employed he thinks mercurial frictions among the best. He relates three cases of recovery from this plan, and other cases in which the patients convalesced, but formerly expired.

6. *Two cases of Stricture of the Large Intestines, about the point of the termination of the Sigmoid Flexure in the Rectum; with observations.* By John Burne, M. D.

Case 1.—*Scirrho-contraction of the Large Intestine.*—A gentleman, between 45 and 50 years of age, of a sanguine and very irritable temparament, and accustomed to live well and keep late hours, consulted me in February, 1826, on account of some troublesome superficial small ulcers in the mouth, which had teased him for several weeks, and had resisted the remedial means employed. Accompanying these ulcerations, was a state of heat and dryness of the mouth and pharynx, with some little trouble in deglutition. The temperature of the body was increased and the surface dry, and the pulse was accelerated and rather tight; and the first hours of the night were passed restlessly, the bowels being habitually regular. The above assemblage of signs, except the regular state of the bowels, will be recognized as the frequent precursors of stricture of the œsophagus, which I thought it my duty to intimate to the patient, that he might be alive to such admonitions.

By the use of leeches to the side of the throat, and by saline aperients, the ulcers healed, and all the other signs abated in about ten or twelve days.

In November of the same year, and in February 1827, I was again consulted by this gentleman, on account of some dyspeptic symptoms, which were soon relieved by medicine, his body being as usual, naturally and freely open every day. From this time, I saw nothing more of him for twelve months, when in February, 1828, he again applied to me, on account of his usual dyspeptic complaints, but with this difference, that his bowels, which had been exceedingly regular all his life, were now sluggish, and required the frequent use of aperient medicine. On this occasion, I prescribed the comp. rhubarb pill of the Ed. ph. which proved effectual, and together with other treatment, gave him so much relief, that again I heard nothing of him for five months, when in July, 1828, he called upon me, and complained much of flatulence, acidity, and irregularity of the bowels. He was this time also very much relieved by aperients, but the action of these medicines was not so certain as formerly; and when the bowels were not freely moved, he suffered much from fulness.

His symptoms, although relieved, returned whenever he relaxed in attention to the bowels; on which account, together with the favourable season of the year, I advised him to go to Cheltenham. The Cheltenham waters acted like a charm; the bowels emptied themselves freely every morning, and his appetite and digestion became exceedingly good, as did his spirits and general health; but immediately after he had quitted Cheltenham, the irregularity of the bowels returned, and with it all the dyspeptic troubles; and as from these

he suffered considerably, and from his age and sallow face, and obstinate complaints, there was reason to apprehend that organic disease was establishing itself, I proposed a consultation, and the friends fixed upon the late Dr. Armstrong.

The Doctor and myself examined the abdomen very minutely, as I had done before, without being able to discover any indication of disease; pressure was borne in every part, and the only uneasiness complained of, excepting griping, was a pain which sometimes shot through the upper part of the sacrum. Blood was directed to be abstracted from this part by cupping, and, in addition, an alterative aperient plan was agreed upon; but these measures not being followed by amendment, it was proposed to ascertain if any cause of obstruction existed in the rectum. On first introducing the finger into the gut, no trace of disease was discoverable, but by passing it forward as far as was practicable, I met with a hard immoveable tumour the size of an egg, and further backwards and upwards, I reached with the tip of my finger, a contraction of the bowel, having an opening not larger than a swan quill, surrounded by a hard knotty structure, which altogether exactly resembled a schirrhous os uteri.

The case was now made out, and I recalled to mind the tendency to stricture of the œsophagus, manifested upwards of two years before.

Saline aperients diluted in imitation of Cheltenham water, were now prescribed, and succeeded very well in evacuating the bowels.

A mechanical obstruction having been discovered, it was deemed proper to take the opinion of a surgeon as to the practicability of giving relief by a bougie or otherwise, and the late Mr. Wadd was called in. On his first examination, Mr. Wadd did not reach the disease, but when after several days, he satisfied himself of its existence and malignant nature, he gave it as his opinion that surgery could do nothing. Saline aperients were laid aside and castor oil substituted, which, although it excited the action of the intestinal canal, did not procure evacuations; the muscular efforts of the intestines were most violent, and gave rise to excessive spasmodic pain; the intestines could be seen and felt to move the integuments, making ineffectual attempts to force the feculent matter through the stricture, and the agony was so great during these spasms, that the patient desired death. The spasms were much allayed by large doses of laudanum, but were, nevertheless, succeeded by a sharp attack of inflammation, which did not subside for several days; and when the patient had struggled through this danger, it was only to encounter similar torture at some early period. Extreme difficulty was always found in procuring evacuations, and being driven, as we were, to extremity, further surgical advice was desired, in order to consider, a second time, the practicability of facilitating the evacuation of the colon. With this view, Mr. Copeland, Mr. Brodie, and Sir Astley Cooper were consulted in succession, and all concurred with Mr. Wadd on the hopelessness of the case, and the inexpediency of surgical interference. Mr. Brodie and Sir Astley Cooper did make some attempts to pass a bougie, but did not feel justified in persevering, lest they should rupture the intestine.

Injections and saline aperients were had recourse to unremittingly with partial success; the violent spasms returned frequently, and the most severe were followed by inflammation. The violent contractions of the intestine constituting the spasms, were always more or less relieved by laudanum; but opium, in this form, made the mouth and tongue dry, and was followed by head-ache and languor. From these ill effects, the liquor opii sedativus was free, but the most efficacious preparation was the acetate of morphium in the form of a pill, and in the dose of from $\frac{1}{3}$ to the $\frac{1}{2}$ of a grain, repeated as circumstances required. The last preparation was found a most valuable medicine, and never failed to mitigate the excruciating pain and other sufferings of the patient's last days.

In this way the patient lived on, passing scarcely any feculent matter, and suffering pain and inflammation by turns till the 20th of February, 1829, on which day the spasms returned violently about six o'clock in the morning, and soon after seven the patient felt a sudden and dreadful pain dart from the left side across the belly above the navel, which he compared to the discharge of a pistol. Quickly afterwards the belly became tense, the respiration difficult, and the powers of life depressed. It at once occurred to me that the colon had given way above the stricture, which I stated to the friends, and prepared them to expect the rapid dissolution which took place in the course of eleven hours.

Sectio cadaveris.—The abdomen being opened, a large quantity of feculent matter, of soft consistence, was seen lying among the intestines and upon the mesentery, and was found to proceed from a transverse rupture of the colon, about an inch long, at the spot from whence the violent pain darted. The whole of the colon was filled with feculent matter of the same kind; the sigmoid flexure was seen stretching across the brim of the pelvis to the right side, when it turned quickly upon itself and terminated in the diseased portion, which was situated directly under the promontory of the sacrum. The diseased part was about the size of an egg, and consisted of a scirrhous degeneration of those structures of the intestines situated between the mucous and peritoneal coats. The aperture of communication between the colon and the rectum through the diseased part scarcely equalled the size of a swan quill, and had a curved direction, which proved the correctness of the opinion, that force used in attempts to pass a bougie would be likely to rupture the bowel. The lower opening looked backwards and downwards to the hollow of the sacrum, and its margin was knotted and irregular as has been described. There were adhesions of the sigmoid flexure to the small intestines, and the scirrhous mass was adherent to the sacrum.

Case II.—Annular Contraction of the large Intestine.—Of the second case, which was an annular stricture, I regret that I am only able to present a few particulars, not having the means of obtaining the early history. It occurred in a female pauper in Covent Garden workhouse, who had been admitted three weeks before her death, in a state of extreme emaciation, and with a remarkably distended flatulent abdomen; she passed scarcely any feculent matter during the

three weeks, and was constantly vomiting, so that nothing except brandy and water and similar beverage, could in any way be retained on the stomach.

Sectio cadaveris.—Before the abdomen was opened, traces of the convolutions of the intestines were evident, by corresponding elevations of the integuments: these convolutions were found to be distended with Gas, and the colon was full throughout of soft feculent matter; and at the termination of the sigmoid flexure in the rectum, was a circular contraction of the bowl forming the annual stricture. There was no thickening or disease about the part, and the contraction had the appearance of the bowel tied with a ligature, except that there were neither folds nor puckering.

Observations.—The ulcerations, the heat of the mouth and trouble in deglutition, detailed in the history of the first case, shewed a condition of constitution prone to morbid action, which having first fixed on a part of the digestive canal, determined that canal to be the eventual seat of disease.

A very prominent circumstance in the dissection of both these cases, was the soft consistence of the feculent matter, particularly when it is rememembered that, from the slow acccumulation, the feculent matter had been lying in the colon for several weeks in the first case, and in all probability for several months in the second. This is the more curious, because in ordinary constipation of the bowels, the feculent matter becomes hard and knotty in eight or forty hours, sometimes in twenty-four, and continues so till evacuated; hence it occurred to me that the soft consistence above alluded to, was probably one of those remarkable provisions which nature is often observed to make against disease, and if this is the case, the same soft condition of the retained fæces may be expected in all cases of stricture. Experience, however, does not afford me a sufficient authority of facts to come safely to a conclusion on this point, but the probability which I have expressed is much strengthened by two cases, one of which occurred in private practice, and was mentioned to me by Mr. ———, a pupil of Guy's Hospital, who witnessed the dissection; and the other in a patient in the same hospital, in the both of which the accumulated fæces were in the same soft state. I do not know that this circumstance has been hitherto noticed, nor can I find in the works upon stricture of the rectum, any evidence that bears satisfactorily on the question.

Did the fæces undergo the same change as in ordinary cases of constipation, there would be no possibilty of evacuating them through a stricture, and the irritations and accumulations would be quickly and uniformly fatal; whereas the reverse is a matter of daily observation. The sympathies by which this usual change in the fæces retained in the colon is prevented, are the more remarkable, because they influence only the part of the large intestines above the stricture, for the soft feculent matter which gradually oozes through the contractions into the gut below, very soon becomes solid and figured, as I had an opportunity of witnessing in the first case, in which it was not uncommon for solid figured peices to come away, al-

though all above the stricture was quite soft, as seen by dissection. This last fact is also mentioned by Mr. White.*

The soft feculent matter was also of a most healthy character, being homogeneous, and containing an abundance of good bile; from which it may be concluded that digestion was perfect, notwithstanding many of the symptoms said to be indicative of indigestion were urgent, as flatulence, fullness, acidity, and eructations; whence it is apparent that the sufferings usually referred to the stomach, may arise from another cause than disorder of that organ.

In both instances the patients died from the mechanical obstruction; in the one the disease was not malignant, in the other the malignancy had not come into operation, the patient having died before the destructive effects of cancer had taken place, as ulcerations sloughing, discharge, and sympathetic irritations and fever; the subject for consideration, therefore, was the treatment of the obstruction; the observations on which refer only to the first case.

The eminent surgeons consulted were unanimous as to the inexpediency of attempts to force a passage by the bougie, owing to the situation as well as to the malignancy of the disease; in which opinion all must concur, who have witnessed the torture that attends the use of a bougie in scirrhous disease of the rectum, and which is not recompensed by any benefit; this stricture not admitting of dilatation, the effect of the bougie is to bruise and hasten ulceration, or increase it if present. Although the most desirable means by way of operation, was the introduction of a hollow tube through the stricture to facilitate the passage of injections, yet this was found impracticable, the distance of the strictured part from the anus being too great to admit of the finger as a guide, and without this, the capacious and yielding rectum left no chance of effecting the passage of such an instrument. In this dilemma, and in my frequent consultations with Mr. Wadd, I suggested for discussion the propriety of making an artificial anus, which although he discouraged, I cannot but think might be attempted under favourable circumstances as regards the operation, and urgent circumstances as regards the prolongation of the patient's life.

It may be said, that between the two evils of a stricture and an artificial anus, it is difficult to choose, to which I assent generally; but when the patient's life must fall a sacrifice to the mechanical obstruction, and when the prolonging his life for a few months only is of great consequence to his family, the suggestion is worthy the consideration of surgeons; for in the first case, the malignancy of the disease would not have destroyed life for months in all probability; and in the second case, there being simply an annular contraction, life would have been preserved by an artificial anus, which would have permitted the regular evacuation of the bowels. To render the operation justifiable, the colon should be empty, and the means of attaining this end are the object of the medical treatment of stricture generally.

All are agreed that the aperients which must be necessarily given, should be of a mild character, and the recommendations of

* Observations on Stricture of the Rectum, 3d edition, page 37.

authors who have treated on the subject, are limited to castor oil, senna, and sulphur; thus leaving unnoticed saline aperients, which as will presently be seen, are the most efficacious. These medicines, castor oil, senna and sulphur, although desirable from their mild qualities, are very uncertain and ineffectual in cases of stricture; it is true they promote a moderate, and so far, a proper peristalic action of the intestines, but as they do not render the fæces watery, this action is not followed by sufficient evacuation, and therefore not of sufficient relief. Sulphur is objectionable on other grounds; it has been known to form into balls when taken in large doses, and in this way may add to the mischief. The same objection applies also to magnesia, which has been found accumulated in a large quantity above the stricture.

While the subject of the first case was at Cheltenham and taking the waters, the evacuations were so thin that the colon emptied itself effectually every day, and under these favourable circumstances the patient lost all complaint and improved surprisingly. This first suggested to me the use of saline aperients, which were given in the form of Seidlitz powders and of sulphate of magnesia, in a very diluted solution; and they were found to operate much more pleasantly and efficiently than other aperients. These, however, and the Cheltenham water itself drunk in town, were by no means so certain in their operation as the waters drunk at Cheltenham, owing, no doubt, to the want of auxiliary circumstances which are known to favour the operation of mineral waters, as change of scene, absence from the fatigue and anxiety of business, early rising, and exercise. On one occasion, when castor oil was substituted for salts, its effect was exceedingly injurious; it duly excited the action of the intestines, but as it did not render the fæces watery, they could not pass the stricture freely, and the consequence was violent spasmosdic pain and vomiting.

Drastic and heating purgatives are very properly objected to in all cases of stricture; nevertheless, the distress of the patient on one occasion was so great for the want of evacuations, that a person of very great practical attainments was induced to propose the administrations of croton oil, the propriety of which was much discussed, on account of its irritating properties and violent action; but its employment being much urged by the proposer on the score of its unrivalled purgative power in other cases, it was exhibited in the dose of one drop, which was repeated in the space of half an hour. The effect, as was anticipated, was nearly fatal; it produced most violent contractions of the intestines, and spasmodic pains, with a distressing heat along the whole alimentary canal, and constant and urgent, but ineffectual efforts, to go to stool, the scanty evacuation consisting of nothing more than a bloody secretion from the rectum, the product of excessive irritation.* The violent action of the intestines led one to

* As from the vast accumulation of feculent matter found on dissection, it was impossible that any particle of the croton oil could have reached the rectum, the excessive irritation must have been the result of sympathy, which may go far to explain the phenomenon of the inflammation of the rectum which occurs in cases of poisoning from arsenic.

fear a rupture of the colon, of which the sequel of the case proved there was great danger.

In the medical treatment of stricture of the large intestines, then, saline aperients are the best and most efficacious; and where the disease does not admit of relief by surgical interference, the physician would best consult the interest of his patient, by urging him to reside at Cheltenham or Leamington, and by the aid of warm bathing and of drinking the waters regularly, to avail himself of the means which will most certainly mitigate his sufferings and prolong his life.—*Midland Medical Reporter.*

7. *Observations on the Treatment of Delirium Tremens, and on the use of the Warm Bath in that disease.*—The means commonly employed in the treatment of temulence and delirium from intemperance, were uniformly successful in the Baltimore Alms-house Infirmary, in a multitude of cases, for two years antecedent to the spring of the present year, 1829. Those means were emetics—afterwards mild cathartics, (Epsom salts and magnesia,) in cases complicated with gastric and biliary derangements, or much febrile disorder; the evacuants followed promptly by anodynes, graduated in force or repetition, by the amount or persistance of nervous disturbance. In cases of the disorder already arrived at the stage of per vigilant delirium, miscalled 'mania a potu,' (as is correctly remarked by Dr. Coates,) if higher vascular tumult attended, we here also employed an emetic, afterwards a nauseant, tartar solution—as a sedative, and concurrently with the effects of the latter, opiates, in doses designed to enforce sleep, made full, and renewed so frequently as to have the effect of each successive dose to come in aid of the impression of those preceding.

"The opiate employed was Dover's powder, zij. grs.—or pure opium, one or two grains—or laudanum, forty drops—or black drop, x. gtt.; the interval of exhibition usually two hours, but regulated by the symptoms. Where sensorial and nervous irritation were greatly exalted, attended by deficient reaction, and signs of general atony, small, quick pulse—cold surface—livid complexion, &c. all evacuants and direct sedatives were omitted, and the patient entered at once upon the use of opiates. But here the doses were made smaller than in those cases where the sum of vital power was less obviously deficient or expended, and the force of opiate was graduated as nearly as possible to the torpor or exhaustion of the function of general life. Here too cordials of the vinous or spiritous class were allowed, concurrently with the employment of the opiates; and it was to this stage of temulence that spirits and stimulant drinks of all kinds was restricted. It was only in cases where the tumultuous excitation of the cerebral and nervous functions was found associated with cold congestive torpor of the distributive system, or with a low, irritative grade of excitement, tending to rapid collapse, that we deemed it either medically or morally right, to renew even the temperate use of the primary agents of the disorder.

" In emetics, then, nauseants, anodynes, and cordials, regulated or combined in their exhibition by the character of cases falling under treatment, we had for a long time found efficient and unfailing means of controlling the various forms of temulence and delirium a potu. In no case of temulence advanced to the stage of delirious excitation, did we find emetics alone induce sufficient restraint of the cerebral and nervous derangements, to allow perfect tranquillity of mind, or sound sleep, Vomiting often took off too much of the hallucination of the patient, and substituted some intelligence for previous total folly; but there was a constant tendency to relapse into mental error, and we found it better to confirm the advantage gained from the emetic, by calling in the aid of opiates afterwards, rather than await the return of the delirious paroxysms, and trust to subdue them by repeated emetics. The possible consequences of vomiting as a debilitating mean, suggests a caution in the repetition of emetics in temulent cases : and confidence in their permanent or final efficacy in those cases, is abated by the fact, that it is not uncommon to find some of the worst forms of delirium tremens, complicated with, and aggravating under, almost constant spontaneous vomiting.

" In cases of temulence with strong vascular action, which vomiting did not sufficiently calm, or where in such cases emesis was deemed improper, nauseants were employed in the form of drinks, charged with medicines of that class, sometimes tartar, or ipecacuan, or zinc. This given for some hours, seemed often to prepare the nervous impression by opiates, and we had frequent reason to infer, that after this mode of previous treatment, we succeeded in inducing quiet and sleep, with smaller and fewer doses of opiates, than in cases where such preparation was omitted or deemed unsuitable.

" The opiate course of treatment did not always succeed without difficulty, and sometimes not without an auxiliary of the sedative class. Cases of vigilant delirium which had resisted opiates singly, in full doses, repeated two, three, or four times, at intervals of one to two hours, were sometimes quieted by a liberal portion, either to ten grains, of camphor, added to the next opiate dose. In a few instances, where opium alone, or in combination with camphor, had been used freely and diligently, without producing either quiet or sleep, the addition of musk to the opiate has seemed suddenly to suspend the general temulent irritation, and sound sleep has soon followed. We have tried various modes of exhibiting the opiate in temulence, hoping to find some rule for its use, combining the greatest efficiency with the smallest quantity of the agent. We have administered it in half-grain doses, repeating every thirty minutes, and in doses of one grain every hour—again beginning with half a grain, we have doubled the dose at every exhibition, in the ratio of compound increase, as far as we dare carry it on this rule. Each of those plans has succeeded; but my experience leads me decidedly to prefer half-grain doses of opium, or an equivalent in laudanum, repeated every half hour. The plan of doubling the

dose at every exhibition, with the view of multiplying equally or more, the sum of quieting influence, often disappointed my expectations, and it was frequently necessary to arrest the experiment, and retrograde in the dose toward the first quantum

"The form of opiate employed in temulence seems sometimes to influence the result, as well as the amount. The pulv. Doveri answered well in habits giving an inflammatory character to the grade of excitement associated with temulence, but from its tendency to depress the tone of stomach, impair the appetite, and occasionally to vomit, as often as repeated, it sometimes became necessary to withdraw it before sufficient opiate impression had been made. Even where its depressing or disturbing effect upon the stomach did not interfere with its continuance, it seemed to conduce to sleep less than equal quantum of good opium or laudanum. Pure, dry opium, (the older the better, if well kept,) was long esteemed by us our surest antidote. In this disorder, however, experience taught us, that in obstinate cases, varying the form of the agent was sometimes productive of benefit. In one case, where opium of the best quality had been exhibited to the amount of sixteen grains in twelve hours, without the smallest indication of submission to its influence, fifteen drops of black drop, at one dose, was followed by sleep in thirty minutes, which lasted, with a single interruption of a few moments, fourteen hours.

The web of the black spider has received commendation from many respectable sources, as a sedative angent, capable of calming with peculiar ease and certainty, morbid excitability of the cerebral and nervous systems. On the credit of those qualities it has been employed in the various forms of temulence, and not without a share of reputed success, sufficient to entitle it to consideration in that state of constitutional irritation."—*American Journal of Sciences.*

8. *Endermic medication. Cure of Intermittents, by the application of quinia to a blistered surface.*—Dr. Gerhard, relates the result of his observation in 200 cases, in which he tried endermic medication. He does not state the nature of these cases, but relates five of intermittents in which a blister four inches square was applied to the epigastrium, and dressed with four grains quroua and strach sprinkled on the surface four times a day. Some of these cases were obstinate and were cured in a few days by this methed. He has written an interesting paper on the value of this method in the *North American Med. and Sur. Journ, April.*

SURGERY.

9. *Fractured Neck of the Scapula.*—John Harrison, æt. 85, an active old man, was admitted on the 13th September, 1828, into the Norwich Hospital, under the care of Mr. Cross. On examining the seat of injury there was much the appearance of a dislocation of the left shoulder; viz. loss of its roundness from sinking of the deltoid muscle, and the head of the humerus felt in the axilla. He stated that he met with the accident from a fall in the street a fortnight before. As far as could be ascertained, the blow was received upon

the shoulder, and the arm was not extended at the time, as it usually is when a dislocation has taken place. He had gone about without much pain, and had sought no advice respecting his case till a day or two ago, which he was induced to do at that time, because the arm and hand had become much swollen and œdematous. By raising the shoulder, the bone was moved into its place, but it sunk again as soon as the support was removed. This explained the nature of the case, and in corroboration of its being a fracture, a crepitus was felt by placing the hand on the shoulder and raising the arm. The coracoid process also fell, and became imperceptible to the finger, when the shoulder was allowed to sink. A roller having been applied to the forearm and arm, the fractured bone was reduced by raising the humerus, whilst parallel to the chest, and drawing its head outwards. It was maintained in this position by a conical pad, the base of which was placed in the axilla, and fixed in that situation by tapes crossing on the shoulder, and tied on the opposite side. A roller round the body and arm kept the elbow applied to the chest, so as to throw the head of the humerus outwards.

Oct. 30th.—The bandages have been renewed every week or ten days, and the patient has been walking about well during the whole time.

Nov. 6th.—The limb has been supported with the sub-axillary pad and bandages up to this time, and on removing them to-day, the shoulder is found to have a good rounded shape, and is firm, as if union had taken place, but the apparatus is to be applied for another week.

14th.—The pad and bandages were removed to-day, and the shoulder is perfectly rounded and well shaped. The limb bears to be moved freely; and as there is no doubt of firm union having taken place, the man is discharged. Two months afterwards, Mr. Cross stated that he saw him enjoying full and free motion of the injured shoulder.

Two days previously to admission, the patient applied to a surgeon for relief, who, after a slight examination, sent him to the hospital under an idea that he had met with a dislocation of the humerus into the axilla. The similarity, in appearance, which the two accidents usually present, readily leads to the occurrence of such a mistake, which, however, may easily be obviated by a strict and minute examination, and by attending to the circumstances pointed out in the relation of this case, viz. the ease with which the parts are brought to their proper position; the returning of the deformity as soon as the limb is left unsupported: and the falling of the coracoid process along with the limb, so as not to be felt in its usual situation.—*Med. Gazette.*

10. ***Elephantiasis of the Scrotum.***—"When the scrotum is the part affected, I apprehend that, after a certain time, the lymphatic vessels become so much enlarged and relaxed, that they continue constantly to pour out their contents, so that the tumour increases independently of the febrile attacks. Where the penis is affected as well as the scrotum, those parts enlarge together in an equal ratio; but if the

scrotum only be affected, then the penis, as the scrotum enlarges, becomes drawn in, so as ultimately to disappear and become completely imbedded in the tumour; the prepuce being distended elongates, and opens by a naval-like aperture on some part of the anterior surface, or even at the very end of the tumour. There is no limit to the magnitude which tumours of this kind may acquire. The testicles at first may be plainly felt in their natural situation in the centre of the swelling, but in a more advanced stage they cannot be discovered in consequence of the great thickness of the intervening integuments. For the most part they are healthy; though they may be simultaneously affected with any other disease to which they are subject, without reference to this. Hydrocele of one or both tunicæ vaginales is a very frequent occurrence, and the disease may be complicated with hernia.

"There are many remarkable cases of this disease to be found in various authors. Dionis relates a case, the history of which, together with a drawing, were transmitted to him from Pondicherry in 1710, and this was, for a long period, I believe, the only case on record, but since that time almost innumerable examples of the same affection have been published. The tumour, of which Dionis makes mention, occurred in a negro, and is represented as being uneven, and hard as a stone; it was one foot three inches in length, the same in breadth at the lower part, and its circumference was three feet six inches; the weight, as well as could be judged, was sixty-three pounds. The scrotum of the negro, of whom Cheselden has given a plate in the fourth edition of his anatomy, was of the same dimensions as the above. The tumour, which Walther dissected after the death of the patient, descended to the knees; the skin of the scrotum was was three times thicker than natural, and the cellular membrane, which surrounds and lies between the testicles, was distended by a viscous fluid, on which the weight of the tumour, which was nearly forty pounds, principally depended. Morgagni mentions two cases of tumours, which he calls sarcoceles, but which were evidently of this nature; one of them was very similar to the case of Walther, a print of which was sent to him from Syracuse, and its authenticity was confirmed by the public authorities of that city. The other was seen by Morgagni himself at Padua, in the year 1730, in a man who passed through that town on his return to Este, the place of his residence; this tumour was the size of two men's heads united together, it was unattended with pain, and had been many years in attaining that magnitude.

"The person who had the tumour of which Méhéede la Touche has given a description was seventy years of age; it was one foot six inches in length, and three feet one inch in circumference; the penis was imbedded in the tumour. There is a case, however, of which Chopart speaks, more remarkable than any of the foregoing, both with regard to its size and weight. The individual was presented to the academy of surgery in the year 1768; he was a negro from the coast of Guinea, aged 50 years, robust, and five feet five inches in height; he had lately arrived from Martinique, where he

had lived for twenty-two years. The scrotum reached to the ancles, and was two feet two inches in circumference at the upper part, and three feet two inches at the lower; its length was two feet and a half, and its weight forty pounds. The man was placed in the Bicêtre amongst the invalid pensioners, and died soon after of a fever. Chopart was of opinion that the extirpation or amputation of this monstrous sarcocele would only have tended to hasten the negro's death, and informs us that an operation of this kind was performed unsuccessfully by M. Raymondon, on a man forty-two years of age, who had a similar kind of tumour of the scrotum, but much less, being twenty-three inches in length, and thirty-two in circumference in the largest part; it had attained this size in thirteen years, and caused neither pain nor inconvenience except from its weight. M. Raymondon, imagining that the tumour contained an effused fluid, made a deep puncture with a trocar, but without letting out any fluid. A second puncture was made with the same result; the next day, with the advice and in the presence of several surgeons, he amputated this tumour near its summit, preserving the penis and right testicle which was sound, but the left being diseased was removed. The patient died six hours after the operation. The tumour weighed twenty-nine pounds.

"Imbert de Lonnes removed a tumour of this kind, weighing thirty pounds, from the celebrated Charles de la Croix, formerly minister for foreign affairs in France; it had existed fourteen years, and the operation, which lasted two hours and a half, was successful, but is not otherwise described.

"Baron Larrey describes this disease under the name of Sarcocele and says that all the persons he saw with it were, at the same time, more or less affected with elephantiasis. He relates the case of an agricultural labourer, who came from Upper Egypt, whose scrotum was estimated to weigh fifty pounds; and states, that in different countries in Egypt he saw ten or twelve others nearly as large. An old man of sixty, an inhabitant of Cairo, sent for the Baron, to consult him respecting an enormous sarcocele, reaching to the lower part of the leg, which he had had for twenty years, and which from its size compelled him to keep in bed. His anxiety to be relieved from so frightful an infirmity had induced him to take the advice of the medical men of the country, who had tried without effect various measures, as caustics, incisions, powerful discutients. He next consulted an English physician who was travelling in Egypt, and in the hope of obtaining a perfect cure he consented to allow him to apply the actual cautery; but the repeated application of this agent produced no effect, and the tumour continued in the same state. Some years afterwards he applied to a Spanish physician, who was also on his travels; he passed a sharp instrument deep in the tumour, under the supposition of its being a hydro-sarcocele, but nothing was discharged but a small quantity of blood. The sarcocele, far from yielding to these measures, increased.

"The propriety of removing the diseased parts having been determined upon at a consultation, the following day was appointed for

performing the operation; but the Baron received a sudden order to follow the army, which had commenced its march towards Alexandria, and was thus prevented from carrying his design into execution. He, however, did remove from a cook, in a convent of Capuchins at Grand Cairo, a sarcocele of an oblong form, weighing about three pounds.

"The following case is related by Dr. Hendy, of Barbadoes;—A black man, ætat. 50, formerly healthy, about four years ago was first seized with the glandular disease, attended with a very considerable inflammation and enlargement of the scrotum. From his own account, as well as from the symptoms, the local affection seemed to have been entirely confined to the scrotum and cellular substance, for he never had any symptoms that argued a diseased state of the testicles. On each attack, the lymphatic glands, both in the thigh and groin, were enlarged and painful for several hours before the commencement of fever, which was ushered in with the usual symptoms of coldness, shivering, &c. In about thirty hours the fever went off with profuse sweating, but the inflammation of the scrotum, which came on with the hot fit, continued for several days, and always left behind it a proportional enlargement. For the first two years the attacks were frequent, and the increase of the scrotum consequently was very rapid; afterwards they were less frequent, but the enlargement from each was more considerable; and, from its enormous weight, he was sensible of a gradual increase even during the intervals. The surface of the immense mass was very rough and uneven, and felt to the touch as if it contained a half coagulated fluid. No part of the penis could be discovered, and the urine was voided at an opening towards the inferior and anterior part of the tumour. From an accurate admeasurement its dimensions were found to be, from the pubes to the opening above mentioned twenty inches; its whole length twenty-four inches, and its circumference six feet. The left leg was also enlarged by the disease, but in no uncommon degree. A mortification of the part terminated the miserable existence of this poor creature; and Dr. Hendy states that five other cases had come within his knowledge, where the scrotum being much enlarged, had sloughed, leaving the testicles entirely denuded.

"In the case of Paunchoo, related by Mr. Corse, in the second volume of the Transactions of a Society for the Improvement of Medical and Chirurgical Knowledge, it would appear that the tumour had formed without being preceded by febrile attacks. He states, that the patient first perceived a slight pain at the raphé, in the lower part of the scrotum, which gradually increased, and, in four days a swelling came on, which was confined to the skin of the scrotum. The pain abated, but the swelling continued to increase, and in the course of five years the penis and scrotum were blended in one mass. The length of the tumour was twenty-five inches; the circumference, at the middle thirty-eight inches, at the root fourteen, and at the protuberance near the end twenty inches.

"Never having seen nor heard of any case similar to this, Mr.

Corse was at a loss to know what name was applicable to the disorder, and; doubtful of the propriety of attempting any operation for his relief, he carried him to Calcutta in January, 1791, and got him admitted into the general hospital. It being agreed, on a consultation, that nothing could be done for him, he soon returned to his place of residence, and Mr. Corse tried various medicines, but without effect.

" In the Philosophical Transactions mention is made of a case on the coast of Africa, in which the scrotum was so large as to prevent the individual leaving his bed.

" Mr. Wadd relates a case of this disease (of which he gives a drawing) affecting the integuments of the penis The man was a native of Africa, twenty-five years of age, and being useless to his master, was sent from the West Indies to England for the purpose of being disencumbered of his burthen. Amputation of the diseased prepuce was proposed, but the operation was delayed from the novelty and curiosity of the case, and the vessel leaving the port of London sooner than was expected, the patient returned with his disease. The length of the penis was fourteen inches, and the circumference twelve inches and a half.

" Soon after my return to the island of St Christopher, having finished my medical education, amongst many other estates I was appointed to the medical care of one belonging to Mr. Bourryau, and there I found a negro named Montserrat, who, though young and otherwise healthy, was rendered useless to his owner and burthensome to himself, from an enormous enlargement of the scrotum, The disease prevented him from walking further than a few yards, and this was accomplished with great difficulty; he was thus almost entirely confined to his hut. The tumour was somewhat of an oval form; its neck extended from the symphysis pubis to the anus, and the body of the tumour projecting a considerable distance both before and behind, descended to within an inch of the ground, dragging down the abdominal integuments: it measured in length twenty-nine inches, and in circumference forty-three; the spermatic cords could be distinctly felt, somewhat enlarged, but without hardness or inequality. The testicles could not be discerned. The penis was deeply imbedded in the tumour, and the urine was discharged at a navel-like orifice, situated (when the patient was standing) nine inches below the symphysis pubis. On stretching this passage laterally, the extremity of the penis could be seen at the distance of three or four inches up this canal, which was formed by an elongation of the prepuce. The surface of the tumour was equal and smooth; the superficial veins were much enlarged; the superior part was thinly interspersed with hair, and the inferior was at times scaly. The integuments felt extremely thickened, but were not of equal firmness all over, and they retained for a time the impression of the finger. The man's appetite and general health were good. He stated that when in bed, and under the influence of lascivious ideas, he was subject to erections of the penis, at which times this member would project at the orifice above mentioned (which from his hori-

zontal position approached, of course, much nearer to the pubes), but said that they were never attended with seminal emissions.

" After a careful examination, I informed him that I considered the extirpation of the tumour practicable, though the operation would necessarily be attended with extreme hazard. He replied that life was quite burthensome to him, that he would rather die than remain longer in his present condition, and that he would readily submit to any operation, how great soever the risk. My friends, Drs. William and Thomas Swanston, having done me the favour to visit the man, and concurring with me as to the practicability of its removal, we decided on the operation; but it being then the hurricane season of the year, a period always unfavourable for the performance of surgical operations, he was recommended to wait until the weather became more settled. Finding there was a possibility of being relieved of his incumbrance, he became so importunate with me to have the operation done immediately, that, with a view to quiet him, a large blister was applied on each side of the scrotum, and kept open for some time by means of the unguentum sabinæ. A very deep seton was afterwards made on each side; but, notwithstanding these discharged freely for nearly six weeks, no diminution of bulk was observable.

" On the 5th of December, 1813, I performed the operation, assisted by my friends, Drs. Swanston and Dr. James T. Caines, in the following manner;—the patient being placed upon a table on his back, with his breech towards the edge, and being properly secured and supported, an incision was made, commencing at the symphysis pubis and extending in a line towards the opening of the prepuce; the dorsum of the penis was thus exposed, and its point being held between the finger and thumb of an assistant, the prepuce was cut across and the penis dissected out. A flexible catheter was then introduced into the bladder; all our previous attempts to accomplish this object having failed, in consequence of the retrocession of the penis; the spermatic cords, which were at a great depth, were next cut down upon, a temporary ligature passed around each by means of an aneurism needle, and they were then divided. The incision being carried backwards on each side to the verge of the anus, the operation was finished by detaching the tumour from its connexions with the perineal fascia and adjacent parts. The temporary ligatures placed on the cords were then removed, and the arteries secured separately. The integuments were brought together and retained by a few sutures and slips of adhesive plaster, and were sufficient to cover the perineum and to surround the root of the penis, so that this member was the only part which remained uncovered by integuments. The hæmorrhage during the operation was less than we could have expected, considering the magnitude of the tumour.

" The man recovered without experiencing an unpleasant symptom. The wounds in the groins and in the perineum were united at the end of three weeks, but the penis was not completely cicatrized before the beginning of April.

" On examination of the tumour after its removal, the testicles were found to occupy their natural position. The left was about the

size of a hen's egg; the tunica vaginalis of the right contained three pints of fluid, and the testicle was considerably diminished. The layers of membrane investing the spermatic cords were filled with fluid and gelatinous matter. The substance of the scrotum at the upper part was about two inches, but nearer the base it increased to four and a half inches in thickness, and much fluid oozed from its substance; its cavity was filled with a gelatinous matter and fluid, which formed a jelly on cooling. The tumour weighed seventy pounds avoirdupois.

"I transmitted the history of this case to my much-respected friend and preceptor, Mr. Thomas Blizard, by whom it was read to the Medico-Chirurgical Society on the 20th December, 1814; and it is published in the sixth volume of their Transactions.

"A few months after the foregoing operation, my friend Dr. Caines performed one of a similar kind on an elderly negro, named Castello, at which I was present. In this case, there was a hernia on the right side, the sac of which adhered almost universally to the adjoining parts, and to separate this required a tedious dissection. This being accomplished, and the hernia with its sac returned into the abdominal cavity, the operation was conducted as in the former case. The tumour weighed fifty pounds. On the 10th July, 1816, I assisted the same gentleman in a similar operation, and again in 1820. In the former case the scrotum was nearly as large as Castello's, and there was a hydrocele on each side. All the patients recovered.

"On the 26th June, 1816, I operated on three men with elephantiasis of the scrotum. On the 9th August, 1817, I removed the scrotum of a negro; the right testicle was enlarged to the size of a man's fist and indurated, and, on dividing it, I found a portion of the centre ossified. On the 21st June, 1819, I performed a similar operation. All the patients recovered.

"But the most remarkable tumour of this description, which I have either seen or heard of, was attached to a man belonging to the estate of the Rev. Mr. Verchild; and from this the late Mr. Wilkes endeavoured to separate the unfortunate possessor on the 6th February, 1815. I was accidently prevented from being present at this operation, but the following particulars were communicated to me by Mr. Wilkes. The length of the tumour was two feet five inches, its circumference five feet ten inches; and its weight one hundred and sixty-five pounds avoirdupois. The operation occupied nearly eight hours, and the man died apparently from exhaustion towards its conclusion; a copious venous hæmorrhage followed each stroke of the knife; the lymphatic vessels were very much enlarged and were apparent, traversing the tumour. My friend Mr. Jordan, of Weymouth-street, at that time stationed in St. Christopher, as surgeon to the forces, was present, as were also Messrs. Richards and Waterson of the 15th regiment, and Dr. Clifton, a practitioner of the island. The operation was likewise viewed by several gentlemen not of the profession, and the tumour was seen by the Rev. Mr. Verchild and Mr. Goldfrap.

" I once assisted at an operation of this kind which terminated unfavourably. The tumour in this case measured in length twenty inches, and in circumference forty-four. The patient was a young man, and, although anxious for the removal of the tumour, yet he was under a state of great alarm, as was evident both from his countenance and manner. Notwithstanding the operation was performed with great dexterity and celerity, not having occupied half an hour, and the hæmorrhage was very trifling, yet the poor fellow most unexpectedly died on the table,

" Whilst these swellings are yet of moderate size the operation is comparatively easy; but when they have attained a magnitude approaching to that of my first case, then it becomes, probably, the most laborious piece of dissection that occurs in the practice of surgery."—*Titley on Diseases of the Male Genitals.*

MIDWIFERY.

11. *Case of Gastro-hysterotomy (Cæsarean Section) in case of seven months' pregnancy, in which labour commenced, ceased, purulent discharge from vagina, passage of arm, forearm, and carpal bones—operation performed nearly nine months after the cessation of parturient action.*—Dr. Toy, of Virginia, relates the very interesting case, whose title is now given, the facts of which are, as follow. The lady, who was the subject of this case was seized with apparent labour, Nov. 1, 1828, the os tincæ dilated membranes burst and two or three gallons of water, escaped. The next, she complained of pain in the abdomen which was tumid, tense and hot, pulse, small and quick, great restlessness and anxiety, os tincæ soft and dilated and the external parts swollen and inflamed. Fomentations, secale cornutum, febrifuge medicines. No part of the fœtus was felt. The patient did not expect to be confined until Dec. 10th. Face, feet and legs were swollen, and considerable fever present. 12th. An offensive discharge from vagina "resembling matter from an ulcer." 18th. All unpleasant symptoms abated except swelling and discharge. The latter continued till January, and the bones had passed three weeks previously. Tonics were employed. The first week in April a small discoloured spot appeared above the umbilicus on the right side, which was painful. May 7th, There was an aperture through the spot, through which a small probe could be introduced. The discharge from the vagina had ceased about the end of Jan., but it was now slight from the abdomen. An operation was proposed, but refused; tonics and palliatives employed. On the 12th August, the operation was performed, and we shall let the narrator describe it in his own words.

" We proceeded to remove the bones on the 12th of August, her husband, an old woman, Dr. Banks, and myself being the only persons present. The aperture had increased in size considerably, being about two lines in diameter at the surface. I made the first incision about four inches long, in the direction of the linea alba, commencing two inches above the umbilicus, and one inch to the right of it. This was continued through the parietes of the abdomen and uterus into

the cavity of the latter, the incision I crossed in its centre, by another at right angles with it of equal length and depth. The top of the cranium was found presenting, the bones appearing to be firmly united.

"I attempted to introduce a pair of small obstetrical forceps, with the view of removing the head at once This, however, was found to be impracticable without using more force than I judged prudent, as the uterus was firmly and rigidly contracted around it. I used therefore, a pair of strong forceps from a pocket case, and with these succeeded in detaching and removing the bones of the cranium separately and successively; all the other bones of the fœtus remaining. We found that adhesive inflammation had united the uterus to the parietes of the abdomen for some distance around the opening, the diameter of the circle of adhesion was more than an inch. The operation occupied about fifteen minutes. After repeatedly washing the part, the edges of the wound were brought together, and dressed with adhesive plaster. Stitches were found unnecessary. Over this, pledgets of lint and a compress of old linen were applied, and a roller passed round the abdomen. Before the wound was dressed the lady expressed herself entirely relieved from the uneasiness which the presence of the bones had so long occasioned. She complained of some pain about the uterus.

"On our visit the next day, she was in all respects doing well. The pain which she complained of the preceding day had continued for some hours, but she was now entirely easy, and expressed in strong terms the relief which she had felt since the removal of the bones.

"In six weeks she was entirely well, and had visited several of her neighbours. The opening which had existed previous to the operation was not entirely filled up, but the incisions united by the first intention.

"I saw this lady in December last—she was then in fine health and very fleshy. The catamenial discharge had returned and was now regular.

"This case could not have been one of extra-uterine conception, for the early history of the case together with the discharge of the soft parts and bones per vaginam, prove incontestibly that it was uterine, even if the operation had not demonstrated the fact. Neither can it be believed that there had been rupture of the uterus at any period during the progress of this case, for when the bones were removed they were firmly enclosed in the uterus, and there was no other opening but the passage externally, for which we think there is little difficulty in accounting. The pressure of the bones against the walls of the uterus, produced inflammation and suppuration, which, passing by continuity of surface to the parietes of the abdomen occasioned the aperture. The inflammation thus excited also produced adhesion between the uterus and abdominal parietes, which union must still exist—indeed, when I last examined her, the parietes of the abdomen were considerably drawn in by this attachment,

Believing this case to be of considerable interest to the medical

world, and besides, one of rare occurrence, I have been induced to submit it for publication."—*Amer. Journ. of Med. Sciences.*

The history of this case is defective, and does not afford any clue to the exact nature of the phenomena detailed. The author has not given any account of the former history of the patient, nor thrown any light on the cause of retention of the fœtus after natural labour had commenced. The case however is of great value, and entitles Dr. Toy to great credit for the bold and judicious manner in which he treated it. The result of the operation clearly demonstrates the feasibility of gastro-hysterotomy, when the vital powers are not too much reduced.—EDITOR.

MISCELLANIES.

12. *Pathology of Purpura Hæmorrhagica.*—Dr. Harty, of Dublin, has published an interesting paper, on purpura hæmorrhagica, in the Edin. Med. Journ. July, in which he maintains that the disease depends on a disordered state of the alimentary canal, or abdominal viscera, and that this state is obviated by continued purging for several days. Mercurial purgatives are to be preferred, and depletion employed sparingly to diminish febrile action. He details some cases illustrative of the efficacy of mercurial medicine.

13. *Stethoscope.*—Dr. Forbes has published two lectures on the value of auscultation and percussion in diseases of the chest; which we strongly recommend to those about to commence the study of the only sure mode of ascertaining the diagnosis of this important class of diseases. No man can read this exposition without the conviction of the great value of auscultation and percussion in thoracic diseases, and the able author has demonstrated the facility with which this important knowledge can be acquired. We are happy to state that Dr. Forbes has been appointed physician to His Royal Highness the Duke of Sussex, which affords another example of the beneficence of our gracious Sovereign, in rewarding talent and merit. His motto, seems to be " palmam qui meruit, ferat."

14. *Popular Lecture on the component parts of the Animal body.*—Mr. Dewhurst has published a lecture on the component parts of the animal body, in which he displays much ability, and gives a good outline of the structure of the human body. The student or general reader may acquire a good deal of info-mation, by the perusal of this dissertation.

15. *Report of the Cork-street Fever Hospital, Dublin.*—We have been favoured with a copy of the report of the Fever Hospital, Cork-street, Dublin, from 1829, to January, 1830, with the medical report annexed, which we believe to be the production of Dr. O'Brien. We have only space to observe that the report is ably drawn up, and affords ample proof of the judgment and ability of the author as a practical physician. We shall analyse it in our next.

16. *The London University.*—We are sorry to observe the disputes which agitate this valuable institution. The professors and council are the contending parties, and all seem unmindful of the axiom, that " a house divided against itself cannot stand." There is

one point of dispute on which we must animadvert, and that is, the discovery of the council, which commands one of the professors to appear before them, to have his competency examined by one of his own pupils. Such an absurd and ridiculous mandate has never disgraced the history of any similar establishment, and it clearly proves the incompetence and arrogance of those individuals, the majority of whom are ignorant of the science on which they pretend to adjudicate.

We understand that Dr. Paris, has lately made a very curious discovery, relative to the solvent powers of water upon lead, which will have the effect of modifying the theory of Sir H. Davy, relative to the protecting influence of metals upon each other, and of offering a new field of investigation. The experiments have not yet been published.

After the foundation of the College of Physicians, it is true, empirics were occasionally treated in the most summary manner, and their dealings with the credulous must have been wicked and gross, to have deserved such a punishment as the following, recorded by Stow, in his chronicles:

"A counterfeit doctor," says he, "was set on horseback, his face to the horse's tail, the same tail in his hand as a bridle, a collar of Jordans about his neck, a whetstone on his breast, and so led through the City of London, with ringing of basins, and banished. Such deceivers, continues the chronicles "no doubt, are many, who, being never trained up in reading or practice of physic and chirurgery, do boast to make great cures, especially on women, as to make them straight that before were crooked, corbed, or crump in any part of their bodies, &c. But the contrary is, true; for some have received gold, when they have better deserved the whetstone."—*Family Library, No. XIV.*

17. *Sight restored by Lightning.*—A singular circumstance occurred in the house of Ed. Parker, Walker Street, Toxteth Park, on the night of the 25th ult. An old man, aged 101, named Charles Rigby, who has been blind for the last seven years, was lying in bed about seven o'clock on that night, when a flash of lightning entering the room had such an effect upon him, that almost immediately he partially recovered his sight, and he informs us that it has been getting stronger every day since that time.

18. *Coffee.*—The roots of succory, and those of the dandelion, form one of the best substitutes for coffee. Dr. Hewison, of Edinburgh, prefers dandelion coffee to that of Mecca; and many persons, all over the Continent, prefer a mixture of succory and coffee to coffee alone. Dig up the roots of dandelion, wash them well, but do not scrape them; dry them; cut them in bits the size of peas, and then roast them in an earthen pot, or coffee roaster of any kind, and grind them in a coffee mill, or bruise them in any way. The great secret of good coffee is to have it fresh burnt and fresh ground.—*London's Manual of Cottage Gardening. &c.*

19. *On the action of Medicines, effected by Contiguity.*—Experience has proved, that when a medicinal substance comes in contact with any part of the body, its action is not confined to the mere part, but often propagates itself through the subjacent tissues to deep-seated organs. On this principle, when the liver and bladder, or other internal organs are affected, emollient applications are made to the surface over them. On the same principle, cataplasms, ointments, &c. covering tumours, swelled glands, &c. are found useful. Physiology proves to us, that by irritating the excretory ducts of a gland, the secretion of that gland are excited and accelerated. Thus purgatives, when they enter the duodenum, irritate the ductus choledochus, and thereby cause the liver and pancreas to secrete more abundantly.—*Spillan.*

BOOKS RECEIVED DURING THE MONTH.

1. Report of the Managing Committee of the House of Recovery and Fever Hospital in Cork Street, Dublin, for one year, ending 4th January. 1830. with the medical report annexed. Dublin, 1830. 8vo. pp 112. Richard and Webb.

2. An Introduction to Systematical and Phisiological Botany, illustrated with explanatory engravings. By Thomas Castle, F. L. S. Member of the Royal College of Surgeons, &c. London, 1829. 12mo pp. 285, coloured plates. Sold by E. Cox, Southwark; Baldwin and Cradock, Paternoster Row, and T. and G. Underwood, Fleet Street.

3. A Concise Treatise on Dislocations and Fractures, being a selection from the most approved Foreign and English surgical authorities, from the days of Celsus to the present time, illustrated by fourteen plates. London, 1830. 12mo. pp. 114, published by James Bulcock, Chelsea.

4. A Treatise on the Mineral Waters of Harrogate and its vicinity. By Adam Hunter, M. D., &c. &c. &c. London, 1830. 12mo. pp. 138. Longman and Co. Black, Edinburgh.

5. An Inquiry as to the Expediency of a County Asylum for Pauper Lunatics, second edition, with considerable additions. By W. Palmer, D. D. a magistrate of the counties of Devon and Somerset. Exeter, 1830. 8vo. pp. 96. Trewman and Co. Exeter; Rivingtons, and T. and G. Underwood, London.

7. Two Lectures on some of the Physical Signs of Diseases of the Chest. By John Forbes, M. D., F. R. S. Portsmouth, 1830. 8vo. pp. 96.

8. A Dissertation on the Component Parts of an Animal Body. By Henry Wm. Dewhurst, Surgeon. London, 1830. 12mo. pp. 64. Published for the author by Callow and Wilson, Princes Street, Soho, and Sherwood, Paternoster Row.

All Communications and Works for Review are to be addressed to the care of Messrs. Underwood, 32, Fleet Street; or to the Editor, at his Residence, 61, Hatton Garden.

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CRITICAL REVIEW.

I.—*Cholera, its Nature, Cause, and Treatment; with original views, Physiological, Pathological, and Therapeutical, in relation to Fever; the action of Poisons on the System, &c. &c.; to which is added, an Essay on vital temperature and nervous energy; explanatory more particularly of the nature, source, and distribution of the latter; and of the connection between the mind and the body, &c. &c.* By Charles Searle, Surgeon of the Hon. East India Company's Madras Establishment. 8vo. pp. 255. London, 1830. John Wilson.

It is a maxim in medical literature that style and composition are not so necessary as in other kinds of writing; but we could never comprehend a particle of reason in support of this assertion. Of late years the worst species of writing is medical, and rarely do we find a work written correctly. The work before is an excellent illustration of our statement, it is contrary to every rule of composition, and of course must be ambiguous, if not unintelligible. The first sentence of the preface extends to twenty-eight lines of small print, in which there are almost as many transitions from subject to subject as there are lines, and which ought to have been divided into several sentences. The same defect appears in every page, and renders the meaning of the author doubtful, and often incomprehensible. In fact, the work sets criticism at defiance, for no man could undertake the task of exposing its inaccuracies. It is right to illustrate the justness of our censure by a quotation.

"The object of this work, is the improvement of our practice, in the attempt to define principles of treatment of a disease, the pathology and nature of which from being but imperfectly understood, many—very many, annually fall a sacrifice—at least such

is my belief; not that I charge my professional brethren with any culpability in which I am not equally implicated; no, it was the experience of want of success in my own practice, with the loss of a relative, on the same occasion that the public sustained so heavy a one, in the death of the late revered Governor of Madras, Sir Thomas Munro, who also fell a victim to this disease; leading me to the conclusion that there was something radically wrong in our views and treatment, induced me to investigate the numerous public records on the subject; from which I had deduced certain inferences, and was embodying my thoughts in a shape suitable with the intention I meditated, of submitting my views to the Medical Society of Madras, then existing, when becoming myself the subject of its attack, it not only afforded me an opportunity of verifying the conclusions I had arrived at, with regard to the line of practice which should be pursued in the treatment; but under this personal experience, having strictly attended to the progression of the symptoms, and my feelings, it gave me a clue, which enabled me to solve the difficulties I before laboured under, with regard to the explanation of the symptoms and nature of the disease; in short, the explanation I arrived at, operating upon my mind with all the force of the most perfect conviction, induced me to extend my original design, and to submit my views to the press at Madras, in an Essay, under the title of 'Cholera Pathologically and Practically considered.' "—p. vi.

Without troubling the reader with further extracts, we shall endeavour to detail faithfully the author's views on the nature and treatment of cholera. More than half his work consists of extracts from the Madras medical reports, various periodicals and monographs, and contains a good, though very confused description of the disease. It appears by the concurrent testimony of the majority of the numerous writers whom he quotes, that in severe cases of cholera, there is pallidity and coldness of the skin, sometimes lividity, imperfect oxygenation of the blood in the lungs, as the blood is dark and thick both in the veins and arteries. Such is said to be the condition of the blood when drawn from the temporal artery. The necroscopic appearances are congestion in the brain, lungs, and alimentary canal. In some cases there were effusion, and extravasation in the brain; the lungs were so congested "as to resemble a mass of bruised flesh," the liver and spleen were not invariably affected, but were often filled with dark blood. The gall-bladder was almost invariably filled with bile, though its duct was pervious. The mucous surface of the stomach and intestines was dark with patches of red, the urinary bladder was empty and contracted. The general opinion on the etiology of the disease is, that it arises from malaria, the product of swamps, stagnant water, or putri-

fying animal and vegetable substances; and this opinion is attested by the singular fact that cattle and poultry were destroyed in the contaminated districts, and presented the same appearances of congestion as the human subject. Mr. Searle cites a host of authorities in proof of cholera being caused by malaria, and he is silent on the question of the contagiousness of the disease. He next describes the effects of malaria on the different functions, and arrives at the very unphysiological conclusion, that "the primary operation" of the febrile cause is not on the brain and spinal marrow, but on the skin and lungs, the poison is absorbed from these parts, is mixed with the blood, which it contaminates and renders unfit for the purposes of life. The brain is secondarily affected by its receiving contaminated blood. To this deranged state of the circulation he refers all the phenomena of the disease. This theory is manifestly untenable, it is contrary to the received opinion in every country, as to the primary effects of malaria or contagion on the body, and is most completely annihilated by the incontrovertible conclusions of Morgan and Addison on the effects of poisons. The spasms he ascribes to congestion at the roots of the spinal nerves, a condition first pointed out by Dr. Sanders, of Edinburgh, and which Mr. Searle has found to exist in every case which he has examined. He endeavours to explain the semeiology of the disease agreeably to his theory, but as his premises are untenable, it is unimportant to hear his conclusions. He divides the disease into three species, which he has infelicitously designated cholera asphyxia, cholera congestiva, and cholera morbus. The classical scholar will be shocked at these terms, and the clinical practitioner will question their accuracy. Every one of these terms are objectionable. The word cholera was employed alone by the ancient Greek and Roman physicians, and the addition of the word morbus, is an excrescence of modern growth. It would be just as correct to say typhus morbus, or podagra morbus, terms that would strike the veriest medical tyro as barbarous and superfluous. The first species, cholera asphyxia, (asphyxiata?) is ushered in by great prostration of the vital powers, mortal coldness, cessation of the circulation, and sudden death, which is sometimes preceded by convulsions. Such formidable symptoms often characterise typhus fever, yellow fever, and plague, but as yet no writer has appended the word asphyxia to these diseases.

The second species, cholera congestiva, is thus defined:— The patient is suddenly seized with vertigo, borborygmi, and diarrhœa, dejections of a conjee or barley water ap-

pearance, succeeded by great prostration of strength, tremor or twitching of the extremities, "alias clonic spasms," countenance sunk and ghastly, cold damp skin, feeble pulse and præcordial oppression. A sense of burning heat soon arises in the stomach, attended with great thirst and an insatiable desire for cold water, and violent spasms affecting every part of the body, especially the lower extremities, supervene, which are speedily followed by collapse, lividity of the skin, cold clammy perspiration, coma and death.

The third species, cholera morbus, is ushered in by the usual symptoms of fever, which are soon accompanied by vomiting and purging of a slimy bilious matter, attended with griping, violent head ache, and painful spasms, and soon terminate like the second species.

Mr. Searle proceeds to describe the treatment which he adapts to his theory of the disease, and which appears in many points objectionable. Thus he considers mercury almost a specific in the cure of the disease, "aided, of course, by such remedies as circumstances require to further its action." Very few practitioners depend on mercury at the present day, and we must observe, that its power as a stimulus, in the first species of cholera, in which the vital powers are prostrate, and congestion of all the viscera present, appears to us inactive and doubtful practice, which we should not think of employing in the fever of this country when characterised by such symptoms. The author virtually agrees with us, if we understand him rightly, for he adds, in the same sentence in which he recommends mercury, that general and local stimuli are indicated, such as external heat and friction, the recumbent posture, ammonia, warm spirits and water, &c.—and stimulating saline clysters "with a view of increasing serous exudation, and by consequence, removal of congestion from the mesenteric and gastric vessels as well as from the brain, thus aiding absorption of our remedies from the stomach and bowels." He endeavours to explain this mode of treatment by the experiments of Magendie, which shewed that absorption does not take place on congested surfaces; and here, as in all other details of treatment, our author theorizes too much, and leaves an impression on the reader's mind, that his recommendations of cure are more speculative than practical or real. His observations on blood letting are curious; he holds that blood should be drawn from a small orifice, the patient being in the recumbent posture, as venesection is resorted to for the purpose of exciting the heart's action only. He says, the greatest caution is required during the operation, and that the rising or flagging of the pulse is the

only certain indication as to the propriety and safety of continuing the depletion. But in a succeeding part of the work, we are informed copious depletion is the sheet anchor, and the most efficacious of all the modes of treatment.

Dr. James Johnson was, we believe, the first who recommended depletion in cholera, and superseded the empirical practice of large doses of mercury. Subsequent experience has corroborated the excellence of his judicious advice. When excitement has commenced, our author recommends bleeding, purging, calomel, leeches over the affected organ, clysters, sinapisms or blisters to the extremities. He adverts to the state of collapse, so common after excitement, and states positively that he has rescued many persons from the jaws of death by quinine, a practice which he thinks highly important in the intermittent, remittent, and typhoid fevers, and which he suggests to the notice of Drs. Smith and Tweedie—a practice which has been successfully employed by the most eminent physicians which this empire has produced, and which we have found most beneficial in some thousands of cases. But it does not accord with the solidism of the day, and hence it has been most preposterously decried. A section is introduced on the effects of opium on the system in health and disease, and our author concludes that this remedy is useful in the stage of collapse only. The next chapter is a popular description of the treatment of cholera. First, the patient is to be put to bed in an airy chamber, and an emetic of black mustard seed, two table spoonsful in half a pint of warm water exhibited, which acts better than any other emetic, and causes a glow of warmth throughout the system. After this the following enema should be administered every half hour, or oftener:—A dessert spoonful of table salt, a pint of warm water, and a spoonful of common or castor oil. This remedy tranquillizes the stomach, and enables it to retain a scruple of calomel, which is to be washed down with a table spoonful of brandy, and two of warm water. The remainder of the treatment is described in the following words:—

"If the case is urgent, the same dose of calomel may be repeated every hour; otherwise, in two hours; or if the patient is much improved, in half the quantity; and thus prolonging the interval, or reducing the quantity—it must be continued, according to the state of the patient, till bilious stools and urine are produced; the spirit and water, or mulled wine either; or where the system is very low, thirty drops of (sal volatile) aromatic spirits of ammonia, or of hartshorn in half a wine-glassful of water, may be singly, or alternately administered, every quarter or half hour; with the

precaution before given, to avoid oppressing the stomach by undue quantity.

" In addition to these means, if the skin is cold, warm flannels should be constantly applied; or if the skin is damp and the patient suffers by cramps in his legs and arms, the parts may be well compressed, and rubbed with the flannels besprinkled with hot salt. We have yet omitted to mention a very important remedy, one capable of producing much good, or no less harm—this is bloodletting—which if the patient is an European, or native of pretty robust habit, should be early resorted to—if the pulse admits of it, that is, if compared with another person's—it is of pretty moderate strength; the object to be borne in mind by bleeding in this case, is to excite, by removing oppression from the brain and circulation, and not to subdue the action of the heart, that it should be taken from the patient whilst continuing in the recumbent posture,—and here I must insist once for all, that on no account and for no purpose is the patient to be permitted to sit up, or leave the recumbent state, or sickness almost immediately takes place; the evacuations should therefore be received in a bed-pan, or cloth; and the blood be taken from a rather small orifice, that, the stream being in consequence small, the system may have time to accommodate itself to the deprivation,—the effect of which, however, should be carefully watched—the operator keeping his finger during the time on the pulse, at the same time encouraging the patient by suitable conversation; when, at the instant it is found to flag, without reference to the quantity withdrawn, whether much or little the finger should be placed over the orifice; but it must be borne in mind, that fear, nausea, or sickness may occasion this result, that should the quantity taken have been small after a few minutes—if the pulse recovers its wonted strength, as it is an object to carry it to as great an extent as the circumstances of the patient admit—the finger may be removed from the orifice in the vein, and the blood allowed again to flow, with the precautions before specified; but should, after a further small loss, the same result ensue, it is clear that any additional attempt at this time would be injurious; though it may be afterwards practised, as excitement becomes developed, either in relief of spasms, sense of burning heat in the stomach, or pain in the head, or oppression of breathing; and with the precautions I have given, may be frequently put into practice, and without the possibility of harm—but on the contrary with the happiest effect; for in this disease small bleedings in relief of the engorgement of the brain, stomach, and heart, are clearly and most forcibly indicated. (See case A. in the Appendix.) The same intention is partially fulfilled by the clysters, but as warmth and excitement become developed, evinced too by the desire the patient has for cold water—these may be aided, or superceded by a weak and cold solution of Cheltenham or Epsom salts, or of cream of tartar, with which the patient may be now indulged—in the quantity of a wineglassful at a time, instead of the cordials, which would now prove injurious; these will not, however, supercede the calomel, the ne-

cessity for which still continues, not only till bilious stools are procured, but even then, though in smaller doses, till healthy evacuations follow. It may however now, on febrile symptoms taking place, be well to combine it, with an equal weight of James's fever, or antimonial powder, and give it, if it is preferred in the form of pill; but mind if the calomel is thus combined, acids, such as cream of tartar, are not admissible, as an emetic compound would be the result. The calomel and antimonial powder we would now advise, in the proportion of two grains of each, every two hours, with a tea-spoonful of Epsom or Cheltenham salts, in a claret-glassful of water with every second dose; and if there is much thirst, the patient may at the same time be allowed a wine-glassful of barley or cold water every half hour; and the same be continued till the secretions of bile and urine are restored; when, and not before, may the patient be allowed some sustenance, the best of which will be *light* beef tea, or chicken broth, for it must be remembered, and borne in mind, during the convalescence, that in proportion to the feeble state of the patient, so is the stomach weak, and powers of digestion.

"Many have an objection to salts, where this is the case two table spoonsful of castor oil may be substituted, or a dose of rhubarb and magnesia when this is preferred. Should the operation of the purgative be attended with much exhaustion, it may be necessary to support the patient with some spiced broth, wine and water, or mulled wine; or it may even be necessary to moderate it if there is much sinking, by a dose, of from twenty to forty drops of laudanum; but this is providing against contingencies, which with moderate care and attention will seldom be found necessary.

"The secretions from the bowels are now sometimes so exceedingly acrimonious, that in passing along the line of bowels and from the anus, they produce, from extreme irritation, very considerable exhaustion; when this is the case it will be advisable to inject an occasional emollient clyster, of starch or conjee water, with oil; to the first of which, may be added a tea-spoonful of laudanum, and this repeated if necessary; at the same time hot flannels may be applied to the belly."—p. 119.

When the disease comes on insidiously, with symptoms of indigestion and diarrhœa, a grain of opium is to be added to the calomel, and the remainder of the treatment is the same as already described, except that rhubarb and magnesia, or castor oil is preferable to salts. Should there be burning heat of the stomach, calomel is to be given every hour, small quantities of cold water to be allowed, and a dozen leeches applied to the epigastrium. If spasms supervene, bleeding may be employed with the precautions already mentioned. Great relief is afforded by the fan or hand punkah, which aids the respiratory function, and is extremely agreeable to the patient.

In the asphyxiated form of cholera, the treatment consists of the exhibition of brandy and water, aromatic spirit of ammonia, calomel saline clysters, frictions over the heart, stomach, and extremities, and when excitement commences, stimulation is to be diminished, and depletion cautiously employed.

The third species differs little from common cholera, and is to be heated by an emetic in the cold stage, and after its operation by calomel, warm wine and water, or ginger tea, and when excitement commences, cautious depletion, warm bath, and clysters are to be employed. In the stage of collapse, calomel and opium are highly serviceable as stimulants, blisters are to be applied to the head and stomach, and the skin previously rubbed with a composition of ten grains of oxymuriate of mercury, a drachm of cantharides and a little oil of turpentine; and further, that camphorated mercurial ointment be well rubbed in the axillæ and on the inside of the thighs. Mercurial inhalation is also strongly recommended, and advised to be procured by sprinkling some red sulphuret of mercury or calomel, on an iron heated to redness, and placing it near the patient. Mr. S. thinks this kind of inhalation would be useful in poisoning by narcotics. He proposes a simple and expeditious means of procuring and employing vapour in fever, rheumatism, and other diseases. He proposes to place the patient on a cane chair, under which some ardent spirit is ignited, the patient and chair being covered with a blanket. This is somewhat similar to the plan proposed by Dr. Murray, in his work on Heat and Humidity, which we noticed in a late number.

The next chapter is on the prevention of cholera. We find nothing novel in this, for the only advice given, is to avoid the predisposing and exciting causes; in a word, to avoid all causes of debility, and regulate the bowels and attend to the general health. The appendix consists of reports of cases, and occupies half the volume.

If the pathology proposed by Mr. Searle be correct, there is a striking analogy between cholera and yellow fever, as well as typhus; and the successful plan of cure recommended by Dr. Stevens is well worthy of a trial. Had our author been less digressive, and solely confined himself to his subject, his work could not fail to be encouraged. In its present form, it is too speculative, and consequently will be looked on with caution or suspicion as a practical guide. The author should have given much more of his own experience, and much less of that of others. The work will be useful to those who are destined for India, and the general reader of that country will find it instructive and important.

II.—*A Supplement to the London, Edinburgh, and Dublin Pharmacopœias.*—By D. SPILLAN, A. M. M. D. Dublin, 1830. Hodges and Smith, pp. 218.

WE resume with infinite pleasure our analysis of the valuable and unassuming work before us, and commence with the able author's proofs of the following proposition:—"Medicinal substances possess not any specific property distinct from their physiological action, and to which the curative effects following their use can be attributed."

"No medical substance ever produces an amendment in a disease, without primarily producing an organic operation in the body affected. The primary or immediate, and the secondary or curative effects, are so closely connected that the former must always precede the latter. Again, when from any cause a medicinal substance has lost its power of acting on the organs, or when, from the force of habit or of idiosyncrasy, the organs are insensible to its action, so that its exhibition causes no change in the system, it becomes useless as a therapeutic agent. We may observe also, that those substances which produce the most extensive changes, and give the greatest shock to the system, are those whose therapeutic powers are best demonstrated and least disputed; we may adduce as instances, tartar emetic, opium, the several preparations of bark, &c. Moreover, medicines sometimes, instead of proving useful, and of putting a stop to the morbid phenomena to which they were opposed, produce a fatal exasperation in the symptoms, which no one hesitates to refer to the unseasonable impression made by them on the seat of disease. Why should we not make their more favourable effects flow from the same source?

All acknowledge that medicinal substances, in order to be useful, must be exhibited at the proper time, inasmuch as a substance which would prove useful at the commencement of a febrile attack, would be of no avail in the middle of it, and even injurious at the termination, which could not be, if those agents possessed positive and absolute virtues, whereby they must cure such or such a disease independent of the address of the physician who prescribes them, and who selects a proper time for their exhibition. As a further proof of the truth of our position, we often find that external circumstances, which are capable of producing a shock or revolution in the system, oftentimes serve as most effectual remedies in disease. Thus, a sudden fright has oftentimes cured an intermittent, by exciting a violent shock in the system, at the moment when the fit was about to commence; we often see a new disease put a stop to one of long standing, which had resisted all the medicinal substances employed for its cure. No one certainly will say that these circumstances possess curative virtues independent of the primary impression they make on the system. From all this we may fairly conclude that medicinal substances derive their property of curing or

alleviating disease from their active powers, and that the advantages arising from their use proceed not from any specific virtue intended to produce them. Thus the words, " febrifuge," " antispasmodic," " antiscorbutic," &c. should be looked on as conventional terms admitted into medical language, not so much to designate any real existence, as to announce a probable or likely result from the use of substances to which these attributes are attached."—p. 129.

Every man of experience will freely acknowledge the correctness of these opinions. The student ought to give them his most serious consideration. The author has rendered science his debtor by his very graphic description of the action of medicines on the living system, and by his exposure of the incorrectness of many of our medical terms, which all must admit to be purely conventional. He proceeds as follows:—

" The advantage arising from the administration of medicinal agents being dependent on the primary impression made by them on the several organs, when the physician prescribes them, he knows merely whether he shall stimulate the organs; whether he shall retard the rapidity of their movements; whether he shall augment or diminish the tension of the several tissues; whether he shall irritate a surface, or augment a secretion, &c. but beyond this he knows not; the benefits to be derived from this organic operation are the work of nature. To be sure the experience of the physician, aided by the light of physiology, may enable him to calculate on the probable effects of the medicine, whether it will bring about the desired amendment or not; but farther he cannot go. All his hopes of putting a stop to, or alleviating the morbid affection, must ultimately depend on the workings of that *conservative principle** implanted in animal nature, whereby life is sustained from the beginning to the end of its existence, in opposition to those noxious and destructive causes, which are constantly assailing it. If medicinal substances were endowed with the virtue of curing certain determinate diseases, it would follow, that the same medicinal substances should be employed for the cure of the same disease: whereas, on the contrary, we know that different practitioners administer different medicinal substances, and pursue different modes

* The existence of the *restorative principle* here alluded to, called by some the *vis medicatrix naturæ*, is too obvious to be denied; we see wounds heal, and various diseases removed without any interference of art whatever. On this subject hear Sir Gilbert Blane: " Such is the virtue of the self-preserving and presiding energy, that whatever deserves the name of *cure*, is referrible to it as the work of nature; for the operations of art consist merely in regulating it, either by exciting it when languid, restraining it when vehement, in changing morbid action, or in obviating pain, or irritation, when they oppose its salutary course. This, I apprehend, is so well understood among well educated physicians, that the word *cure*, as applied to their own merits, is proscribed as presumptuous."—Med. Leg. sect. vi. p. 259.

of treatment in the same diseases, and all with the same ultimate success; the only mode of accounting for this apparent anomaly, is by admitting that it is nature, and not medicine, which restores the diseased organs to their natural state. Medicines are no doubt the occasional cause of this happy result, by exciting salutary modifications in the state of the effected parts, by exciting evacuations from the different emunctories, and by aiding the favourable efforts of nature; but in all this they act but as indirect causes, and the cessation of the pathological affection cannot be set down as the necessary consequence of their inherent principles acting on the several organs. It is from the circumstance that medicinal substances possess not any specific power to cure disease, that their dose and mode of administration always decide their success. It is not sufficient merely that the patient should take the medicine called for by the disease; it is necessary that the physiological change produced by it in the system should be proportioned to the pathological changes caused by the disease. The mode of administering medicinal substance will also claim attention; the practitioner who believes that it is these substances that by their inherent virtues cure disease, feels quite indifferent as to the immediate effects caused by them; it is enough for him that the medicine has been administered; he is totally regardless whether the physiological effects produced are proportioned to the intensity of the disease, whilst he who considers that the advantages to be derived from these substances are consequences of their primary effects on the organs, and of the modifications which they excite in their functions, is careful to watch these effects, and to proportion them to the pathological disturbance.

"From what has been said, it appears, that in order to be able fully to appreciate the advantages which may be derived from medicinal substances in the practice of medicine, it is absolutely necessary to attend to their primary effects. In every age, however, from the very infancy of the healing art, the contrary course has been pursued, and the *curative effects* alone have been the object of research with medical men; from whence it comes to pass, that the Materia Medica is a collection of false conclusions and misrepresentations, rather than a true science. Thus, the practitioner who believes in the curative virtues of medicinal substances, confines his undivided attention to these, and when he studies the action of any such substance, it is merely to find out what disease it can cure. When he administers a medicine in any disease, he merely attends to the change which will come on in the symptoms, always concluding that the exhibition of the medicine, and the amelioration which may succeed, are closely connected, and stand to each other in the relation of cause and effect; *post hoc, ergo propter hoc.* On such a fragile basis has the science of medicinal substances been founded; hence it is that it has too often consisted of observations engendered by false experience, and propagated by easy credulity. Did we but reflect on the many cases in which unassisted nature triumphs over disease, and on the spontaneous tendency which the

several organs of the body have to resume their healthy functions, and also on those temporary as well as permanent amendments, which must be attributed to the influence of the vital principle, we certainly would not feel so sanguine in our hopes to be able to distinguish, after the exhibition of a medicine, the change which may result from its operation, from that which may be the result of the vis medicatrix naturæ: nor is the conservative principle of nature the only source of error which the physician should avoid in investigating the properties of medicinal substances. Whilst diseases are running through their several periods, how often do we not see amendments take place, which must be attributed to the influence of external causes? The practitioner who refers every amendment to the action of the medicine which may have been used, takes not into account the share which these causes may have had in interrupting the progress of the disease, in alleviating symptoms the most alarming, and even in re-establishing health.

"In order, then, to be secure from falling into these errors, and to be able to distinguish the results of the action of a medicine from those which appear during its use, but independently of it, our only method is carefully to note the primary or immediate effects produced, since it is from these the therapeutic advantages which follow must proceed. Not to be led astray in deciding on the merits of any medicinal substance, we must first attend to its primary action on the several organs, note the changes caused by it in the performance of their functions; then consider the pathological lesions, the cure of which we attribute to it, their character and their extent. Then, on comparing the operation of the remedy, and the disease, we shall see whether there exists a connexion between them. The physiological effects produced by such substances should always explain the cures attributed to them, and there should exist between them the relation of cause and effect. It is this relation that should be established and proved. Such is the ground-work, such the proper object of pharmacology."—p. 134.

Our author next details the therapeutic effects of medicines, and affords much instruction upon this important point.

"With regard to the period when the therapeutic effects of medicinal substances develope themselves, it is to be observed that some produce their effects immediately after exhibition, others not until they have been continued for a considerable length of time; thus, when we give a tonic in weakness of the stomach, the benefit caused by its impression on that organ immediately appears. In the same way, after administering an emetic or a purgative, we can judge whether their operation has been favorable or not. But the evidence of the therapeutic effects of medicines is not always so prompt or so striking. It often happens that these effects are not observable until after their use has been continued for weeks or even months. Such effects are seldom however the simple product of the medicine em-

ployed; other causes may have contributed to their production, such as diet, exercise, change of climate, change of season, &c. The additional efficacy imparted to medicinal substances by hygienic means, could not but strike physicians, and inspire them with a desire to avail themselves of such aid in therapeutics. This combination of medicinal and hygienic means, directed to the cure of disease, and regulated so as to produce one common effect, is what forms the *curative method.* This may be distinguished in two parts, one positive, and the other negative; the first including the medicines employed, the hygienic circumstances made to act on the patient, &c. whilst the second includes those habits of living, diet, &c. to which the individual had been previously accustomed, and from which it is necessary that he should now abstain, as being likely to prove injurious."—p. 135.

There is no practitioner who will not subscribe to the valuable opinions laid down in this paragraph. How often do we observe the force of this statement illustrated in practice. How important did our predecessors consider the influence of what they quaintly designated the non-naturals, which were but the causes adverted to by our talented author? The following observations are also deeply interesting, and of great practical utility:—

"The therapeutist should study the nature, and know the extent of the lesion which constitutes the disease. These become manifest either by direct signs, such as are seen on the parts affected, as redness, increase or diminution of volume, induration or softening, increase or diminution of temperature, variation in the sensibility, &c. or by indirect signs, as in the change which the functions of the several organs undergo, the increase or diminution of their secretions, &c. These latter signs are in general our only guides in the affections of the organs contained in the different cavities of the body. The symptoms, signs, and morbid phenomena should engage attention, however, only so far as to enable us to arrive at a knowledge of the lesions which exist in the body, wherein they manifest themselves. The physician who collects them for the purpose of constituting a disease of them, and of finding a place for it in a nosological arrangement, loses sight of the cause of the disease and of that which keeps it up. He, on the contrary, who uses the symptoms as guides to conduct him to the state of the lesion, and to discover to him the character and extent of the disease, at once sees what he has to dread, and to what his attention should be directed. The former asks, *what the disease is?* whilst the latter inquires, *where it is?*

"In investigating the seat and nature of a disease, the following order has been recommended. The head should be commenced with including the cerebrum, cerebellum and their membranes; then proceed to the spinal cord; attentively consider the alterations which the cerebral apparatus may undergo, and which may be inferred from the pain, heat, tension, weight, &c. felt by the patient in different parts

of the apparatus; any change also, which the mental faculties may exhibit, as also the organs of sense, and the action of the muscles, will assist in directing our inquiry. From the head we pass on to the chest, and examine the state of pulmonary and circulatory organs; from thence we proceed to the abdomen, and from the appearance of the tongue and lips, and by the application of the hand, by pressure, and by the number and nature of the alvine evacuations, we infer the state of the viscera therein contained; nor should we be inattentive to the state of the urinary apparatus, manner in which the functions of the skin are performed, &c. By means of this inquiry we may easily arrive at the seat of the disease, be enabled to judge of the character and nature of the pathological lesions which may exist; and consequently be directed in our choice of the medicinal means, which these lesions call for, and in the degree of strength required in the operation of our remedies, as also in the manner of employing them. Whilst this method will clearly point out to us the indications which the physician should fulfil, it will, at the same time, point out the contra-indications which should be kept in view. An organ, for instance, is the seat of a pathological lesion; this lesion calls for a medicine endowed with a certain virtue; but some other organ, equally the seat of disease, will be injured by this same medicinal agent; consequently its employment is contra-indicated.

"From investigating disease by the several organs in the manner now laid down, this advantage will result, that we shall no longer see physicians, when examining the same patient, differ as to the nature of the disease with which he may be affected, inasmuch as they will not set out with preconceived notions, and neglecting symptoms, which they may deem of little importance, direct their exclusive attention to others which may conform more closely to their particular doctrines. By passing in review all the several organic apparatuses, no lesion can escape, facts cannot be disfigured, nor an arbitrary association of symptoms be any longer admitted."—p. 138.

The succeeding remarks are a valuable lesson to those pathologists who invariably expect to find the causes of death on dissection. Exclusive solidism, that short road to the end of physic, seems to be blocked in many parts by recent writers; and we cannot help thinking, it will be deserted as impassible in a few years. We leave its few admirers to digest the following comments, and to refute them if they can:—

"It would at first view appear, that post mortem examinations, by discovering to us the lesions which caused the disease, should point out the mode of treatment. But the weakness of such a conclusion will at once appear, on considering that the parts, which were the seat of disease, are no longer what they were during life. Those circumstances which formed precise therapeutic indications have now disappeared; those causes which kept up threatening and

alarming symptoms, are now effaced by death. A general and uniform coldness has now taken the place of those elevations of temperature once so sensible. In fact, it is not the lesions, such as they are seen in the dead body, that the physician is called on to combat, but such as existed before death, such as the symptoms revealed them. Nor should we forget that post mortem examinations present to our view the product of the disease, rather than the disease itself. The frightful appearances which then present themselves, justify the diagnosis of the physician; they discover what the pathological affection was; they allow us to conjecture the order which it followed, and to represent to our minds the progressive changes which the diseased parts underwent, in order to arrive at the state in which they now are. But the therapeutist should consider that these alterations take place only after a considerable lapse of time, that they have had a beginning and an increase, and that in the time during which they existed, several periods may be distinguished. These reflections are of considerable importance; for, on observing the modifications which the tissues experience, the lesions which the viscera undergo, the disorganization of which all the parts of the body are susceptible, one cannot help being surprised at their number and extent, as well as discouraged on comparing with them the power of medicinal agents.

" The researches of pathological anatomy seem then to have a tendency to diminish the physician's confidence in medicine, and to inspire him even with a determined prejudice against it. But, as has been already said, it is not the lesions, such as they now are seen, that our therapeutic resources are intended to combat. These lesions have then attained their termination; they have passed the point, where their course might have been suspended. These lesions have had a beginning, a developement: when they were recent, slight, and before they had penetrated too far, they were by no means above the therapeutics; there was then some proportion between these lesions and the power of medicinal agents. It is no longer difficult then to conceive, that such agents may bring about the cure of affections similar to those, whose anatomical products have been just now stated, by their being attacked at the commencement, and before they could effect all the mischief which post mortem examinations present to our view. The utility of therapeutic means depends on the period of their employment. Means, which if used to day, would certainly cut short a disease, will be inapplicable or insufficient some days later. In conclusion, we shall add, that it is a living lesion which the therapeutist has to treat; that, in order to ascertain the nature of the remedy called for, he should represent it to himself, such as it is during life, with its colour, temperature, the changes in its sensibility, and that it is necessary to attack it a proper time, before it has destroyed the natural texture of the parts where it has its seat, if he wishes that the operation of medicinal agents should be of any avail.

" These principles give to the practice of medicine a solid basis;

nor can the art of healing be still considered as all conjecture, first, when it determines the lesions which constitute disease, assigns their seat, measures their extent, and announces the modifications which they cause the several organs to undergo; secondly, when it declares beforehand the physiological effects which medicines produce, and foresees the primary operations of the means to which it has resourse. No doubt, the therapeutic effect of the operation is always uncertain; too often it corresponds not with the expectation of the physician: but can medicine hope to cure all the lesions of which organs are susceptible? Have not limits been put to its power by the Creator himself?"—p. 140.

How often have we been wearied with the exhibition of morbid specimens at our debating societies, while those who presented them could give no account of the symptoms that existed during the illness of those from whose bodies they were taken; and yet meeting after meeting have such exhibitions taken place, to use a technical phrase, *usque ad nauseam.* We hope this useless practice will be discountenanced in future, and that the time of our societies will not be wasted by the display of disorganizations, with which every man of ordinary information must be familiar, and which only remind us of the imperfect state of medical science and practice—a piece of information which every hour's experience impresses upon our memory. It affords us much gratification, to perceive the sentiments of a writer of Dr. Spillan's talents accordant with our own. But to resume our analysis.

Having concluded the consideration of the operations of medicines, our author proceeds to detail the effects of the different classes of remedies. He adopts the classification of Mr. Barbier, which has for its basis the physiological operation of medical agents, and is more permanent than the arrangements founded on their therapeutical effects. The classification is as follows:—

" 1. Tonics, or medicines which strengthened the tissue of the organs.

" 2. Excitants. } Medicines which stimulate the tissue of the
" 3. Diffusibles. } organs.

" 4. Emollients. Such as relax their tissues.

" 5. Temperants. Such as moderate the too great activity of the organs.

" 6. Narcotics. Such as diminish cerebral life.

" 7. Purgatives. Such as irritate the internal surfaces of the intestines.

" 8. Emetics. Such as irritate the gastro-duodenal surface.

" 9. Laxatives. Such as disturb the natural movements of the intestines.

" 10. Medicines, whose mode of action is not well determined, or which cannot be referred to any of the preceding classes"—p. 149.

The observations on the effects of tonics on the vital functions are so exceedingly important, that we quote them at length, as they have been almost forgotten by practitioners. We promise our readers that they shall be amply repaid for the trouble of perusing them. There is no part of medical science so much neglected as that under notice; and therefore we need not apologize for devoting so much space to its consideration. The only person to whom we owe an apology, is the author whose work we place under such ample contribution. The following are Dr. Spillan's views on the effects of tonics:—

" The medicinal substances ranked under the class of tonics, include the several species which have received the name of *coroborrants* or strengtheners, *styptics*, *astringents*, &c. The active property of these substances determines in the several organs a change or modification of their tissue, which shall now be pointed out. In order fully to appreciate the impression which medicines of this class make on the several tissues, it is necessary to see them successively in contact with these tissues; 1. In their natural state. 2. In a state of morbid debility. 3. In a state of irritation or inflammation. If the organ on which we desire to study the action of a tonic is in its natural and healthy state, the influence of this tonic is difficult to be discovered during its action on the body; the organs will not change their mode of action; the several functions will be performed with their usual regularity. Should the organs on which the force of the tonic is exerted, be in a weakened condition, then the impression made by the medicinal substance will have the effect of producing manifest changes in it. Their movements, before enfeebled and languid, will become stronger, and it may be observed, the greater the debility and languor, the more striking will the effects of the tonic be. When the vital properties of the several organs are more developed than natural, the effects of tonic medicines will still be discoverable. By increasing the already too great activity of the several parts of the system, they excite disturbance, and the pathological state which follows their use, still further proves the nature of their powers, that state being generally of an inflammatory character.

" From what has been said on the subject, it will appear, that they may be used with advantage in morbid affections arising from general debility. It is also manifest, why their effects on the animal economy are so little perceptible, their action being directed entirely to the insensible contractility of the organs, the tissues of which become in consequence more firm and more condensed.

" A tonic medicine given in a small dose, has merely a local action; whilst if the dose be augmented, and the active principles be absorbed in sufficient quantity, the entire system is subjected to its influence. It may not be uninteresting to run through each of the

systems of the body, and to note the changes made in their action by the exhibition of a tonic. We shall thus be enabled to form a just idea of the importance and extent of the properties of this class of medicinal substances, and to see what advantage therapeutics may derive from their employment. We shall commence with the DIGESTIVE APPARATUS, and first consider how it may be affected in its healthy or *physiological state*.

" Observation demonstrates, that after the exhibition of a tonic medicine, the coats of the stomach experience a fibrillary contraction, whereby they become more firm and more compact, and the stomach in a manner contracts on itself. We are equally warranted in supposing, that according as the substance advances into the interior of the intestinal canal, a similar effect is produced on its coats. The exhalations, and several secretions which ordinarily moisten the mucous membrane of these parts are suspended. The impression made on this membrane is communicated to the muscular tunic, the fibres of which become contracted; in consequence of this change the body of the intestine becomes harder, firmer, and more resisting, whilst its cavity is at the same time diminished. The changes observed in the function of digestion, after the exhibition of a tonic, points out that its influence on the organs subservient to this function is to strengthen their tissue and augment their vigour. We see tonics given in a small dose increase the appetite and bring it on sooner than usual; several individuals find their digestion facilitated and expedited by their employment; a digestion, habitually languid and difficult, by reason of debility of the digestive organs, is rendered stronger and less distressing after the use of a tonic. It may be observed, that the alvine evacuations acquire an unusual degree of consistence from the employment of tonic medicines, and sometimes appear diminished in quantity. This may be accounted for by the encreased degree of absorption along the intestinal surface, whereby the residue of digestion is deprived of its liquid parts.

" When tonic substances are taken in very large quantities into the stomach, they produce considerable disturbance in the functions of the digestive organs. They excite a sensation of heat in the epigastrium, which is diffused over the abdomen, is propogated to the chest and to the head, and is even felt in the limbs. When the substance has entered into the intestines, these become distended and swollen by the exhalation of gas, whilst the muscular fibres are affected with spasmodic contractions, giving rise to colicky pains.

" Sometimes however we may perceive tonic medicines produce liquid and even abundant dejections. From having observed this result, Cullen considered himself warranted in placing bitters under the head of purgatives.

" *Pathological state.* When the stomach or any portion of it is in a state of irritation, the exhibition of a tonic substance disturbs the action of this organ, and prevents the regularity of its functions. Irritation of the stomach manifests itself by redness and dryness of the lips and tongue, by the smallness and diminished appearance of the latter organ, by thirst, sensibility of the epigastrium, &c.; these

symptoms are all aggravated by the use of tonic medicines. If the stomach, instead of mere irritation, is actually inflamed, the exhibition of tonics will give rise to phenomena still more striking; their use is followed by a painful sensation of heat in the epigastrium, which the patient compares to a consuming fire, by swelling of this part with great pain on pressure, great thirst, anxiety, oppression, and different other phenomena presented by the organs of circulation, respiration, by the brain, &c.

"The coats of the stomach sometimes undergo a morbid change, which gives them a softened appearance, which change causes great debility in the powers of this organ; there is anorexia, a dislike of mucilaginous or fatty aliments: in such cases the use of tonics has the most happy effects; they re-establish the natural functions of this viscus, by inducing a more free and easy digestion.

"If the tissues of the stomach are hardened, if scirrhus or cancer occupies any portion of it, the effects of tonic medicines cannot be determined before hand. They vary according as these lesions are situated towards the cardiac or pyloric extremity, near the great or small curvature of the stomach. In such cases tonics have occasionally afforded temporary relief, by retarding the vomiting, and diminishing the frequency of the sour eructations which so often accompany such affections, and by inducing a desire for food, which previously had not existed.

"The action of tonics on the intestines in disease merits particular attention. When the mucous membrane is in a state of irritation, the exhibition of tonics will have the effect of exasperating the disease. Should inflammation exist in these parts, the effects of tonics will be still more intense. When blood is exhaled from the mucous surface of the intestines, a tonic may have the effect of arresting the hemorrhage. If this happens to be at the same time the seat of ulcerations, as is seen in dysentery, the effects of tonics will no longer be certain: they will vary with the pathological condition of the intestinal surface.

"In wasting of the intestines, which is observed in the examination of dead bodies, and which is, in general, the result of long protracted disease, in addition to the diminution in substance, there is usually great irritability, and consequently frequent alvine evacuations, whereby the aliment is carried off by stool previous to its complete elaboration. In such cases tonics may be of advantage, by assisting the function of digestion, and rendering the stools more regular.

"If ulcerations exist on the surface of the intestines, the effects of tonics will be found to vary according as these are observed to be of an old or recent date, superficial or deep-seated, and according to the state of the ulcerations. If these be recent, tonics may by developing the vitality of the parts bring on cicatrization; should inflammation accompany them, tonics may have the effect of exasperating the case. It is necessary to observe, that ulcerations seated on the large intestines cannot be much influenced by tonics taken by the mouth, inasmuch as their active principles are almost all absorbed in

the small intestines, before they can reach the large. The best mode of applying tonics in such cases is by injection.

" It often happens that the stomach and intestines are affected only in their vitality, without their tissues experiencing any structural or organic lesion. This arises from the increased, diminished, or irregular distribution of nervous influence to these parts. The origin of such affections may be referred either to the brain, whose influence on these tissues of the stomach and intestines is changed, or to the nervous cords received by these parts. If the nervous influence be increased, the digestive organs become more than ordinarily sensible; digestion itself causes the sensation of weight and of painful tension. If it be irregular, there appears a crowd of phenomena, such as spasm, colic, sudden swelling of the intestines, pains communicating with the vertebral column, vomiting, &c. If the nervous influence be diminished, we observe want of appetite, languid or imperfect digestion, diarrhœa, &c. In the two first cases tonics will but exasperate the affection; whilst in the latter they will, if taken in moderate doses, regulate the digestive function; a result, no doubt, depending on the influence of the tonic on the nerves of the stomach and intestines.

" Tonic substances, though not coming in immediate or direct contact with the other parts of the digestive apparatus, as the liver, pancreas, and spleen, may however, act on those organs; 1. by that sympathy which the nervous plexuses establish between all these parts; 2. by the entrance of their molecules into the circulation; 3. by the contiguity of the intestinal tissues to the organs. The liver is more than any other organ, subjected to the action of medicinal substances. In its healthy state the action of tonics has no appreciable effect on it; but when in a state of irritation or inflammation, the exhibition of a tonic never fails to exasperate all the symptoms. Bilious vomiting may be the consequence; the inflammation will often spread to the other parts of the abdominal cavity, particularly to the stomach and intestines. If there be a diminution in the volume of the liver, tonics will excite the action of nutrition, and they will concur in restoring to it its natural or physiological dimensions. This morbid state of the liver is very common; it arises directly from langour in the assimilating functions of this viscus, or may proceed from an inordinate absorption, which carries away the materials belonging to its substance; this change may take place at the end of acute disease, in which the liver has been somewhat inflamed. We sometimes meet with the liver very much enlarged; in such cases the vitality of the organ being inordinately developed, an excess of bile is secreted; a reflux of which into the stomach brings on bilious vomiting. The skin assumes usually a yellowish tint. When such an affection exists tonics augment it, by increasing the already too great assimilating powers of this organ, and exciting still more the secretions of bile."—p. 149.

We have here ample matter for reflection, and that which is of immense importance in practice. It would be an act

of injustice on our part to mutilate the remaining observations on the action of tonics on the circulatory, respiratory, and nervous system, and at the risk of being accused of drawing too freely on our author's pages, we must make another long quotation, which shall conclude our analysis for the present; but such is the importance of the work, that we must resume in our next number.

"*Physiological state.* Tonics influence the organs of circulation in two ways; when taken into the stomach, the impression made by them on the nerves of that viscus is continued to those of the heart, and this sympathy may change the action of this organ. But it is by the molecules of these substances being taken into the circulation, and thus coming in immediate contact with the substance of the heart and arteries, that the organs subservient to this function are principally influenced. When a dose of tonic medicine has been taken sufficient for its influence to become general, it is easy to perceive that the contractions of the heart are performed with greater energy, and that this organ propels the blood with greater force into the blood-vessels; the coats of the arteries also become more resisting and more rigid; the pulse becomes more firm and harder, the vessels appear under the finger diminished in size, and at the same time more tense. It is at the same time worthy of remark, that the course of the blood is not quickened, it being one of the characters of a tonic to strengthen the organs without accelerating their action.

"It is necessary to distinguish the effects of a tonic medicine arising from the impression of its molecules on the tissues of the heart and arteries from those which do not appear until after a long continued use of this substance. Thus, one dose of a tonic will render the pulse either more full or more frequent, but after the continued exhibition of this substance for some time, it will assume all these characters; these changes will be referrible to the change made in it by the function of nutrition.

"*Pathological state.* When in febrile diseases the pulsations of the heart are become more quick than ordinary, and its contractions stronger and more rapid, and the pulse at the same time is accelerated, it is natural to suppose that these organs are in a state of irritation, whether this irritation arises from the sympathy between the heart and any other part of the system which may be diseased, or from a direct affection of the heart itself. This state of irritation in the organs of circulation presents itself in a great number of diseases. The effects of tonics under such circumstances are sufficiently obvious; when to a patient with a quick, frequent, and hard pulse, burning heat and dryness of the skin, a tonic is given, we uniformly find all the symptoms exasperated after each dose, the pulse is redoubled in force and frequency, the heat becomes more oppressive; presently there comes on anxiety, restlessness, &c. If any organ be in a state of inflammation, observation shews us that the exhibition of a tonic never fails to heighten and extend the disease, the capillaries of the inflamed organ being irritated by its particles. From what has been

stated, it is unnecessary to detail the mischief which would result from the administration of tonics, when the organs of circulation are in a state of actual inflammation.

" In hypertrophy of the ventricles, particularly of the left, tonics render the pulse stronger and quicker, and the beating of the heart more violent, and never fail to augment the cerebral disturbance, as well as the other symptoms usually accompanying this affection.

" In atrophy of this organ tonics render the pulse stronger for a time, and the pulsations of the heart itself more sensible. This state of the organ is frequently observed in convalescence from fever, during which the tissue of the heart may undergo considerable modifications, its function of nutrition being interfered with during the process of the disease.

" The functions of the heart may be perverted independently of any structural lesion. This may be attributable either to the excessive or deficient supply of nervous influence. In the former case there will be violent palpitation of this organ, and great irregularity in the pulse; in the latter the action of this viscus will be slow and weak, as will also the pulse. In the one case tonics will generally exasperate the symptoms, whilst in the other they may prove serviceable.

" With respect to the action of tonics on the Organs of Respiration in their *healthy state*, little can be said either interesting or important. But when any part of these organs happen to be the seat of inflammation, whether the mucous membrane, as in bronchitis, or their parenchyma, as in pneumonia, or the pleura, the exhibition of tonics will be found invariably to exasperate all the symptoms. In hemoptysis tonics may serve to constringe the capillaries of the bronchial membrane, and thereby put a stop to the evacuation; but in such cases the injudicious use of this class of medicines may do much harm.

" The action of tonic medicine on the Brain and its appendages in their *physiological state* is by no means striking. But when this organ or its membranes are in a state of irritation or inflammation, we invariably find medicines of this class considerably to augment all the symptoms. When the arachnoid is inflamed, the exhibition of a tonic exasperates the acute headache accompanying such a state, as also the restlessness, delirium, intolerance of light and sound, &c. In the course of febrile diseases, the spinal arachnoid is often the seat of irritation, giving rise to symptoms which are developed in the chest, abdomen, and in the limbs. There is pain in the neck, between the shoulders, along the back, in the loins, according as the irritation occupies one or other of these regions. In such cases the use of tonics will do considerable mischief. The cerebral mass itself may be affected either by congestion, effusion, or actual inflammation. The former state is oftentimes induced by the use of tonics in febrile diseases. It is unnecessary to state, that in all such affections medicines of this class are entirely contra-indicated.

"The substance of the spinal cord may also experience several sorts of lesions: from its intimate connexion with the system of the ganglionic nerves, or with the trisplanchnique nerve, it becomes impossible to distinguish the affections peculiar to each of these two important parts of the cerebral apparatus. From the circumstance of the spinal cord and ganglionic system of nerves, holding all the viscera under their control, it comes to pass, that lesions of these parts manifest themselves in different parts of the system, by disturbing organs which are perfectly sound. Thus, spasms of the œsophagus, difficulty of deglutition, palpitation of the heart, cramps of the stomach, colics, &c. oftentimes arise by no means from any lesion of the parts where these symptoms are developed, but from a lesion of the spinal cord or ganglionic plexuses. Convulsions, shaking of the limbs, Saint Vitus' dance, oftentimes depend on irritation of the spinal cord or its membranes. Hysteria and epilepsey have their original frequently in the cord.

"The substance of the spinal cord may likewise be the seat of disease; there is then manifested great disturbance in the functions of respiration, circulation, and digestion, so that one might refer the disease to the thorax and abdomen, and not to the cord itself. Organic disease of the heart has been frequently suspected, from the disturbed and irregular action of this organ, where the spinal cord was really the seat of disease. It is to be observed, as before, that in all cases of irritation of the cord tonics are contra-indicated.

"Besides these structural affections of the cord, it is also subject to what may be considered vital lesions. Thus weakness in the heart's action, in the functions of the stomach, of the intestines, and of the lungs, may exist without the tissues of these viscera presenting the least alteration, and are to be referred to a diminution in the quantity of the nervous influence distributed to those parts. In such cases tonics will prove serviceable, as well as by exciting the vitality of these viscera, as by stimulating the spinal cord to resume its natural influence over the viscera. It is in this way, no doubt, that tonics act when given to remove weakness of the stomach, loss of appetite, slow digestion weakness of pulse, &c.

"As the effects of tonic medicines on the other parts of the system do not possess any considerable interest, we shall now consider the *therapeutical employment* of this class.

"The nature of the impression made by tonics on the several tissues, as well as the physiological changes caused by them, should direct physicians in their employment. The immediate effects which they produce, compared with the pathological lesion which they are intended to combat, will point out whether advantage or injury will result from their exhibition. As in the treatment of disease it is to the morbid lesion to which the attention of the therapeutist should be directed, so it is in the several organs that he must seek them. We shall commence with affections of the *digestive apparatus.*

"Tonics have been strenuously recommended in cases of loss of appetite, of indigestion, &c. and their efficacy in these cases appeared so well established as to have procured them the name of stomachics.

However, the practitioner will do well to investigate the cause of these affections, and to observe with care the nature of the lesion which disturbs the natural functions of the stomach.

" Should this disturbance depend on irritation of the mucous membrane of the stomach, it is obvious that tonics would but increase the mischief, whereas if it depended on debility, or a diminution in the quantity of nervous influence transmitted to this viscus, their use will be productive of much benefit. The same observation may be made regarding the intestinal canal.

" In nervous affections of the heart, tonics have been found advantageous; but where there is organic disease of this organ, as hypertrophy of one or both ventricles, their use is contra-indicated.

" In pneumonia and pulmonary catarrh, after all inflammatory symptoms have been combated, tonics are frequetly found serviceable in assisting expectoration.

" In diseases of the lymphatic system, as in scrofula, tonics from the basis of the different methods of cure. By their use the digestion is improved, and the function of nutrition is carried on with more regularity."—p. 156.

The only remark we shall make on this important extract is, that Dr. Elliotson recommends large doses of quinine, when abdominal or thoracic inflammation is present—a recommendation contrary to the universal opinion of the profession. Med: Chir. Trans. v. xiij. p. 464. However highly we esteem Dr. Elliotson s talents, we cannot help agreeing with the multitude, but leave the reader to form his own opinion.

III.—*Clinical Illustrations of Fever, comprising a Report of Cases treated at the London Fever Hospital in* 1828-9. By ALEXANDER TWEEDIE, M. D. Member of the Royal College of Physicians, London, Physician to the London Fever Hospital. London, 1830. 8vo. pp. 204. Whittaker and Co.

IV.—*Report of the Managing Committee of the House of Recovery and Fever Hospital, Cork Street, Dublin, for the year ending 4th January,* 1830, *with the Medical Report annexed.* By JOHN O'BRIEN, M. D. Physician to the Cork Street Fever Hospital, Dublin. Dublin, 1830. 8vo. pp. 113. R. D. Webb.

THE greater part of Dr. Tweedie's work consists of reports of cases treated in the London Fever Hospital in 1828-9; and the treatment differs in no respect from the ordinary plan pursued; his original views on the nature of the disease

can be detailed in a few words. In common with the largest portion of the profession, he maintains that fever is primarily a general disease, and that local inflammation is a secondary affection of very frequent, but not of invariable occurrence. He holds that the brain and nervous system are primarily engaged in the febrile action; the disturbance in the brain, is in the beginning simply functional, though it may sooner or later, according to particular circumstances, assume an inflammatory character. The circulation and secretions are next disordered, and "in simple fever there is no preponderance of action in any organ, all parts of the system partake equally in the general disturbance." When excitement occurs, the transition to inflammation is very rapid, and will affect the brain in one patient, the organs of respiration in another, the abdominal viscera in a third, the mucous coat of the intestines, or many organs may be simultaneously affected.

"Fever is not inflammation—it is therefore not cured by remedies, that effectually remove the latter, though its violence may be mitigated, and its duration shortened by the judicious modified application of the same measures."—p. 8.

Our author further states, that he daily sees examples of simple fever without any evidence of local inflammation; but remarks, that the latter may come on imperceptibly, or with scarcely any premonitory indications. The brain and nervous system are very generally, if not universally involved in the febrile action—but these are secondary effects of fever. In such cases the most vigilant measures should be at once adopted to prevent those changes of structure which so speedily take place, and render the case almost hopeless. Dr. T. has seen but one case of paralysis consequent to celebral affection. He next adverts to the frequency of affections of the respiratory organs in fever. In one hundred and three cases the lungs were more or less affected in one third. In pneumonia and bronchitis after bleeding, the best effects were produced by the exhibition of one or two grains of tartarized antimony, every second, third or fourth hour—a plan highly praised by our author's colleague, Dr. S. Smith. In numerous cases the inflammation of the chest was overlooked by the attendants previously to the admission of the patients into the hospital, and in such case the utility of the stethoscope was unquestionable.

Dr. T. considers the morbid condition of the intestinal mucous membrane one of the specific effects of typhus; but unfortunately for his opinion such condition is far from

being invariably present. Another point dwelt on is the change of the blood, and its non-coagulation when abstracted in the last stage of typhus, an occurrence noticed at least five thousand times before. Indeed, we do not know a single work on fever in which this morbid stage of the blood is not attested, from Sydenham to Clanny, Stoker, Stevens, &c.

Simple typhus, or the adynamic fever of Pinel, is said to be a disorder of function only, and of rare occurrence in this country, and this opinion is supported by Dr. Southwood Smith, while Dr. Burne maintains that this species is characteristic of the continued fever of London.

The next subject discussed is the complication of typhus, with inflammation of the contents of the head, chest, and abdomen, which is said to be of frequent occurrence. Every man conversant with fever is aware of the fact. Dr. Tweedie cautions his contemporaries against the deception which arises from absence of pain in muco-enteritis, while inflammation proceeds slowly but steadily. We have shown in our last volume how peritonitis may prove fatal, though undiscovered during life; and how much more likely may inflammation of the intestinal mucous tunic be overlooked.

The vermilion colour of the tongue, so much dwelt on by the French and others, is not a certain diagnostic of disease in the bowels; we have a patient at this period whose tongue always presents this appearance when he is in good health.

Dr. Tweedie proceeds to describe the causes of fever, and here we find nothing novel;—cold, intemperance, fatigue, and malaria, are said to be the most common causes of the disease. Famine is a powerful predisposing cause, and in illustration of this position, our author states that he did not recollect a single instance of a butcher being sent into the hospital. The exemption of this class of people from plague, when it last visited London, is mentioned by those who described the disease at that period.

Our author follows the multitude as a contagionist, and, like his associates, arrives at the very unphilosophical conclusion, "that fever will spread by contagion, but that the probability of its extension depends very much on cleanliness, the proper ventilation of the sick chamber, and the purity of the surrounding atmosphere." Suppose we were to substitute the word syphilis, a really contagious disease, for the word fever, in this sentence, how untenable and ridiculous would the position appear. And yet the sentence before us, when strictly examined, is equally objectionable.

At one period contagion was the only cause of fever; but now debilitating causes, however numerous, are allowed to share the power of that ideal phantom. But all debilitating causes, moral and physical, cannot produce any of those diseases which are really contagious. Dr. Tweedie adduces the following facts as a positive proof of contagion:—

"The London Fever Hospital is placed in an open space, situate in the vicinity of the metropolis, close to the Small-Pox Hospital. Both these establishments stand in the centre of a large field, where the production of malaria is extremely improbable. I can state, from the most authentic sources, that every physician, with one exception, (the late Dr. Bateman) who has been connected with the Fever Hospital, has been attacked with fever during his attendance, and that three out of eight physicians have died.

"The resident medical officers, matrons, porters, laundresses, and domestic servants not connected with the wards, and every female who has ever performed the duties of a nurse, have one and all invariably been the subjects of fever; and to show that the disease may be engendered by fomities of clothing, the laundresses, whose duty it is to wash the patients' clothes, are so invariably and frequently attacked with fever, that few women will undertake this loathsome, and frequently disgusting duty. p. 88."

Now this evidence, though considered conclusive, is by no means so to us. It must be recollected that the present physicians to the London Fever Hospital are staunch contagionists; and consequently their precautions while visiting their patients, are calculated to intimidate all persons connected with the sick. Fear, that powerful debilitant, rankles in the heart of every one of these attendants; the air of the wards, however well ventilated, must be more or less contaminated, the progress of fever is accompanied with consequences frightful and disgusting to ordinary attendants, all eminently calculated to depress both mind and body, and produce the disease. That these causes produce fever, independently of malaria or contagion, cannot be doubted by any man who is acquainted with the history of the epidemic fevers of this empire. Again, we do not discover the medical and civil attendance of all fever hospitals affected with the disease, to any thing like the extent in the instance before us. The records of medicine bear ample evidence, that those who fear fever, whether medical or civil, seldom escape the disease, and are generally destroyed by it, while those who entertain no such apprehension almost invariably escape. This fact was abundantly exemplified in the epidemic fever of 1818-19. Again, the absence of fever in the Small Pox Hospital, though contiguous to the Fever Hospital, proves nothing. In the for-

mer, there are few patients, and none labouring under fever; while in the latter there are the worst forms of fever, congregated from the most unhealthy parts of the metropolis. Under such circumstances, and for the reasons already mentioned, the contamination of the air in the fever wards may be such as to cause fever independently of contagion. But whence the perpetual immunity of medical men in general from contagion? This simple problem has never been answered, nor it never can be solved by exclusive contagionists. The idea of men being daily exposed to contagion, and conveying it in their apparel from family to family, and escaping themselves from its effects, is one of the greatest absurdities that ever disgraced the theory of medicine. The late celebrated Dr. Gregory was wont to observe in his lectures, that he must have been exposed some thirty thousand times to fever, and yet he escaped the disease, so accommodating was contagion to the illustrious professor. Yet he was a staunch contagionist. If we look to the history of fever in Ireland, we find it attestated by the writers of several centuries, that famine and fever bear to each other the relation of cause and effect, and that the cause being removed the effect ceases, while the disease has spread over the whole face of the country. How can this fact be reconciled with the doctrine of contagion; how can the exclusive contagionist explain the sudden cessation of disease at a time it is so extensive, that it is impossible to separate the healthy from the sick. Such is the dilemma of those who advocate the doctrine of contagion, who maintain that it is the sole cause of fever. But it is useless to argue with the admirers of antiquity, who despise legitimate induction, who refuse to acknowledge the result of faithful observation and multiplied experience, and who put reason and common sense entirely out of the question.

Our author has given a tabular view of the mortality of fever in different hospitals; and this varied so much in the same hospital at different times, and must always vary from situation and diversity of epidemics, that nothing conclusive can be learned in respect to treatment.

We have now to notice Dr. Tweedie's method of treatment. He is of opinion that there are few cases which are not benefitted by blood letting, "but it is not a remedy which should be indiscriminately adopted, as if fever were identical with inflammation," and that "an epidemic may appear which will not bear the same bold treatment which has been recommended."

He states that 280 lost blood—146 from the arm, 70 locally, and 64 both generally and locally; the average quantity of blood drawn was about 19 ounces.

" Of the whole number bled (280) there were

	Cases.	Average quantity of blood.
Of Simple fever	26	8 ounces.
Affection of the brain	110	20
——— chest	81	17
——— abdomen	22	15
——— head and chest	20	21
——— head and abdomen	12	16
——— head, chest and domen	9	24
	280"	

Blood letting was generally employed in the early stages, but in some cases, when the disease was advanced, and visceral inflammation supervened, which could be arrested by the lancet only. Our author is not an advocate for indiscriminate depletion, and on the use of this as on all remedial agents, he lays down admirable and judicious rules. In bronchitis of fever he prefers cupping to leeches; he rejects emetics and diaphoretics, which he deems inert and productive of injurious effects, by excluding more powerful measures. We doubt much the concurrence of the profession with the notion of rejecting diaphoretics, especially antimonials; and daily observation must convince us of their utility, from the praises bestowed on them by the largest proportion of practitioners. Cold affusion never extinguished fever, but the cold dash is lauded to extravagance, both by our author and Dr. Smith. This consists of pouring cold water on the naked scalp, the stream being gradually raised as the patient can bear it.

Wine was given with the best effects, in fourteen cases out of 521. Purgatives were freely employed, but never produced intestinal inflammation, so much dreaded by the French.

Such are the opinions of Dr. Tweedie, which are creditable to him as a practitioner; but are by do means entitled to that extravagant commendation bestowed upon them by some of his reviewers. His work is a safe guide so far as it extends, but that it is superior to all other productions on fever, because the author happened to witness the treatment of this disease in the Edinburgh Infirmary, is an assertion

too preposterous to require serious notice. We believe there is scarcely a writer on fever in this country who has not enjoyed the same advantage, if there is any advantage in the matter; but with all due veneration for our alma mater, we cannot help thinking that the reputed superiority of modern Athens alluded to on this and other occasions, is estimated by a very considerable portion of the faculty of many parts of this empire, as a very vain and gratuitous assumption. Such are the prevailing sentiments of the largest portion of the profession in this section of the nation; and we remind our contemporaries of the fact, when they forget themselves so far as to laud an imperfect essay on such shallow ground, and condemn a systematic work, which in point of style, composition, and information, is infinitely its superior.

The universal advancement of the age in medical science, and above all, its diffusion by the press, have destroyed all individual claims to superiority; and the less attempts at pre-eminence the more accordance with the spirit of the age. Such empty pretensions do not suit the taste or feelings of the profession at present, and cannot be tolerated. We have been led into these remarks by the fulsome adulation, gross flattery, and ill-deserved compliments bestowed on one work on fever; while another, which the best and most impartial judges in our profession have declared to be one of the best, was censured with an acrimony of feeling, an asperity of reproof and a harshness of expression perfectly uncalled for, and unwarrantable. We hold it to be the duty of an impartial critic, to impute praise or blame to authors with candour and equity, and the reviewer who acts otherwise will not enjoy the confidence of the profession.

Dr. O'Brien commences his interesting report by observing, that a revolution, not unusual in epidemic maladies, and similar to those which mark the vicissitudes of other great natural phenomena, has occurred with respect to fever in Dublin. Not only has this disease fallen below its ordinary numerical standard, but appeared evanescent and altogether extinct. At one period there was not a case of typhoid fever in the Dublin Hospital. This occurred when public distress had obtained its greatest height in that city: and is an exception to the universal observation, that famine and fever have almost invariably borne the relation of cause and effect. The author admits the power of distress in

conjunction with certain moral habits as the chief cause of fever; but he holds that these evils alone are incapable of causing continued fever in any individual instance, much less in its epidemic form; and that to produce this effect, another set of causes, called exciting, is indispensably necessary. These causes will operate tenfold on an impoverished multitude, but when they are absent, he says, we are instructed by the events of the past year of the immunity from fever Our author is at issue with an overwhelming majority of his contemporaries upon this point, as will be seen by referring to the works of Harty, Barker, Cheyne, Stoker, and many others. It would have been interesting had he accounted for the frequency of fever in Dublin and every other part of Ireland; and its infrequency in England and Scotland. The difference of climate will not explain the difference—there must be something in the physical and moral condition of the Irish people.

An important table is given of the admission, discharges, and mortality in the Cork Street Hospital, from 1st of January 1829, to 1st of January 1830; by which it appears, the admissions were 3153—males 1114—females 2039; cured 2836—died, of males 97—females 135—total 232; mortality for males 1 in 11—for females 1 in 14—total mortality 1 in 13.22.

"The records of this hospital furnish evidence that the mortality has never increased regularly in proportion to the admissions; but on the contrary, when the admissions have been most numerous, the relative mortality has, generally speaking, been least. Thus, in the three great epidemic fevers which occurred in Dublin, in the course of the last 20 years, the mortality in 1815, was 1 in 20; in 1818, 1 in 30; and in 1826, 1 in 28; while in the three years 1823, 1824, 1825, which presents a considerable reduction in the admissions, the total mortality was 1 in 11, and in the two past years 1828 and 1829, in which the admissions were also much diminished, the total mortality was 1 in 14.

"The inference from this fact is, that the majority of cases which constitute our epidemic fevers, are of a mild character, a dispensation by which Providence interposes to mitigate the severity of its own inflictions."—p. 9.

Our author appends a table shewing the mortality in the London and Dublin Hospitals, for a series of years, by which it appears the mortality was much greater in the former than in the latter. We leave those who think the London practice *sine comparatione* to reflect on this fact.

The following table, and the comments of our author are highly instructive and deeply interesting:—

Year.		London. Mortality.		Manchester. Mortality		Dublin. Mortality.
1816	one in	11.8	—	——	—	15.30
1817	—	12.25	—	——	—	15·94
1818	—	5.75	—	11.75	—	30.5
1819	—	6.72	—	9.5	—	17.6
1820	—	9.97	—	8.25	—	14.64
1821	—	5.04	—	8.0	—	12.7
1822	—	6.18	—	7.	—	16.92
1823	—	6.11	—	6.33	—	11.71
1824	—	6.0	—	6.83	—	12.13
1825	—	5.1	—	6.4	—	10.17
1826	—	5.34	—	6.66	—	28.5
1827	—	7.25	—	9.86	—	19.13
1828	—	7,22	—	10.25	—	15.35

" In the last epidemic fever which prevailed in Edinburgh, from November 1826, to June 1827, the mortality in the Infirmary and Fever Hospital of that city was 1 in 10.33.—*Ed. Med. Jour.*

" The reason assigned by the authors above-mentioned for the high rate of mortality in the London Fever Hospital, is the advanced period of the disease at which patients apply for, and obtain admission. The neglect of an early application, however, is a subject of constant complaint in the Dublin as well as the London Fever Hospital: and we think this circumstance alone insufficient to explain the great difference of mortality in both hospitals. We believe the fact to be, that the proportion of very severe or bad cases to the aggregate of admissions, is greater in the London than the Dublin Hospital; but whether this is to be attributed to the comparatively limited scale of accommodation in the London Hospital, and the consequent exclusion of all but the more violent cases—or whether the peculiar habits and modes of life of the lower classes in the British metropolis, palpably so different from those of the same class amongst us, do actually communicate a more dangerous and malignant character to the disease under consideration, we have not been able to dicide.

" We do not exactly agree with the opinion of Dr. Hawkins, that the difference in medical treatment, either in the same or different hospitals, exercises no material influence on the mortality; as the admission of such a principle is calculated to induce carelessness and apathy into the practice of physicians, and it is also objectionable as tending to equalize and confound the information, judgment and experience of men. We are far, however, from the meaning to apply this remark to the London and Dublin Fever Hospitals, in the former of which the practice, though a little differing from ours, particularly in the article of blood-letting, is notwithstanding able and judicious."—p. 11.

The mortality in the London Fever Hospital was double that of Cork Street Hospital some years back, a difference

very considerable indeed, which our author is inclined to attribute to local circumstances with which he is unacquainted; and which operate more powerfully than any difference of type which may exist between the fevers of both cities. He illustrates this point by further valuable observations:—

"In St. Thomas's Hospital, London, the mortality for a period of ten years, among the physician's cases, according to Sir G. Blane, has been 1 in 7 for males, and 1 in 10 for females. In St. George's Hospital, the reports for 1825 and 1827 afford a mortality of about 1 in 9. In the Royal Infirmary, Glasgow, the mortality from typhus fever, in the year 1827, was 1 in 9; the mortality from dysentery was 1 in 8 for males, and 1 in 10 for females.

"In the great hospitals of Paris, Vienna, Berlin, &c. the mortality has been still higher than in London, and the general inference we are warranted in drawing from the information communicated by Dr. Hawkins is, that the mortality of Cork Street Hospital has been less than that of any similar institution in Europe. This fact must prove highly gratifying to the physicians of this institution." —p. 13.

The following remarks coincide with those of Drs. Smith and Tweedie, and establish an important fact, the frequency of local inflammation as a consequence of fever:—

"It would be a mistake to suppose that the mortality of this hospital arises solely, or even principally, from continued fever; for, in fact, this disease constitutes but a small proportion of the mortality, except in the epidemic visitations of the disease. The majority of fatal cases in the past year arose from the usual local phlagmasiæ of the thoracic and abdominal viscera, among which acute and chronic bronchitis (the peripneumonia notha of former times) and dysentery occupied, and generally occupy, the highest place; and a considerable number also died of the chronic diseases of those organs which passed from the acute to the chronic stage, either in the hospital or previous to admission.

"The mortality of this class of diseases, is always considerably greater than that of idiopathic or simple fever; hence, when this class of diseases predominates over fever, as it did in the year 1829, our mortality is considerably higher than when simple fever forms the ascendant disease. The best proof of this is, that during the prevalence of the two great epidemic fevers of 1818 and 1826, when all our cases were exclusively composed of pure fever, the mortality was not half so great as in the two past years, the mortality in 1818 being only 1 in 30—in 1826, 1 in 28."—p. 13.

Dr. O'Brien next adverts to the various theories of fever. It is superfluous to trouble the reader with a detail of the discrepant theories of fever, which we have so often placed

before him; and shall content ourselves with stating the peculiar views of our author. He commences by defending Dr. Cullen's definiton of fever.

" Dr. Cullen defines simple or idiopathic fever, to be " Pyrexia, sine morbo locali primario." This definition, if taken in a strict and literal sense, is not only at variance with Dr. Cullen's own notion as to the proximate cause of fever, for he believed it to arise from irritation of the brain; but we submit, is contrary to common sense; for it appears impossible to conceive how any morbific cause, operating on the human body, could act, except by affecting parts in succession; and to say, that a general disease exists without a local primary disease, is to say, that a disease exists without a beginning or origin;—the same observations will apply to the essential fever of M. Pinel. Against this point in the doctrine and definitions of his predecessors, M. Broussais has levelled all his artillery, both of argument and irony; and has introduced the term " ontologie," or essentialism, to ridicule the absurd abstraction, as he conceives, contained in the term essential fever; *i. e.* a fever without a local origin. To complete and render intelligible Dr. Cullen's definition, it would be necessary to add the word " evidente;" *i. e.* " Pyrexia sine morbo locali primario evidente;" and we have no doubt, from what Dr. Cullen says in his " First Lines," that this was the sense, in which he intended the definition should be understood. According to this construction of it, we shall find the definition describing fever as a disease, which may have a local origin; but that origin not perceptible to our senses, and unknown. Whether this be true or false, as a matter of fact, it will, at least, render the definition intelligible, and free from the charge of " essentialism."—p. 18.

Every acute observer will agree with Broussais and our author, that a morbific cause must act upon some organ or organs, and these organs are manifestly the cerebro-spinal system.

Dr. Burne, in his interesting work on fever, objects to the term typhus, and recommends its rejection from pyrectic nosology, on the ground of its various and different applications by medical writers. The suggestion is worthy of adoption, but we fear no term can be proposed which is less objectionable. Thus Pinel makes adynamic fever a species of the essential fevers of the French, and Dr. Burne employs it as a generic or ordinal term " to express the essential fevers of the French, and epidemic fevers of the Irish writers." Dr. O'Brien, however, states that of late years, the fevers of Ireland have been more of the synochoid than adynamic type. He doubts the propriety of considering typhus and synochus distinct genera, he agrees with

those who include both in the genus typhus, and subdivide it into inflammatory and simple typhus.

" The author confesses that he agrees in sentiment with those authors; he believes that the distinction between those divisions of fever arise from circumstances purely accidental, and not from any precise generic, or specific difference existing in nature; and that they are modifications of the same disease, growing out of those circumstances. The modifying circumstances may appear to be, 1st, the strength or debility of the constitution, or powers of life in the individual who receives the infection; and, 2dly, the quantity or dose of the morbific material, whatever its nature be, which produces it. In a constitution naturally feeble, or in one exhausted and debilitated by external causes, or by age, the reaction is feeble, and the synochoid period is accordingly short lived, indistinct, or evanescent; and thus, the exquisite typhus may be formed; again, when the constitution is vigorous, the frame athletic and youthful, the reaction will be energetic, and the synochoid period will be of long duration, and strongly marked.—Similar modifications will arise out of the different doses of the infecting material by which the disease is generated. Between those extremes a multitude of intermediate shades of type will exist, as there are various degrees of the modifying causes, which it will be difficult to reduce to either of the original genera.

" Of this difficulty sufficient evidence will be found in the writings of authors who have treated of this disease, in the works of no two of whom a perfect accordance will be found, as to the nomenclature and arrangement of fevers. Further, in the synochus (i. e. synocho-typhus), of Dr. Cullen, numerous varieties of type arise out of the different relative lengths of the synochoid and typhoid stages. In the short fevers of this country, as the five and seven-day fevers, and the ephemeræ, the typhoid stage is short, or altogether absent, while, in protracted fevers, the synochoid stage is of various lengths, but always much shorter than the typhoid. These endless varieties of type cannot, it is clear, be expressed by any two definite terms, but may, with less confusion, be comprised under a more general or ordinal term—the author shall accordingly adopt the term typhoid fever, to express every form of fever, of of which typhus or typhoid symptoms form a part or the whole—which again he shall subdivide into two species, the synochus or synocho-typhus and the perfect typhus. This division is not essentially different from Dr. Cullen's, but merely an expansion of it."—p. 21.

Our author next details sixteen cases which exhibit the different types of fever which prevail in Dublin, from which he deduces the following general conclusions:—First, that there exists a primary gastro-enterite, attended by a fever of a peculiar kind, approximating in some respects to typhus, like all phlegmasiæ of the gastro-intestinal canal,

yet differing from it by some striking peculiarities. The following train of symptoms is peculiar to this disease:—

"Pain, uneasiness, and generally fulness of the epigastrium, or abdomen, or both aggravated by pressure, and accompanied by head-ache, nausea, or retching, and, in many instances, by frequent vomiting, particularly after the introduction, even of the smallest quantity of fluid or solid aliment, into the stomach. The appearance of the tongue is peculiar and characteristic; it is either of a vivid or dark red colour, over its entire surface, or it is red at the edges and point, but covered with a dark white fur in the centre, through which specks of red are occasionally visible; the centre, however, is also frequently brown, or even of a yellowish hue, whilst the edges are dark red, as above described, and the papillæ all over the surface unusually prominent; and this organ, on the whole, presents a most striking appearance of irritation and sub-inflammation in this disease than in any other type of fever. The pulse is usually deficient in fulness; it is small, frequent, and compressible, and approximates more to the typhoid than the synochoid character. It is also accompanied by a lower temperature of the skin; and, in a word, displays none of the signs of that strong re-action, which marks the early stage of synochus. It is distinguished, however, from typhus by the comparative mildness of the cerebral affection; the author has, indeed, been frequently surprised at the clearness and integrity of the intellectual faculties, in the midst of that extreme depression of the muscular powers which characterises this type of fever. This disease is slow and gradual in its access as well as its progress; the patient feels himself ill for some time, affected with loss of appetite, costive bowels, uneasiness, and occasionally twitches of pain at the epigastrium and in the abdomen, which continue until the febrile movement is developed, when the train of symptoms before described, sets in with all its violence. The progress is also remarkably slow, the disease being frequently protracted to the sixth or seventh week before convalescence takes place. It is further distinguished from typhus by the absence of petechiæ, a black crust on the tongue, or black sordes of the teeth and gums, which the author has never observed in any of the clearly marked cases of this disease he has witnessed. The bowels are either constipated, or too relaxed, and occasionally these two states alternately succeed each other. The abdomen is tumid, resisting and tender to the touch, when pressure is employed externally;—the sleep is uneasy, interrupted, and delirious; but when awake, the patient seems to suffer little diminution of his intellectual powers.

"As a further proof of the real nature of this affection, it may be stated, that the author has invariably observed, that in proportion as the abdominal symptoms were mitigated or subdued, the affection of the head and the febrile symptoms suffered a simultaneous mitigation or removal. The colour of the skin in this disease is commonly one of the shades of yellow;—occasionally the tint is

deep and dark, as in the case of Kitts (No. 1,) where it approached to one of the lighter shades of mahogany. The intense bright yellow colour of the skin, peculiar to jaundice, and, we presume, to yellow fever, has not occurred in this hospital since the epidemic fever of 1826; but, from the author's recollection of the cases which then occurred, he is inclined to consider them as modifications of the disease we have been considering.

" Secondly.—The disease now described may be secondary, that is, may supervene on typhoid fever, a predisposition being probably formed by previous disorder of the stomach and alimentary canal, functional or organic, or by the prevalence of that epidemic constitution or malaria which disposes to diseases of the stomach and bowels, as cholera, dysentery, &c. This adjunct to typhoid fever may occur at an early period of the disease, but it is more frequently observed to accompany the advanced stages.

" In those cases, we are taught by numerous dissections made by modern pathologists, that the principal, in many instances, the sole seat of disease, is the lower part of the *ileum*, near its junction with the *cæcum*, which is probably to be attributed to the densely glandular structure of this part of the intestine, and partly, as we believe, also to its inferior situation, which favours the accumulation of acrid secretions in this part. In a disease like typhus, where the sensibility is greatly impaired, or even destroyed altogether, this affection may exist, without being felt or complained of by the patient; but it will very seldom, indeed, fail to be detected by careful examination externally, or by diarrhea, or a tympanitic state of the abdomen—which latter are its appropriate signs, when the patient is in a state of *coma* or insensibility. Another of its symptoms, more rare than those above-mentioned, is hæmorrhage from the bowels, which, if superadded to a tympanitic state, presents the most intense and hopeless form of this affection. With respect to the colour of the alvine discharges of this affection, it is stated by Dr. Bright, that they are generally ochre coloured; but the author has more frequently seen them of a dark or mud colour, yet he has also frequently observed them as described by Dr. Bright."—p. 54.

Dr. O'Brien is of opinion that there are good grounds in nature for dividing idiopathic continued fever into two great classes, which lead to important indication of treatment; synochæ, or inflammatory fevers; synochus and typhus, or typhoid fevers; but between classes are various intermediate shades of type, which it is difficult to allocate to either class. In the first class, the heart and arterial system are chiefly affected, the sensorium and nervous system being comparatively exempt from its influence. In typhus, the brain, nervous system, and spinal chord are first affected, and through them the heart, arteries, and their capillary extremities. The modifications of the various species will

depend on the modifications of the morbific cause, or on the original conformation or constitution of the sick; but here the relation between cause and effect is as yet beyond our comprehension. In typhus, the prominent features of the disease from first to last are nervous, modified by the various degrees of arterial and vascular action by which they are accompanied. The author proceeds to illustrate the pathology of fever, and offers the following reflections on the subject, which shall conclude our remarks for the present:—

"If we examine the first of the two species of typhoid fever, (synochus) we shall observe the phenomena to succeed each other in the following order:—first, a stage of nervous and vascular depression; secondly, a stage of vascular excitement or reaction; and thirdly, a stage of universal exhaustion and debility, announcing a more complete depression of the nervous, vascular, and muscular powers than in the first stage. In the perfect typhus again, the whole series of phenomena exhibit only increasing degrees of nervous, vascular and muscular depression; the power of arterial reaction is annihilated, and the state of the system approaches to that of general paralysis.* The outline of this description has been already published by the author in the Annual Report of this hospital, for the year 1814,† and the principles of practice which flow from it inculcated in all his subsequent ones. Whether the power applied to the sensorium, in this case, be sedative, as Dr. Cullen thought, or excitive, is a question evidently beyond our power to determine; we merely know its visible and palpable effects. This leads us to the consideration of the physiological condition of the brain itself in this disease. It appears that in every case of typhoid fever, at least the exceptions are so rare that they only serve to establish the rule, there is a determination of blood to the head, sufficiently manifested by the red and injected eye, the burning forehead, the throbbing temples, and the acute head-ache, which accompany this disease at variable intervals of time after its developement. This state of the organ is by some called inflammation, whilst others, although they admit a determi-

* To this state the term adynamia has been applied; but the author is unwilling to render a subject, sufficiently obscure in itself, still more so, by involving it in scholastic and ill-defined terms.

Every physician, we believe, who has treated this disease, will at once admit that exhaustion and debility form one of the most striking and characteristic symptoms of perfect typhus. We are far, however, from supposing that this debility is the cause or essence of the disease, and we doubt if any modern physician thinks so;—we believe it to be a consequence—a symptom only, but one of the utmost importance, and of which the practitioner should never loose sight.

† "The first train of symptoms are nervous, the second vascular, the third vascular and nervous."—*Annual Report for* 1814.

nation of blood, yet deny that the state induced possesses the characters of inflammation; and the term congestion has been introduced to express the condition of the cerebral vessels under those circumstances. Thus it appears, that the dispute on this subject is primarily one about words; but it is also a dispute about the precise nature of inflammation itself, with which, in truth, we are but imperfectly acquainted. We know, however, with certainty, and to this fact, perhaps, our knowledge in every case of inflammation is limited, that the ordinary condition of the brain in typhoid fever is that of vascular fulness and distension; but beyond the expression of this simple fact, strict philosophy will not permit us to proceed. Dissection may, indeed, occasionally discover the vestiges of acute inflammation in the brain; but we believe, in the majority of cases, it has failed to detect it. This condition of the brain, the author holds to be consecutive, not primary, in the morbid series, which constitutes the disease, but when once fully established, it becomes itself a new source of morbid actions, re-acting on the sensorial disorder which produced it; and thus, by its direct and reflex influence, producing the characteristic phenomena of the disease. But this condition, which may be called typhoid inflammation, may also be propagated to other organs essential to life, as the lungs, stomach, &c.; and we are instructed by dissection, that nearly the whole of the mucous surface, or internal lining of the body, is in a state of vascular distension in typhoid fever.

"4thly.—We are not as yet sufficiently advanced in the science of the animal fluids to determine what part the blood plays in the generation of fever, but so far as experiments have been made, it has been found, when drawn in the first or second day of perfect typhus, but little altered from its natural state; we know, however, with certainty, that in a short, but indefinite period after the disease, the blood and other animal fluids suffer a manifest alteration in their physical properties; and thus, in their turn, become a part of the morbid circle, which constitutes the disease.

"From all that has been above stated, it follows, as a necessary inference, that M. Broussais's doctrine is chiefly erroneous in its indefinite application and its universality, in extending the signification of terms, proper only to the species, to a whole class, and in laying down as the etiology of the class what is only true of the species.

"The author is far, however, from wishing to deprive M. Broussais of his just meed of praise. Although the gastroenterite had been previously accurately described by other writers, yet to him belongs the merit of directing the attention of physicians in a more particular manner to this disease, and more clearly and completely developing its pathology; and hence, we do not hesitate to say, that we number him among the improvers of practical medicine, and the benefactors of mankind.

"The original describers of this species of fever, and not inferior, perhaps, to any of their successors, were the German physicians Rœderer and Wagler, who describe this disease as having prevailed

at Gottingen, in an epidemic form, in the year 1760, ("de Morbo Mucoso") and whose work exhibits an admirable history of its symptoms, and morbid anatomy.

"The disease was subsequently described by M. Pinel, partly under the titles of "Fievre Gastrique," and "Embarras Gastrique," and partly under that of "Fievre Muqueux;" and in England, it has usually been known under the general appellations of bilious disorder, and bilious fever, titles inappropriate, and which by no means express its real character. In France, it again became the subject of investigation by M. Petit and Serres, and by M. Breatonneau, and more recently, in an elaborate work by M. Louis; but all these authors appear to me to have confounded the primary with the secondary form of the disease; and M. Louis, in particular, has adopted the theory of Broussais in its fullest extent. In England the subject has received further illustrution, from the cases published by Dr. Bright, of London, and the treatise of Dr. Burne."—p.58.

IV.—*A System of Medical Nosology.* By I. MACBRAIRE, M.D. L.E. Member of the Royal College of Surgeons, Edinburgh, Assistant Physician to the London Hospital, Physician to the London Dispensary, Vice President of the Hunterian Society, &c.: sm. 8vo. pp. 107. Latin and English. Longman and Co. 1830.

THE importance of nosology, the doctrine or science of diseases, to the healing art, leads us to notice the volume before us;—we should hail an unquestionable improvement in this branch of medical literature as the greatest boon the press could afford us.

Nothing shows this importance more clearly than the following consideration:—every individual, on commencing the study of physic, must adopt some methodical arrangement of the subject; he must have a text book or a guide to his inquiries; the subject is one which will not admit of an artificial and arbitrary disposition, principles must form its basis, and, in the present state of our knowledge, theories will enter into its composition, by which means, opinions are formed and prejudices are engendered; these become the prevailing doctrine of the day, and rooted first impressions from this source alone, have operated and continue to operate, powerfully and wofully in retarding the progress of inquiry and improvement.

That the system of Dr. Cullen effected much good, at the period which gave birth to it, and that its author was

deserving of the high encomiums with which he met; that his genius, simplicity, ingenuity, intrepidity, and perseverance, will claim the admiration and thanks of physicians for ages, and that an acquaintance with it is necessary to a medical education,:—even now, that its errors and inadequacy have become a trite and universally accorded theme, we, in common with his greatest admirers, are willing to allow; but that,

"The recent improvements" (our author means since the time of Cullen,) "made in the medical science, have been so numerous and of so important a character, that some change appears indispensably necessary in the system of nosology, which has been so long the student's text book," is equally evident, and has been acknowledged by the profession at large for years past. The prevalence of this opinion has given origin to various new systems; those of Macbride, Crichton, Darwin, Parr, Young, and last in series, but first in importance to the physiological system of the late Dr. Mason Good.

The Cullenian system, so ably propounded by its master, and so enthusiastically supported by its admirers in every school of importance in Europe, was for years the text book of physic; in process of time it became inadequate for its purpose, and has long been gradually falling into disuse and disrepute; moreover, with the system the science itself has sunk in the scale of importance, and instead of being looked upon as one of elementary consequence, it is totally neglected by the medical student of every class, and by the practitioner is referred to more as an object of curiosity than one of necessity, or as having any direct beneficial tendency.*

One principal cause for this neglect, has been the total exclusion by the different examining bodies of a knowledge of nosology, as a necessary qualification for those about to enter the profession; and this again may probably be accounted for by the consideration, that the system of physic of Dr. Cullen came into the world with a species of authority which none other since has had the advantage of; it held its domain supported by the highest talent and the greatest enthusiasm, until "*The March of Intellect*" outstripped its popularity, and that it has not been superceded by any other, is admitted universally to be preferable.

Our author's intention is to improve upon *Cullen's Treatise*, and to render it "*more in conformity with the pre-*

* Dr. Cullen's Nosology is still a Text Book in Edinburgh.—Ed.

sent advanced state of medical knowledge," principally for the use of "*students,*" as a "*text book*;" we shall give our readers a brief statement of this performance, closing with one or two observations.

We must premise, however, that the production of our author is a complete failure, it is objectionable in classic beauty, in arrangement, both natural and scientific; is even inferior to Cullen's nosology, and cannot be compared to Good's. The author should have made himself master of all the nosologies extant, and improved upon them; but on the contrary, he seems to be unacquainted with many of them.

In the first place, we have three classes corresponding to those of Dr. Cullen, the names only being altered from *pyrexia, neuroses,* and *cachexiæ,* to *angloses, neuricæ,* and *cachexii,* to which is added a fourth class—*cutanea,* and the class *locales* of the prototype, is rejected altogether.

Instead of five orders in the first class, we have here only two—*febres and phlegmases;* the *exanthemata* are allowed to a genus of continued fevers; the *hemorrhagiæ* are denied a place in the system as being only the sequel of diseases; and of the *profluvia, catarrhus* is a species of *phlegmases,* viz. *bronchitis* and *dysenteria,* a variety of another species of the same order—*clonitis chronica.* The *febres* are divided into *continuæ* and *intermittentes,* with a definition, the first comprising four, and the latter three generæ; in the *phlegmases* we find a similar division into *p. membranarum* and *p. viscerum;* we have four genera of *p. membranum,* according as the cellular, mucous, serous or fibrous textures may be affected; but the nine species of which the p. viscerum is composed, have no generic distinctions whatever.

The second class, or neuricæ, has two orders, encephalicæ and nervosæ, each containing two genera. The *encephalicæ relationes,* comprise the comata and several of the spasmi of Cullen. *Encephalicæ mentales,* answers to the order vesaniæ; *nervosæ vitæ animalis* has only the one species neuralgia, and *nervosæ vitæ organicæ* is made up of the principal remaining genera of the order spasmi reduced to species.

Class. 3.—*Cachexii* has no ordinal division, it comprises four genera only; viz. scrophulus, scorbutus, syphylus, and phthisus. The marcores and intumesentiæ, including all dropsies, are like the hamorrhagiæ, denied a place in the arrangement, as being "*sequelæ morborum.*"

In class 4, *cutanea*, the arrangement of Willan, is adopted, with the exception that the order exanthematæ, pemphigus of the order bullæ, variola of the order pustulæ, and varicella, miliariæ and aphtha of the order vesiculæ, are transferred to class the first.

As specimens of the ability of the doctor to form genuine and specific essential character, we select the following:—

"Cl. 1. Or. 1. Div. 1. Gen. 4. Exanthematicæ Sp. 3. Scarlatinis febris ardens contagiosa. Quarto morbi die facies aliquantum tumens: simul in cute passim rubor floridus, papulis exigius tandem coalescentibus, post tres dies in squamulas furfuraceas abientibus inflammatione tonsillane sæpe comitante, dein sæpe superveniențibus pulmonam œdemate et anas arcæ.

"Cl. 4. Or. 1, Gen. 1. Strophulus.

"Papulæ, infantum cutem occupantes.

"Cl. 4. Or. 1. Gen. 2. Lichen.

"Papulæ, adultorum, et infantum cutem occupantes.

This brief statement will be sufficient for our readers to form an opinion of the merits of the plan. In regard to the nomenclature, the examples given serve to show that by its adoption we should incur all the inconveniences resulting from a change of names, without any of the advantages expected to be derived from one corrected and simplified throughout;—we are surprised the learned author, occupied in such an undertaking, should retain such terms as scarlatinis, scorbutus, &c. The higher division of the system are unprecedently irregular and imperfect; the clauses are insufficient in number to comprise the whole catalogue of human maladies; and we may remark in passing, that the locales of Cullen, or the anomalæ of Sauvage, are far preferable to no place whatever, for a great variety of diseases in a system of nosology; the principle which excludes hemorrhages and dropsies might be applied to many affections admitted; again, the generic and specific definitions are either diffuse or obscure; of the former there are only about forty-six in number. We could point out many irregularities, and a deviation from scientific principles in their construction, but this article is sufficiently extended, and enough has been said to answer every useful purpose.

In conclusion, we cannot help expressing our surprise that the learned gentleman should have taken no notice of the systems which have intervened between his own and that of Dr. Cullen, and that in his preface he treats the subject as if such authors had not existed. As we find Dr. Good's name frequently quoted in the notes, we presume he was well acquainted with that physician's works, and

with his physiological system of nosology; a production far superior to any other which has appeared upon the subject, the general adoption of which by teachers and examiners, and the consequent revival of nosology as a necessary branch of education would, we believe, contribute greatly to the best interests of the profession; and we do not hesitate to recommend it strenuously to those of Dr. Macbraire's pupils, who have advanced as far as the study of medicine.

ORIGINAL COMMUNICATIONS.

I.—*Observations on Judicious Necrotomy.*

I SHALL be glad, through the medium of your excellent Journal, to lay before the members of the profession two points for consideration, hoping that in some way or other they may be attended with advantageous results, though they may be neither very speedy, nor at first of a very decisive nature. One of the matters in question is of incessant recurrence; the other is comparatively rare, but connected with considerations of no small importance.

The slovenly manner in which the coroners of this country generally discharge their office has long been proverbial; but there is no doubt that they are frequently encouraged in carelessness, if not led into error, by medical practitioners. I hold it to be an axiom, that very rarely will any of us be able to assign the indubitable cause of a person's death, without a *post mortem* inspection of the body. We may, it is true, form a tolerable accurate opinion where we have had access, to observe a train of symptoms during prior disease—at least for private satisfaction; but when it becomes a matter of positive statement upon oath, and the death has been sudden, he must be very presumptuous who would venture before the public with a confident assertion, that may bring an innocent person to the bar of a tribunal on a charge affecting his life—or (what is not at all impossible) so speak, and speak in ignorance, as to let a guilty assassin escape.

But there is connected with proceedings of this nature, a question of economy, of a more sordid description certainly, to which I hope that the attention of the profession may with propriety be drawn.

Any medical man is liable to be summoned before an inquisition; and if it so happens either that his knowledge of the case is limited, or that he is called upon for an opinion as to its nature, he will seldom indeed be in a condition to speak to the cause of the person's death. We may suppose such a course of examination to be entered upon as the following:—"To what do you attribute the death of this person?" "I cannot tell without having the body opened." "But by means of that operation you could?" "In all probability a very accurate opinion would then be formed." "Have the goodness to proceed to make the necessary examination." "I am willing to perform any professional act, but I require reasonable remuneration for my loss of time in doing it, for the trouble, risk, and responsibility which I must incur; and my demand is ———." There is no fund out of which the medical man can be paid this just and equitable demand; and it has sometimes happened, that the jury has been obliged to separate without coming to any other decision than that they had found, or been shewn a dead body. This is a mockery of the matter altogether. But in some instances the parish surgeon performs the operation, and receives an inadequate fee for so doing; or it may be that this cast of his office is included in the general contract; and it is not likely that a sufficient and intelligent examination will be instituted where the object with all parties is to get through the business as rapidly as possible, and give as little trouble as may be.

I consider this to be one of the causes of the failures so remarkable on the part of medical witnesses on capital trials arising out of inquisitions. The preliminary steps are taken so inefficiently, that the proceedings before the coroner, and the opinion solemnly pronounced by his jury as to the perpetration of a wilful murder, are frequently, very frequently, perhaps it would not be too much to say *most* frequently, overturned upon more accurate investigation, and the medical witness finds the opinion given by him formerly, and for which instances might be quoted, of votes of thanks, most completely refuted, often by himself! Let the medical man be paid for assisting to promote the ends of public justice, as well as the coroner, or any other functionary, and then deal smartly with him if he do not perform his duty. It is gross nonsense to talk about throwing impediments in the way of justice. Public justice is not a pauper, and her proceedings ought not to depend on gratuitous contributions of labour and skill any more than of money. I exhort the profession to insist upon an equit-

able stipulation for such important services; and where it is refused, decline to assist. The coroner can compel attendance for the purpose of telling what we know; but I question much his power to order us to seek knowledge.

The other point for consideration I shall state very briefly, and I have no desire to interfere with abstract questions, either of a legislative character, or matters of personal feeling on the part of our brethren; believing myself, at the same time, to be exempt from all unusual squeamishness and affected delicacy. But I must declare that I look upon the part which *surgeons* (for it professedly devolves upon them) perform in the punishment of convicted murderers, to be rather at issue with their true respectability. This question has been repeatedly discussed, and I am quite willing to leave every one to the enjoyment of his own opinion, without wishing to think the worse of him for not considering himself in a situation analogous to that of a public officer, whose respectability is not rated very high. I admit readily that to teachers of anatomy, the present of a healthy subject is a boon, and such of course do right in accepting of it. But there are many practitioners throughout the country to whom the consignment must be quite the reverse, and my object, on the present occasion, is to inquire by what law any surgeon whatever is *compelled* to dissect and anatomize the body of a murderer? At present I know of none; and with all my desire for the spread of anatomical knowledge, I question whether it would not do good, if difficulties were made about carrying this part of the sentence into effect. The law would, in some way or other, have to be altered, and I think the interests of anatomy would gain. For my own part, were I living in a country town, and the authorities call on me to assist in punishing a felon, any way connected with professional acts, whether by trying a dangerous remedy upon him while living, putting him to death by means of poisons or surgical operations, or dissecting and anatomizing him after the executioner had done his part of the process, I say, I might possibly seek to know by what act of parliament I am compelled to join in this sort of business, if I do not choose it; and whether, if I choose to undertake the *carnificious* office, I should not be entitled to remuneration from the county fund?

These views of the subject are not, as far as I know, entertained in any other quarter; but as I do not pique myself unduly upon their importance, I consign them to the pages of the *London Medical and Surgical Journal*,

without the publication of my name. The editor knows whence they came, and will be satisfied as to the nature of my motives in forwarding them.

II.—Dr. Ryan *on state of the Medical Profession.*

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

* The laws relating to the Medical Profession. By J. W. Willcock, Esq. Barrister at Law. London, 1830.

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 of 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 esteem and veneration entertained for the profession at large are diminished, the medical character is lowered and degraded by this state of things, and the public confidence in the healing art is so much injured of late, that many deprive themselves of its aid altogether. The profession, though brought to a degree of perfection hitherto unequalled, has its dignity and degrees so despicably fallen, that the most illiterate assume and usurp its titles, and the university graduate is almost ashamed to be styled Doctor, since he must share his title in common with the surgeon, the apothecary, the chemist, the druggist, and the nefarious quack. Every man may stile himself Doctor, and impose on the public with impunity. Such is the state of physic in London, in 1830. 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 mortification 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 of one and twenty, who qualifies at the 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 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 understanding. 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 indispensible, 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 countries, 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 soveriegn for advice at their own houses. This is not generally known, but it is a fact; and many talented young barristers accept a similar fee for chamber advice. The Apothecaries' company of Ireland have regulated the fees of the respective grades of their body,

apprentices, assistants and licentiates. The apprentice is entitled to half a crown, the assistant to a crown, and the master to ten shillings for each visit, or to a guinea if called up at night. These fees are regularly charged and paid. The price of medicines, draughts, mixtures, pills, boluses, &c. are regulated, and the bills of apothecaries may be taxed at the Hall in Dublin There is no power given by the Irish Act 34 Geo. 3. to regulate fees, or the price of medicine, but the courts of law have repeatedly decided upon the legality of the proceeding. This is a good hint to the company in this country, whose powers are much more extensive, by the 55th Geo. 3. Besides the decision in the case of Hendy *v* Hanson has established the right of English apothecaries to fees, provided they charge a fair and moderate price for medicines.* The good effects of this decision will be speedily felt by the profession, and in due time by the public. According to the present system the British and Irish apothecary, by whom the medicines prescribed by physicians are presumed to be prepared, is scarcely ever in his shop. The moment he receives his licence he ceases to be an apothecary. From that moment he considers himself a general practitioner, and regards his business as a secondary pursuit. He procures a school boy as an apprentice, and to him is intrusted the serious and important office of compounding medicines. The most active poisons are placed within his reach, and are at his disposal. That serious accidents, and even the destruction of life occur from this cause, the public prints daily inform us. The fact is, there is no such person as the law styles apothecary in the British dominions. The apothecary prescribes in all cases, he seldom permits a physician to be employed unless he considers the patient past recovery; and the physician called in by the apothecary conceals his mistakes, and often consults him precisely as if he was a regularly educated practitioner. In extreme cases the presence of the physician only serves to hide the blunders, and protect from blame the incompetency of the former attendant, but the physician who is a party to the delusion, can be actuated only by corrupt and mercenary motives. He must also act against his conscience in prescribing or sanctioning much more medicine than is necessary, though it is an axiom, that "the best physician is he who orders the least medicine." The practice of consulting with apothecaries leads to this monstrous state of things, and the majority of apothecaries themselves feel the bad effects of the system, as well as every one else, and would

* Willcock, op. cit.

never lend themselves to it; unless actuated by necessity. But the surgeons infringe upon the physicians as well as the apothecaries, and this has been so much felt that the Royal College of Physicians in London, cautioned certain eminent surgeons against the practice; a caution which was despised in the teeth of the law. The fact is, we have the various classes of the medical profession, educated and illiterate, encroaching on the rights and privileges of each other, intrenching beyond the lawful boundaries, violating treaties and engagements, and openly transgressing against the laws. This will appear very obvious, by a reference to the valuable treatise of Mr. Willcock, already quoted. Under such circumstances it is impossible for harmony and good feeling to be cherished by the profession. The want of an esprit de corps, so remarkable in other professions, exposes ours to disrespect and contempt in the eyes of the public.

It would far exceed the limits by which I am circumscribed, were I to attempt to enumerate the defects of the medical profession in this country; I shall, however, attempt to depict the most prominent of them when detailing the laws relating to the practice of medicine. Notwithstanding all the abuses detailed, the finest feelings of our nature actuate us in the discharge of our professional duties. The institutes of our conduct are not exceeded in excellence by those of any other profession. The preceding sketch of ethics attests the fact. To return to the pleasing subject of ethics, we have to enumerate a few other rules which guide the higher orders of the profession, and which were proposed by Dr. Percival.

Whenever a physician or surgeon *officiates* for another, who is sick or absent during any considerable length of time, he should receive the fees accruing from such additional practice: but if this fraternal act be of short duration, it should be gratuitously performed; with an observance always of the utmost delicacy towards the interest and character of the professional gentleman, previously connected with the family.

Some general rule should be adopted by the faculty, in every town, relative to the *pecuniary acknowledgments* of their patients; *and it should be deemed a point of honour to adhere to this rule, with as much steadiness, as varying circumstances will admit.* For it is obvious, that *an average fee, as suited to the general rank of patients,* must be an *inadequate* gratuity from the *rich*, who often require attendance not absolutely necessary; and yet *too large* to be expected from that *class* of citizens, who would feel a reluc-

tance in calling for assistance, without making some decent and satisfactory retribution.

But in the consideration of fees, let it ever be remembered, that though mean ones from the affluent are both unjust and degrading, yet the characteristical beneficence of the profession is inconsistent with *sordid* views, and *avaricious* rapacity. To a young physician, it is of great importance to have clear and definite ideas of the ends of his profession; of the means for their attainment; and of the comparative value and dignity of each. Wealth, rank, and independence, with all the benefits resulting from them, are the primary ends which he holds in view; and they are interesting, wise, and laudable. But knowledge, benevolence, and active virtue, the means to be adopted in their acquisition, are of still higher estimation. And he has the privilege and felicity of practising an art, even more intrinsically excellent in its mediate than its ultimate objects. The former, therefore, have a claim to uniform pre-eminence.

Dr. Percival adds in a note; at a period when empirics and empiricism seem to have prevailed much in Rome, the exorbitant demands of medical practitioners, particularly for certain secret compositions which they dispensed, induced the Emperor Valentinian to ordain, that no individual of the faculty should make an express charge for his attendance on a patient; nor even avail himself of any promise of remuneration, during the period of sickness; but that he should rest satisfied with the donative voluntarily offered at the close of his ministration.* By the same law, however, the Emperor provided that one practitioner, at least, should be appointed for each of the fourteen sections into which the Roman metropolis was divided with special privileges, and a competent salary for his services; thus, indirectly, yet explicitly acknowledging, that a physician has a full claim in equity, to his professional emoluments. Is it not reasonable, therefore, to conclude, that what subsisted as a *moral right*, ought to have been demandable, under proper regulations, as a *legal right*? For it seems to be the office of law to recognize and enforce that which natural justice recognizes and sanctions.

The Roman advocates were subject to the like restrictions, and from a similar cause. For their rapacity occasioned the revival of the Cincian ordinance—"*qua cavetur antiquitas, ne quis ob causam orandam pecuniam donumve accipiat.*" But Tacitus relates, that when the subject was brought into

* Vide Cod. Theodos. Lib. XIII. Tit. III.

discussion before Claudius Cæsar, amongst other arguments in favor of receiving fees, it was forcibly urged *sublatis studiorum pretiis, etiam studia peritura*; and that in consequence, the prince "*capiendis pecuniis posuit modum usque ad dena sestertia quæ egressi repetundarum tenerentur.*"*

A precise and invariable *modus*, however, would be injurious both to the barrister and the physician, because the fees of each ought to be measured by the value of his time, the eminence of his character, and by his general rule of practice. This rule, with its antecedents, being well known, a *tacit compact* is established, restrictive on the claims of the practitioner, and binding on the probity of the patient. Law cannot properly, by its ordinances, establish the custom, which will and ought to vary in different situations, and under different circumstances. But a court of judicature, when formally appealed to, seems to be competent to authorise it if just, and to correct it if unjust. Such decisions could not wholly change the honorary nature of fees; because they would continue to be increased, at the discretion of the affluent, according to their liberality and grateful sense of kind attentions; and diminished, at the option of the physician, to those who may from particular circumstances, require his beneficence.

From the Roman code, the established usage, in different countries of Europe, relative to medical fees, has probably originated. This usage, which constitutes common law, seems to require considerable modification to adapt it to the present state of the profession. For the general body of the faculty, especially in the United Kingdoms of Great Britain and Ireland, are held in very high estimation, on account of their liberality, learning, and integrity. And it would be difficult to assign a satisfactory reason why they should be excluded from judicial protection, when the just remuneration of their services is wrongfully withheld. Indeed, a medical practitioner, one especially who is settled in a provincial town, or in the country, may have accumulated claims from long protracted and even expensive attendance; and his pecuniary acknowledgments may be refused from prejudice, from captiousness, from parsimony, or from dishonesty. Under such circumstances, considerations of benevolence, humanity, and gratitude, are wholly set aside: for when disputes arise, they must be suspended, or extinguished; and the question at issue can only be decided on the principles of commutative justice.

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* Annal Lib. XI. Pag. 166. Edit. Lipsii.

All members of the profession, including apothecaries as well as physicians and surgeons, together with their wives and children, should be attended gratuitously by any one or more of the faculty, residing near them, whose assistance may be required. For as solitude obscures the judgment, and is accompanied with timidity and irresolution, medical men, under the pressure of sickness, either as affecting themselves or their families, are peculiarly dependent upon each other. But visits should not be obtruded officiously, as such unasked civility may give rise to embarrassment, or interfere with that choice, on which confidence depends. Distant members of the faculty, when they request attendance, should be expected to defray the charges of travelling. And if their circumstances be affluent, a pecuniary acknowledgment should not be declined; for no obligation ought to be imposed, which the party would rather compensate than contract.

When a physician attends the wife or child of a member of the faculty, or any person very nearly connected with him, he should manifest peculiar attention to his opinions, and tenderness even to his prejudices. For the dear and important interests which the one has at stake, supersede every consideration of rank or seniority in the other; since the mind of a husband, a father, or a friend, may receive a deep and lasting wound, if the disease terminate fatally, from the adoption of means he could not approve, or the rejection of those he wished to be tried. Under such delicate circumstances, however, a conscientious physician will not lightly sacrifice his judgment; but will urge, with proper confidence, the measures he deems to be expedient, before he leaves the final decision concerning them to his more responsible coadjutor.

Clergymen, who experience the res augustæ domi, should be visited gratuitously by the faculty. And this exemption should be an acknowledged rule, that the feeling of individual obligation may be rendered less oppressive. But such of the clergy as are qualified, either from their stipends or fortunes, to make a reasonable remuneration for medical attendance, are not more privileged than any other order of patients. Military or naval subaltern officers, in narrow circumstances, are also proper objects of professional liberality.

As the first consultation by letter imposes much more trouble and attention than a personal visit, it is reasonable, on such an occasion, to expect a gratuity of double the usual amount. And this has long been the established practice of many respectable physicians. But a subsequent

epistolary correspondence, on the further treatment of the same disorder, may justly be regarded in the light of ordinary attendance, and may be compensated as such, according to the circumstances of the case, or of the patient.

Physicians and surgeons are occasionally requested to furnish certificates, justifying the absence of persons who hold situations of honour and trust in the army, the navy, or the civil departments of government. These testimonials, unless under particular circumstances, should be considered as acts due to the public, and therefore not to be compensated by any gratuity. But they should never be given without an accurate and faithful scrutiny into the case; that truth and probity may not be violated, nor the good of the community injured, by the unjust pretences of its servants. The same conduct is to be observed by medical practitioners, when they are solicited to furnish apologies for non-attendance on juries; or to state the valetudinary incapacity of persons appointed to execute the business of constables, churchwardens, or overseers of the poor. No fear of giving umbrage, no view to present or future emolument, nor any motives of friendship, should excite to a false, or even dubious declaration. For the general weal requires that every individual, who is properly qualified, should deem himself obliged to execute, when legally called upon, the juridical and municipal employments of the body politic. And to be accessory, by untruth or prevarication, to the evasion of this duty, is at once a high misdemeanour against social order, and a breach of moral and professional honor.

The use of quack medicines should be discouraged by the faculty, as disgraceful to the profession, injurious to health, and often destructive even of life. Patients, however, under lingering disorders, are sometimes obstinately bent on having recourse to such as they see advertised, or hear recommended, with a boldness and confidence which no intelligent physician dares to adopt, with respect to the means that he prescribes. In these cases, some indulgence seems to be required, to a credulity that is insurmountable And the patient should neither incur the displeasure of the physician, nor be entirely deserted by him. He may be apprized of the fallacy of his expectations, whilst assured, at the same time, that diligent attention should be paid to the process of the experiment he is so unadvisedly making on himself, and the consequent mischiefs, if any, obviated as timely as possible. Certain active preparations, the nature, composition, and effects of which are known, ought not to be prescribed as quack medicines.

Among the various kinds of imposture practised in polished society, quackery has been the most successful, in consequence of the inestimable value justly set on health. It is unnecessary to expatiate on this theme, as it is generally acknowledged. The whole of our medical laws were enacted for the suppression of empiricism, but at no period of our history was it so general as at present. In every other nation in Europe it is suppressed, quack nostrums are prohibited, and it is only in this enlightened country they are tolerated, and blazoned forth as cures for incurable diseases. The Colleges of Physicians possess power to abate this evil, but on this and every other occasion they have neglected the interests of medical science and the public. They have calmly and heedlessly witnessed the degradation of the profession. The grand secret of the encouragement of quackery is this, that the government derives an immense revenue, at least £.100,000 annually, from stamp duty on patent medicines and quack advertisements. During the last session of Parliament, it was admitted that the revenue on patent medicines, in England alone, and exclusive of advertisement duty, which was treble the sum at least, was £30,000 a year. The duty derived from this polluted source in Scotland and Ireland was not stated. The income estimated above, is obviously less than the real amount. How disgraceful to the British pharmacopœias is this state of things, and yet the framers of the pharmaceutical codes are perfectly indifferent about the matter. It would be an insult to the reader, to offer serious proofs of the injury inflicted by unrestrained empiricism, both on the profession and public. We shall dismiss the subject by observing, that quacks are subject to two years imprisonment in France, or to be sent to the galleys for five years. Again, no man is allowed to practise obstetrics unless duly educated, even midwives must be instructed, and apothecaries must confine themselves to their proper business, compounding medicine.

At the close of every interesting and important case, especially when it has terminated fatally, a physician should trace back, in calm reflection, all the steps which he had taken in the treatment of it. This review of the origin, progress, and conclusion of the malady; of the whole curative plan pursued, and of the particular operation of the several remedies employed, as well as of the doses and periods of time in which they were administered, will furnish the most authentic documents, on which individual experience can be formed. But it is in a moral view

that the practice is here recommended, and it should be performed with the most scrupulous impartiality. Let no self-deception be permitted in the retrospect; and if errors, either of omission or commission, are discovered, it behoves that they should be brought fairly and fully to the mental view. Regrets may follow, but criminality will thus be obviated. For good intentions, and the imperfection of human skill, which cannot anticipate the knowledge that events alone disclose, will sufficiently justify what is past, provided the failure be made conscientiously subservient to future wisdom and rectitude in professional conduct.

The opportunities which a physician not unfrequently enjoys, of promoting and strengthening the good resolutions of his patients, suffering under the consequences of vicious conduct, ought never to be neglected. And his councils, or even remonstrances, will give satisfaction, not disgust, if they be conducted with politeness; and evince a genuine love of virtue, accompanied by a sincere interest in the welfare of the person to whom they are addressed.

The observance of the Sabbath is a duty to which medical men are bound, so far as is compatible with the urgency of the cases under their charge. Visits may often be made with sufficient convenience and benefit, either before the hours of going to church, or during the intervals of public worship. And in many chronic ailments, the sick, together with their attendants, are qualified to participate in the social offices of religion; and should not be induced to forego this important privilege, by the expectation of a call from their physician or surgeon.

A physician who is advancing in years, yet unconscious of any decay in his faculties, may occasionally experience some change in the wonted confidence of his friends. Patients who before trusted solely to his care and skill, may now request that he will join in consultation, perhaps with a younger coadjutor. It behoves him to admit this change without dissatisfaction or fastidiousness, regarding it as no mark of disrespect; but as the exercise of a just and reasonable privilege in those by whom he is employed. The junior practitioner may well be supposed to have more ardour than he possesses, in the treatment of diseases; to be bolder in the exhibition of new medicines; and disposed to administer old ones, in doses of greater efficacy. And this union of enterprize with caution, and of fervour with coolness, may promote the successful management of a difficult and protracted case. Let the medical parties, therefore, be studious to conduct themselves towards each

other with candour and impartiality; co-operating, by mutual concessions, in the benevolent discharge of professional duty.

The commencement of that period of senescence, when it becomes incumbent on a physician to decline the offices of his profession, it is not easy to ascertain; and the decision on so nice a point must be left to the moral discretion of the individual. For, one grown old in the useful and honourable exercise of the healing art, may continue to enjoy, and justly to enjoy, the unabated confidence of the public. And whilst exempt, in a considerable degree, from the privations and infirmities of age, he is under indispensable obligations to apply his knowledge and experience in the most efficient way, to the benefit of mankind. For the possession of powers is a clear indication of the will of our Creator, concerning their practical direction. But in the ordinary course of nature, the bodily and mental vigour must be expected to decay progressively, though perhaps slowly, after the meridian of life is past. As age advances, therefore, a physician should, from time to time, scrutinize impartially the state of his faculties; that he may determine, bona fide, the precise degree in which he is qualified to execute the active and multifarious offices of his profession. And whenever he becomes conscious that his memory presents to him, with faintness, those analogies, on which medical reasoning, and the treatment of diseases are founded; that diffidence of the measures to be pursued, perplexes his judgment, that from a deficiency in the acuteness of his senses, he finds himself less able to distinguish signs, or to prognosticate events; he should at once resolve, though others perceive not the changes which have taken place, to sacrifice every consideration of fame or fortune, and to retire from the engagements of business To the surgeon under similar circumstances, this rule of conduct is still more necessary. For the energy of the understanding often subsists much longer than the quickness of eye-sight, delicacy of touch, and steadiness of hand, which are essential to the skilful performance of operations. Let both the physician and surgeon never forget, that their professions are public trusts, properly rendered lucrative whilst they fulfil them; but which they are bound by honour and probity to relinquish, as soon as they find themselves unequal to the adequate and faithful execution.

The following admirable rule of conduct of physicians towards apothecaries, was laid down by Dr. Percival, and cannot fail to be approved of by every honourable practitioner:—

In the present state of physic, in this country, where the profession is properly divided into three distinct branches, a connexion peculiarly intimate subsists between the physician and apothecary, and various obligations result from it. On the knowledge, skill, and fidelity of the apothecary depend, in a very considerable degree, the reputation, the success, and usefulness of the physician. As these qualities, therefore, justly claim his attention and encouragement, the possessor of them merits his respect and patronage.

The apothecary is, in almost every instance, the precursor of the physician; and being acquainted with the rise and progress of the disease, with the hereditary constitution, habits, and disposition of the patient, he may furnish very important information. It is in general therefore, expedient, and when health or life are at stake, expediency becomes a moral duty, to confer with the apothecary before any decisive plan of treatment is adopted; to hear his account of the malady, of the remedies which have been administered, of the effects produced by them, and of his whole experience concerning the juvantia and lædentia in the case. Nor should the future attendance of the apothecary be superseded by the physician; for if he be a man of honour, judgment, and propriety of behaviour, he will be a most valuable auxiliary through the whole course of the disorder, by his attention to varying symptoms; by the enforcement of medical directions; by obviating misapprehensions in the patient, or his family; by strengthening the authority of the physician; and by being at all times an easy and friendly medium of communication. To subserve these important purposes, the physician should occasionally make his visits in conjunction with the apothecary, and regulate by circumstances the frequency of such interviews; for if they be often repeated, little substantial aid can be expected from the apothecary, because he will have no intelligence to offer which does not fall under the observation of the physician himself; nor any opportunity of executing his peculiar trust, without becoming burthensome to the patient by multiplied calls, and unseasonable assiduity.

This amicable intercourse and co-operation of the physician and apothecary, if conducted with the decorum and attention to etiquette, which should always be steadily observed by professional men, will add to the authority of the one, to the respectability of the other, and to the usefulness of both. The patient will find himself the object of watchful and unremitting care, and will experience that he is connected with his physician, not only personally, but by a sedulous representative and coadjutor. The apothe-

cary will regard the free communication of the physician as a privilege and mean of improvement; he will have a deeper interest in the success of the curative plans pursued, and his reputation will be directly involved in the purity and excellence of the medicines dispensed, and in the skill and care with which they are compounded.

The duty and responsibility of the physician, however, are so intimately connected with these points, that no dependence on the probity of the apothecary should prevent the occasional inspection of the drugs which he prescribes. In London, the law not only authorizes, but enjoins a stated examination of the simple and compound medicine kept in the shops. And the policy that is just and reasonable in the metropolis, must be proportionally so in every provincial town throughout the kingdom. Nor will any respectable apothecary object to this necessary office, when performed with delicacy, and at seasonable times; since his reputation and emolument will be increased by it, probably in the exact ratio, thus ascertained, of professional merit and integrity.

A physician called to visit a patient in the country, should not only be minute in his directions, but should communicate to the apothecary the particular view which he takes of the case; that the indications of cure may be afterwards pursued with precision and steadiness; and that the apothecary may use the discretionary power committed to him, with as little deviation as possible from the general plan prescribed. To so valuable a class of men as the country apothecaries, great attention and respect is due. And as they are the guardians of health through large districts, no opportunities should be neglected of promoting their improvement, or contributing to their stock of knowledge, either by the loan of books, the direction of their studies, or by unreserved information on medical subjects. When such occasions present themselves, the maxim of our judicious poet, is strictly true, "the worst avarice is that of sense." For practical improvements usually originate in towns, and often remain unknown or disregarded in situations, where gentlemen of the faculty have little intercourse, and where sufficient authority is wanting to sanction innovation.

It has been observed, by a political and moral writer, of great authority, that "apothecaries' profit is become a bye word, denoting something uncommonly extravagant. This great apparent profit, however, is frequently no more than the reasonable wages of labour. The skill of an apothecary is a much nicer and more delicate matter than that

of any artificer whatever; and the trust which is reposed in him is of much greater importance. He is the physician of the poor in all cases, and of the rich when the distress or danger is not very great. His reward, therefore, ought to be suitable to his skill and his trust, and it arises generally from the price at which he sells his drugs. But the whole drugs which the best employed apothecary, in a large market town, will sell in a year, may not perhaps cost him above thirty or forty pounds. Though he should sell them, therefore, for three or four hundred pounds, or a thousand per cent. profit, this may frequently be no more than the reasonable wages of his labour charged, in the only way in which he can charge them, upon the price of his drugs."

The statement here given, exceeds the emoluments of the generality of apothecaries in country districts. And a physician, who knows the education, skill, and persevering attention, as well as the sacrifice of ease, health, and sometimes even of life, which this profession requires, should regard it as a duty not to withdraw, from those who exercise it, any sources of reasonable profit, or the honourable means of advancement in fortune.

Practices prevail in some places injurious to the interest of this branch of the faculty, which ought to be discouraged. One consists in receiving an annual stipend, usually degrading in its amount, and in the services it imposes, for being consulted on the slighter indispositions to which all families are incident, and which properly fall within the province of the apothecary. We could name a physician in Bath, who, though a saint, acknowledged that he farmed whole families in this way; and in Cheltenham, we are told, that a physician farms a respectable individual, in a public situation, at £.25 per annum; and a veterinary surgeon farms his horses at £.200.

Physicians are sometimes requested to visit the patients of the apothecary, in his absence. Compliance, in such cases, should always be refused, when likely to interfere with the consultation of the medical man usually employed by the sick person, or his family. It would be for the interest and honour of the faculty to have this practice altogether interdicted. Physicians are the only proper substitutes for physicians, surgeons for surgeons, and apothecaries for apothecaries.

When the aid of a physician is required, the apothecary to the family is frequently called upon to recommend one. It will then behove him to learn fully whether the patient or his friends have any preference or partiality; and this he ought to consult, if it lead not to an improper choice. For

the maxim of Celsus is strictly applicable, on such an occasion; ubi par scientia, melior est amicus medicus quam extraneus. But if the parties concerned be entirely indifferent, the apothecary is bound to decide according to his best judgment, with a conscientious and exclusive regard to the good of the person for whom he is commissioned to act. It is not even sufficient that he selects the person on whom, in sickness, he reposes his own trust; for in this case, friendship justly gives preponderancy, because it may be supposed to excite a degree of zeal and attention, which might overbalance superior science or abilities. Without any regard to any personal, family, or professional connexions, he should recommend the physician, whom he conscientiously believes, all circumstances considered, to be best qualified to accomplish the recovery of the patient.

In the county of Norfolk, and in the city of London, benevolent institutions have been lately formed, for providing funds to relieve the widows and children of apothecaries, and occasionally also members of the profession, who become indigent. Such schemes merit the sanction and encouragement of every liberal physician and surgeon. And were they thus extended, their usefulness would be greatly increased, and their permanency almost with certainty secured. Medical subscribers, from every part of Great Britain, should be admitted, if they offer satisfactory testimonials of their qualifications. One comprehensive establishment seems to be more eligible than many on a smaller scale. For it would be conducted with superior dignity, regularity, and efficiency; with fewer obstacles from interest, prejudice, or rivalship; with considerable saving in the aggregate of time, trouble, and expense; with more accuracy in the calculations, relative to its funds, and consequently with the utmost practicable extensions of its dividends.

Such are the admirable institutes proposed by Dr. Percival, for the regulation of professional conduct, and I have quoted them at length, as I was unable to offer any so excellent. They have entitled him to a niche in the republic of medical literature, and will pass his name down to our latest successors. The preceding rules of ancient and modern ethics, afford ample materials to our colleges of physicians for arranging a complete code, such as is much wanted by the profession at the present period, while it may inspire young practitioners and students with those noble sentiments which have invariably distinguished the profession. In order to afford further means for the formation of a code of ethics, I shall give a concise account

of the laws relative to the practice of medicine in the United Kingdom of Great Britain and Ireland.

Laws relating to the Medical Profession in Great Britain and Ireland.

After a great deal of research and labour, I had compiled and arranged the materials for this essay, when my labour was lost, by the publication of Mr. Willcock's, which has just issued from the press. It affords me much gratification, that most of the information I had gained is now placed before me, authenticated by the authority of a talented lawyer, of a gentleman quite free from partiality towards any of the colleges, and who instructs the legal as well as the medical profession. His work is one of deep interest to medical men, as it shews that the London Colleges of Physicians and Surgeons, and the Apothecaries' company, have full power to correct all the abuses which now degrade our profession. In fact, Mr. Willcock's treatise contains much more information than the conjoint production of Dr. Paris and Mr. Fonblanque, and illustrates many important points of medical police, unnoticed by the latter writers. As this excellent and instructive work contains the fullest account of the laws relating to the practice of medicine in England, it would be superfluous in me to execute my original design, and I shall therefore content myself with condensing the chief points of value, without destroying the spirit of their meaning, while I shall enumerate the laws relating to the duties of medical men in judicial investigations, which are omitted by this author.

It must be superfluous to enumerate the ancient orders of the medical profession, including regular and irregular practitioners, neither is it necessary to enumerate the present orders of the faculty, which are generally known in every civilized country. Mr. Willcock devotes his first and second chapters to these topics, and next details the whole of the statutes and patents relative to physicians, surgeons, and apothecaries, as also those of a general nature which affect the profession. After a luminous commentary on every act and charter, and on every decision relative to medical men, he maintains that the law is at present as follows:—

Physicians.—Any person who is not a member, fellow, or licentiate of the Royal College of Physicians in London, and who practises physic in or within seven miles thereof, is lia-

ble to a penalty of £5. a month, or if in the country, unless he is a graduate of Oxford or Cambridge. Every person so practising in any part of the Kingdom, even though his practice was not attended with serious consequences, is also guilty of a misdemeanour at common law. These rules do not apply to a person who may happen to administer medicine to the best of his ability, to such as may be unable to obtain the assistance of a regular practitioner.

"The penalty of £5. is recoverable from such only as have continued their practice for one month at least, and to prove this, it is necessary to shew that the defendant has continued to hold himself forth to the public as a physician, *for one entire month* within the precinct of London, if the proceeding be instituted by the college, or in the country if it be instituted by the common informer; and to shew some instances, or at least one instance of his actual practice within that period, from which it may appear that such practice was in the character of a physician. The word physician by no means implies the necessity of shewing that the defendant was or assumed to be a graduate in physic, the statutes aim against such as were not graduates in physic."

Our author respectfully questions the decision in Dr. Harrison's case, and denies its legality. The verdict was given on the ground that the case was surgical, but the judge considered the evidence sufficient to shew that the Doctor had professed and acted as a physician. "But with the utmost deference to so high and impartial an authority, I venture to submit that the earlier cases, and cases decided upon argument in full court, but which seem not to have been noticed in arguing Dr. Harrison's case, are directly and clearly contrary." Two decisions of the King's Bench and one of the Common Pleas were made upon the point, besides which the Statute 32 Hen. 8. has expressly declared that surgery is a special member of physic, and within the legitimate range of the physician's vocation. "My assumption is that an action will lie at the suit of the college, although the practice proved be surgical, unless the defendant by his plea, show that he is legally entitled to practise as a surgeon, by specially setting forth his licence by the College of Surgeons."

By the original charter and by the Statute 32 Hen. 8. it is evident that every person of the same faculty, of or in London, was entitiled to be admitted into the association of commons and fellows. But as to the persons who should afterwards enjoy that distinction, the original charter and all subsequent statutes are silent. pp. 34, 44.

" It is directly in the teeth of the statute, that no persons can become candidates, who are not graduates of Oxford, or Cambridge."

Surgeons.—" There is no doubt that the surgeon can make and compound all medicines and medicaments applicable to the diseases, submitted to the superintendance of his branch of the faculty. And he may either administer them himself, or prescribe what he thinks proper to be administered to others." By the 3rd Hen. 8. persons can be punished for practising surgery in any part of the Kingdom, except in London, or within seven miles thereof. None can practise in or within seven miles of London, until examined and admitted by the College of Surgeons; but there may be two classes of surgeons throughout the rest of the Kingdom. First, the members of the college who may practise in every part of his Majesty's dominions, and secondly, the surgeons, licensed under the 3rd Hen. 8, who may practise within any particular diocese in which they are licensed, except in London and Westminster, and within seven miles around these cities.

" Every person, except a physician, is liable to be fined £.5 a month, unless a member of the college, who practises in London or Westminster, by action in any court held in the city of London. The same penalty may be enforced for practice in the country, unless the person be a member of the college, or licensed by the ordinary of the diocese, or in his absence by the vicar general, (3 Hen. 8.) and the proeeedings are the same as against unqualified physicians. "

BIBLIOGRAPHY.

PHYSIOLOGY.

1. *Structure and functions of Spleen.*—Mr. Dobson has published " An Experimental Inquiry into the Structure and Functions of the Spleen." He first gives a succinct account of the various conjectures on the use of this organ, and proves them all unworthy of adoption. He made the following experiments to ascertain the precise period at which any alteration takes place in the spleen by the digestive process:—

Exp. 1.—I gave to a middle sized dog a hearty meal of beef and mutton; the animal ate heartily, *In four hours after,* I opened the abdomen, and exposed the spleen immediately; it was *large* and *firm;* its veins appeared completely gorged with blood; on cutting the organ, a large quantity of dark-coloured blood flowed out: the exact amount could not be estimated; but I should suppose there

was about four ounces: it concreted *in a very short time*. The coagulated mass, however, was *soft*, easily broken down, and presented more the appearance termed *grumous blood*, than the proper sanguineous fluid.

Exp. 2.—A dog was procured as near in size as the one in the last experiment as could be met with; the animal took a full meal of beef and mutton; in five hours *after*, the abdomen was opened; the spleen was very *large and turgid*, with blood. The appearance of the blood was very similar to that in the last experiment; the quantity, however, was *much greater*.

Exp. 3.—The spleen of a dog (of an equal size to the preceding) was examined twelve hours after any food had been taken; a very remarkable difference was observable; it was *very small* and *flabby*, and contained only a *very small quantity of blood*. The appearance of the blood differed little from that in the preceding experiments; I thought it not quite so dark.

To ascertain the comparative bulk of the spleen in dogs, I procured two of equal size, and examined their spleens at the same period after a meal; the difference in size was so trifling, as not to invalidate in the least the conclusions I intend to draw from the preceding statements.

Not wishing, however, to rely implicitly on these experiments, for fear that some accidental circumstance might have influenced the appearances, I repeated them, but found the results to be precisely similar. Other experiments also were performed at various periods *during* the digestive process and *after* its completion; the size of the spleen was invariably found to be in a ratio to the quantity of nutriment taken into the system, and to the period at which it was examined after the animal had eaten, that is to three hours after a meal, little alteration in this organ was perceptible; but in four hours after, it was large; and in about five hours appeared to arrive at its maximum, and then gradually to decrease in bulk for twelve hours, which was as far as I observed its condition.

My next experiments were to remove the spleen from dogs, and to observe any effect which might be produced in the system.

Exp. 1.—The spleen of a dog was removed; the animal apparently suffered little from the operation. On the following day I gave it a quantity of food; it ate voraciously; for three hours after no perceptible alteration was produced; but in *four hours after*, indications of uneasiness were shown; the animal became restless, and lastly sunk into a nearly torpid state; it was often moaning, the pupils were dilated,—the heart labouring; there was frequent micturition; the respiration was exceedingly laborious, and, in short, there was every mark of plethora, or over-fulness of the vascular system. In the course of two hours from this period, the animal began to recover; and in about three hours these symptoms had subsided, considerable languor remained. The animal took a large meal twice or thrice in twenty-four hours, and after each, precisely similar effects were presented. The animal became more feeble daily—in a month after the operation, it died.

Exp. 2.—I next removed the spleen from another dog, but instead of giving full meals, as in the last experiment, I gave a small quantity of food every hour, or every two hours. The animal ate voraciously; no unpleasant symptoms occurred; this plan was pursued for three weeks, when the animal to all appearance was quite well; in fact, it became fat; the ligature from the splenic artery had come away, and the wound in the abdomen healed. I then commenced giving full meals twice in twenty-four hours, the same train of symptoms followed each meal, and at the same period, as in the last experiment, though perhaps not so urgent; the animal died in a month from the commencement of this plan of feeding.

In both dogs I observed that the intestinal evacuations were of a lighter colour than natural. On examining the body of each after death, a small quantity of limpid serum was contained in the bag of the tunica arachnoides, and more than a natural quantity in the lateral ventricles; the veins of the brain were in a highly congested state; the abdominal viscera presented no unnatural appearances, but the portal system of veins was much gorged with blood. The deductions to be derived from these experiments, and from the former ones seem sufficiently obvious; but previous to making them, it may be requisite to refer in a succinct manner to a few circumstances connected with the digestive and circulatory systems, so far as they may bear on this question.

From these experiments our author draws the following conclusions:—

"That the spleen acts as a reservoir for containing the additional quantity of blood which the vascular system has received, by means of the nutritive process. It is evident from the remarks on chylification there is a greater quantity of blood in the system at five hours after a meal than at any other period; and as we have premised, that the blood-vessels are not capable of containing this increase with impunity, I infer, that the spleen serves as a reservoir to hold this surplus; because at the time the chylifactive process is at an end the spleen is found distended with blood. Then, as detailed in the third experiment, at twelve hours after a meal, the spleen was small, and contained very little blood; the reason of this phenomenon is obvious; at five hours after a meal, the nutritive process is nearly completed; at five hours after a meal, the spleen arrives at its maximum size: now, as secretion goes on in the various emunctories, there must consequently be a reduction of the circulating mass; and to compensate for this, blood is simultaneously expelled from the spleen, so that in twelve hours the whole is removed; no more circulating through that organ than is necessary for its support.

"We have now to examine the second series of experiments. When the spleen was removed from a dog, and full meals given to the animal, the effects indicated clearly that a greater quantity of blood had been formed than the vessels were capable of containing, compatible with the free action of the vital organs; but as the fluid became diminished in quantity by the secretory functions, healthy

action in these parts was again established. But it was observed, that if a small quantity of food was given at a time, though often repeated, no deleterious influence was exerted; that is, if the increase in the volume of blood was not more than equivalent to what had been previously expended by the secretions, no injurious effects were produced.

Mr. Dobson endeavours to establish this principle, "that the circulatory vessels are capable of containing only a certain quantity of blood with impunity, and that when an increase in the volume is produced, as after digestion, the spleen performs the office of a reservoir to receive the surplus; they show also, that when the fluid contained in the vessels becomes reduced in quantity, as from bleeding, the spleen affords a supply, so as to enable the various organs to perform their necessary offices; and further, they afford collateral evidence of the spleen being more elastic than the blood-vessels.

When we find such a change produced in the spleen after a meal of solid food, we naturally inquire the effect of a quantity of fluid. When a man sits down and drinks ten or twelve pints of ale, or two or three bottles of wine, a considerable quantity of fluid must be absorbed into the system; and were there not a reservoir attached to the circulation, injurious consequences would undoubtedly ensue. Though relief in these cases might be obtained in some measure from the secretory organs taking on an increased action, still that would not be sufficient to relieve effectually the vascular system. But so wise is that mechanician, our Creator, that he constructs his machines not only to suit ordinary states, but to sustain them under casual exigencies. I have twice had an opportunity of examining the spleen in men who had been accustomed to take large quantities of ale, &c. and in both, the spleen was much larger than natural. In one of these cases the spleen was enormously enlarged, and gave the idea, on pressing it, of a bladder half filled with oil.

Our author offers some interesting observations on the pathology of the spleen, which deserve attention.

"The most common change which the spleen undergoes is an augmentation in its size, termed "ague cake;" this state being observed after long and inveterate cases of intermittent fever, more especially if the system has been previously debilitated by intemperance, or the individual be of a scrophulous diathesis. After protracted intermittents, the spleen is often found to weigh from three to five pounds. There are cases on record of this organ weighing from thirty to forty pounds. It has occasionally been found like a mere bag; and during life so much enlarged as to be felt through the abdominal parietes. Opportunities for examining the spleen after intermittents are much more rare at the present day, than formerly, when this malady prevailed to a much greater extent. The explanation of those morbid conditions of this organ is obvious; the spleen receives a surplus of blood every twenty-four hours during the cold stage of the paroxysm, or according to the type of the

[illegible], its vessels and its elastic envelope are extended beyond their ordinary state of dilatation, and before they can resume their natural condition another rush of blood comes into them, and so on successively, until their power of contractility is entirely abolished: enlargement of the organ is the natural consequence, disease is set up, inflammation and its effects ensue, thickening of the covering of a tuberculated state of that membrane; tubercles also are occasionally found disseminated throughout the substance of the organ.

There is an old observation, and one which has been confirmed by modern experience, that hemorrhage from the nose is often concomitant with obstruction of the spleen.

It requires to be investigated what influence the spleen exerts in the production of dropsical effusions; observations on this point may probably induce us to direct some attention to the agency of this viscus, more particularly in reference to anasarca and ascites.

Hemorrhage from the intestines, though of comparatively rare occurrence, does take place; this may arise from some fault in the intestinal vessels, but I feel disposed, in most cases, to suspect the spleen to be implicated; and the function of this organ being deranged, nature relieves herself by these vessels.

Are amenorrhœa and menorrhagia dependent on, or connected with, disordered functions of the spleen?

Pain in the left hypochondrium is a very common complaint amongst females about the commencement of the catamenial epoch; the pain is referred to the precise seat of the spleen, and is often very difficult and tedious to remove.

Splenitis is an affection described by medical authors as rarely occurring. It is stated that relief has been obtained in some cases by vomiting of a dark coloured fluid, very much resembling coffee grounds, and also, by hemorrhage from the hemorrhoidal vessels.

The author deduces the following practical conclusions:—

Every reflecting individual, will, I feel persuaded, accede to the opinion, that the circulatory apparatus is adapted to contain a certain volume of blood; and on the purity, or on a certain state of the blood, combined with quantity corresponding to the capacity of the vessels, does this apparatus preserve its integrity and true action; and whenever the blood-vessels receive blood of an impure quality, or in an undue quantity, disordered action results. From whatever cause the blood acquires this unhealthy quality, the circulation of it through the vasa vasorum will affect the vessels, and thus, their equilibrium of action being disturbed, it will readily be conceded, that an additional quantity of fluid will not only act in maintaining that excited state, but augment it.

Ex. gr. If in a case of inflammatory fever, a state of the system already excited, and exciteable, I increase the quantity of blood by ordering fluids to be drunk. What will be the effect? they will be absorbed into the vessels, the vessels must be further excited from distension, and the impetus of the whole vascular system necessarily augmented to convey it; and this principle is espe-

cially applicable to the spleen. If this organ, as I have endeavoured to prove, be a reservoir for the superabundance of blood in the system, when the spleen is affected with disease of any kind, any addition to the mass of blood must increase inordinate excitement already existing in this organ; and even a healthy organ is likely to suffer when the volume of blood is greatly augmented; that harmony which naturally exists between the contained and containing parts being subverted. This principle will, I am persuaded, be a powerful means, not only in the removal of disease, but in preventing its accession.

The practical inferences I have to offer, as deduced from these statements, are the following:—

1st. That the quantity of fluid usually taken into the system at one time, is greater than the apparatus is capable of containing with impunity; and in consequence of this, excited vascular action, with all its train of morbid consequences, is a common effect.

2nd. That in disorders affecting the spleen, as in intermittent fever, and as well of the whole vascular system, the practice of giving large quantities of fluid, is not only unphilosophical, but decidedly injurious."—We strongly recommend this essay to the attention of our readers.

2. *Absence of the Pulse*—The pulse is in some instances entirely absent, without interfering with health. This circumstance occurred in the mother of Dr. S. of this city. The pulse disappeared during an attack of acute rheumatism, which did not appear to retard her recovery, and it never returned during her subsequent life. She was active in mind and body, and possessed unusual health. In no part of the body could a pulse be detected. I attended her during a part of the time of her last illness, which was an acute inflammation of the intestines, but no pulse existed. She died while I was absent from the city, and an examination was not made to elucidate the cause of this remarkable phenomenon.—*Dr. Jackson, in Amer. Journ. of Med. Sciences.*

3. *Theory of the Sources of Animal Heat.*—The bodies of animals are endowed with the faculty of preserving the same heat in every variety of climate. Though this subject has been an object of curiosity in all ages, it is still involved in obscurity. In almost all the theories which have been constructed, and particularly in the view which I am about to submit, the lungs, in the mammalia at least, are supposed to be the organs by which the heat is evolved, and regulated, and transmitted through the body. The elasticity of their structure is of such a nature, that when extended into a larger volume, as in the act of inspiration, a multitude of internal cavities, similar to those which are found in sponge, &c. must be formed, the dimensions of which will together be equal to the difference between the dimensions of the lungs in their collapsed and expanded states. These cavities, which are all of equal calibre, and consist chiefly of the bronchi, and the pulmonary arteries and veins, with their ramifications, must necessarily be occupied by some extraneous substance. The ramifications of the bronchi, or air ves-

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sels, seem to compose the chief part of the pulmonary structure, and freely communicate with each other. The blood-vessels are the pulmonary arteries and veins, the capillary terminations of which have two communications which require to be noticed. The arterial capillaries have a communication with the venous, through which the blood circulates from the arteries to the veins. Besides these, the pulmonary arteries, as well as those belonging to the larger circulation, have terminations through which red blood is not transmitted. These open into the internal surface of the bronchi, and, from their office are called exhalants. It is now well established, that the veins are also well furnished at their extremities with openings which do not admit, in ordinary circumstances, the red part of the blood. That the pulmonary veins are furnished with such openings, sufficient proof will be supplied in the sequal. These openings perform an office the reverse of that of the arterial exhalants. They take up substances from the surface of the bronchi, and on that account they have been termed imbibers. To enable these vessels to accommodate themselves to the various sizes required by their office, there must, then, be passages of supply and discharge for the materials which fill them on inspiration. The air vessels are supplied through the windpipe, but it is not so evident from what sources the materials are drawn to allow the blood-vessels to expand, or through what channel their contents are discharged. The materials cannot consist of blood, for no blood can enter the pulmonary arteries, or pass out of the pulmonary veins, except through the portals of the heart, and these portals do not open and close in correspondence with the required periods of supply and discharge. The movements of the heart are not timed by the movements of the lungs. Four pulsations of the heart may generally be counted during each complete respiration. It may indeed accidentally happen, that a discharge of blood may be made into the pulmonary arteries, at the moment in which inspiration commences, but, at the same moment, an equal quantity is abstracted from the pulmonary veins to fill the enlarging auricles of the left side of the heart. Whenever, then, a quantity of blood is thrown into the chest, an equal quantity is, in the same period, discharged out of it, and also every discharge of blood from the thorax is accompanied by the entrance of an equal quantity through another channel. The quantity of blood therefore at any time contained in the lungs does not appear to be at all modified by respiration.

Our search, therefore, for other channels of supply, has led us to the following view of the origin of animal heat.

As the blood-vessels of the lungs must be filled, the air received into the windpipe will not terminate its progress with the bronchi, but will pass through the openings (now greatly enlarged) between the bronchi and pulmonary veins, will enable the latter to assume their proper dilatation, and will intimately mingle with the blood in a thousand minute passages. Partly by mechanical, and partly by chemical agency, a portion of this air, while the blood with which it is commixed is still in the lungs, is converted from the

aerial into the fluid state. The consequence of this conversion is well known to be, an evolution of heat. But all the inspired air is not converted into liquid in the pulmonary veins. After the passage of the blood out of the lungs, a portion still retains the gaseous condition; it is mingled with the blood in the form of small globules, and while it circulates through the system, is gradually converted into liquid, and evolves heat, and preserves throughout the temperature of the body. The impurities of the body are at the same time absorbed into the blood, and occasion the colour of the venous fluid.

During inspiration, the blood of the pulmonary arteries is subjected to a diminished pressure. A part of it is consequently converted into air, and reduced in temperature. At the same instant air in the veins is converted into fluid. Thus the heat of the blood in the arteries is kept up at the temperature at which the ebullition is continued. The impurities of the venous system most readily, in these circumstances, assume the gaseous form. By the formation of an elastic fluid, the pulmonary arteries are enabled to assume the augmented calibre, to which they are urged in consequence of the expansion of the lungs. In the succeeding expiration, the lungs press these vessels into their former calibre, and expel some of their contents, the aerial matter finds a ready exit through the capillary vessels of arteries which open into the bronchi, and which, in ordinary circumstances, do not carry red blood, and then makes its exit through the windpipe, the blood shows its liberation from adulteration by resuming the vermilion hue, and is again fitted to be the vehicle of heat and nutriment to the whole system.

According to the preceding view, then, the greater part of the air which we inspire, is received into the blood-vessels of the lungs, is mingled with their contents, and gradually changes into liquid as it circulates. The part of the air which has been inspired is discharged from the windpipe in an undecomposed state. On the contrary, the greater part of the air expired has proceeded from the venous blood returned to the lungs, and consists of the usual gaseous products of the vegetable and animal fermentation,—nitrogen, hydrogen, carbonic acid gases, and a little vapour. Accordingly, an examination of the chemical relations between the atmosphere breathed and the lungs, tends to prove that nitrogen and carbonic acid gases can find access into the bronchi without entering by the windpipe, and that there is no source whence these gases could have sprung but the blood in the pulmonary vessels, and that the air inspired may find its way from the bronchi, without being transmitted back through the windpipe or without being decomposed. What further proofs are there, then, by which the existence of the supposed passages for the air from the bronchi into the pulmonary veins is believed to be established? First, it is rendered probable by the analogy of structure. That openings exist between the venous capillaries belonging to the larger circulation, and that the principal part of the office of absorption is performed by these capillary ramifications, is rendered probable by the explanation of

the causes by which venous blood is moved, and has been established beyond all doubt by Majendie. There is every reason to suppose, that the veins of the lungs are constructed in the same way with the veins in other parts of the system, and that such ramifications are to be found between those veins and surfaces of the bronchi. Analogies are also supplied by comparative anatomy. The air vessels in many insects, as in the locust and silk-worm, are observed to communicate freely with the blood-vessels, from which the return of air or any liquid is prevented by well adapted valves. Substances, also, capable of being inspired, and of indicating their presence by sensible qualities when mixed with blood, as fine powder of stone and of metal, were found after death, by Bertier of Bordeaux, to have obtained a passage from the lungs into the pulmonary veins, and the left chambers of the heart. The next question is, What becomes of the air which is admitted into the pulmonary veins during inspiration? The air taken into the blood-vessels in the way now alleged must be received in infinitely divided portions, and intimately mingled with the blood. It may be absorbed by the blood, it may be chemically combined with some parts of it, or it may be mixed with it, still retaining its gaseous form. There is every reason to suppose that each of these processes takes place in part. By the operation of the two first, a portion of the air will be changed from the gaseous to the liquid form while it is still in the lungs, and heat will necessarily be evolved, but the temperature of the blood in the lungs is prevented from rising beyond a certain degree by a process which has already been alluded to. The remaining portion of air drawn into the pulmonary veins, is transmitted, with the blood in which it floats, and heat is disengaged. This change may not be supposed to be completed before the blood has finished its journey in the arteries, and then its colour is converted from vermilion into purple. Loaded in the manner supposed by Dr. Crawford, and in which I am disposed to acquiesce, with these products of decay from the body, the blood returns to the lungs, where the products are discharged from it into the bronchi, and thence out of the system through the windpipe, in the form of impure air. Thus purified, it is transmitted into the pulmonary veins and resumes its vermilion hue.—Condensed from the *Paper of Dr. Carson, of Liverpool. North of England Journ.*

4. *Dysentery.*—Dr. Gilby, a physician to the Lunatic Asylum, West Riding of York, has found acetate of lead and opium highly efficacious, after the inflammatory symptoms had been removed by leeches and mercury, and when a bloody diarrhœa continued.—When the purging was the effect of relaxed and irritable membrane, the sulphate of copper and opium, as recommended by Dr. Elliotson, were given with the happiest effects. Op. cit.

Acetate of lead and opium may be given in every stage of dysentery with the best effects, and will generally cure the disease without general or local bleeding. Repeated experience has convinced us of the success of this combination, and has led us to think that the Cullenian pathology of the disease is the best.—Ed.

PRACTICE OF MEDICINE.

5. ***Endermic method.***—Dr. Carbutt, of Manchester, has published a case of quotidian intermittent, which was cured by sprinkling a few grains of sulphate of quinine on a blistered surface. He has also cured hæmoptysis by large doses of quinine after venesection, acetate of lead, sulphate of zinc, and sulphuric acid had failed.—Condensed from the *North of Eng. Med. and Surg. Journ. Aug.*

6. ***Syphilis cured in an infant by mercurial frictions applied to a goat that suckled it.***—Dr. Veré Delisle communicated a case to the Académie Royale de Médecine, in which a woman, three months after delivery, contracted a syphilitic disease, caracterised by ulcerations on the inside of the labia and a gonorrhœal discharge. The child whom she suckled was soon affected with venereal pustules and ulcerations round the anus. It was now made to suckle a goat, and the inside of the thighs of the animal having been shaved, two drachms of mercurial ointment were rubbed in every other day. The child was cured in a month.—*Archives Generales.*

SURGERY.

7. ***A concise Treatise on Dislocations and Fractures, being a selection from the most approved Foreign and English Surgical authorites, from the days of Celsus to the present time, illustrated by fourteen plates.*** London, 1830. 12mo. pp.110.—This little volume exhibits a concise and correct account of the nature and treatment of dislocations, and fractures, illustrated by plates representing the various forms of these diseases, and the most approved methods of operation, with the application of splints and bandages. The student and young practitioner will find this work one of the most valuable of modern times. It is compiled from the writings of the best surgeons; it embraces an account of the symptoms, and treatment of every dislocation and fracture, illustrates them uncommonly well by wood cuts. The price of the volume is remarkably moderate, and this useful elementary work may be procured—a disideratum which was long felt in consequence of the extravagant price set on former publications on the subject, which placed them totally beyond the research of the great bulk of practitioners. In place of expending two guineas in the purchase of a work on this branch of surgery, the student has now to expend the sum of four shillings and sixpence. The medical profession in common with the public patronizes cheap literature; and we are confident that ponderous quartos, and bulky octavos, must ere long give way to more modest, and no less useful productions, in the unassuming form of duodecimos. This is only as it should be, knowledge will be more extensively diffused, and the interests of science and humanity better promoted.

8. ***Cure of Subcutaneous nævus by the seton.***—Mr. Fawdington, of Manchester, has published three cases of nævus cured by seton. He advises the remedy in cases where the size of the tumour precludes the use of the knife, caustic or ligature. He states that it will be used with more success than tying the artery which sup-

plies the tumour; and that it is followed by scarcely any disfigurement. The skain of thread should be large enough to fill up the apertures made by the needle, and thus to arrest hæmorrhage, and by using this precaution, a sufficient degree of irritation will be produced to excite inflammation and suppuration throughout the diseased mass. The first case was that of a fine male infant, about three years and a half old, who had a nævus between the angle of the jaw, and mastoid process extending upwards to the zygomatic arch. The whole formed an oval tumour, which measured five inches and a quarter in its long axis, and four inches transversely. It had no pulsation, was purplish, soft and compressible, and had large veins on its surface. A skain of common sewing thread was passed through it with a sadler's needle, and no dressings were applied. On the third day the tumour was inflamed, and on the sixth in a state of suppuration, on the tenth resembled the site of an abscess or common boil, and at one part but a portion of the tumour remained, through which a seton was passed with similar results. In four months there was not a vestige of the original disease.

The second case was one of an infant of ten months old, who had a nævus on the forehead. A seton partially removed it, a solution of sulphate of copper was applied, which produced inflammation and suppuration, but a second seton was required to complete the cure.—Condensed from the *North of Eng. Med. & Sur. Journ. August.*

MATERIA MEDICA.

9. ***Practical Remarks on the nature and effects of the expressed Oil of the Croton Tiglium, with cases illustrative of its efficacy in the cure of diseases.*** By *Michael John Short*, M. D. *London*, 1830. *Longman and Co.*—This interesting essay is embellished with a fine engraving of the croton tiglium. Dr. Short comments on the progress of medicine, on the mutation of opinion, and on the additions which have been recently made to the materia medica, which bring him to the immediate subject of his work. He commences with a botanical description of croton tiglium. He gives the Linnæan description of the plant, but states the first account of it was given by Jacob Bobart, in "Plantarum Historia, Oxoniensis universalis, in 1649, tom. ii. p. 349, which our author cites at length. It was also described by Ramphius in his Herbarium Ambynense, tom. iv. p. 98; by Rheed in his Melabaricus, tom. ij. p. 62; by Burman in his Flora Seylonica, by Gærtner in his work, de Seminibus, by Laureiro in his Flora, Conchin China; by Lunan in his Hortus Jamaciensis; by Murray, Bergius and Dr. Hemming in his Asiatic Researches. Our author next informs us of his object in publishing the present treatise.

"My object in the publication of the present treatise is, to extend the now limited use of the Ol. Croton Tiglium to diseases in which it has not as yet been generally administered; and by the communication of cases which have occurred to me in the course of a long experience of its nature and properties, in India as well as Europe, to give it that place in the opinion of the profession to which its many valuable properties entitle it.

The unmerited disrepute into which this medicine has fallen, from the adulterations to which it is usually subjected before it comes into the hands of the medical practitioner, has rendered it a medicine rarely to be found in the prescriptions of the physician, even in cases where the exhibition of the genuine oil would be attended with considerable advantage: and nothing short of a practical illustration of its benefits will restore it to that celebrity, which it possessed shortly after its re-introduction into European practice by Dr. W. E. E. Conwell, of the Madras service."

A number of cases is detailed in which the oil of the Croton Tiglium, was given with success though obviously contra-indicated. From its acrid properties it has been deprecated in inflammation of the stomach and bowels, but the following cases are detailed by Professor Monchini of Rome, to prove its efficacy and safety in such diseases.

He relates two cases of inflammation of the bowels (gastro enteritis), in which he employed the oil. He mixed one drop of the oil with an ounce of simple syrup, which was taken at two doses, at half an hour's interval. The first patient, who was a female, felt no warmth in the throat. She had, in two hours after taking the medicine, one evacuation from the bowels, and twelve others during the night. It affected her very much, but the pain was much less considerable. The other patient, aged 25, previous to the visit of the Professor, had fever, rigors, pain and tension of the belly, hard pulse, flushed face, anxiety, nausea, and the bowels had not been opened for seven days, although many glysters of oil and common salt had been administered. At three o'clock he took away twelve ounces of blood, applied fomentations and frictions with oil to the belly, besides several enemata of a decoction of oil and marshmallows. At eight o'clock in the evening, finding that the bowels had not been opened, he ordered a drop of the Croton Oil to be given in an ounce of the syrup of marshmallows, in two doses, with an interval of two hours, provided the first had no effect. The first dose, however, in a short time, produced seven stools. The patient then fell asleep: and although there remained a little fever in the morning, it was not necessary to use any other remedies but fomentations and a diluting beverage to complete the cure.

Dr. Short relates the following case;—

David Cleveland, a mariner, aged 38, had visited tropical climates, where he had suffered from inflammation of the liver, which left that viscus enlarged, and, as he describes it, *as hard as a stone*. This state of disease had existed about five years; during this time he had visited various countries, living freely whenever opportunity offered. He came under my care in November, 1828. He had lately returned from sea, and attributed his illness to sudden exposure to cold after great exertion. He complained of great pain in the region of the liver, could not bear the sligtest pressure, and was nearly bent double. Great difficulty of breathing. Pulse 120, hard and full. Tongue coated. Fully satisfied, from much experience, of the efficacy of the Croton Tiglium as a febrifuge purgative, I ordered two drops

to be taken immediately in a little mucilage, and to be repeated every four hours; the patient to drink freely of warm gruel. I visited him after he had taken the third dose, when his pulse was soft, and reduced to 80. Dyspnœa much relieved, and the pain considerably less. He had had innumerable watery stools, and the operation of the medicine had even produced *deliquium animi*. The acute form of the disease was thus cut short; and I had only to contend with the chronic complaint, which was treated as follows:—Pil. hydrarg. gr. v, made active with mfs of the Ol. Croton Tiglii, taken every night. Cold infusion of sarsaparilla, acidulated with acid. nitric. Ibi. per diem; keeping up a pustular eruption over the right hypochondrium with a liniment composed of Ol. Tiglii & Lin. Saponis, one part of the former to three of the latter. He was discharged cured on the 20th of February following, all hardness and enlargement of the liver having disappeared.

Much has been urged against the administration of a medicine so active in its operations, in the ordinary forms of disease; I can, however, fully testify to its perfect safety, and its utility in every case where a purgative was indicated, in infancy and adult age, either as a simple purgative, an hydrogogue, or where I desired to produce a sensible effect on the system, and objected to venesection on account of the permanency of its effects. In corroboration of this, I insert extracts of letters, written by M. Majendie to the Academie des Sciences de l'Institut de France; by Dr. Le Fort, Physician to the King of France, and Chief Medical Officer at Martinique; by Inspector Tegart, of Barbadoes, to the principal Medical Officers of Stations in the Windward and Leeward Islands, dated *Barbadoes, 21st June*, 1821; by the same to Sir James M'Grigor, Director General to the Army Medical Department, dated *Barbadoes, 30th Nov.* 1821; by the same, addressed to the Army Medical Board, and dated *Feb. 28th*, 1824.

Efficacy of Croton Oil in constipation, and as a hydrogogue exemplified by cases in the London Hospital.

John Hickman, ætatis 21, was admitted an in-patient of the hospital on the 24th of August, 1827. He represented his illness to have commenced ten days before, with a violent twisting pain in the bowels, attended by constipation. During that time his medical attendant had given him 160 grains of calomel, a pound and a half of salts, and a pound of castor oil, besides venesection, twice, to the amount of sixteen ounces each time, with enemata innumerable. The removal of this patient from his bed to the hospital caused a general depression. On his arrival, his pulse was scarcely perceptible; pain on pressure of the abdomen. Two pills, each containing one minim of Croton Oil, were given immediately, and, as reaction did not take place for some time, he was put into a warm bath. When put to bed a second time, the bowels began to act, and continued all night and part of the following day, when an immense quantity of feculent matter was dislodged; by this all pain and uneasiness was removed, and in a fortnight he was discharged, cured.

Mary Ann Robertson, ætatis 16, reported on her admission, that,

for four months before, her belly had gradually increased in size; that she had been under medical treatment out of doors, but without having derived any benefit.

After her admission, three days were allowed to pass without entering on any particular plan of treatment, as the fluctuation was very obscure. After the lapse of that time, two minims of Croton Oil were administered in the evening, which began to operate about twelve o'clock, P. M. The number of stools were not counted by this patient, as she was greatly distressed by the involuntary discharge of urine. So great was the quantity discharged, that it ran through the bed, and literally overflowed the ward; the tumefaction entirely subsided; and in ten days she was discharged cured.

Our author cites the history of a case of tetanus, successfully treated by Mr. Lawrence by the Oil, which has been published in his lectures, and therefore need not be introduced in this place; the following cases of phrenitis and hydrocephalus, are worthy of perusal.

A. S. aged 38, had been troubled some days with severe pain of the head and throbbing at the temples. He had been cupped twice within the last thirty-six hours. When I saw him, it required three men to keep him in his bed. His face was flushed, eyes glassy and starting, conjunctiva much injected, scalp hot and constricted, pulse small and hard, tongue covered with a dark coating. Took twenty-four ounces of blood from the arm; ordered cold lotion to the head, and one drop of Croton Tiglium oil, to be repeated in an hour if the bowels be not freely opened. I saw the patient again in six hours. The second dose of the oil had produced several loose stools. He is more quiet; but the pain in the head is very distressing. Ordered twelve leeches to the temples, to continue the application of the cold lotion, and one drop of the Croton oil to be given every six hours. The following morning he was much relieved; has been for nearly the last hour constantly on the water-closet. Pulse softer, face and eyes of a more natural appearance. He vomited, during the night, a dark bilious fluid. The stools black and very offensive; complains of inclination to vomit on taking any fluid into the stomach. Ordered effervescing draughts of aërated kali, with recent lemon juice, every four hours. In the evening the symptoms of cerebral affection returned with nearly as much severity as ever. I ordered him to take ten grains of calomel immediately, and one drop of Croton Tiglium oil every two hours during the night, and the cold application to be continued to the scalp. Morning; has had innumerable stools of a dark watery character, and mixed with scybalæ; pulse soft and natural; complains only of weakness. Ordered one drop Ol. Tiglii. three times a-day, with the following draught,—

℞ Potass. Subcarbon. ℈i.
Confect. Aromat. ʒss.
Aquæ Menth. Sat. ʒiss.
Succ. Limon. recent. ʒi.

Next day. Has improved since yesterday; stools more natural; tongue becoming clean; pains in the head quite gone. This treat-

ment was continued two days longer, when a little tonic only was required to re-establish his health.

The following cases of hydrocephalus I submit without a comment:—

Ellen Chalmers, aged 5 years, was brought to me by her mother who bore the marks of the scrophula. She said the child had been weakly from birth. Her present illness had been of eight or ten days' duration. The circumstance which first excited her alarm was the great enlargement of the head. The pupils were dilated, sleep disturbed, bowels constantly constipated. I ordered half a drop of Croton oil to be given in a little powdered sugar three times a-day, and the whole of the spinal column to be rubbed with an ointment formed of one part of Croton Tiglium oil and four parts of Ung. Hydrarg. fort. night and morning. The third application produced extensive pustular eruption. The oil acted well on the bowels. The character of the alvine evacuations was altered, from a green curdy matter to almost natural fæces, in the space of three days; and every distressing symptom was removed in twelve days from the commencement of the treatment. The head was much decreased in size; and I recommended the country air, and to continue to give a drop of the oil in sugar occasionally.

—— Brachey, aged 4 years, had been ill about a week. The mother obsevring an irregularity of the bowels, had given a purge of infusion of senna. The symptoms becoming alarming, I was sent for. I found the child in bed, rolling the head. Any attempt to move him appeared to distress him much, and was attended with screaming. The pulse was quick and small; the skin hot: the tongue much furred; pupils dilated; and his sleep disturbed; with those peculiar screams which are so characteristic of hydrocephalus; refuses all kinds of food; desires only cold water. I ordered five grains of calomel with ten of jalap to be given immediately; half a drop of Croton oil three times a-day; a blister to the back of the neck. The following day, the blister had drawn well, and the bowels had discharged frequently; motions dark-coloured and watery. The skin was not so hot; the pulse slower; the other symptoms as yesterday. Ordered the blister to be dressed with Cerat. Sabinæ, and the Croton oil to be continued.

Third day.—Slight amendment. Treatment continued.

Fourth day.—Stomach very irritable, rejects every thing—medicine producing several stools of a dirty brown colour, and very offensive smell. Ordered a blister over the stomach. The blister at the back of the neck inflamed, and discharging freely. The savine dressing to be discontinued, and bread poultice to be applied. The Croton oil to be continued.

Fifth day.—Stomach quiet; has slept undisturbedly nearly four hours; evident amendment.

Sixth, Seventh and Eighth days.—The treatment was continued. Very little affection of the head remaining. The bowels seem to have become habituated to the medicine, which now produces only two or three motions in the twenty-four hours. The tongue still

coated. Ordered hydrarg. cum cretâ gr. v. every night. Half a drop of the Croton oil twice a-day. This treatment was continued twelve days, when the child was quite restored to health. Twenty months have now elapsed, and it still continues well.

We insert the following account of Cholera in India, which corroborates that of Mr. Searle, and will be found in a preceding page.

There are two species of cholera prevalent in the East Indies—the species peculiar, perhaps, to that country, and the bilious cholera, similar to that of England, but, as is to be expected from the nature of the climate, exhibiting in India much greater severity in its symptoms, and inflicting more permanent injury on the constitution it attacks. The one seems to arise from some peculiar state of the atmosphere, and, like other diseases produced by miasmata, appears to exert its agency primarily and principally on the nervous system. The other is undoubtedly caused, in some cases, by an inflammatory state of the alimentary canal, from the application of cold, &c.; but in nine cases out of ten, by the presence of acrid bile, which at this time is poured out by the liver, much increased in quantity, and, I have no doubt, considerably altered in quality. The former, like all other diseases where the nervous system is primarily affected, is rapid in its progress; so rapid, indeed, that it affords little time for the interference of the medical practitioner. The latter is slower in its effects, and allows sufficient time for the application and operation of medical treatment. The usual mode of treatment followed in India is the exhibition of calomel, opium in its various forms and afterwards saline purgatives with senna. I was induced, however, from the opinion I had formed of the cause of the complaint, to begin with the purgative plan; and the success which has attended my practice warrants me to recommend it with confidence to the consideration of the profession.

Of all other purgatives, I consider the Croton Tiglium Oil by far the best in all cases of this kind. If there be any inflammatory action going on in the intestinal canal, either from external causes, or from the presence of irritating matter within, the Oil will be found the most effectual application, as it will remove the cause of irritation sooner than any other purgative with which I am acquainted; and at the same time, diminish inflammatory action more speedily, and, in my opinion, more effectually, than even the abstraction of blood. As a proof of these assertions, I have selected the following case, from many similar ones which occurred to me in my practice in Madras, during a period of four years; not because the effects of the exhibition of the Oil were more obvious or more satisfactory, but because as the ordinary mode of treatment had been frequently applied before in the same patient, and under the same circumstances, we are thus enabled to institute a comparison, and this case is consequently more conclusive.

A lady, of a nervous temperament and bilious habit, aged about 35, came under my care, labouring under a severe attack of bilious cholera, a complaint of which she had had frequent serious attacks.

I found the vomiting of black bilious matter and the purging excessive. Wishing to evacuate the contents of the bowels as soon as possible, I ordered one drop of the Ol. Tiglii. in 3ij. of syrup to be given every four hours; and told the lady to drink freely of warm barley-water. Three doses of the medicine completely cleared out the bowels, removed the spasmodic action, and appeared to have restored the healthy action of the liver; for, on the next day, no ailment existed; the appetite had returned, and in the evening she said she felt quite well. In all her former attacks, she had been treated with large doses of opium, which produced great stupor, without relieving spasm. Calomel and the other usual remedies had also been applied; and it was generally upwards of a month before she had perfectly recovered.

Dr. Short has also exhibited the remedy in hysteria epilepsy, gout, spasmodic colic, tœnea, and rheumatism with great success. He thinks it superior to other purgatives. He has used it externally as an irritating liniment, and is convinced it is preferable to tartarized antimony or lytta, it stimulates the skin much sooner than either of them, diffuses more warmth, and can be better regulated as to its effects. He has employed it in this way in acute and chronic rheumatism, in neuralgia, in glandular, and other indolent swellings, and in pulmonary complaints. In combination with Ung. Hyd. the mercurial action is speedily produced.

Such are the valuable effects of the Croton oil, and we think the profession deeply indebted to Dr. Short for the information he has given. His treatise is well worthy of attentive perusal, and every practical man will freely acknowledge the value of its contents.

9. *Sedative effects of the spider's web.*—The web of the black spider has received commendation from many respectable sources, as a sedative agent, capable of calming, with peculiar ease and certainty, morbid excitability of the cerebral and nervous systems. On the credit of those qualities it has been employed in the various forms of temulence, and not without a share of reputed success, sufficient to entitle it to consideration in that state of constitutional irritation. In the summer of 1827, we tried this article in many cases, and in full doses. To test its qualities, it was given, where the state of the patient admitted, uncombined with opiates. When thus used, its effects were generally partial or doubtful, and its powers inadequate to the production of tranquillity or sleep. In one case only have I found this substance to exert great or decided sedative attributes. This was the case of an intelligent young man (in private practice) who, after consuming, by his own report, three quarts of brandy, in thirty-six hours, fell into a state of temulent excitation so excessive, that he was incapable of keeping a recumbent or even a sitting posture, for more than a minute, but paced his chamber with a ceaseless step for two days and nights. He was not delirious: on the contrary his conversation was rational, though hurried and vehement. But he was so far under the influence of spectral hallucination, that if he closed his eyes for a moment, day or night, he was instantly visited by a host of phan-

toms of frightful aspect; hence his aversion to lie down, or make any voluntary effort to sleep. This patient took opium, opium with camphor, and black drop, at short intervals, and in full doses, until the quantum of opiate approached the utmost limit of probable safe administration, without even partial relief of constitutional irritation, or any apparent proneness to sleep. The temulent excitement kept unabated for twenty-four hours, the second night passed in constant vigilance, locomotion, and mental excitement, and it seemed probable that excitation so intense, protracted, and unremitting, must soon lapse into delirium or convulsions. At this time, the morning of the third day (the second of my attendance) he began the use of the fresh web in pills of five grains every hour. Its effect was prompt and unequivocal. He calmed, even sensibly to himself, with every dose, and watched with desire for the time of repeating the pills. The first effect of the web was to abate his restless movements about the room, he became disposed to sit down, and kept his chair, with short intervals of walking, for some hours. In the evening he consented to go to bed, got up once or twice, but returned to bed without difficulty; took an opiate at night, the first for eighteen hours, and slept continuously for eight hours. The cure was completed without difficulty, by repeating the web less frequently next day, quiet, suitable nourishment, and another opiate at night. The patient spoke emphatically, both the first and second day, of the soothing influence produced by the pills. He was not at the time informed of their composition.—*American Journal of Medical Sciences.*

CHEMISTRY.

10. *Preservation of Blood.*—Sugar refiners and others are often inconvenienced by the difficulty of obtaining blood at the time when it is required for use. M. Toursel has endeavoured, in part, to remove this difficulty, by proposing a method of preserving this agent for some time without injury. It consists in putting the blood into bottles, or other vessels, with very narrow mouths, and being careful to fill them up to the neck; a layer of oil, to the depth of at least half an inch, is then put upon it to cut off communication with the atmosphere, and the whole is left to itself. M. Toursel states that he has, in this manner, preserved blood, with all its physical and chemical qualities, from the 1st of December, 1827, to January, 1829.—*Journ. de Commerce.*

MEDICAL JURISPRUDENCE.

11. *Shocking effect of Quackery in London.*—We have often reminded the College of Physicians of their power to suppress quackery, and never was there an instance better calculated to rouse them from their lethargic slumbers, than the melancholy one which we are about to relate. Can it be credited, that the lives of the community may be sacrificed in a country that boasts of superior civilization, in the following manner?

A lady in perfect health, and in the prime of life, twenty-four

years of age, accompanies her sister to the house of an audacious quack, who not only pretends to cure consumption, but to prevent all diseases, and whose votaries are the Peerage and Commoners of England. The wily empiric tells another patient, that the lady whose tragic fate we are about to detail, must die of consumption in less than two months, unless she submits to his mode of treatment. The unfortunate female consents, and the treatment is commenced, which consists of the application of a powerful escharotic to the back, which produces such inflammation and sloughing, that the deluded victim is destroyed by constitutional irritation, and when in the act of dying, is assured by the ignorant pretender to physic, she is doing exactly as he wishes, and that he would give one hundred guineas could he effect similar sores on more of his patients.

A coroner's inquest is held, when the following evidence is produced, which we copy and condense from the public papers.

Inquest on the body of Miss Cashin, lately under the care of Mr. St. John Long, curer of all diseases, who is patronized and encouraged by the Peerage and Commoners of the United Kingdom of Great Britain and Ireland, and tolerated by the Royal College of Physicians in London, contrary to the law of the country which constitutes that body, and originally incorporated it for the suppression of quackery, and protection of the lives and health of his Majesty's liege subjects.

On Saturday, the 21st ultimo, a coroner's inquest was held at the Board Room, Hampstead Road, to inquire into the cause of the death of Miss Cashin, a young lady of the highest respectability, a native of Ireland, who died in consequence of the treatment employed by a person named John St. John Long, residing in Harley Street, Cavendish Square, a man who professes to prevent and cure all diseases, but particularly consumption.

Mrs. Roddis deposed, that she accompanied the deceased to Mr. Long's, in Harley Street, on Friday week, to ascertain his opinion of her back, when he declared "*it was precisely what he wished it to be.*" On the following day, witness was called to the young lady's apartment, and found her in the greatest agony, and on looking at her back, saw it in a state which it was impossible for her to describe. In the evening Mr. Long came, and pronounced the back to be in a very good state, and that he "would give a hundred guineas if he could produce a similar wound upon the persons of some of his patients." Witness pointed to a certain spot, and inquired the cause of its appearance, which he said arose from *inhaling*, which was a part of his system, and without such appearance no good could be expected. Witness wished he would order a composing draught, but he replied, a tumbler of mulled port wine, was better than all the doctors in the world could prescribe. He denied the patient was in danger. Mr. Brodie was called, ordered some medicine, which relieved the sickness of the stomach, and recommended a poultice to the back. On the following day the patient expired. *The lady was in perfect health when she applied to Mr. Long, and did so, as she was told he could prevent any complaint with which a person was likely to be affected.*

Mr. Brodie deposed, that on inspecting the back of the deceased, he observed a slough as large as the palm of his hand, the surrounding skin was inflamed, she had incessant vomiting, for which he prescribed what remedies he thought best. On the following day he found the patient dead, and the slough considerably extended. He considered the wound in the back the cause of death.

Mr. Sweetman, friend to deceased, stated, that the sister of deceased had died that day, and was also under the care of Mr. Long—a declaration which produced an extraordinary sensation among the jury.

Sir Francis Burdett, M. P. came forward to speak of Mr. Long's competency. He, Sir F. had called on him, as he had heard of two persons cured of tic doloureux by him, with a view to learn whether any relief could be afforded the Marquis of Anglesey, and from what he saw, was convinced there was no danger in his mode of treatment; for having the gout in his hand, he suffered the remedy to be applied, though with the conviction that it could do him no good, and in order that he could report to the Marquis of Anglesey the effect. His lordship got better at the time; but so satisfied was deponent of the effects of the practice, that he recommended Mr. Long two patients.

Mr. Wakley, who attended as a friend to the relatives, cross-examined Sir Francis, when the following evidence was given:—

That witness did not know any person relieved by Mr. Long: that he derived no benefit whatever from the application; that Lord Sligo told him he was cured of the gout by Mr. Long, and that he, Sir F. had not made medicine his study; knew nothing of Mr. Long's preparation, and could not distinguish prussic acid from water.

Dr. Alexander Thomson gave a most minute detail of the morbid appearances, and so enshrouded it with technicalities, as to bewilder both coroner and jury. He proved "there was no sloughing on the back," and could not take upon himself to say what was the cause of death, until he had examined the head and spine. The inquest was adjourned for the purpose, and after the dissection, he deposed, that the brain was healthy, the sheath of the spinal cord reddish, the pleura and stomach highly inflamed, and that there was no difference of opinion between Mr. Brodie and himself.

Mr. King was present at the dissection, the brain was healthy—the body appeared that of a healthy person who died after a short illness, observed a large scar on the back, nearly as large as the crown of a hat, as if a red hot iron had been applied; the surrounding parts gorged with serum, did not examine the pleura or stomach; was of opinion that the state of the back was produced by a very strong escharotic, and should say very few persons could recover after such an injury; the injury on the back was the sole cause of death; believed the patient was not consumptive.

Mr. Wildgoose, surgeon, appeared for Mr. Long. The gist of his evidence was, that "he should not have supposed the state of the back would have caused death."

Mr. Wakley cross-examined this witness in a manner which excited much laughter.

Dr. John Hogg was present at the examination of the spine;

observed the cord discoloured opposite the injury on the back, it was of a crimson appearance and thickened, the cord was healthy, as also the brain; "the violence done to the nervous system was quite sufficient to cause death, particularly in the case of a nervous and delicate young lady. He should not think of making such a wound in any case."

Dr. Goodeve corroborated the preceding evidence.

Dr. James Johnson deposed, that the sheath of the spine was slightly discoloured, but the whole was not thickened; did not think the redness was the cause of inflammation; was of opinion that the patient died from several effects, the primary cause being from the local inflammation which produced incipient gangrene, fever resulted from that inflammation, and the inflammation of the stomach, and pleura resulted from the fever. Death was produced by these combined circumstances, all depending on inflammation of the back.

Mr. Mackelcan and Mr. Evans coincided with the other medical witnesses.

Mr. Sweetman corroborated the evidence of Mrs. Roddis, and stated further, that Mr. Long informed him how deceased became his patient. "He told me that a young lady, one of his patients, asked him what he thought of Miss Catharine Cashin, who was in the habit of going to his house with her sister Ellen, and Mr. L. told the young lady, that Miss Cashin would be seized with consumption in less than two months, unless she allowed herself to be rubbed by him with his mixture. She told her mother, who consented to her undergoing this treatment, lest she might have to accuse herself of any neglect in the cure of her children."

The following classes of persons came forward to prove the safety and infallibility of Mr. Long's practice, either on themselves or their families. A marchioness, a lady of title, a general, a surgeon, a solicitor, and a number of ladies and gentlemen;—one gentleman proved that he was under the care of Sir Astley Cooper, who considered his case a dangerous one, and afforded him no relief, and that he was cured by Mr. Long. Another was sent home to die of consumption by Sir Anthony Carlisle,* and cured as if miraculously. In fine, all the witnesses, who amounted to sixty-three, were under the care of regular practitioners, and derived no benefit, but were either cured or relieved by Mr. Long's friction and inhalation, which were employed in every case. The escharotic lotion was applied to the chest, back, temples, hands and legs, and always produced violent inflammation and sloughing. In one case it was applied to a leg affected with erysipelas, it produced a great pain, but cured the patient in a few days. The marchioness swore that she applied Mr. Long's lotion to her hands without injury.

This melancholy case affords us another excellent opportunity of commenting on the medical evidence. It is clear from the evidence of Dr. Thomson, that he is a tryo in medicine, and presents a good example of the necessity of enforcing the study of medical jurisprudence. He first affirms there is no slough on the back,

* Sir A. has contradicted this.—*Times.* Aug. 31st. Ed.

though proved by one of the most scientific and eminent surgeons in London; and next, he cannot say what is the cause of death, until he examines the brain and spine. Could any practitioner of common observation, have the slightest hesitation in ascribing the cause of death to the extensive eschar on the back, or hesitate half a moment to ascribe the other morbid appearances to this cause? Is there a fact better attested than this, that the constitutional irritaconsequent to such a cause, would destroy life, unless arrested by proper treatment. And whoever heard of examining the brain and spine in such a case, to discover the cause of constitutional irritation tion, or, in other words, of death. As well might one examine the brain to discover the cause of death from a severe burn, tetanus, hydrophobia, &c. Again, of what utility was it, to puzzle the court by a technical description of every organ in the body, and cause the body to be disinterred without the slightest necessity; for there was not a well informed man in the profession, who perused the evidence, but would declare such sloughing on the back produced by a strong escharotic, and moreover on a person in perfect health, was the cause of death? Could any man acquainted with the effects of local and constitutional irritation, hesitate a moment in forming an opinion on the cause of death in this unfortunate case? But there are exceptions in the persons of Dr. Alexander Thomson and Mr. Wildgoose. Of all the medical evidence in this case, Dr. Johnson's was the best, the most scientific, concise, and conclusive; it was such as men of scientific acquirements and actual experience would have given. We may remark, that it is a principle in judicial medicine, that medical men should be as intelligible and as conclusive as possible, avoiding all unnecessary displays of technicality and rigmarole. This was well exemplified by the evidence of Mr. Brodie. Dr. Hogg, Mr. King, and Mr. Wildgoose, allowed themselves to wander too much from the real question, and the latter appeared more in the character of an advocate than a medical witness.

We should strongly advise some of the medical men who figured in this inquiry, to look into some work on medical jurisprudence, before their next appearance in a court of justice, and also to peruse some standard work on the question on which they intend to give evidence. One would think science had fled from the profession, when its members come before their contemporaries and the public, and broach the most heterodox and absurd opinions.

For the information of our continental and transatlantic contemporaries, we state, that Mr. Long has been hitherto the most successful pretender to physic in London, his income was estimated at £.10,000 a year, his patients were every class of society, from the peer to the peasant. It appeared in evidence, at the above inquiry, that four short years ago, he was a painter or limner, and having received, by inspiration, the gift of preventing and curing all diseases, in the manner so powerfully illustrated in this article, he commenced to practice, "the science and art of healing on new principles." Of his gross ignorance, we afforded ample evidence in our notice of his work in a former number; than which a more

ignorant production never emanated from the press. There was not a correct remark from one cover to the other, but a tissue of vile trash, from beginning to end; and it only surprizes us that any person of common sense, much more that our nobility and gentry, could be duped by such a production. We should have passed Mr. Long unnoticed, had not his baneful practice afforded us a sad example of, we fear, frequent occurrence, nor should we even notice him at present, had the result of the coroner's inquiry the slightest effect upon his life or liberty, for such is the defective state of the law in this country, that the said inquiry is simply "much ado about nothing." Our humane law, as exemplified in Van Butchell's case, will bear him harmless. Much higher motives have induced us to publish this inquiry, namely, the better conservation of the public health. In another part of this number, will be found an account of the amplest power intrusted to the College of Physicians for this purpose. We shall conclude, by allowing one of the fellows of the college to speak upon this point. Dr. Brooke Faulkner observes, in speaking of the college prosecutions of regular Doctors:—

"Yet such is your eagerness in your prosecution of men like these, when they refuse to take out your licence, that the country may overflow with the rankest vermin of empiricism, from Pall Mall East to the Land's End, and you take no concern about the matter. The informer appears before you, narrates, with every minutia of circumstance, the depredations of divers charlatans in his neighbourhood, slaying on the right hand and on the left, and every day gaining name and fame, just in proportion as they give employment to the undertaker. There is no lack of evidence here to enable you to prosecute. All the facts and particulars are ready in full, tangible proof; every moving circumstance is touched upon by your informant that can add pathos to his appeal; you are besought by the responsibility of your trust; and every claim of humanity is eloquently urged in the imploring petition. The answer is, you are busy prosecuting Dr. Harrison."*

MEDICAL CORONERS.

It affords us much pleasure to observe the support which Mr. Wakley has received in his canvass for the coronership of the county of Middlesex. Though we differ from him on many subjects, we are ready to admit, that his coming forward on this occasion, at the solicitation of a large body of freeholders, whether the result be successful or otherwise, must be productive of much good, as the question of the fitness of medical men for the office of coroner has been fairly brought before the public. Should he be elected, and we sincerely wish him success, a great improvement will be effected in an ancient and valuable department of our judicial proceedings; for the example of Middlesex, or more properly of London, should he be elected, will be generally followed throughout the empire, and the interests of the medical profession and of the public, considerably promoted.

* Letters addressed to the Royal College of Physicians, on their Constitution and Charter, with prefaratory observations, to his Grace the Duke of Wellington. By Sir Arthur Brooke Faulkner, Fellow of the Royal College of Physicians. London, 1829.

All Communications and Works for Review are to be addressed to the care of Messrs. Underwood, 32, Fleet Street; or to the Editor, at his Residence, 61, Hatton Garden.

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CRITICAL REVIEW.

I.—*A short Tract on the Formation of Tumours, and the peculiarities that are met with in those that have become Cancerous, with their mode of Treatment.* By Sir Everard Home, Bart. V.P.R.S. F.S.A. F.L.S. Serjeant Surgeon to the King, &c. &c. &c. 8vo. pp. 98. 4 plates. London, 1830. Longman and Co.

The venerable author of the work before us, concludes his distinguished literary career with the present production. The high reputation of this distinguished man will never cease to be remembered while medical science has its votaries. It is quite superfluous for us to detail his valuable contributions to science; they are universally known and appreciated. We may briefly remark, however, that his "Lectures on Comparative Anatomy, in 6 vols. 4to., with numerous engravings; his Practical Observations on the Treatment of Strictures in the Urethra and Œsophagus, 3 vols. 8vo.; his Observations on the Treatment of Diseases of the Prostrate Gland, 2 vols. 8vo.; and his numerous Essays in the Philosophical Transactions, &c." evince extensive research, indefatigable industry, accurate discrimination, sober reflection, repeated observation, and much originality.—Posthumous eulogy will do the talented author ample justice.

It affords us sincere pleasure to observe such, an eminent member of our profession, commence a work with the following declaration, which is alike honourable to him as a philosopher and a man, and offers strong proof that enlightened medical men are not so indifferent to religion as the world imagines. The public, who are generally fools, are of a different opinion; but those acquainted with medical history may triumphantly refer to its pages, where the fact

is attested beyond dispute, that the most eminent members of the faculty have been distinguished for their piety; among whom we find the illustrious names of Harvey, Locke, Sydenham, Boerhaave, Haller, Arbuthnot, Hoffman, Sthal, Baglivi, Steno, Riverius, Brown, De Hean, and in our own day, Gregory, Baillie, Bateman, Davy, and a host of others who are still the ornaments of the profession. But the really learned of the faculty have never been infected by the poison of infidelity. Sir Everard commences his preface as follows:—

"As this short tract is the last of my professional labours that will be submitted to the public, I cannot, at the age of seventy-four, make a better preface to it, than by an humble prayer of grateful acknowledgment to the Allwise Creator, who has permitted me to continue the investigation of his most wonderful works for so long a period, and thus enabled me, in many instances, to alleviate the miseries of suffering humanity, and to glorify the name of the Author of our existence."

It will be recollected, that our author published an account of tumours in the thecæ of nerves in 1800, in the Trans. of a Society for the Improvement of Medical and Chirurgical Knowledge, and in 1805 a Tract on Cancer, and his object in the present work is to make known the facts he has since observed respecting tumours in general, and cancerous ones in particular. He makes the following remarks upon the pathology of these classes of diseases:—

"As the blood is the fluid in which these materials are circulated, and the arteries are the vessels which, under the agency of the nerves, deposit the supplies required, while the lymphatics carry off the parts rendered useless, we must first acquire a knowledge of these vessels, and of their actions when the body is in health; since it is only when such actions are perverted, or otherwise interfered with, that the produce of disease is met with.

These subjects I have treated of in another work; and here we have only to consider those cases where either the blood or some part of its ingredients, in consequence of external violence, are deposited in greater proportions than is required to repair the injury, as it is from this accumulation that tumours are produced; and in general they resemble in structure, more or less, the substance of the natural parts by which they are immediately surrounded. Fatty tumours are nothing more than a deposit of fat in parts that have been slightly injured, and have never recovered their healthy actions, but go on depositing that substance where it was not required.

Where the injury has been more severe, the materials of which the consequent tumours are composed differ according to the quantities and new combinations of the extravasated materials; but although

unlike one another, still, however, in general, in their texture, they bear a resemblance to the healthy parts by which they are surrounded."—p. 4.

He describes a particular kind of tumour situated in the substance of nerves, which deserves attention.

"A lady, twenty years of age, had a tumour on the outer side of the biceps muscle of the right arm, the size and shape of a pullet's egg; it was moveable in the surrounding parts; it had been several years in acquiring its present size, and was very painful when pressed upon. Its rapid increase induced her to have it removed by the knife. When the parts were fully exposed, the surface was smooth and shining. At both ends the tumour terminated in a white cord. Upon cutting through the outer covering, the real tumour was found to be enclosed in a nerve. When this discovery was made, it was thought prudent to divide the nerve at both ends, and remove the whole. The skin did not unite by the first intention, but the parts healed very kindly. The patient had no use afterwards of her thumb and fore-finger, and had a numbness in these parts; the skin which covered them was unusually rough and dry, and the cuticle came off in scales. On examining the tumour, three inches of the nerve itself had been removed; it was separated into two portions, each much flattened, and passing over the sides of the tumour. There was also a thin nervous expansion, not thicker than a membrane, completely investing the whole. This was readily separated, although more firmly attached at the extremities.

"The tumour, when its substance was examined, had the appearance of being made up of serpentine fibres running in the course of the nerve; these were separate from each other, and the interstices filled up by the substance of the tumour; but near its surface the tumour had a radiated structure."—p. 7.

A singular tumour is described and illustrated by plates, which arises from the diploe of the skull in consequence of injury, makes its way through the external table without injuring the internal one, and is certainly not generally known. An extraordinary case is given, in which the tumour arose underneath the external table of the right parietal bone, and rested on the shoulder; its cranical attachment was osseous, and was divided by a saw. There was no local or constitutional irritation after its removal, and the woman has continued quite well, now a period of fourteen years. She is a nurse in St. George's Hospital. A similar case was successfully treated, by Mr. Robert Keate, of the same hospital. The appearance of our author's patient, before and after the operation, is admirably represented. These cases disprove the doctrine of phrenology in a remarkable manner.

" Cases of this kind completely expose the fallacies of the doctrine of craniology, than which nothing can be more absurd; since the external surface of the internal table of the skull, and that of the external table, can never be under like circumstances, nor have similar changes in them produced from the same causes or corresponding circumstances; and yet the sole foundation of this doctrine is a supposition that the effect of the developement of the brain upon the internal table is produced in an equal degree at the same time in the external table, which, from the nature and texture of the diploe, can never happen."—p. 17.

The remainder of the volume is devoted to the subject of cancer, and affords no new information. A number of cases are detailed in which operations were performed; but the pathology of cancer is left as obscure as ever. Our author is of opinion, that the same parts in different individuals, under similar circumstances of violence, do not always form cancerous tumours, so that these tumours must depend on peculiarity of constitution; and therefore in their origin cannot be cancerous. There seems to be a contradiction of terms in this statement, at least there is much ambiguity, for in the succeeding paragraphs, we are told there are no hereditary diseases. Again, it is implied that defect of constitution is the cause of cancer. Every one is aware that tumours of the breast may or may not become cancerous; and in proof of this fact, our author adduces a case in which a policy of assurance was disputed, in consequence of a discrepancy of opinion between himself and Mr. Cline, which is worthy of attentive consideration.

" A gentleman who had a similar accident, followed by a tumour in the breast, which he did not believe of any consequence, insured his life, and declared himself labouring under no disease. He afterwards died from a cancer formed in that tumour. Mr. Cline was consulted, and said that the tumour in the pectoral muscle was a cancer, and had been so from its first formation. In this opinion he was supported by another surgeon; and therefore the office refused paying the insurance, as the gentleman died in consequence of the fungous excrescence which this tumour afterwards produced. The case came before Sir William Grant, then Master of the Rolls, who was staggered by Mr. Cline's affidavit, but not convinced, and called upon me to know my opinion. I stated, that if Mr. Cline was correct, all such accidents would be immediately followed by cancer, which I knew was not the case, and gave him several instances in confirmation of my assertion, in particular, that of Mr. Hunter; and the gentleman's executors gained their cause; since Mr. Cline could bring no proof when the cancerous disposition first took place; and as the gentleman, at the time he took the oath, could have no knowledge that the swelling brought on by the accident could be the forerunner of any disease."—p. 21.

There are few cases of forensic medicine which are so often disputed as policies of life insurance, or such as require more judgment from the practitioner. It would be well if we had a good treatise on this subject for the guidance of young practitioners, as extensive frauds are daily committed by the respective parties in these transactions. To return to the subject more immediately before us, we have to observe, that our author considers the serum and lymph globules are the parts vitiated, and capable of propagating the poison. This of course is pure conjecture, and is even doubted by the author himself in a future page.

He adduces cases of hydatids of the breast, which were mistaken for cancer, as evidence against this hypothesis.

Sir E. next describes the progress of cancer, and in proof of his competency to undertake this task, he states that he lived with Mr. Hunter till his death, and had the superintendence of all his numerous cases, and that his whole observation has been derived from a practice of fifty-seven years. He details several cases in illustration of the progress and treatment of cancer, but they are generally devoid of interest, as they throw no new light on the subject. "I am sorry to add," says he, "that very little progress has been made, either towards a cure or a prevention of the disease taking place." He has found the internal and external use of hemlock of most value, and claims the discovery, that the powder is the most restorative preparation of sarsaparilla, an opinion he has maintained for the last fifteen years. Ample experience has convinced him that the power of sarsaparilla is greatly weakened by heat.

Such are the opinions contained in the work before us. The production is worthy of attentive perusal, as it contains numerous clinical reports, which will be perused with advantage by operating surgeons.

II.—*A Treatise on the Venereal Diseases of the Eye.* By William Lawrence, F.R.S. late Professor of Anatomy and Surgery to the Royal College of Surgeons in London, Surgeon to St. Bartholomew's Hospital, and Lecturer on Surgery in that Hospital, &c. &c. &c. 8vo. pp. 337. London, 1830. John Wilson.

Our author informs us, that the work before us is drawn up entirely from his experience, and its contents are as follow:—

Ch. I.—An introductory and historical view of the subject-division of the diseases of the eye into gonorrhœal and syphilitic. Ch. II.—The symptoms, diagnosis, prognosis, causes and treatment of gonorrhœal inflammation of the conjunctiva. Ch. III.—Mild gonorrhœal inflammation of the conjunctiva. Ch. IV.—Gonorrhœal ophthalmia of the external tunics and iris, including details of XXIV cases, which occupy sixty-six pages. Ch. V.—Syphilitic diseases of the eye, with symptoms, diagnosis, prognosis, and treatment, exemplified by XXIX cases, the account of which extends to nearly a hundred pages. Ch. VI.—Syphilitic ulceration and eruptions of the eyelids, illustrated by five cases. The different diseases are first described, and references so constantly made to the cases, that it is totally impossible to attempt an analysis of the work, without occupying an extent of space which far exceeds that by which we are circumscribed, and which could be converted to better use than to the dry details of cases. The whole opinions of the author might have been given in a dozen pages; indeed, we are confident that we could condense them into even half this space. We expected a much more comprehensive work from Mr. Lawrence, one that would comprise the whole diseases of the eye, and still not more expensive than the present publication. The work before us is by far too expensive for the quantity of matter which it contains, and we prophesy that the respectable publisher will speedily discover the truth of our prediction. There is as much original and important matter in Mr. Travers' little essay, at a fourth of the price; and we must further observe, that the author and publisher ought to have been aware of the professional taste for cheap literature, and that some of the most distinguished surgeons of this capital have ruined the sale of their works by the exorbitance of price, and stimulated others to publish pirated impressions at a cheaper rate.

We shall now proceed to place before our readers, Mr. Lawrence's opinions on the nature and treatment of venereal diseases of the eye.

He commences by alluding to the delicate and complicated structure of the eye, its liability to common disease, with the various results, the modification of morbid affection in scrophulous, gouty and rheumatic constitutions; its liability to cancer, fungus, hœmatodes, melanosis, and venereal disease. The last named disease, he observes, has been unnoticed by some recent writers in this country, though St. Yves, Astruc, Camerer, Swediaur, Benjamin Bell, and Richter, have described gonorrhœal ophthalmia.

Iritis was first noticed by Professor Schmidt, of Vienna, in 1801. Mr. Hunter was not aware of gonorrhœal ophthalmia, though he speaks of *supposed* venereal inflammation of the eyes. Mr. Pearson knew nothing of gonorrhœal or syphilitic affections of the eye, as appears from his letter to Mr. Briggs, the learned translator of Scarpa's treatise on diseases of the eye, which letter is quoted by our author. He also expresses his surprise that two such writers as the illustrious Hunter and the erudite Pearson, who were allowed to be intimately acquainted with venereal disease, should be silent on the affections under notice; and he endeavours to explain this ignorance, by observing, that the study of ophthalmic surgery had been entirely neglected in this country until within a few years, and that eminent surgeons were accustomed to send their ophthalmic patients to ignorant oculists. Recent writers have proved themselves acquainted with this subject, but none of them have considered venereal affections of the eye professedly or generally; and hence our author has undertaken the task, and has drawn his views of the symptoms, progress, effects, and various forms of treatment from his own experience, which we need scarcely observe is extremely extensive.

Mr. Lawrence divides the venereal diseases of the eye into the *gonorrhœal* and *syphilitic*; the first consists of three distinct forms of ophthalmia; 1st, acute inflammation of the conjunctiva; 2d, mild inflammation of that membrane; 3d, inflammation in the sclerotic coat, sometimes extending to the iris.

Our author gives the synonyms of the first form, which are as follow:—Acute gonorrhœal inflammation of the conjunctiva, gonorrhœal ophthalmia, blepharophthalmia, and ophthalmia gonorrhoica vera of Beer. This bears a close resemblance to the purulent ophthalmia of British writers, and has been so graphically described as to render a copy of the author's account of it wholly unnecessary, more especially as it is accurately given in his lectures on surgery. We may briefly remark, however, that he tells us, "it is the most violent and rapidly destructive inflammation to which the eye is subject, and fortunately it is one of rare occurrence." The changes which it commonly produces in the cornea are sloughing, ulceration, and interstitial deposition, ending in opacity, or escape of the humours and collapse of the globe, obliteration of the anterior chamber, and flattening of the front of the eye, staphyloma, prolapsus iridis, obliteration of the pupil, and anterior adhesion of the iris. The progress of every one of these diseases is minutely described, and numerous

references made to cases illustrative of them. The prognosis is as follows:—

"The violence of the inflammation, its rapid course, and the disorganization or changes of structure, which it so speedily produces in the cornea, are attended, under all circumstances, with the greatest danger to sight, which, in a large proportion of these cases, is either lost or seriously injured. Thus of the fourteen cases which I have related, loss of vision took place in nine from sloughing, suppuration, or opacity of the cornea. In two of these one eye was lost, and the other recovered. Sight was restored in the other five, with partial opacity of the cornea, and anterior adhesion of the iris in three of the number. So short a period intervenes between the commencement and the full developement of the complaint, that in many instances irreparable mischief is done to the eye before our assistance is required. If we see the complaint in the first or second stage we may expect to arrest its progress by active treatment; but success does not invariably attend our efforts even under such favourable circumstance, as Case V. proves. Our prognosis will principally turn on the state of the cornea; if that should possess its natural clearness, the eye may be saved. If it should become hazy and dull, and more particularly if it should have assumed a white nebulous appearance, consequences more or less serious will inevitably ensue."—p. 26.

Our author cites the opinions of Pearson, Beer, Scarpa, and Vetch against the idea, that gonorrhœal matter produces the disease under notice, but he adduces cases from his own practice, which leave no doubt of the converse of these opinions. He admits, however, that in a great proportion of gonorrhœal ophthalmiæ, we cannot trace the disease of the eye to the application of infectious matter, either from the same or another individual. The eyes are said to suffer by metastasis, and according to Richter, Scarpa, and Beer, the urethral discharge is suppressed, but this did not happen in our author's cases, nor in those detailed by Delpech—the discharge was lessened but not suppressed. Again, the suppression of the discharge by surgical treatment, is not followed by ophthalmia. Since the disease of the eye may occur while the urethral discharge continues, and since it does not take place when the discharge is stopped, we cannot admit, says our author, "that the affection of the eye owes its origin to the cessation of the diseases in the urethra."

"I am inclined to refer its occurrence to the state of the constitution, without being able to point out in what that state consists, and to regard it as a pathological phenomenon analogous to those successive attacks of different parts which are observed in gout and rheumatism. The two other forms of ophthalmic inflammation, which take place in conjunction with gonorrhœa, show themselves only in rheumatic subjects, and generally in connection with other

arthritic sufferings; and the difference between one of these and the affection now under consideration is only in degree. This view of the subject may throw some light on the circumstance that, though direct infection operates equally on both sexes, the gonorrhœal ophthalmia, said to originate in metastasis, seems to be confined to the male. I have never seen it in the female; and Beer, in the passage last quoted, says, that he has observed it only in the young, robust, and plethoric men."—p. 35.

We now arrive at the treatment of this disease, which will appear to many physiologists and pathologists fully as dangerous as the disease itself. No doubt the disease requires the most active treatment, but we cannot help thinking, that many practitioners would hesitate to employ depletion to the extent recommended in the following extract, for the injury done to the constitution must unquestionably produce most fatal diseases, if not death itself. In making this remark, we do so on mature deliberation, and we refer those who choose to doubt its accuracy, to the best works on physiology, and especially to Dr. Marshall Hall's work "on the curative and morbid effects of blood letting," and to M. Andral's Pathology. Indeed, it must be obvious to every man of practical experience, that depletion, carried to the extent recommended, and employed indiscriminately, in all ages and constitutions, for no exception is made, could not fail to produce more fatal effects than the disease before us. We shall adduce the most respectable evidence in favour of our opinion, after the insertion of Mr. Lawrence's plan of treatment.

"The only chance of arresting this violent disorder, and preserving the eye from its destructive effects, is afforded by the boldest antiphlogistic treatment; particularly by the freest abstraction of blood generally and locally. We must bleed largely from the arm, and take blood by cupping on the temples, or by numerous leeches applied round the part; and these measures must be repeated at short intervals, until the vascular congestion is relieved, and the attendant pain removed. The other parts of the antiphlogistic treatment must be combined with this free abstraction of blood; but our great reliance must be placed on the latter. In Case V. blood was taken very largely, both locally and generally, and other powerful antiphlogistic means were resorted to; these measures were employed in a very early period of the complaint; yet the eye was lost. From the unfortunate termination of this case, and from the unfavourable issue of others recorded in this paper, I infer, not that antiphlogistic treatment is incapable of arresting this inflammation, but that it has not been employed to a sufficient extent; and if I had to treat some of these cases again, I certainly

should bleed more freely. *I think that as much blood should be taken from the arm as will flow from the vein, and that the evacuation should be repeated, as soon as the state of the circulation will allow us to get more.* This plan of depletion should be pursued until the local excitement is subdued. 'These,' says Mr. Bacot, 'are cases, which defy all the usual etiquette of regular and ceremonious visits. If we wish to save our patient from the destruction of his vision, we must scarcely depart from his bed-side until the inflammatory symptoms are controlled. The lancet must be hardly ever out of our reach, for if ever there was a disease in which blood may be taken away without limitation, it is this.' Mr. Wardrop informed me, that the only case of gonorrhœal ophthalmia he had seen in which the eye was saved, was that of a young woman, in whom venesection was repeated as often as blood could be got from the arm. She lost 170 ounces in a few days, and looked as if every drop of blood had been drained from her body; the skin having nearly the hue of a wax candle. In the cases which terminated most favourably, among those recorded in this paper, blood was taken very largely. In Case VIII. forty ounces of blood were taken from the arm on the 6th November, being the 6th day of the disease, and twenty-four leeches were applied. The same number of leeches was repeated on the 7th, 8th, 9th, and 10th; on account of a relapse eighteen leeches were applied on the 13th, twenty ounces of blood taken by cupping on the 14th, and twenty-four ounces by venesection on the 15th. In Case IX. twelve leeches were applied on the 20th September (the fourth or fifth day of the disease); sixteen ounces were taken from the temporal artery on the 21st, and forty-four ounces from the arm on the 22nd, twelve leeches being applied on the same day; twenty leeches were applied on the 23rd, and on the 24th; twenty ounces by cupping on 26th; thirty-six ounces by venesection on the 27th, and the same quantity on the 28th. In Case XII. although the loss of blood was not considerable, it operated very powerfully on the circulation and strength of the patient.

"For the slighter symptoms, which may show themselves after the inflammatory action has been subdued, local bleeding will suffice. The more vigorous depletion is recommended where the inflammation is fully developed, without the cornea being yet affected, or where the condition of the cornea may be doubtful; that is, where we may entertain the expectation of saving the organ from all injurious change.

"If sloughing or suppuration should have already occurred, it will be of no use to pursue this very active treatment, although more moderate depletion may still be necessary. General sloughing, or general suppuration of the cornea, is usually attended by diminution of the inflammation, and cessation of pain, or at least comparative ease; the loss of blood therefore is no longer required for the relief of suffering; and it would be without an object, as vision is irreparably destroyed.

"But inflammation may continue with undiminished violence

after the occurrence of partial sloughing; and active depletion may still be necessary, both to limit the extent of the mischief, and to favour the processes of separation and restoration. In Cases VIII. and IX. very free depletion, both general and local, was employed after the cornea had suffered partially in this way; and the treatment was completely successful in preserving sight. In Case III. where one cornea had sloughed entirely, and the other eye was actively inflamed, the venesection and local bleeding employed on account of the latter had no prejudicial effect on the former."—p. 39.

He says, experience does not warrant us in ascribing much efficacy to blisters, but they may be resorted to after antiphlogistic means. The ordinary local applications possess little efficacy, whether hot or cold, and must be changed according to the feelings of the patient. Astringents and tonics are useful when the inflammatory symptoms are subdued. The best forms of astringent applications are from two to ten grains of alum to an ounce of water, the solution of the nitrate of silver, and the undiluted liquor plumbi subacetatis. Such is the plan of treatment proposed by the eminent author, and which appears to us objectionable, for the reasons already stated, and also for those we shall immediately offer. He has not said a word on active purgation, diaphoretics, or active counter irritation. He states the testimony of others to which we alluded above, and which shews that his depleting plan need not be employed to any thing like the extent recommended by himself and many other surgeons.

"The use of a strong astringent has been recommended in the very commencement of the affection, as a means of cutting it short, and preventing the development of the inflammation. Mr. Melin proposed this mode of proceeding in ordinary conjunctival inflammation, having considered that acute ophthalmia was in general treated too actively, and that a mere local disorder could not require such extensive depletion as was usually practised and recommended. He was further induced to try the practice, from having witnessed the good effects of a solution of lunar caustic, in some cases of gonorrhœa, both in allaying the pain and suppressing the discharge. The strength of the solution employed was four grains to the ounce of distilled water, which was dropped into the eyes twice a day: it excited pain and a sensation of roughness, with an increased flow of tears for about twenty minutes, after which the eyes felt much relieved, and in a few days the cure was effected. 'Since that period,' says Mr. Melin, 'I have treated nearly three hundred cases of acute ophthalmia, without either local or general bleeding, and I have had ample opportunities of proving its efficacy.—p. 43.

" Very strong testimony in favour of the astringent plan of treatment in ordinary purulent ophthalmia, is given by Dr. O'Halloran, who had enjoyed ample opportunities of observing the disease, as an army-surgeon, for many years, and in various climates. He had become dissatisfied with the antiphlogistic treatment, from having found it frequently either insufficient or injurious, and was hence led to use astringents, not only in the early stage of the disease, but when the purulent discharge and chemosis were fully established. He employed the sulphate of copper in substance, rubbing with it the inner surface of the eye-lids after everting them, or he dropped into the eye the ten grain solution of nitrate of silver; and generally used one or the other once a day. He gave purgatives and applied fomentations. If the symptoms indicated that the internal parts of the organ were affected, he directed the application of leeches. After mentioning a case treated successfully with the sulphate of copper and the caustic solution, he adds, ' the foregoing case with some hundreds on record, of the different varieties, shew with what efficacy and safety blue-stone may be applied to the eyes when under disease; its effects in removing the affection of the parts and allaying the irritation are remarkable. I can safely say, that abstraction of blood will be rarely necessary in this disease, if the plan recommended be strictly attended to; and I moreover am of opinion, that if any inquiry be instituted amongst the army-surgeons, it will be found that those, who used the greatest depletion, were the least successful practitioners, and that sloughing, ulcers, &c. more frequently succeeded the evacuating plan, than when the patient was partly left to nature."—p. 45.

Our author states in a note appended to this extract, that since he has written it, he has employed the caustic solution in a case of gonorrhœal ophthalmia with the best result, and he has also purged his patients freely. He refers to cases treated with mercury by Mr. Macilwain and Dr. Hennen, but adds, that it did not check simple purulent or gonorrhœal ophthalmia in his own practice.

He adverts to the practice of Richter and Scarpa, who consider suppression of the gonorrhœa as the cause of ophthalmia, which consists of the antiphlogistic measures, emollient poultices, and injections and bougies; the former recommending the bougie to be smeared with gonorrhœal discharge or red precipitate; the latter contenting himself with the simple bougie and injections of warm oil. Beer thinks inoculation is the most certain method. Mr. Lawrence is of opinion that these measures are recommended rather on theoretical grounds than from experience, as none of the writers mention the results of their own practice. Again, when the violence and rapidity of the disease is considered, and the slowness of this practice, we cannot but

think that irreparable mischief would be done to the organ during the lost time in such attempts.

Dr. Archer, of Virginia, after free antiphlogistic measures, has found great advantage from "a blister applied directly over the eyes, and much injury from it when applied over the temples." In the second stage of the disease, the infusion of datura stramonium, applied by means of cloths to the eye, and continued from one to three hours, according to the violence of the pain, never failed to relieve it. To prevent irritation from the motion of the eye, he recommends one or two grains of oxym. hyd. in an ounce of olive oil. His practice is detailed in our March No. v. 4, p. 250. Mr. Travers recommends free depletion, active purgation and nauseating doses of tartarized antimony, to keep up perspiration, nausea, and faintness. When inflammatory action is reduced, astringents and tonics are to be employed. We might multiply authorities to a great extent in favour of Mr. Travers' plan of treatment, while we must confess that we know of no writer who agrees with our author in his recommendation of abstracting blood, while any can be procured from a vein. In fact, we are inclined to suppose there is a typographical error in the passage which contains this advice, as we are sure that a writer of the author's great and well deserved experience, would never have made a proposal, which, employed indiscriminately as he advises, is little short of ordering patients to bleed to death, or at least ruining their constitutions, and exposing them to many fatal diseases.

Taking the author's account of gonorrhœal ophthalmia upon the whole, it is far inferior to that of Mr. S. Cooper, in the Surgical Dictionary, and reflects no great credit upon him. It would be superfluous to contrast Mr. Cooper's account of the disease with that before us, as his work is in every body's hands, but we fearlessly maintain it is much better, and inculcates a much safer practice.

The next chapter, is on "mild gonorrhœal inflammation of the conjunctiva." Moderate depletion and the caustic solution, are said to effect a cure.

The sclerotic tunic and iris may be affected with gonorrhœal inflammation. The former is of a pink or purplish red; the conjunctiva is slightly engaged in the disease, and there is great intolerance of light. Though the pupil may be contracted, and the sight dim, recovery may take place, even when a lotion only had been applied. Copious depletion will be necessary for the cure of the disease if violent, but cupping and leeches will suffice in milder instances.

Warm fomentations are generally most agreeable to the patient's feelings. When the inflammation is diminished, blisters may be tried, and the cure completed by Plummer's pill. If the disease supervenes on rheumatism, colchicum will be used with advantage. The disease may be combined with conjunctivitis, or the urethra, eyes, and joints may be inflamed at the same time, or successively. The following graphic description deserves great attention :—

" The affection of the eye last described is exactly the same as rheumatic inflammation of the sclerotica and iris occurring independently of gonorrhœa. Both this and the mild purulent inflammation of the conjunctiva are to be regarded as rheumatic affections of the organ excited by gonorrhœa; that is, they take place in individuals, in whom this constitutional disposition is shewn by inflammation affecting either the synovial membranes or the fibrous structures of several joints. Although the organs seem at first view very dissimilar, there is an analogy of structure between the parts which suffer in the two instances; that is, between the synovial membranes and the conjunctiva, and between the ligaments and fibrous sheaths, and the sclerotica. Hence we need not be surprised at finding that the eyes suffer under the influence of that unsound state of constitution, which leads to these affections of the joints. The structure originally affected, the lining of the urethra, is also a mucous membrane, which sometimes becomes inflamed, and pours out a puriform discharge, in gouty and rheumatic subjects, from internal causes. That the essential cause of this combination of morbid phenomena is peculiarity of constitution, may be inferred from the repetition of attacks, and the length of time for which some individuals are harassed by successive appearances of disease in various parts. In Case XVI. rather severe purulent ophthalmia occurred in August, 1822, and a similar one followed soon after; from that time to the present, six attacks of rheumatic iritis have taken place. In Case XIX. discharge from the urethra without infection occurred four times; then inflammation of the foot; three years after, severe inflammation of the chambers of the aqueous humour; then gonorrhœa and mild purulent inflammation of the conjunctiva, followed by rheumatic inflammation of various joints; and afterwards severe rheumatic inflammation of the sclerotica and iris. In Case XXI. violent gonorrhœa was followed by acute inflammation of the external tunics; a second gonorrhœa excited, first purulent ophthalmia, the acute inflammation of the external tunics, and subsequently rheumatic inflammation of various joints. Two years after severe rheumatism was brought on by cold. I lately saw a gentleman with gonorrhœa, mild purulent inflammation of the eye, and rheumatic affection of the foot and back; it was the fourth attack he had experienced of the same combination of symptoms. One patient seen by Mr. Brodie had undergone four attacks, all of which began with gonorrhœa; it was followed, first by puru-

lent ophthalmia, and then by inflammation of the synovial membranes of several joints. In another there had been eight attacks at various intervals during a period of seventeen years.

"As the train of diseases just described must be referred principally to peculiarity of constitution, gonorrhœal infection is not essential to their production; it is only to be regarded as one of the exciting causes, and perhaps the most frequent. There could be no doubt that gonorrhœa had been contracted in the six cases from XVI. to XXI. inclusive. On the other hand, in Case XVI. the patient was convinced that he had not received infection; according to this description, the usual characteristic of gonorrhœa virulenta had been wanting. Mr. Brodie seems to have considered that the discharge from the urethra, in some of the instances which he had seen, was not caused by infection. In the case of the gentleman, who had had eight attacks, inflammation of the urethra with discharge was the first symptom, and occurred before the age of twenty; he believed, however, that he had not been exposed to the risk of infection. In three of the attacks, purulent ophthalmia was the first symptom, being followed by discharge from the urethra and inflammation of the synovial membranes. In the other four attacks, inflammation of those membranes occurred without any previous disease of the eye or urethra. In another case discharge from the urethra brought on by the use of the bougie was the first symptom."—p. 6.

The succeeding seventy pages are occupied with details of cases of gonorrhœal ophthalmia, corroborative of the author's views in the preceding narrative, and may be perused with advantage. His next chapter is on syphilitic iritis, and here we find nothing novel. The fact is, that the author's opinions are already before the public in his published lectures, and we are unable to divine what induced him to reprint them in a separate form, unless to illustrate them by notes and cases. He gives a luminous description of iritis, and concludes that it is not caused by mercury. He also states that it seldom attacks children, and out of numerous cases, he has only seen it in two instances. The prognosis is minutely described, and after due consideration of all circumstances, is favourable, if proper treatment be employed. The various modes of treatment are next adverted to, and may be reduced to the antiphlogistic and the mercurial. Mr. Lawrence maintains that both methods are indispensable, and clearly shews that exclusive dependence on either will lead to unsuccessful results. In some cases depletion and mercury are moderately employed, while in others, salivation has been kept up for three months, and with complete success. When pain is violent over the orbit at night, great relief will be afforded by rubbing six grains

of mercurial ointment, and two of powdered opium, before the time at which the nocturnal pain is expected to recur. This plan, however, does not arrest the inflammation, as the internal use of the remedy does.

Artificial dilitation of the pupil is a point of great importance in the treatment, and this is to be effected by certain narcotics, as belladonna, hyosciamus, laurocerasus, and stramonium. Our author recommends the extract of belladonna or hyosciamus, in the proportion of a scruple, to be rubbed down with an ounce of distilled water; the solution to be strained through linen, and a few drops to be introduced between the lids; or the extract to be brought to the consistence of honey with distilled water, and to be rubbed over the brow, and after an hour may be washed off. It may dilate the pupil for hours or days, sometimes injure vision, but never permanently; it has been used with effect for fifteen years, and retained its power of dilating the pupil during that period. Belladonna, or the other narcotics, do not exert their power when the iris is highly inflamed, though they may elongate or separate adhesions, and liberate the pupillary margin. This effect will be greatly promoted by the use of mercury; and our author attests such separation from his own practice. The writer next endeavours to explain the mode of action of mercury in iritis, but confesses that as yet we know little of the operation of that medicine. He adduces the evidence of Beer, Saunders, and Farre in its favour. He observes,

"If mercury be capable of stopping that increased and altered action of the capillary vessels of the iris, in which inflammation of the texture consists, we should expect to find it equally useful in other inflammations, since the process is essentially the same throughout the body. I have found it no less efficacious in inflammation of the retina, whether acute or chronic. We cannot indeed, offer equally clear evidence of its power in this case, because the affected texture is hidden from our view. But I have so repeatedly seen diseases in which the symptoms left no room to doubt that the retina was inflamed, give way to the use of mercury, after resisting the simple antiphlogistic treatment, that I employ the remedy on such occasions almost as confidently as in iritis. Strumous inflammation of the cornea, proceeding to interstitial deposition and consequent change of structure in the part, may generally be arrested by the mercurial treatment. I have many times seen disturbance in the circulation of the head yield to mercury after resisting for a long time antiphlogistic treatment and other means. Common observation has established the fact, that the free exhibition of calomel, after direct depletion, is of great advantage in inflammations gene-

rally; and recent experience has shewn that this plan is particularly beneficial in inflammations of the serous membranes, especially the pericardium, pleura, and peritoneum. In these, as well as in croup, where the power of the remedy has long been recognised, the effusions of lymph form a striking analogy to the case of iritis. I have lately used mercury with most decided success in an extensive phlegmonous inflammation of the thigh, where it prevented suppuration; and in a more chronic inflammatory affection of the integument and cellular tissue at the back of the neck, very similar to that of carbuncle. The inflammation, swelling, and induration in the latter case, slowly increased, in spite of the free use of leeches with other suitable antiphlogistic treatment, until mercury was used, and they regularly gave way to the influence of that remedy. A further evidence of its general antiphlogistic power is afforded by the common belief, founded on experience, of its utility when administered for a long time as an alternative in various chronic enlargements. Hence we may conclude that the utility of mercury in inflammation of the iris does not depend on its possessing any specific power over that texture; and we shall be disposed to concur with Dr. Hamilton, of Lynn, who first recommended its employment in inflammations, as now practised, in ascribing to it a general power of arresting inflammatory disturbance."—p. 201.

Another remedy has been proposed for the cure of iritis, by Mr. Hugh Carmichael, of Dublin, in cases which "mercury is inadmissible, in consequence of its occasional injurious influence, or of the debility produced by protracted disease. The following is the formula recommended:—℞. olei terebinth. rectif. ʒj. vitellum ovi. unius; tere simul et adde gradatim, emulsionis amygdalarum ʒiv. syrupi corticis aurantii ʒij. sp. lavend. comp. ʒiv. olei cinnamomi. m. iij. sumat cochlearia duo larga ter die.* Mr. L. has no experience of this remedy, but it has been tried by Mr. Guthrie in some cases with success, and in others without benefit. The reader will find an account of the efficacy of the remedy published in the last volume of this Journal, by Dr. Tuthill, Mr. Foote, and also in our August number, all of which evidence was afforded by the practice of Mr. Guthrie, at the Royal Westminster Ophthalmic Infirmary. Such are the chief points in the chapter on iritis, and these are supported by details of thirty-nine cases, which occupy one hundred pages of the volume. The last chapter is on "syphilitic ulceration of the eyelids," illustrated

* Observations on the Efficacy of Turpentine in the Venereal and other deep-seated inflammations of the Eye, with some remarks on the influence of that medicine on the system, accompanied by cases. 8vo. Dublin, 1829.

by cases, the substance of which is, that the disease may be easily mistaken for common ulceration.

We have now arrived at the end of our labour, and have endeavoured to place the substance of this volume before our readers. If they find nothing novel in it, we cannot possibly help it. We must persist in our former statement, that the author's lectures contain the principal part of this work; in fact, the number of either of our hebdomadal contemporaries, which contains his lectures on diseases of the eye, contains infinitely more useful and varied matter than the goodly 8vo. before us. We must further observe, that the narration of sixty-eight cases, illustrative of three diseases, gonorrhœal ophthalmia syphilitic iritis, and syphilitic ulceration of the eyelids, was an unnecessary detail, and by no means complimentary to the understanding of the profession. The author is undoubtedly one from whom a great variety of information might be expected, in 337 pages of octavo. His fame, however, will insure the work some circulation; and it will be lauded in the strongest terms by some of our contemporaries. It would be a valuable production if its contents were not already before the profession. It is painful to us to speak in these terms of a work emanating from so eminent an author, but truth, candour, and impartiality compel us to do so.

III.—*Practical Observations on Leucorrhœa, Fluor Albus or Weakness, with cases illustrative of a new mode of treatment.* By G. Jewel, Member of the Royal College of Surgeons, one of the Accoucheurs to the St. George's and St. James's Dispensary, Lecturer on Midwifery, &c. 8vo. pp. 108. London, 1830. John Wilson.

The object of this work is to direct the attention of the profession to the pathology of leucorrhœa, which our author believes has not been well understood. He says he has taken a new view of the subject, and proposes a new mode of treatment. He has avoided the description of extensive structural charges or displacement of parts, and confined himself to the elucidation of functional disorder, though he thinks the line of demarcation between disorder of function and disorganization of structure, scarcely appreciable. But we must remark, on this part of the preface, that the author has not confined himself to the description of functional disorder only, but embraced inflammation, excoriation, tumours, &c. He recommends the use of nitrate of silver in strong terms for the cure of leucorrhœa,

and very properly observes, that time and experience must determine its efficacy in the hands of others. The only caution, we must premise, upon this point is, that the recommendation of the remedy is too general, that the form of disease in which it may be useful, is not sufficiently defined, and that its indiscriminate use in the various stages of inflammation and ulceration, which cause various forms of leucorrhœa, would be, in our opinion, not only questionable but injurious practice.

Mr. Jewel commences with his views on the pathology of leucorrhœa, which differ in no respect from those generally received. He alludes to the sympathy of the uterine apparatus with the various organs of the body, but does not illustrate this point so well as he might have done. He details the opinions of Drs. Clarke, Burns, Pinel, Dewees, Gardien, and Cullen, which need not be stated, as they are known to every one, and exist in most of the works on obstetrics. He also refers to the opinions of Drs. Hamilton, Gooch, Marshall Hall, and Addison, which are likewise generally known. He details some cases illustrative of his treatment, an example of which we shall insert. He informs us, that in all cases of profuse leucorrhœa, there is tenderness of the cervix uteri, and that many such cases are mistaken for scirrhus. He dwells upon the irritable uterus, so ably described by Gooch. We shall insert a few of his cases, and offer some remarks upon them.

"Case I.—S. J., ætat 49, residing in Bridle Lane, a patient under my care at the St. George's and St. James's Dispensary, on the 10th of June. She is the mother of fourteen children, exclusive of two abortions, and has, during the last twelve months, been subject to profuse catamenia, and excessive leucorrhœal discharge of a yellowish colour. She has pain in the loins, shooting in paroxysms through the region of the uterus, in which there is also a sense of fulness, and throbbing. She complains of great languor, with loss of appetite, and uneasiness at the pit of the stomach. She is frequently attacked with the globus hystericus, and disturbance about the head, and says that a flow of tears affords her much relief. Pulse 85. Bowels confined.

"Ten ounces of blood to be abstracted from over the sacrum by cupping.

℞ Magnes. Sulph. ʒvi.
Infus Rosæ. ʒviiss.
Acid. Sulph. dil ʒi.—M. ft. Mist. cujus sumantur Cochlearia duo vel tria ampla, mane, quotidie.

℞ Argent. Nitrat. gr. xii.
Aq. distill. ʒvi.—M. ft. Injectio.

"14th. During a period of twenty-four hours after the cupping, she felt extremely faint and sick, and now complains of increased

languor. Says she has used the injection regularly, notwithstanding the presence of the catamenia, and that it occasioned no degree of pain, except a little smarting, the parts having been for some time in an irritable state.

" To omit the aperient medicine.

" The strength of the injection to be increased from grs. ij. to grs. iv. to the ounce of water; and to take a pill, containing five grains of the extract of hyoscyamus and half a grain of opium, at bed time.

" 18th. The sanguineous discharge has ceased, having continued only a week, its usual period being from ten days to a fortnight. The leucorrhœal fluid has become " white and thinner than it has been for several months." The local pains are greatly relieved, but she still complains of occasional heat and throbbing about the womb.

" To continue the injection.

" 22nd. The leucorrhœa has ceased, and the local heat and pains have almost left her. There is still great languor, and loss of appetite.

℞. Infus. Rosæ, ℥viiss.
Sulph. Quinin. ℈i.
Tinct. Card. Comp. ℥ss.—M. ft. Mist. cujus sumantur Cochlearia duo ampla ter die.

" To continue the injection.

" 26th. The vaginal discharge has not re-appeared. Her spirits are better, and the appetite improves.

" Continuentur remedia.

" 30th. There is no leucorrhœa. Her general health continues to improve, and she intends to go into the country in the course of a few days. Discharged cured."—p. 21.

There was no vaginal examination made in this case, and consequently no correct idea can be formed of the morbid condition which gave rise to the disease. Besides, injections of the liquor aluminis compositus, would have effected a cure as readily as the remedy employed. The fact is, that alum injections, varied in strength, according to the pathological condition of the vagina and cervix uteri, will cure leucorrhœa in nine cases out of ten, and that in a few days after the patient had been under the tonic and constitutional plan for months or years. We have described this mode of treatment at length elsewhere,* and in a single chapter, have embodied a much more extensive account of the various forms of the disease, than there is in the professed treatise on the subject before us. That there are

* See Manual of Midwifery.

cases of morbid sensibility of the vagina, accompanied by leucorrhœa, which defy the usual injections, is a fact known to every practitioner of ordinary observation, and in such cases we agree with the author, that the nitrate of silver is a valuable remedy; but that it ought to be employed in every case of leucorrhœa, whether dependent on slight inflammation, congestion, or ulceration, is a practice to which we cannot give our assent.

Our author makes the following judicious remarks on the diagnosis, between tenderness of the cervix uteri and scirrhus, which deserves attention:—

"This inflammation of the cervix uteri, like scirrhus, or any organic disease of the uterine system, attacks occasionally at the period of life when the catamenia are about to cease, but I have more frequently found it to exist in married females, from the age of twenty-six or twenty-seven to that of forty, and I have recently seen several cases occurring in young married females, within three months after the birth of the first child. The local symptoms in both diseases, are very nearly allied. There will be occasional lancinating pains through the region of the uterus, with a constant dull kind of pain about the inferior portion of the sacrum, the hip or groin, attended by an irritable bladder, or frequent desire to void the urine, and in some severe instances, by tenesmus, and pain within the vagina when in the sitting posture. The vaginal discharge is commonly of a milky or cream-like colour, now and then having a glutinous consistence; and is often, in the more acute cases, mixed with a dark coloured or grumous secretion. Menstruation, if not interrupted by lactation, may be resumed with its usual regularity, although, after a time, some deviation takes place: generally, in the first instance, by its continuing several days beyond the accustomed period. I have remarked that, although the local pains are not unfrequently increased in severity at the commencement of menstruation, a great relief is afforded as soon as the catamenial secretion becomes more abundant. Upon making an examination per vaginam in this disease, the os uteri will not be found open to the same extent as in scirrhus, (an exception may be made in the case of a woman who has had a numerous family,) nor will its margin present the same cartilaginous hardness to the touch. The pain does not appear to be situated in the edges of the os uteri, as described by some authors, but in the cervix, as pressure upon this part alone occasions the patient to complain. The uterus will be found projecting lower in the vagina than natural, but this will depend upon the nature of the disease; the more acute, the further it will have descended. It should be recollected, that prolapsus uteri is a very common effect of protracted leucorrhœa, when, in addition to the symptoms already enumerated, there will be fulness about the pudendum, or weight on the perinæum, and a dragging sensation about the loins, with

difficulty in voiding the urine, and sometimes extreme pain in coitu, whilst the discharge will be frequently tinged with blood. These symptoms become modified or severe, according to the degree of descent which has taken place, or the excitability which exists in other and distant organs; hence, in a case of simple relaxation, there will oftentimes be merely a sensation of weakness, and fulness about the pubes, with an increased, but mild, mucous discharge from the vagina. I have seen several cases of prolapsus uteri, in their incipient state, most effectually relieved by the application of the means hereafter named.

"But even supposing that no diagnostic marks existed, to guide the judgment of the young practitioner, in distinguishing between chronic inflammation and incipient scirrhus of the cervix uteri, two questions will arise, to which no very decisive answers can be given. Is it not possible for inflammation, in its ordinary form, to terminate in carcinoma, or, to say the least of it, in disorganization? If the disease is confirmed scirrhus, may it not be arrested in its progress, if not entirely removed? I would reply to the last question, by observing, that I have seen more than one case, where a morbid affection of the cervix uteri had been pronounced by eminent practitioners to be carcinoma, but in which the disease had been afterwards totally eradicated, the uterus again taking on its healthy functions, and the woman bearing children as before."—p. 29.

The following case affords a fair illustration of our author's practice, and deserves attention:—

"Case II.—Mrs. C., ætat 33, called on me, on the 24th of February, 1829, at the request of a medical friend, Mr. Reid, of Charlotte Street, Bloomsbury. She had been delivered three years before of a healthy child, after an easy labour. For the last two years and a half she has been subject to constant and profuse leucorrhœal discharge, with frequent and shooting pains through the region of the uterus, and about the right groin, with occasional dysuria and tenesmus. The general health is greatly disturbed; bowels irregular, with loss of appetite. Upon making an examination per vaginam, pressure of the finger upon the cervix uteri occasioned considerable pain, which, in subsequent examinations, often continued several minutes after the finger had been withdrawn. The os uteri was considerably more open than natural, but its margin was not indurated. She had been under the care of several respectable practitioners, and the impression on her mind was that she was labouring under cancer of the womb.

"In the first instance, the usual mode of treatment was adopted; blood was abstracted by means of cupping from over the inferior portion of the sacrum, to the amount of eight ounces, and repeated three times, with an interval between each of about three weeks. She had taken aperients frequently, and injections of various kinds had been used with little or no benefit.

" July 2d. The nitrate of silver was conveyed by means of a tube, and applied to the cervix uteri for the space of a minute, which occasioned no degree of pain, except what might have been produced by the introduction of the finger.

" 6th. The nitrate of silver again applied as before.

" 9th. The discharge has diminished, but the pains not having abated, eight leeches were ordered to be applied to the right groin.

" 12th. The nitrate of silver again applied.

" 18th. The discharge is lessened considerably; and the patient now expresses a belief that she shall soon be restored to health, having previously imagined her case to be hopeless. The nitrate of silver again applied.

" 27th. The pain is relieved; her general health is improved, and she sleeps well at night. The nitrate of silver applied in the usual manner. It is necessary to observe, that she has taken the hyoscyamus at night, (one drachm of the tincture,) and the bowels have been regulated by aperients. The following tonic has been prescribed:—

℞ Infus. Rosæ, ℥viiss.
Sulph. Quininæ, ʒss.
Elix. Vitriol. ʒi.—M. fiat. Mist. sumantur
Cochlearia duo ampla ter die.

" August 8th. The discharge is scarcely perceivable. The nitrate of silver applied as before.

" 25th. The patient is perfectly well, having neither vaginal discharge nor local pains."—p. 32.

Our author next adverts to the opinions of Drs. Denman and C. Clarke, on the treatment of cancer, which warrant the conclusion that incipient scirrhus uteri may be arrested, if not cured, by antiphlogistic measures. He thinks it a dangerous and unscientific doctrine, to suppose that cancer exists throughout the system, and that when eradicated from one part, it may appear in another, as it puts a stop to all pathological inquiry, and leads to palliative and inefficient treatment. We cannot agree with him upon this point, as the records of medicine afford ample evidence of the negative, and of the recurrence of cancer after the best performed operation.

The causes of leucorrhœa are next described, and very accurately enumerated, and some good hints are given on its pathology. Thus in twenty-four necrotomic inspections, by Blattin, the secretion proceeded from the uterus in nine cases; from the cervix uteri and vagina in thirteen cases, and in two from the uterine tubes. From this statement, it is manifest that the nitrate of silver, or any other remedy, is not applicable in all forms of the disease. In some instances a mucous discharge is said to arise from excoria-

tions about the nymphæ, and here our author recommends his remedy as the most efficient. He next gives a good account of leucorrhœa in children—in pregnant women, and at the turn of life, and notices the colour and consistence of vaginal discharges. He details the opinions of C. Clarke and Dewees upon this subject, which are universally known; and describes the predisposing and exciting causes of leucorrhœa, among which he properly includes the influence of seasons, of contaminated air, of epidemicis, hereditary predisposition, metastasis, irritation from ascarides and leucorrhœa of habit. Lastly, he describes the treatment, and notices the opinions of many of the best modern writers. It must be unnecessary to trouble the reader with an account of treatment usually employed in this disease. But we refer him with pleasure to the author's testimony in favour of iodine, in induration of the uterus and ovaries. In almost all cases he has found its effects "marked and decisive." He says,

"I may here notice a case of diseased ovary, in which this little, but important, organ had morbidly increased to the size of the fœtal head. The general and visceral disturbance occasioned by its presence in the pelvic cavity, had become so distressing, that the patient, notwithstanding the fatality of an operation had been represented to her, often expressed an earnest desire to have it removed. After various means had been employed, without any beneficial result, she was put upon a course of iodine, commencing with ten drops of the tincture three times a day, gradually increasing the dose to thirty-five. She has been under the influence of this medicine about ten weeks, and at the present time, the tumour is scarcely to be felt. She has suffered nothing from such large doses of the medicine, but, on the contrary, her spirits are greatly improved, and she anticipates, with great confidence, a perfect restoration to health. Dr. Thomson, the able professor of materia medica at the London University, has related a case of ovarian dropsy, in which, after the woman had been tapped in the usual manner, and seven quarts of albuminous serum, mixed with pus, removed, iodine was administered, and carried to the extent of thirty-six drops of the tincture three times a day. The result was, that the tumour wholly disappeared, and the woman was perfectly restored.

"Dr. Coindet has said, that the iodine acts in a particular manner on the uterine system in deficient menstruation.

"In the Transactions of the Licentiates of the King and Queen's College of Physicians in Ireland, there is a paper by Dr. Thetford, in which he describes the complete success which attended the use of iodine, in an indurated enlargement of the uterus. The os uteri projected nearly to the labia, the uterus itself having become of osseous hardness, and so large as nearly to fill the pelvic cavity.

Mercurial alteratives had been tried without success. The tincture of iodine was then administered, beginning with seven drops three times a day, in a wine glass of water, the dose being gradually increased to ten. Progressive absorption of the diseased substance of the uterus rapidly took place, and the catamenia were regularly restored: The iodine had been continued six weeks. It can scarcely be necessary for me to remark, as the subject has been so often alluded to by others, that the effects of iodine upon the system should be carefully watched, inasmuch as when the constitution of the patient is delicate or irritable, or where an idiosyncrasy exists, its exhibition, even in small doses, is occasionally followed by symptoms of a peculiarly distressing kind, such as palpitation of the heart, and other nervous feelings, vertigo, sickness, &c. when, at least, a temporary cessation of the medicine will become necessary."—p. 81.

Mr. Jewel next describes the effects of nitrate of silver. He considers its efficacy is to be ascribed to its producing a new action or excitement in the part from which the secretion has its origin. There cannot be a question of the validity of this reasoning, but it is equally clear that the remedy cannot be applied to diseased surfaces in many cases. The truth of this observation must be admitted by every practical man, for the reasons already assigned, and for those afforded by the author's description of the manner of applying the remedy, which is as follows:—

"The mode I have adopted in the application of this agent, has been either to conceal it in a silver tube, as it is employed in cases of stricture, (except that the tube should be adapted to the size of the argent. nitrat.) or in the form of solution, in the proportion generally of three grains to the ounce of distilled water, the strength being gradually increased. A piece of soft lint may be moistened with the solution, and introduced, for a short period, into the vagina several times in the day; or a bit of sponge, firmly and neatly tied to the end of a slip of whalebone, may be passed into the vagina, up to the os and cervix uteri, well saturated with the solution. This can easily be effected by the patient herself. It is necessary that the application should be frequently repeated, or no permanent benefit can be expected. Should it become requisite to employ a strong solution, and to apply it to a certain part, or ulcerated surface, it can be accomplished with a degree of nicety, by means of a camel's hair brush, introduced through the speculum, or dilator. This, however, can only be done in the absence of excoriations, or tenderness, as the introduction even of a common syringe, sometimes produces a considerable degree of pain and irritation; independently of which, some females will not submit to the introduction of any instrument. In married women, there is not the least difficulty in using the dilator, neither does its introduction, under common circumstances, occasion any degree of pain. By means of

this instrument, the condition of the cervix uteri and vagina can be readily ascertained.

" A few remarks upon the use and choice of the syringe, when injections are employed, will not, I trust, be considered a digression. It must be obvious, that if the act of throwing in the injection be attended by any muscular effort, the injected fluid cannot reach its destined point, namely, the neck of the womb, and upper part of the vagina. In using the common straight syringe, a degree of bodily exertion cannot be avoided, whatever may be the position of the patient, and consequently the operation must prove very inefficient, if not altogether useless. The pipe of the syringe ought to be curved, so that when introduced, its point may come in immediate apposition to the os uteri, and the patient should place herself in the recumbent posture, in which position she should remain at least several minutes after the syringe has been withdrawn. The principal advantage in injecting the fluid is, that if any superficial ulcerations exist, they will be readily healed.

" It is very satisfactory to observe, that the nitrate of silver, when judiciously used in either of the forms above recommended, gives no pain nor irritation, at least no more than is occasionally produced by the injection of any common astringent."—p. 85.

Our author details a few cases in which the remedy was successful, and then endeavours to form a diagnosis between leucorrhœa and gonorrhœa. He notices the latter disease, as the remedy " is, in almost every instance, the most certain in effecting a cure." The severity of symptoms in gonorrhœa, is the diagnostic mark of the disease. The nitrate is to be used as in leucorrhœa.

Such are the peculiar opinions of Mr. Jewel on leucorrhœa. His work, though by no means as perfect as it might be, will be perused by young practitioners with advantage. It contains much valuable information, and deserves a place in the library of every man engaged in obstetric practice. Had the author described the different species of leucorrhœa, as laid down in the works of Hamilton, Burns, C. Clark, Dewees, and many other writers, and considered their pathology, he could not have arrived at the conclusion, that nitrate of silver is a certain cure for so many morbid conditions as induce the disease in question. He should also have given a correct diagnosis, and ought not to recommend a single remedy as a specific, for the different degrees of diseased action, which produce the numerous discharges generally comprehended under the term elucorrhœa, both by the profession and their patients.—Should he adopt these suggestions in another edition, his work will be considered one of reference and authority.

IV.—*Two Memoirs read before l'Academie Royale des Science, at Paris, on the successful Inhalation of Diluted Chlorine, in the early stages of Pulmonary Consumption. Translated from the French of* M. GANNAL. By WILLIAM HORATIO POTTER, M.R.I. Operative Chemist. 8vo. pp. 90. London, 1830. Callow and Wilson.

V.—*A Treatise on Pulmonary Consumption: its Prevention and Remedy.* By JOHN MURRAY, F.S.A. F.L.S. &c. pp. 156. London. Whittaker and Co.

THE works before us are offered to the profession by two operative chemists, as containing an account of a certain cure for consumption. The authors ought to have recollected the slender pretensions they must possess to instruct medical men in the cure of disease. Their zeal in the cause of humanity has induced them to overstep the boundaries of discretion; and common sense ought to have restrained them from obtruding their opinions with too much confidence upon the faculty. The first work merits attention, as it is a translation of the production of a French physician; the second has no claims to consideration, as its tendency and object are intended to inform medical men, not only of a cure for consumption, but for divers other diseases, by one remedy; in fact, it must be considered empirical, as will appear by the sequel. The original of the first work was read before the Royal Academy of Medicine in Paris, in 1827, and made a deep impression upon that learned body. The doctrine it proposes is scientific, and of course worthy of notice. It affords some evidence in proof of the value of chlorine gas in pulmonary consumption. Its author delivers the result of his experience with candour and modesty, and with the greatest deference to the opinion of the profession. He is not an enthusiast, but a faithful observer; while Mr. Murray advances his opinion with as much dogmatism as even Paracelsus himself. The sect of chemical physicians has long since ceased to exist, but we are occasionally favoured with the conjectures of operative chemists on the cure of diseases. We are ready to grant that much good has resulted from modern chemistry, by exposing the incompatibility of certain medicines when combined in prescriptions; but we ought to recollect that we are perfectly ignorant of the numerous changes which the most chemical formula must undergo in the human body. It is therefore obvious, that

chemists ought to be more reserved and cautious, in speaking too dogmatically upon the effects of remedies. We need only refer to the records of medicine in proof of our assertion.

It is now generally admitted that there is scarcely any medicine, when taken into the stomach, which has a direct action on the lungs, and hence the fatality of the diseases of these organs. Even the direct application of medicinal agents to the mucous membrane of the lungs, can have little effect upon the various disorganizations of the organs themselves. If proof were required of this opinion, it is amply afforded by the failure of inhalation of the various gases, factitious airs, fumigations from pitch, tar, oil, oak bark, arsenic, sulphur, muriatic acid gas, &c. A late writer accounts for this want of success, by maintaining "that the gases were inhaled in a dry state, for dry or anhydrous air only irritates, and parches the minute ramified membraneous tubes, of which the bulk of the lungs is composed, and that the tissues are not pervious to the natural progress of oxygenation, unless they are moist and the gases humid." Such is the opinion of Dr. Murray, of Belfast, in his excellent work on the Influence of Heat and Humidity, with observations on the inhalation of iodine, and various vapours in the cure of pulmonic complaints. This opinion is further confirmed by the testimony of M. Gannal, who maintains that chlorine gas must be humid to ensure its effects. Thus Mr. Potter observes in his preface—

"Among the numerous publications of various pretensions to the public favour, which are daily presented to the medical world,—few or none contemplate the direct application of remedial agents to ulcerated lungs. To fill up this chasm in medical literature is the object of the present memoirs; they prove in an incontestible manner that Chlorine gas, diluted with a large proportion of common air, and softened further by its combination with aqueous vapor, is a powerful therapeutic means of cicatrizing ulcers of the lungs, where they exist, and of preventing their formation when a predisposition is indicated. And even where the system has already succumbed to the baneful influence of this disease, which causes so many thousands, in this country especially, to become early tenants of the tomb, even in these cases where, by the presence of all the fatal symptoms recognised by the practitioner, as indicating if not a speedy, at least a certain dissolution, the effect of this agent has been evidently to prolong life and palliate suffering: and, in some few instances, has effected an absolute and permanent cure. Such is the combined testimony of several eminent and scientific Frenchmen, and it remains for the sounder and more steady judgment of the English experimentalist, to ascertain the extent of its claim to public credence."—Preface.

The following reasons have induced M. Gannal to direct his attention to the employment of inhalation of gases :—

" Two modes of treatment have been adopted by physicians to ward off the terrible incursions of pulmonary consumption; the first we may denominate indirect or revulsive, and it consists either in the external application of topical stimulants upon the principle of counter-irritation, and thus opposing the internal inflammation by one created artificially upon the surface, of sufficient energy to effect a cure, or in administering by the mouth certain medicines capable of reducing the too great intensity of vital action, and thus procuring relief.

" These modes are generally united in practice, but such is their inefficiency, that they seldom do more than arrest the progress of a disorder, which, when once fully developed, as manifested by the hectic fever and diarrhœa, is considered incurable by the majority of practitioners. Convinced of the insufficiency of either external or internal remedies, physicians have at different times, demanded of chemical science, some gaseous substance, which being blended with the air and carried with it to the lungs, might by direct contact sooth the irritation of the organ, modify the secreting power of its mucous membrane, or cicatrise existing ulceration.

" Great expectations were elicited by the employment of this novel and direct mode of treating phthisis; aqueous vapours produced either from water alone, or certain mucilaginous decoctions, the vapour of tar, of sea-weed, and various other substances were employed, and were at first found useful in slight cases, but their success in cases of longer standing, where inflammation had already made considerable progress, was unsatisfactory and doubtful.

" Towards the close of the last century, that brilliant epoch, when modern chemistry preceded that revolution which raised it to the foremost rank among the useful sciences; at this epoch, I repeat, the theory of Lavoisier respecting inspiration, and the important considerations which flow from it, relative to the influence of oxygen gas upon the animal functions, caused many to imagine that this gas might prove beneficial to consumptive patients. Various experiments were made to this end between the years 1781 and 1790, the results were at first encouraging; the dyspnœa was relieved, pain was lulled, the expectoration was gradually diminished, the cough was eased, and every one now thought that a cure was at hand. But this happy state of things was not of long duration, fifteen days after these first effects of vital air, acute symptoms of excitement showed themselves in the lungs, blood was brought up in the sputa, the fever increased, the colour became more lively, the heat greater; thus it was found necessary again to recur to antiphlogistics, and the disease which seemed checked, now resumed its course, and proceeded with greater rapidity towards its fatal termination than before the gas was exhibited. Fourcroy, at once a witness and relator of these facts, declared that oxygen gas was far from being a remedy applicable to phthisis, as had been imagined. This check suspended further expe-

rimental inquiry, and crushed that enthusiasm which had already taken possession of the minds of many."—p. 12.

The efficacy of chlorides on ulcerated surfaces, and in arresting mucous discharges from the vagina, afforded analogy, that it might produce the same happy effects in ulcers and increased mucous secretions, which, for the most part, constitute consumption. Accident proved this to be the fact.

" Being, in the year 1817, attached to a manufactory of St. Denis, I observed that those workmen who happened to be affected with phthisical symptoms experienced relief, and quickly recovered their health, while exposed to the exhalations of the chlorine disengaged in the various processes. I communicated this fact first to Dr. Bourgeois, then to the celebrated Laennec himself, who, in the year 1823, after my communication, made some trials with the chlorine fumigations, at the Hopital de la Charité at Paris, which however were not followed up. M. Laennec made use of the solution of the chloride of lime sprinkled about the room of the sick, and also upon some seaweed with which the floor was previously covered. This mixture, although it was not possible to say to which substance should be ascribed the effect produced, gave favourable results, but not sufficiciently decisive to occasion them to be continued.

" Since this period I have had occasion several times again to be a witness to the good effects of chlorine, in pulmonary complaints. In Sept. last, in consequence of a letter inserted in the journals, the object of which was to claim the priority of applying this agent, I was invited by several physicians to exhibit it to their patients."—p. 16.

Dr. Murray has attested this fact, in his observations on the bleaching manufactories, near Belfast. Dr. Sanders, of Edinburgh, had long since recommended the fumes of muriatic acid gas and of ether, in pulmonary ulcerations of depraved condition. This plan could not succeed, as it produced too much irritation; and it is proved beyond all doubt, by the author before us, that chlorine gas must be pure and diluted to be useful.

" Though I will not at this time venture to speak positively on this point, I think that the chlorine disengaged from the chloruretted oxides (potass, soda, and lime) is contaminated with some particles of a foreign nature, which affect its purity when it is immediately applied to the delicate organs of respiration. This statement is rendered more probable by considering what follows:—I caused some of my patients to respire chlorine evolved from a chloruretted oxide, but at the third fumigation they experienced a lively sensation of warmth in the chest, constriction of the throat, thirst, and all the signs appertaining to a powerful stimulus, which made me quickly desist.

" Chlorine then, as produced from its combination with oxides, is

not of sufficient purity to warrant our applying it to the delicate and already irritated organs of the phthisical patient.

" To remedy this inconvenience, I make use of a solution of the pure gas in distilled water. I take a three-necked bottle, the first opening receives a straight tube, the extremity being plunged into about four ounces of water; the second opening has a tube, which leaving the top of the bottle is bent at right angles, and terminates in a flattened embouchure; the third is furnished with a glass stopper: it is by this last opening that the water is changed, and the gas introduced. The water in the bottle at the time of fumigation should be at the temperature of about 32° of the centigrade thermometer equal to 89° 6' of Fahreinheit's scale; a certain quantity of liquid chlorine is then added; and by gently shaking the bottle, a portion of the gas is disengaged, which may be breathed by applying the mouth to the extremity of the bent tube. As the air is gradually withdrawn from the bottle, a fresh quantity is supplied from the atmosphere by the straight tube, bubbles up through the weak chlorine solution charged with the gas. The fumigation may be continued for the space of four or six minutes, after which the disengagement of gas ceases,*.

It is of the utmost importance, that we proceed with the greatest caution, being guided by the consideration of the energetic nature of the means employed, as also of the delicate fabric of the organ concerned. In my practice I commence with ten drops of the liquid chlorine to two volumes: if the patient can well bear this dose, and according to the susceptibility of his lungs, I raise it gradually to 12, 15, 20, 30, 50, 60, 72 at a time. However, there are scarcely two persons who can bear exactly the same doses; we must therefore, as it were, carefully explore the state of the organ to be acted upon, and from thence deduce the proper quantity.

" The same reasoning holds good as regards the *number* of fumigations, during the twenty-four hours. They must be regulated by the effect produced, and the sensibility of the parts, generally the number may be from six to eight. It appears evident according to the above process, that the chlorine inhaled cannot enter the lungs unless impregnated with a number of aqueous particles; from which circumstance it is much less irritating than in the dry state; and lastly, not being commixed with any foreign matter, its action confined to itself is not complicated with any superadded irritation.

" We may also just observe that the apparatus required for its exhibition, is simple, easily obtained, and moreover portable, and being made entirely of glass, the chlorine cannot possibly become contaminated with metallic molecules, and thus interfere with its purity; it cannot for example act upon the copper, convert into a chlorine, and in this state painfully affect the lungs, or as there have been some instances, cause extensive inflammations."—p. 23.

The author concludes his first memoir with these remarks—

* The apparatus may be procured at 11, Old Compton Street.

" Inspiring the gas in its pure state is certainly better than inhaling it, as produced from the chloruretted oxides, or when conducted through metallic tubes to the organs of respiration.

" Lastly, it is to be observed, that by the influence of chlorine, all the patients breathed freer, dilated the chest more easily, that they felt a pleasant sensation while inhaling the gas in a remarkable manner, and that their appetite returned, and often so as to render it necessary to increase the quantity of food allowed them. All these facts indicate a diminution of pulmonary irritation, and an increase of energy communicated to all the vital powers.

" It follows, therefore, from what has been premised,—

" 1st. That in no case has the inspiration of chlorine proved hurtful or troublesome.

" 2nd. That in cases where the disease had made considerable way towards its consummation, and was therefore incurable, it afforded relief and prolonged life.

" 3dly. That in cases where other medicinal aids were of no avail, it succeeded in effecting a cure after a shorter or longer interval and that from all these considerations, it is one of the most efficient means that medical art can oppose to tubercular phthisis."—p. 34.

The second memoir consists of details of cases, in which the chlorine afforded great relief, and in some instances produced a complete cure. The following cases are the most remarkable:—

" Madame Mitteau, 25 years of age, short, and of a delicate constitution, experienced, in consequence of a shock occasioned (April, 1827) by a sudden announcement of bad news, a violent degree of oppression, attended by difficult respiration. Having consulted a physician, she was bled in the right arm; in the evening, 25 leeches were applied, part to the anus, and part to the right side of the lower belly; refreshing drinks were prescribed with a low diet, or at least very little aliment was allowed for several days. This treatment produced great relief, and for a month the patient was tolerably well; however, every now and then she felt a pricking at the upper part of the right shoulder.

" At the end of a month, this pricking sensation became a sharp and lasting pain, which was not referred to the posterior part of the thorax alone. The whole of the right lung had become painful, and the upper part seemed particularly to be the seat of disease. Madame Mitteau had a cough, which from being at first dry and seldom, was now frequent and accompanied with purulent expectorations; leeches were applied to the sternum, which produced some benefit. Thus matters went on until November, at which time the expectoration became more abundant. Inflammation attacked the abdomen, and the patient made water with difficulty, which was attended, for the space of two months, with violent pains; the menses were suppressed, and Madame Mitteau's health was much on the decline till the end of the winter. Dr. Honlet, who attended her for three

months, invited me to see her; she was at this time excessively thin and weak; her appetite was gone; her sleep short and restless. A febrile paroxysm was observed every evening, with frequent colic and diarrhœa. The left side of the chest indicated a healthy state, but the upper part of the right side had a dull sound, which was continued to the upper third part. In the centre was heard a mucous rattle with wheezing. The expectoration was surprisingly abundant, very thick, and of a most repulsive odour. It was in this state that, on the 28th of March, I commenced the fumigations.

"During the first eight days no change was perceived, but towards the 18th of April she felt stronger; her rest was also more tranquil; the skin became firmer; the chest freer, and the appetite returned. The relief appeared wonderful. The patient coughed less from the early part of May, at which time she was so far recovered as to be able to walk on the boulevards.

"Early in June the expectorated matter had lost its bad smell, became mucous and less abundant. The strength was so far restored, that the patient could walk, every day, from No. 129, Faubourg, St. Denis, to No. 31, la Rue Bourbon—Villeneuve. Madame Mitteau still feels, occasionally, slight pains in the upper part of the right shoulder, but they are not of long duration; the left lung seems perfectly healthy. In the right may be observed marked pectoriloquism, towards the upper part, but the rattle that was there remarked, is now scarcely audible. She goes on as well as it can possibly be expected, although she is not particular in her choice of food, nor in the quantity she eats. We must surely consider the disease, if not cured, at least singularly ameliorated.

"The effect of the chlorine, in this case, has been evidently to prolong life, relieve pain, and to restore to her usual pursuits, a patient whom every one had given over."

Another case, of apparently confirmed phthisis, was cured by chlorine; there was no hope of recovery entertained by numerous physicians. The work deserves the serious consideration of the profession.

Mr. Murray recommends the chlorate of potas, not only as a cure for consumption, but as a specific for cynanche tonsillaris, ulcerated trachea, and adduces a number of cases, authenticated by practical medical men, in proof of his assertion. These cases, however, are so loosely detailed, that they afford no evidence of the existence of the diseases which they purport to describe. Some of them occurred to Mr. Murray himself, who is not a medical practitioner, and therefore are of little value. But we shall allow him to speak for himself.

"Shortly after our return from France we had occasion in our own person to put the efficacy of this medicine to the proof, in conse-

quence of having received a serious fall, by which we voided a considerable quantity of blood. We commenced with doses of eight grains three times a day; the immediate relief obtained was remarkable, and in a few days the cure was complete. Since that period it has been used on our recommendation with great success, by a clergyman of the Church of England, who had twice ruptured a blood vessel,—and even in violent uterine hæmorrhage, a medical gentleman of Derby has employed it in his practice on our suggestion with the most beneficial effects.

"Though its more direct agency seems to be connected with the circulation, it also exercises a very marked one in a torpid state of the liver, and a physician wrote us he had employed it in a case of this kind, at our special request, and that it had proved triumphant where all other remedies had constantly failed. Nor is this a solitary case of the kind, since we possess many others, but this volume was never intended to be a register or catalogue *raisonnee* of cases. In our own person, and in that of many others, it has been found a *specific* in *cynanche tonsillaris*, from which we have been in the habit of suffering at regular periodic returns, in spring and autumn, and the only anterior relief was the lancet applied to the abscess. By the exhibition of 6 or 8 grains of the chlorate morning and evening, it has been always immediately subdued; by persisting in this for several times on its first attack, it has been banished from the system, and we have remained free these several years from its visitations. Of its efficacy in morbid glandular affections, there can therefore be no doubt. In chronic catarrh of many years standing, it has effected a complete and permanent cure. Though personally susceptible, we scarcely know, in *propria persona*, what a permanent cough is, since we find it is soon dismissed by judicious doses of chlorate of potassa. We are not particularly attentive to quantity, but generally commence with 6 or 8 grains, and have given it one of our children, a few months old, in doses of two or three grains, with the most salutary effects. At our suggestion it has been made up into lozenges, and thus become a convenient mode of exhibition in catarrhal complaints.

"The agency of chlorate of potassa on the system is very mild and gentle. It speedily reduces febrile excitement, and in a case which was supposed to be *ulcerated trachea*, two doses of eight grains each reduced the pulse from 120 to 97! The system, however, so far from being lowered, is contrariwise *strengthened*—facts which we have personally experienced as often as years have passed over us. Its effects are somewhat diuretic, at least in morbid glandular affections, and from that interesting circumstance we doubt not but its judicious administration, in combination with other medicines, might give relief in hydrothorax, and in an early stage of the disease perhaps effect a cure. We are supported analogically in this belief, from having witnessed its beneficial results in anasarca of the legs attendant on a case of phthisis."—pp. 130—132.

Allowing full credit to the statements of this extract, we

must remind the author, that ulcerated trachea and pulmonary consumption are very different diseases. Besides, according to M. Gannal, chlorate of potas is not the best mode of employing chlorine. There is only one point of value in his recommendation, and that is, that the remedy can do no injury, and therefore it deserves a trial; but we repeat our position, that medicines, taken into the stomach, can have little, if any effect, in diseases of the lungs; and this objection also obtains in cases of ulcerated trachea.

If there be any probability of alleviating consumption, it must be by inhalation, and a judicious use of counter irritation, in the fullest sense of the word. A great deal of error is committed by the majority of the profession, and, of course, by non-professional persons, who consider all the diseases of the chest consumption. Well informed medical men will only smile at this prevailing error, and lament the gross credulity of the public in such absurdity. But we need not lose time in commenting on topics which are so universally understood, and therefore shall conclude by inserting two cases, detailed by two surgeons, Mr. Hughes, of Stafford, and Mr. Hall, of Apeton, in favour of the proposed remedy. Mr. Hughes proceeds as follows:—

"A young married woman, not lately pregnant, and who had miscarried two or three years ago, consulted me about two months since. She had the usual symptoms of phthisis, with evident indication of tubercular deposit, ascertained both by percussion and the stethoscope. The gas, aided by counter-irritants, sedatives, and aperients, has nearly, if not quite, restored her to health.

"I have this evening, June 8, seen the married female whose case I related in my last; she has now no pain in her chest, nor any other symptom of phthisis. Her chest sounds well, yet there is a very slight dulness on her left side above the mammæ,—the former seat of pain.

"Mr. John Hall, of Apeton, near this place, a member of a very consumptive family, having lost a sister and a brother, the latter of whom I saw during his illness, permits me to communicate to you the following particulars, the result of our mutual reminiscence.—He was attacked in the Christmas of 1828, after exposure to wet and cold, with violent pain in his chest, cough, &c.; a surgeon bled, blistered, and physicked him, and he partially recovered. In May following he came under my care, conceiving himself ill; his breathing was so bad that he could not walk two hundred yards; he was greatly emaciated, though his appetite continued good, and had pain in the right side of the chest. The indication of disease afforded by percussion was most striking. I detected the seat of pain thereby alone. There was no other disorder than phthisis; no violent symptoms, yet he was evidently sinking. I immediately began with the potassæ oxym. and the gas. He went home much better in a fort-

night, and I saw him not again at that time. In six weeks he was so well that he discontinued the use of remedies, too soon, he thinks. Soon afterwards he frequently walked six miles and back in a day, without any unusual effort or inconvenience. Toward the end of November he had an attack of pleurisy, as before, and the early treatment was the same. He had severe pain on the left side, slight cough, but little expectoration, and inability to inspire deeply. When he came to me, a fortnight afterwards, the symptoms were mitigated, yet he had still some pain on coughing, or filling his chest, was much emaciated, and very weak. He had no night sweats; could not count audibly more than six or seven at a breath; chest sounded well on the left side; the right, as formerly gave a dull obtuse sound. Staid in Stafford a fortnight. Treatment as before. Could walk better, but began to loose breath after walking three-quarters of a mile on his way home.

" On the 10th of last February, when this account was taken, he had recovered flesh and colour. His own words follow: " Lusty as ever I was: no cough, no pain—can walk two or three miles with pleasure,—get stronger and better every day:" the chest sounds well to seventh rib on left side—to third rib on right side. The dulness on the right side is less in degree—in intensity. His pulse was near a hundred when he first applied for relief, on both occasions; and was reduced in frequency to the natural number (seventy or eighty in a minute) before he left. His age is about forty. It will be perhaps not unimportant to introduce the case by stating that Mr. Hall applied, not to me in the first instance, but to my father, an old and able practitioner; and that my father referred him to me, knowing I wished—thanks to you—to have the treatment of cases of *Consumption*. Considering Mr. Hall's disorder to be decidedly of that hitherto hopeless kind, he smiled incredulously when I expressed my expectation of curing it.

" I this morning made inquiry of a lady in this town respecting the present state of health of her late servant, whom I had the satisfaction to treat successfully after your plan two years ago. Information that the young woman continues in perfect health had reached the lady as late as a month from this time. When under my care her age was about twenty-one years: she was pale, slender, particularly flat-chested, and stooped. Her disorder, having advanced gradually and insidiously, had almost quite disabled her before she felt the necessity of seeking medical aid. Perhaps too she was deluded by that false and fatal hope, which is almost diagnostic of tubercular consumption. At last her mistress insisted that she should have professional advice, having previously provided her with a separate bed, lest her breath should induce the same disease in her young fellow-servant. (I state this last particular as affording indirect evidence.)—The woman, when I first saw her, had a rapid pulse, cough, humid respiration, and spoke only in a whisper. She had pain in the chest, and a very obtuse sound on striking the sternum between the upper part of the mammæ. She was compelled to move about very slowly, and could only count four or five at a breath. At the end of six

weeks from this time all these alarming symptoms had subsided: she could move as quickly as she wished without distress or difficulty, and readily inspire air enough to enable her to pronounce twelve or fifteen syllables in a full voice—not a whisper as at first. In this case the nitrous acid and oxymuriate of potassa, were (with occasional aperients) the only medicines used." '—pp. 143—146.

As other remedies were employed with chlorate of potas in these cases, it is not easy to discover what share the latter has had in the alleviation. There can be no objection, however, to give it a trial, as it may possess some medicinal property when taken into the circulation of the blood. Mr. Murray is entitled to our thanks for having published his remedy. He has clearly shewn that it may be employed with safety, and perhaps with some advantage.

VI.—*An Important Address to Wives and Mothers, on the Dangers and Immorality of Man-Midwifery.* By A Medical Practitioner. 8vo. 1830.

VII.—*Eyes for the Blind.—Man-Midwifery exposed, &c.* By M. Adams. 8vo. 1830.

Of all the beastly, licentious, demoralizing, and mendacious productions of this age, these before us stand unparalleled. Miserable and half-starved booksellers have often been indicted for publications much less indecent and abhorrent. These are of course anonymous, but rumour has ascribed one and both to a silly old man named C——— not the notorious wretch who has so often debased man, below the lowest of the brute creation, by his horrible publications, but an exact prototype. We shall not pollute our pages with the filthy and disgusting trash contained in these miserable pamphlets, but shall refute the groundless assertions which are maintained in them. We must premise that the reputed author has never practised midwifery, and consequently is ignorant of its dangers and difficulties, though he has the effrontery to declare that man-midwifery "is a disgrace to morality and feminine dignity," that medical aid is unnecessary; and that medical men solicit the chastity of their patients, and seduce them generally. What a doting, ignorant person, the man must be, who seriously maintains such absurd opinions. How grossly ignorant must he be of the innumerable difficulties attendant on parturition. But no man acquainted with obstetric practice could entertain such opinions; and one unacquainted with the

subject, must be extremely foolish to expose his ignorance. Has this licentious and profligate pamphleteer ever perused a treatise on obstetricy? Has he ever considered that men, a thousand times more talented than he, have published large volumes upon the subject? Does he presume to think, that he is right, and nine-tenths of the profession are wrong? If he be of this opinion, some brace of mad doctors ought, out of sheer compassion, and for the maintenance of professional dignity, have him confined as a lunatic; for now a-days men are deprived of their liberty on much more slender proof of mental aberration. We are quite serious in our suggestion, for there is not a shadow of doubt, but the author of these infamous productions is a monomaniac on the subject of what he vulgarly denominates man-midwifery. It must be unnecessary to take the trouble of offering a serious refutation of the absurd opinions advanced by this pitiable writer. But as he probably enjoys lucid intervals, a few observations may be useful to him, and contribute to expel the singular delusion under which he labours. We must inform this man "of enlarged intellect," from personal experience, that the confidence inspired by the presence of a medical man, will greatly abridge the sufferings of a parturient female, and that his aid in difficult and dangerous cases is invaluable, as it frees the patient from the most painful sufferings, which, without it, must continue for hours or days to the final destruction of the lives of both parent and offspring. Savage and unfeeling is the man, who would inculcate the doctrine of depriving his fellow creatures of relief, under such circumstances. He is a disgrace to his species, and a malignant libeller of his profession and of humanity. He has forgotten the primeval malediction, which has for ever doomed the human female to the agonies of child-bed, and he is ignorant, or pretends to be so, of the innumerable difficulties which may aggravate her sufferings, and which can only be removed by the aid of our profession. In further illustration of this reasoning, we shall cite our own remarks on another occasion.

"Happily for humanity, the process of labor is safe and free of danger, in a vast majority of cases, especially where females live according to nature's primitive laws; but among the higher and middle classes, where these laws are violated or forgotten, where the constitution is impaired by the luxury and dissipation of modern times, the process of child-bearing is attended with considerable danger, both before and after it shall have been completed. These observations are equally applicable to the lower classes in our cities, whose customs, habits, pursuits, and constant inebriation, render

them liable to many accidents during parturition, and to a vast number of inflammatory and febrile diseases after delivery. The universal testimony of all unprejudiced medical men confirms the truth of these assertions. It is well for suffering humanity, the process of parturition may be greatly accelerated, and the greatest of mortal suffering relieved by the skilful exertions of the obstetrician, and with the most perfect safety to the parent and offspring. It is well known that the very presence of a medical man will often afford relief, without the performance of any manual operation whatever. The confident assurance to the patient of her safety will inspire that balmy hope, which will hasten delivery much better than any other means. On this account there are few intelligent females, who do not prefer medical attendance during labour, to that of any other description. This is the case in every civilized country, as women are well aware of the superior knowledge which medical men possess of their constitutions; and hence in modern times, we observe a wise and judicious preference given to male obstetricians, and midwives are scarcely ever exclusively employed, unless among the ignorant or lower classes."—*Manual of Midwifery by M. Ryan,* M. D.

This is a sufficient reply to the position, that medical aid is not required at the nativity of our species. If more evidence were wanted, we need only refer to the voluminous works on obstetrics, from the time of Hippocrates to the present period. These were unnecessary, according to our *sensible* author, and their authors who appeared in different countries, during a period of even two thousand years, had employed themselves unprofitably and uselessly. Happily the opinion of the profession is against this author, who, Goth as he is, must yield to reason and to science, which he cannot control. The voice of the profession, and the sanction of an enlightened public, are against him. All are fools, but this mighty Daniel. The most serious charge made by this defamer is, that medical men solicit the chastity, or generally seduce the females under their care. The obscene and beastly remarks on this point are so gross, that it astonishes us how any man of an ordinary education could be capable of inditing them. We cannot find language sufficiently strong to express our reprehension of such sentiments, and more especially when the writer is a member, a most foolish one, to be sure, of our profession.

To assert that medical men solicit the chastity of females in the agonies of childbed, when stretched upon the rack on which nature has laid them, is an idea as absurd as it is unnatural. The feelings of every man must convince him, that sensual impulse is not excited by parturient screams and tortures. Gallantry and brutality are as incompatible with

one another, as this writer's nonsensical reveries are with common sense. His cerebellum must be peculiarly developed, it would be interesting to learn its phrenological description. Here we are reminded of our misfortune in not being phrenologists, but having lately learned that emollient cataplasms are applied to the occiput for the cure of gonorrhœa, by the disciples of Gall, perhaps such might be useful in this case, though our own opinion is, that something in the shape of Mr. St. John Long's innocent lotions would be more efficient in extracting "the acrid matter" from the diseased site of sensuality, than any thing else. If medical men betrayed the moral duties they owe the public, and acted as this wholesale defamer asserts, they would be degraded by society, and severely punished by the law of the land. Their immoralities could not escape detection, and their punishment would be public execration, and the utter ruin of their professional character. If the gratuitous and ridiculous assertion against which we argue were correct, our courts of justice would be constantly occupied with actions against medical men, and yet in the annals of these venerable institutions, we find only two examples of such actions recorded, and these of recent occurrence. We need scarcely state that both delinquents were obliged to relinquish the profession. We must apologize for impugning such false assertion and malignant libel by sober argument, which we should have treated with ridicule and contempt. The charge of immorality is refuted by daily observation. Censure need not be applied to such insufferable nonsense. Conduct so absurd and ridiculous, as this pamphleteer has been guilty of, must excite general contempt; in fact, it could have little effect upon the mind of a rational being. This trash has been shouted through the streets, for the laudable purpose of exciting the "green-eyed monster" in the minds of the ignorant, and to sow the seeds of discord in families, while it tends to lower the characters and morals of British females, who were hitherto considered patterns of chastity and virtue. Englishmen, husbands, fathers, and brothers, what say you to this? You all will reply, verily the intellect of this defamer of the human race must be sadly perverted.

No treatment can be too bad for the depravity of the writer in question. He is as insensible of shame as he is to the censure of the profession to which he belongs, and to which he is the greatest *original* afforded by its annals. He is much more obscene and disgusting than the most infamous quack in this city of empirics. He is the worst enemy of decency and public morals, and ought to be prosecuted by the society for the suppression of vice, or by his Majesty's Attorney-

General. Fellows much less guilty have been prosecuted, but he moves in respectable society; he is not a proper object for prosecution, there being one law for the rich, and another for the poor in this country. Had he been a starving bookseller, prosecution would speedily overtake him, and arrest his iniquitous career.

ORIGINAL COMMUNICATIONS.

I.—*Affection of the Heart, &c.* By W. Dobson, Esq.

H. S. æt. 21, a plethoric girl. Had uninterrupted good health until five months ago. Has been accustomed to carry great weights up fifty steps, many times in the day. Felt severe pain in the back after carrying one of these loads. Since, has had a feeling of fatigue in the spine, after exertion, or being in the erect posture for some time, but no pain. Four months ago began to suffer from palpitation and dyspnœa, on the slightest exertion, which have gradually increased. Pain in the centre and left side of the chest. For which she was bled; had blisters and other counter-irritants applied to the chest, but only affording temporary relief. Numerous medical men had seen her, who concurred the heart was diseased, and were assured she must inevitably die in a short time. July 9th. I was called to see her. States she has every evening a severe paroxysm of palpitation of the heart, and most distressing difficulty of breathing, which continues for two or three hours—sometimes longer. In the intervals is pretty comfortable: tongue white: appetite deficient: flatulence, especially after eating: bowels constipated: secretions unhealthy: fulness and tenderness at the epigastrium, and in the whole course of the colours. Catamenia regular. On pressing the spinal column, complains of tenderness in its whole extent, but especially over the 2d, 3d, and 4th cervical, the 5th, 6th, 9th, 10th, and 11th dorsal vertebræ; at these parts the slightest pressure produces great suffering. Previous to my examination, was not conscious of any pain there.

During one of the paroxyms I was called; the heart was throbbing violently: the pulse rapid (110) and bounding: skin universally cold: face pale and swollen. The respiration exceedingly hurried and laborious. In short, it seemed to be performed by the effort of the will; and as if the

diaphragm was either in a state of active contraction, without corresponding relaxation, or totally paralysed. Sensibility of the skin increased: troublesome itching of the skin about the neck and breast: muscular twitchings of the left fore-arm: dull pain in the course of the large nerves of the arm: heart very excitable: the most trifling circumstance (as a rap at the door) excites it to very rapid action.

By the successive application of leeches, blisters, and various counter-irritants to the spine, the disorder of the heart and lungs was soon removed. In fact, the disturbance in these parts abated, just in proportion to the diminution of the spinal tenderness. The common antiphlogistic measures were enjoined. Attention being paid particularly to the intestinal secretions. Nux vomica, I found a valuable adjunct in relieving, manifestly, the dyspucea, the muscular twitchings, and the pains of the arm.

In the course of a month all those formidable symptoms had disappeared; only slight epigastric tenderness remained, but which was soon removed by a blister, and restoring the secretions from the bowels to a healthy state.

I have omitted the details, as it would have occupied too much of your valuable pages.

The dependants of the heart's action on the nervous system, is by many practitioners entirely overlooked. The heart is supposed to be excited to contraction, by the blood in its cavities, acting either from some inherent stimulus, or by distending the walls of that viscus, or by these conjointly. To ground the heart's action, on sensibility, is, at the least, a paradox; it being so well known that the heart will continue to act for a considerable period after its removal from the body. At the time of Harvey, when the physiology of the nervous system was so imperfect, it would appear plausible to account for the heart's action on this principle. But since the investigations into this intricate system have developed the causes of many a phenomena, previously inexplicable, we may now carefully make new inductions, and attempt to illumine those deep recesses of physiology and pathology, which hitherto have been in entire obscurity. That the heart's action is connected with the circulation of blood through its cavities, no one will deny. But that it is directly dependent on this operation, is quite erroneous; and one familiar illustration, out of many that might be adduced, will suffice to confirm this idea, viz. syncope, a state where consciousness is abolished, and every action suppressed for a variable period. Now, the first mark of recovery, is pulsation of the heart, and we enquire, what caused the heart to move? Was it the entrance of blood into its cavities? No:

the blood is passive in its motion. Did the vessels give the blood motion? this is denied. Then, the obvious inference is, the heart is excited to act by some other agent; and such is the case. That the heart resumes its action from a principle in its nervous and muscular structure, and from its communication with the ganglia of the sympathetic, maintains this property, seems perfectly evident, *and is totally independent of the blood in its cavities.* And it were easy to prove, both by fact and analogy, if we could change the route of the blood, so that not an atom should pass through the heart's cavities, the movements of this organ would be equally energetic; and so far from the blood's motion being the *direct cause* of the heart's action, the circulation is only the effect of these *active* contractions.

All must agree that the heart is active in its agency, and not a passive organ, not excited to move by the blood in its cavities.

The connexion which subsists between the sympathetic and the cerebro-spinal system, accounts for derangement in the heart's function, when the spinal marrow is diseased.

From the history of the preceding case, it would appear that from over exertion of the spinal column, the spinal marrow became *primarily* diseased, and it is an allowable conjecture, there was extension of this to the ganglia of the sympathetic (by the communicating nerves), and probably its branches also, participated in the same, from continuity, and thus produces derangement in the organs supplied. For we can as readily conceive, disease *in the nerves*, inducing disorder in their situations, as of disease in the ganglia, manifested in the parts where their nerves are distributed. Where we find analogy in anatomy, we must look for the same in pathology.

It will be observed, there was no uniform irregularity of the pulse. This circumstance, I consider a strong evidence of the non-existence of organic disease in the heart.

The deranged action of the diaphragm (as evidenced by the dyspnœa) the epigastric tenderness, and all those anomalous symptoms detailed, seem equally referrible to disorder of the nerves and their connexions. The urgent dyspnœa, was undoubtedly dependent on that exquisite tenderness over the centre of the cervical vertebra, where the phrenic nerves originate. The muscular twitchings of the fore-arm, on the origin of the axillary plexus, and that of the intercostals, on the corresponding portion of the spinal marrow. The palpitations on the cervical ganglia and their communicating nerves.

What influence the "nervus vagus" exert on the heart, is not yet established. It is considered neither a "sensitive," nor a "motor" nerve.

Dr. W. Philip's researches show, that when a narcotic (as opium) is applied to the brain, or spinal marrow, the heart's action is either retarded or accelerated, but not irregularly. Does the nervus vagus serve as a medium of impression from the brain to the organs it supplies? As when mental emotions produce increased action of the heart (so strikingly manifested in this case) and loss of appetite, &c. its use may be analogous to the communicating nerves, between the spinal marrow and the sympathetic, viz. to convey the mandates of the will to the heart, the lungs, and the stomach, &c.

The sympathetic, endowing the organs it supplies with that special power of action.

The nervus vagus, to bring these actions under the influence of the brain.

These few observations, though very concise, may assist in calling the attention of practitioners to this formidable, and not uncommon malady. The interesting and very valuable treatise of Mr. Teale, on "Neuralgic Diseases," cannot be too attentively perused; but it contains more intrinsic value than any panygeric I could bestow.

14, Arabella Row, Pimlico.

II.—*State of the Medical Profession in Dublin.* By Unus Quorum.

As you have taken so much interest in fearlessly exposing the abuses and defects of our profession, and more than once alluded to the state of matters in Ireland, I enclose you a few remarks on the state of the profession in Dublin. We had been led to think that our Royal College of Surgeons would have acted liberally on receiving their new charter; but I need scarcely observe, that their new regulations are as narrow and as selfish as before. It was rumoured that the College would have been thrown open to to all who presented themselves for examination, and a woeful drawback would be made from the coffers of the junta at Lincoln's-Inn-Fields, by giving Irish students in general an opportunity to qualify at home, but no such thing was meditated. The college, ever true to narrow-minded principles, and extremely sensitive of personal aggrandizement.

have virtually closed their portals against all, save their own apprentices. They effected this by requiring a much longer, and more expensive course of study, a double fee for their licence, and more severe examination from those who are deprived of the means of paying the exorbitant fees required of apprentices. They forsooth offer an examination on such conditions, and in the true Stock Exchange method, require the sum of £.60, to be deposited in the national bank, the sum from apprentices being £.30, and the fee in London £.22. Thus it is that wealth is a passport to medical science in Dublin; and talent is neglected and degraded. But no candidate will apply for examination, as he is certain of rejection, unless he has apprenticed himself to some one of the examiners. The only resourse he has to adopt is, to present himself at the London College, where he is sure to be treated in a gentlemanly manner, and have a fair and impartial examination. But on his return home, he is treated with contempt by the scions of the Dublin corporation, he cannot be surgeon to a county hospital, and he will not be met in consultation. He is a regular surgeon, and according to your excellent article in your last number, has an undoubted right to practise in any part of his Majesty's dominions. But as he has not condescended to be one of the "forty apprentices," which some of the college party possess, he is a fit and proper object for contumely and scorn. In vain he exhibits his diploma, and points to the illustrious names of Astley Cooper and John Abernethy, they procure him no respect, and his document is only ridiculed. He meets a fellow student of the apprentice tribe, who heard the same lectures with himself, and whom he often assisted in his studies; and from him too, he experiences coldness and disrespect. And this monstrous system is to continue, because half a dozen Hospital surgeons and censors of the college glut on apprentice fees. If there be not a fatality attending every measure in which the college are concerned, by what excess of folly has it happened, in an age like the present, that these ungracious regulations which have ever distinguished their administration, should carry with them a strong appearance of personal interest, where no such interest ought to exist, to the injury of the largest portion of the profession, and to the highest dishonour of themselves. These principles and proceedings, odious and contemptible as they are, in effect are no less injudicious. An enlightened profession are roused by every appearance of monopoly and oppression; and will one day or other make common cause in opposing them.

As Ireland has been always doomed to play the "Comedy of Errors," in every thing, the reform promised by Lord Gower, in pharmaceutical matters, will of course be forgotten. His lordship is no longer connected with this country, and peace be with him, say I,—and consequently will forget his solomn promise to amend the apothecaries act. The Dublin company of drug venders, are much of the same stamp as their fellow labourers at your side of the water. They are not quite so impertinent as yet, and they want courage to interfere with the rights of the physicians and surgeons. But no doubt they will imitate the glorious example of their seniors in London, and by and by, proceed to stultify the Colleges of Physicians and Surgeons, as the London company have so ably accomplished. Our "old hags of Rhubarb Hall," do not examine in physic or surgery, and for a good reason, they dare not attempt it. But they are more alive to their own proper calling than the Londoners, for they threaten to fine all irregulars, and have frightened these interlopers out of their senses. I have often laughed heartily at the threats of the worshipful company, being aware that it would cost them £.200, to enforce a fine of £.20. They are cunning enough, however, to succeed, by sending an inspector through the provinces, who, informer like, takes cognizance of those unfortunate apprentices and assistants, who open shops without a licence, or, in modern phrase, a diploma, threaten them with the vengeance of the Hall, but promise the required licence on the payment of the mulct—the druggists and grocers are left unmolested, but the profession alone must suffer.

I was happy to peruse your extracts from Dr. Grattan's essays on the state of the profession here, and I should be still happier if you noticed Mr. Donovan's more recent publication on the subject. This gentleman is governor of the Hall, and has dealt destruction among the pharmacopolists. He had the manliness and independence to preside at the radical meeting; and was literally turned out of the establishment of which he is the legal head. This was truly Hibernian, you will say. However, he has received the commendations of every independent man in the profession.

We are now preparing for the winter campaign of lectures, and our forces have mustered in great numbers. We have many rival schools, and a wonderful change in the demeanour of the monopolists. It would surprize you, to observe the affability and communicativeness of our great lecturers and hospital surgeons, their former pride and insolent muteness no longer exist. Such are the good effects of

opposition. The last regulations of the English college, which liberally recognized all our hospitals, have largely contributed to the marvellous improvement in the manners of our surgeons and teachers. I assure you, that a poor green-horn of a student, is no longer sneered at for asking a question, and that aphonia, which was wont to seize the surgeons when visiting their patients, unless when apprentices were present, is no longer prevalent; loquacity, bordering on garrulity, is now the order of the day.

Another great improvement has been recently effected, by the establishment of a few rival obstetric institutions. Instruction is now afforded at half the expense, and the monopoly of the once famous Lying-in Hospital, is nearly destroyed. Thanks to Dr. Montgomery, Dr. Gregory, and Dr. Cusack, for this improvement. As I have refrained from censuring individuals in this letter, I shall not begin towards its close, though the conduct of some of the persons connected with obstetric establishments, loudly calls for exposure. But on another occasion I shall trouble you with a brief sketch of some of the crying abuses of our hospitals and schools. I have passed by our college physicians, and have merely to observe that they proceed in the old humdrum manner, and are as insensible to the interests of science and the public as any of their fraternity. They have lately done one laudable act, in appointing the talented and experienced Dr. Lahy Professor of the Practice of Medicine.

Dublin, Sept. 20th, 1830.

III.—*Metropolitan Society of General Practitioners.*

Sir,—The journal which you so ably conduct, was once the advocate of the general practitioners, and I trust you will allow an old subscriber to offer a few words in defence of the Metropolitan Society of General Practitioners. Some objections have been raised to the principles of this society, but I can discover nothing in them which any reasonable practitioner can object to. The general practitioners are a distinct body, and differ from any of the former classes of the profession. They are surgeons and apothecaries, and were called into existence by the wants and wishes of the public. In your valuable papers on the present state of the profession, which do you infinite honour, for their independence and impartiality, you have clearly shewn how the

body to which I am proud to belong was established by the public. How is it possible that the middle and lower classes can procure proper advice on the usual terms of physicians and surgeons? The thing is utterly impossible; and could only be effected by diminishing the fees of the legitimate practitioners. You have referred to the sanction of this plan by the French; but I am confident the high aristocratical feelings of the colleges would be against the introduction of such an innovation. The real cause which gave rise to general practitioners, is the toleration of chemists, druggists, and infamous quacks, all of whom have ruined the legitimate apothecaries, the physicians and surgeons; and hence the former, in self defence, were obliged to adopt the present mode of gaining support. Though regular surgeons for the most part, and regular apothecaries, yet they found the whole practice of physic, surgery, pharmacy and midwifery, in the hands of those I have mentioned, and hence compelled to adopt some plan of pursuing their profession. Have not even physicians been obliged to unite with them? They are, however, looked on with a jealous eye by physicians and surgeons, though the colleges of these bodies, and the company of Apothecaries, are solely to blame for the present anomalous state of the profession in this kingdom. Each and all of them have grossly neglected the duty they owe the profession and the public. None of them patronizes the general practitioners, and therefore the latter must look to their own interests. I can see nothing improper in their doing so; every man, whatever may be his station in society, endeavours to protect his own interests.

I am, Sir, yours, &c.

A GENERAL PRACTITIONER.

London, Sept. 15, 1830.

IV.—*Extraordinary instances of Reproduction.*

By MICHAEL RYAN, M.D.

I WAS requested by Mr. Sandell, of Gray's Inn Road, to visit Mrs. P. of Paradise Street, Battle Bridge, who laboured under aggravated hysteria and dyspepsia, which she ascribed to repeated abortions. The history of her case is one of interest, in a physiological point of view. She is aged 41, of a sanguine temperament; she menstruated at 12, and married between 18 and 19; had a seven months child in

the eighth month of her marriage. Has had twins about the fourth month, three times during the year 1829, and again in December 31st, when she was attended by Mr. Whitmore, of Cold Bath Fields, and delivered of two infants; and on Jauuary 28th, 1830, she was attended by Mr. Thomas, of Bagnigge Wells Road, and delivered of an infant, which he considered of the same age as the preceding. On the 7th of June last she aborted, at the 3rd month; on the 9th a second fœtus was expelled, she was attended by Mr. Sandell; and as there was no discharge whatever, from that time to this, considers herself still pregnant. The abdomen is about the size of a woman in the fifth month of utero-gestation; she has had twenty-four children in twenty-one years. She menstruated regularly previous to marriage. She is always in good health when suckling, and ill when breeding; she is always pregnant about the fifth month of lactation; menstruation has often taken place during pregnancy, and was followed by abortion; she has never suffered from leucorrhœa; her diet consists of bread and porter, but no animal food; she often rejects large quantities of bile, and can foretell its approach "by the smell of her breath." Her mother is seventy years of age, and in good health; has had eighteen children born alive.

The wife of her husband's first cousin, resides at Mount Pleasant, in this neighbourhood, is in her 45th year, and has had thirty-two children, including miscarriages. Within a few years "she bred with dropsy; her legs burst, and the water spouted across the room," but she went to the full time; she is now in good health, and has not ceased to menstruate.

Two cases of dysmenorrhœa have lately fallen under my care, both aggravated by marriage, and both followed by pregnancy—facts which disprove the general opinion, that impregnation scarcely ever takes place when the disease is present. My friend, Mr. Bradford, of Fleet Street, had attended one of these cases, her age was twenty-three; the other was under my own care, is eighteen years of age, and in the fifth month of pregnancy. Neither of them passed the membraneous shreds, described by obstetric writers.

V.—*Laws relating to the Medical Profession. (continued.)*

By Michael Ryan, M.D.

It has been asserted, at the late reform meetings, that the College of Surgeons had no power whatever, and ceased to have an existence in law, but a little reflection would have convinced those who entertained this opinion, that such an influ-

body could not fail to procure the notice of the legislature, if such were necessary.

Apothecaries.—" The proper practice of an apothecary," says Mr. Willcock, op. cit. " consists in preparing with exactness, and dispensing such medicines as may be directed for the sick, by any physician lawfully licensed to practise physic, by the president and commonalty of the faculty of physic in London, or by either of the two universities of Oxford or Cambridge, and in applying or administering the same. They are also at liberty to administer medicine of their own authority, and without the advice of a physician. It is not usual for them to prescribe medicine to be prepared and supplied by others, no person is bound to prepare such medicine, and I am not aware of any penalty incurred by compounding it."*

The Company of apothecaries consists of one master, two wardens, and twenty-two assistants, and no man can be elected to any of these offices, who has not previously been a member of the society for ten years. The master, wardens, or court of examiners, may appoint five apothecaries in any county of England and Wales, except in or within thirty miles of London, to examine assistants to apothecaries, but no person is eligible who has not been an apothecary for ten years.

No person can practise as an apothecary in England or Wales, until he has been examined by the court of examiners appointed by the company of apothecaries, and has received their certificate of his being duly qualified to practise, unless he was in practice upon the 12th of July, 1815, and also upon the 1st of August, 1815, and no person can claim to be examined until he is twenty-one years of age, has served five years to an apothecary, and produced testimonials to the satisfaction of the court, of a sufficient medical education, and of good moral conduct. Any falsified certificate or statement renders the licence void in law, and subjects the person who makes or offers it to fine and imprisonment. The court can decide what is a sufficient medical education, though they cannot in this respect make rules wholly unreasonable. The applicant for examination is required by the statute to give notice to the clerk of the society, on the Monday previous to the day of examination, and to deposit his testimonials at the same time with the beadle. The day of examination is every Thursday, at half past four o'clock. No person can act as assistant unless approved of by the court of examiners, or by the country examiners. The sum of ten guineas is paid for a licence to

* A Treatise on the Laws relating to the Medical Profession, 1830.

practise as an apothecary in London, and six guineas for a licence to practise in the country, or within ten miles of London, and the difference of four guineas must be paid if such person settle in London. The sum of two guineas is charged on the certificate of any assistant to an apothecary.

Chemists and Druggists.—The right of chemists and druggists to prepare and dispense medicines, according to physicians' prescriptions, has not as yet been brought into question. "And, as apothecaries have, in the course of time, established as a right, what was at first considered an encroachment on the department of the physician, the administering of medicine to the sick of their own authority; so the druggists seem to have acquired, by general acquiescence, a right of compounding medicines according to the prescription of a physician, which was certainly at first an infringement on the privileges of apothecaries." Willcock, op. cit. The 55th Geo. III, has expressly secured the rights of chemists and druggists.

Accoucheurs and Midwives.—There is no restriction placed on affording assistance to parturient women; but it is illegal to treat diseases antecedent to or consequent upon child-birth.

Administration of Medicine gratuitously, is not a violation of any law relative to the medical profession.

Unqualified Apothecaries.—A penalty of £.20 is imposed on any person practising as an apothecary in England and Wales, without a certificate from the court of examiners, unless such person had acted as an apothecary on or before the 1st of August, 1815. This fine is recoverable in the courts of record, and the company must prove one act of practice. The penalty of £5. for acting as assistants, is recoverable by an action of debt, brought by the common informer and the company, but not by the latter in their corporate capacity.

Mal-practice in Medicine.—There are four kinds of mal-practice, which relate to physicians, surgeons, or apothecaries.

1. Wilful mal-practice, which has for its object the destruction or injury of the patient, or of a child of which a woman is pregnant. If death or bodily injury ensue, the accused is guilty of murder or felony. There is only one case in which the premature expulsion of the fœtus is warrantable, and that is, when the woman is so deformed, that the infant cannot be born alive at the full period. Here the operation is performed to save the life of the infant and mother, though

the law does not justify the operation.—*Cabinet Lawyer*, 1830.

By 43 Geo. III c. 58, Lord Ellenborough's Act, enacts,

"Administering drugs, or using any other contrivance to destroy a living infant, unborn, is felony, not only in the person who actually perpetrates the offence, but in those who counsel and assist therein. And, though the mother is not quick with child, to attempt to procure an abortion, is punishable with fine, imprisonment, whipping, or transportation, for any period less than fourteen years. Women concealing the birth of an illegitimate child are liable to two years' imprisonment."

The provisions of this statute are extended by Lord Lansdowne's Act, 9 Geo. IV. c. 31, June, 1828,

"Using any poison or noxious thing, or any instrument, to procure the miscarriage of any woman quick with child, or counselling or aiding therein, is felony, punishable with death; the same offence as to a woman not quick with child, or proved to be such, is felony, punishable by transportation for not exceeding fourteen nor less than seven years, or imprisonment with or without hard labour not exceeding three years, to which imprisonment (if the court think fit) once, twice, or thrice public or private whipping may be superadded.

"Concealing the birth of a child by burial of the dead body or otherwise, is a misdemeanor, punishable with imprisonment for any term not exceeding two years; and it shall not be necessary to prove whether the child died before, at, or after its birth; provided, that if any woman tried for the murder of her child shall be acquitted, the jury may find, in case it shall so appear in evidence, that she was delivered of a child, and attempted to conceal the birth, upon which the court may pass such sentence as if she had been convicted upon an indictment for the concealment of the birth." s. 14.

"Every person convicted of the abominable crime of buggery, committed either with mankind or with any animal, shall suffer death as a felon." s. 15.

"Every person convicted of the crime of rape, shall suffer death as a felon." s. 16.

"Unlawful and carnal knowledge of any girl under ten years of age is punishable with death; above ten and under twelve, with imprisonment with or without hard labour for such term as the court shall award." s. 17.

"It shall not be necessary, in any of the four preceding cases, to prove the actual emission of seed in order to con-

stitute a carnal knowledge, but the carnal knowledge shall be deemed complete upon proof of penetration only." s. 18.

2. Avaricious mal-practice has for its object the lucre of the practitioner, who employs improper drugs or treatment to the injury of the health of the sick. This prevails among druggists and low apothecaries, who substitute one drug for another; and constitutes a cheat at common law, and is punishable by fine and imprisonment. The discovery and correction of this abuse is confided to the medical corporations.

3. Negligent mal-practice, is where there is no criminal or dishonest object, but gross neglect of that attention which the patient requires. This is a misdemeanor at common law.

4. Ignorant mal-practice, is that which has for its object the practice of medicine, surgery, or pharmacy, without due information and legal authority. "This is a great misdemeanor at common law, whether in a licensed or unlicensed practitioner." The party injured suffers a private wrong, and may bring an action for damages adequate to the loss he has sustained.

The censors of the College of Physicians have full power to correct defaults in the exercise of the profession, which includes physic, surgery, and pharmacy, in London, and within seven miles thereof, and this power may be exerted over all graduates in physic of any university, or whether they do or do not assume the style of doctor or the character of a physician. Op. cit. It is necessary that the mal-practice should be in physic, but it is apprehended that this would include surgery and pharmacy. The censors are to determine what is, or what is not mal-practice, and the unfitness or unsoundness of the medicine prescribed. They may fine or imprison, or fine and imprison the party; or if they impose a fine alone, they may enforce payment of it by imprisonment. The fine must not exceed £20. "They still retain," says Mr. Willcock, "the authority, and in the present state of the metropolis, they ought to resume the exercise of it, and they may, in the discharge of their duties, with impartiality and moderation, confidently rely upon the succour of the courts of Westminster. A court of justice cannot be obsolete by the neglect of its judges, the present censors may exercise these powers as fully as if they had been daily exercised by their predecessors, from the time of Henry VIII.; not only may they receive their jurisdiction, but they are bound to revive it; in so much that should they reject a charge of mal-practice preferred by any per-

sion, the court of King's Bench would, by mandamus, compel them to convene, and to hear and decide upon the accusation."

It appears, from the same authority, that the president and vice-presidents of the Royal College of Surgeons in London, have full power to correct mal-practice in surgery, by members, or irregulars, and the observations made on the power and duty of the censors of the College of Physicians, are equally applicable to them. The same authority, so often quoted, declares that the Apothecaries' company have no power to appoint inspectors of shops, or to fine persons for keeping bad drugs; at least, doubts may be entertained upon this point.

Civil responsibility of Medical Practitioners.—An action will lie against a physician, surgeon, apothecary, and every other person professing to cure wounds or diseases, for every injury that may arise from his want of skill or want of attention. An action will also lie against a physician, who makes experiments for any injury produced by them, unless the experimenter informs the patient of his intention, and obtains his consent.

If a physician, surgeon, apothecary, or other medical practitioner, undertake the cure of any wound or disease, and, by neglect or ignorance, the party is not cured, or suffers materially in his health, such medical attendant is liable to damages in an action of trespass on the case; but the person must be a common surgeon, or one who makes public profession of such business as surgeon, apothecary, &c.; for otherwise it was the plaintiff's own folly to trust to an unskilful person, unless such person expressly undertook the cure, and then the action may be maintained against him also.

An action will lie against a surgeon for any deviation from the established mode, as trying a new instrument, if it injure the patient. Slater *v.* Baker and Stapleton, 2 Wils. 359. The defendants disunited a callous of a fractured leg by a new instrument. Damages £500. Verdict confirmed by the whole Court.

An action will lie against a surgeon for gross ignorance of his profession, as well as for negligence and carelessness. Seare *v.* Prentice. 8 East's R. 348. Quere the authority of this case? In the case of Neale *v.* Pettigrew, the plaintiff dislocated his arm; it was badly set by the apprentice of defendant, for which the master suffered damages £800.

Remuneration of Medical Practitioners—A physician cannot maintain an action for his fees, for they are honorary

and not demandable of right, and it is much more for the credit and rank of that body (the physicians), and perhaps for their benefit also, that they should be so considered; "and I much doubt," says Lord Kenyon, "whether they themselves would not altogether disclaim such a right as would place them upon a much less respectable footing in society than that which they at present hold." Chorley *v.* Bolcot, 4 T. R. 37. It was contended in this case, that there was no authority in the books for placing physicians and barristers' fees on the same footing, the regulations with regard to barristers being founded on the ground of public policy, as appears in Tacitus.

But though a physician cannot recover his fees by a process of law, yet *pro concilio impenso and impendendo* these are a good and valuable consideration for an annuity. 9 W. Rep. 50, 7 Co. Rep. 10, 28.

If a bond, bill, or note were given for medical attendances, the consideration would be good, though the original fees could not be recovered.

If a medical practitioner who has no diploma, pass himself off as a physician, he cannot maintain an action for his fees. Lipscombe *v.* Holmes. 2 Camp. 441. Though as a surgeon he might have recovered compensation, and even if he were no regular surgeon, he could recover in an action of assumpsit. Gremaire *v.* Le Clerc. Bois Valor, 2 Camp. 144. But query the authority of this case.

If there be any promise, a physician may recover on a *quantum meruit*. Shepherd *v.* Edwards. Hill 11, Jac. 2, Croke 370. The plaintiff here declared he was a physician and surgeon, had cured the defendant of a fistula, and had judgment; but query, did not he sue as a surgeon? But in Dale *v.* Copping. Bulst. p. 1, 39, the promise of an infant to pay a certain sum to the physician to cure him of epilepsy, was a contract and held binding.*

But can a doctor of medicine who is not a member of the London College of Physicians, or a graduate of either of the English universities, recover as a physician unless on a promise which amounts to a contract?

The Scotch and Irish schools of physic and surgery are corporations not confirmed by law, and their graduates or licentiates are not allowed to practise in England unless they be re-examined by the London College of Physicians. But the common law of England extends to Ireland. It

* Elements of Medical Jurisprudence by Paris and Fonblanque, vol. i. 1823.

would be prudent then for all medical men to have a verbal or written promise, a bond, bill, or note for attendance, in order to entitle them to recover. Some recent decisions of importance took place in Ireland on the recovery of medical compensation, which shew the unsettled state of the law on the subject.

A case was decided at the Kilkenny summer assizes, 1824, before Mr. Justice Johnson; it was that of Ryan *v.* Gorman. The plaintiff was a doctor of medicine of Edinburgh, and a surgeon of Edinburgh and London Colleges, who attended defendant and his family for several weeks through fever, at the request of defendant's wife, who promised him the ordinary remuneration, as also did defendant. He performed no manual operation, except the removal of a blister, which was not within the province of a surgeon. It was contended for defendant, that as plaintiff acted as physician, and the disease being a medical one, he could not recover; but the court decided that the promise was binding, and on being handed the report of the case of Sheppard *v.* Hill above quoted, and also Dale *v.* Copping, the judge gave a verdict to plaintiff on a *quantum meruit.*

A similar case, if correctly reported, was differently decided at the Clonmell spring assizes, 1826, before Mr. Justice Moore. It was that of Kelly *v.* Latham. The plaintiff, a physician and surgeon, attended the defendant's mother, who sent for him and promised to pay him when he was able. The disease was a medical one, consumption. On the last admission, "Mr. Doherty called for a nonsuit on the ground, he could not recover for his attendance in a case purely medical." Mr. Serjeant Lloyd observed, that whatever capacity he acted in, whether physician, surgeon, or apothecary, he should be paid. "The jury," said his lordship, "have to try whether Mr. Latham employed Dr. Kelly generally as a medical practitioner without any reference to his being a physician or surgeon, and the evidence to what Mr. Kelly was employed for. A verdict was found for the defendant, with 6d. costs.

Surgeons.—A surgeon is entitled to recover reasonable remuneration for his care, attendances, skill, labour, medicines, and applications in surgical cases, but not if he put his attendances in the character of a physician, either by prescribing as a physician, or assuming to hold the degree of doctor in medicine, or by sending in his account with blanks opposite to the statement of his services; for, in the former case, he has relinquished the character of a surgeon, and assuming to be a physician, the court will not allow

him to put off that assumed character, merely to entitle him to that remedy which he has relinquished by his illegal act and affectation of dignity, and having left the amount in the latter case to the discretion of the patient, he must be content with what may be paid. Willcock, op. cit. The reasonableness of a surgeon's charges will be decided by the jury. He will be allowed for his medicines when such are used as are within his proper province. But if he infringe on the physician or apothecary, his conduct being illegal, he has no remedy for the recovery of remuneration. Ib.

Apothecaries.—An apothecary may charge for his attendances, provided he only charge the intrinsic value for his medicines, Handy *v.* Henson, op. cit. This has been the case in Ireland for a long time.

Protection of Medical Character.—If a man libel a physician, by saying Dr. — is a bad one, or employed malapraxis, the slander admits the professional qualification, and legal evidence of his qualification will not be required.—4 T. R. 366. Smith *v.* Taylor, 1 N. R. 196. Phil. on Evi. v. 2, p. 154, But where the slander denies qualification, legal proof must be given. Op. cit. 155. The degree of doctor of physic may be proved by the original book of the university or corporation, which contains an entry of the degree having been conferred; or it may be proved by an examined copy of this entry. Moises *v.* Thornton, 8 T. R. 303, 307. Or if the medium of proof is a diploma of a university, bearing its seal, the instrument must be proved by legal evidence. If the written instrument be produced as the original act of the university which conferred the degree, it must be proved that the seal affixed is the seal of the university, which may be done by any one who knows it to be such. S. C. 307. If the instrument produced is a copy of the original act of the university, it must be proved in the usual way, as a copy for the university cannot, under their seal, give evidence that the plaintiff had taken such a degree.—*Phillips on Evidence.*

Physicians.—By the 14th and 15th Henry VIII. the king's charter for incorporating the College of Physicians of London is confirmed; they are to choose a president, and have perpetual succession, a common seal, and ability to purchase land and make by-laws. Eight of the chiefs of the college are to be called elects, who, from among themselves, are to choose a president yearly.

Physicians in England shall be examined by the College, and have testimonial letters from the president and three

elects, unless they be graduate physicians of Oxford or Cambridge. Physicians practising in London, or within seven miles, without being approved, forfeit £5.; and, in any other part, unless approved by the bishop of the diocese, they are subject to the like penalty.

By the 32 Hen. VIII. c. 40, four physicians shall be chosen by the College to search apothecaries' wares, and, in company with the warden of the mystery of apothecaries, may destroy adulterated drugs. Apothecaries refusing to be searched forfeit £5.; and physicians to act, 40*s*.

Physicians may practise surgery in London.

The fees of a physician, like those of a lawyer, are honorary, and not demandable of right; consequently, a physician cannot maintain an action for them, 4 T. R. 317.

Surgeons.—By the 32 Henry VIII. the barbers and surgeons were incorporated into one company, but, at the same time, a distinct line of division was drawn between the practice of the two branches of the profession. By this act, no person practising the art of barbery is to intermeddle with that of surgery, except as to drawing of teeth, which barbers may continue to do as before; and, on the other hand, no person devoting himself to surgery, is to exercise what is pithily called "the feat or craft" of shaving.

By the 18 Geo. II. the union of surgeons and barbers of London is dissolved, and the surgeons of London were made a separate corporation, with power to enjoy the same privileges as by former acts or grants.

Candidates to serve as surgeons in the army or navy shall be examined by the Surgeons' company.

By the 25 Geo. II. the bodies of murderers, convicted and executed in London or Middlesex, shall be delivered to Surgeons' Hall; and, in any other county, to such place as the judge shall direct.

By the 34th & 35th Henry VIII. any subject of the king, having knowledge of the nature of herbs, may minister to any outward sore, wound, or disease.

An action on the case lies against a surgeon for gross ignorance and want of skill in his profession, as well as for negligence and carelessness, to the injury of a patient. Seare *v.* Prentice, 8 E. R. 348.

Apothecaries.—Apothecaries were originally associated with the grocers, but obtained a separate charter of incorporation from James I. in 1606.

By the 6 Will. III. c. 4, apothecaries free of the company in London, practising there, or within seven miles, are exempt from parochial offices, and from serving on juries,

producing a testimonial of their freedom. Apothecaries in other parts, brought up in such art, or having served an apprenticeship of seven years, are also exempted.

In the session of 1815, an important act, the 55 Geo. III. c. 194, passed, for regulating the practice of apothecaries through England and Wales. By this act, the masters and wardens of the Apothecaries' company, or persons appointed by them, may enter the shop of apothecaries, and examine drugs, and impose and levy fines for such as are unwholesome or adulterated. Penalty for the first offence, £5.; for the second, £10.; for the third, and every subsequent offence, £20. Vide ante, p. 98.

Any apothecary refusing to compound, or unfaithfully compounding the prescription of a regular physician, is liable to be fined £5.; and for a third offence of the same kind, forfeit his certificate.

By the same act, amended by the 6 Geo. IV. c. 133, no apothecary, after the 1st of August, 1815, (except persons in actual practice on or before that period,) is to practise, unless he has received a certificate of being duly qualified. No person can be admitted to be examined unless he be twenty-one years of age, and have served an apprenticeship of, at least, five years, with an apothecary or a surgeon. Penalty for acting without certificate, £10.; or if only an assistant, £5.

By the same acts, no apothecary shall be allowed to recover any charge claimed by him in any court of law unless he was in actual practice on or before the 1st August, 1815, or that he has obtained a certificate to practise as an apothecary.

By the 6 Geo. IV. surgeons in the navy and army, and apothecaries in the army might practise without a certificate from the court of examiners, or without having been in actual practice prior to 1st August, 1815. This act is repealed.

In the constructions by the courts under these acts, it is held that an apothecary who claims an exemption, on account of having practised prior to the 1st August, must have actually exercised his proper vocation,—namely, the making up of a physician's prescription; without this, unless he has received a certificate, he cannot recover for medicines. Apothecaries' Company *v.* Waburton, 3 B. & A. 40.

In an action to recover the amount of an apothecary's bill, the plaintiff, who proves a certificate from the Society of Apothecaries, need not also prove an apprenticeship served. Sherwin *v.* Smith, 1 Bing. 204.

The acts do not extend to chemists and druggists.

Privileges of Medical Men.—Physicians who are licensed by the Royal College in London, are exempt from serving on juries or all inquests whatever, but this exemption does not extend to graduates of the universities. 14 Hen. 8. 6 Geo. 4.

The members of the Royal Colleges of Surgeons in London, Dublin, and Edinburgh, when in actual practice, are exempt from serving on juries. 6 Geo. 4. Apothecaries are also exempt by this statute. Fellows and licentiates of the College of Physicians, regular surgeons and apothecaries, are exempt from watch, ward, constablewick, and the other offices of the city of London, and from bearing arms. 32 Hen. 1. 1 Geo. 4.

Privileges in respect of Insane persons.—No person,* except a parish pauper,† can be admitted into any house kept for the reception of insane persons in England, without a certificate, bearing date not more than fourteen days before such admission, and signed by two medical practitioners, each of whom must be a physician, surgeon or apothecary,‡ unless any special circumstance have prevented the patient being repeatedly visited by two such practitioners, in which case he may be admitted on the certificate of one practitioner, but such certificate must be signed by some other medical practitioner, within seven days after the patient's admission.‖ The certificate must state the patient is a fit person to be confined, the day on which he has been examined, the name and abode of the person who directed the examination, the relationship or connexion of such person and the patient; the name, age, residence, and former occupation of the patient; the asylum, if any, in which he was previously confined—and whether he has been found a lunatic or of unsound mind, under a commission issued by the Lord Chancellor, Lord Keeper, or Commissioners of the Great Seal; or if any such particulars cannot be inserted, the special circumstances preventing such insertion must be stated, also if only one medical man has certified. 9 Geo. 4. c. 41. By the same act, any medical man certifying without having examined the patient, is guilty of a misdemeanor, as also the person receiving the patient; and no medical man who is proprietor or part proprietor, or attendant of a house for reception of lunatics, can certify in a case connected with such circumstances.

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* 9 Geo. 4. c. 41 † 9 Geo. 4. c. 40.

‡ Ibid. ‖ Ibid.

Every establishment containing one hundred patients must have a resident physician, surgeon, or apothecary, and if it does not contain so many, it must be visited twice a week by a physician, surgeon, or apothecary, unless it is kept by a regular medical man; and the medical attendant must report to the keeper the condition of the house and the state of the patients' health, and must, once a month, enter the same in a book in a form prescribed by the act.

The same certificate is required for committing an insane person to a private asylum, public hospital, or other charitable institution, except Bethlehem Hospital, the Military and Naval Hospitals, and the Lunatic Asylums, established under 48 Geo. 3, or 9 Geo. 4.

Commissioners are appointed in London and Middlesex to grant licences, and examine into the state of lunatic asylums. The act requires that some of the commissioners should be medical men. In England no medical man can be employed in any of the public services unless a member of the colleges, universities, or apothecaries company. The governors of some public institutions adopt the same provisions. The following acts relate to the appointment of medical men to public offices:—43 Geo. 3, c. 90, 53 Geo. 3, c. 65, and 11 Geo. 4, and 1 Will. 4, to militia men; 4 Geo. 4, c. 64, and 4 Geo. 4, c. 69, to prisons; 6 Geo. 4, c. 80, and 30 Geo. 3, c. 49, to workhouses; 43 Geo. 3, c. 56, to ships carrying fifty persons. The surgeon, in the last case, may be a member of the London, Dublin, or Edinburgh colleges, and must be provided with a medicine chest. He must keep a journal, containing a true and correct account of every thing relative to the food, health, disease, and mortality of the ship's crew, in a form prescribed by the act under a penalty of 100*l*. The bedding of each passenger must be aired daily upon deck, if the weather permit, and the vessel must be fumigated with vinegar at least twice a week, under a penalty of 20*l*. for each neglect.

The following statutes and patents relate to the medical profession in England, according to Mr. Willcock:—

Statutes.—Physicians. 9 Hen. 5, 22 Hen. 6, 19 Hen. 7, 3, 5, 14, 15 and 32 Hen. 8, 1 Mar., 3 Jac. 1, 10 Geo. 1, 6 & 10 Geo. 4.

Surgeons. 3, 5, 32, 33, 34, 35 Hen. 8, 18 Geo. 2, 6 Geo. 4.

Apothecaries. 32 Hen. 8, 1 Mar. 6, 7 Will., 10 Geo. 1, 55 Geo. 3, 6 Geo. 4.

General Statutes. 5 Hen. 4, 33 Hen. 8, 1 Ed. 6, 1 Mar. 5 Eliz. 2 Jac. 1, 8, 9 Anne, 9, 16 Geo. 2, 42, 43 Geo. 3, 6, 9 Geo. 4.

Patents.—Physicians. 32 Hen. 6, 7 Eliz., 15 Jac. 1, 15 Car. 2.

Surgeons. 3, 4 Hen. 5, 25 Hen. 6, 1 Edw. 4, 15, 19 Hen. 7, 2, 3 Hen. 8, 2 Jac. 1, 5 Car. 1, 40 Geo. 3, 3 Geo. 4.

Apothecaries. 19 Edw. 3; 20, 27, 30, 34, 35 Hen. 6. 13 Jac. 1.

I shall now add the statutes and charters relative to the profession in Scotland and Ireland.

Scotland. The universities and college of physicians of Scotland are incorporations, and as far as my research enables me to state, are not confirmed by acts of parliament, with the exception of the Royal College of Surgeons in Edinburgh. The college of surgeons was incorporated in 1505, and afterwards confirmed by numerous statutes. This body is empowered to grant a licence to practise surgery and pharmacy in Scotland only. The University of Edinburgh, in conferring the degree in medicine, authorizes its owner to practise *ubique gentium*, but it is evident, from the exposition of Mr. Willcock, that such graduates cannot practise legally in England; and, as there are positive statutes, conferring rights and privileges on the Dublin College of Physicians, it is clear that the degree in question can have no force in Ireland. This was exemplified by a decision of the Court of King's Bench in Dublin, in 1818. An action was brought by the Apothecaries' Company, of Dublin, pursuant to their act, 31 Geo. 3, against Mr. Butler, who had been duly qualified in London, agreeably to the 55 Geo. 3. But it was decided by the court, that he had no right to practise in Ireland, until he had a licence from the Apothecaries' Company of Dublin. It is also obvious that a licentiate of the Dublin company could not practise in England, nor in Scotland. It is doubtful, however, whether the Dublin College of Physicians are vested with sufficient power to prevent graduates of the Scotch or other universities from practising in Ireland; but they refuse to meet such graduates in consultation, until they have become licentiates of the college, and this by-law almost amounts to a prohibition. The best account I have found of the laws relative to the physicians in Ireland, is in Mr. Scully's Penal Laws, which is as follows:—

Ireland.—"A society of physicians in Dublin, was incorporated in 1691, by royal charter, under the name of "The King's and Queen's College of Physicians." This charter purported to arm the society with powers of an extraordinary and extensive nature, which (if confirmed by act of Par-

liament) would invest in them a monopoly of the practice of physic, as well as of medical honours. One of its provisions directed, "that no physician, or other persons, should be permitted to practise physic in the city of Dublin or its liberties, without the licence of this society." The charter, however, has not acquired any legal validity in this particular; for, its confirmation has never been obtained from the Legislature, although frequently solicited.

"The Legislature has, however, recognized the existence of this society, without adopting its charter.

"Thus, in 1761, an act was passed, authorizing the King's and Queen's College of Physicians in Ireland, to enlarge their number by admitting four learned and worthy doctors of physic into the fellowship of their body—to appoint inspectors of apothecaries' shops—to frame a pharmacopœia or code of drugs, &c.

"In 1767, it was enacted, that no person should be appointed physician to any county infirmary, unless examined and certified by this college of physicians.

"In 1785 and 1791, this college was empowered to elect the members of a school of physic, to be established in Dublin, to consist of three professors, (and, upon a certain contingency, of four professors) called professors upon the foundation of Sir Patrick Dunn, and to appoint clinical lectures, to be given in Dublin.

"This college has also been incidentally noticed by the legislature upon other occasions of lesser importance, but without any addition to its powers."

The 5, 6, 7, 8, 13, 14, 15, and 16 Geo. 3, authorize the erection and establishment of the different county hospitals; and by the 26 Geo. 3, no person can be appointed surgeon to any of the said hospitals," unless certified by the Royal College of Surgeons in Dublin! By 45 Geo. 3, grand jurors are empowered to present for specified sums, for the support of such hospitals or infirmaries, and also for dispensaries, and this statute is further amended by 54 and 58 Geo. 3, which comprize fever hospitals, and order a surgeon, and not a physician, to be the medical attendant of these institutions. 11 Geo, 4, and 1 Will. 4. The salaries of medical attendants on prisons, and expense of medicines, are regulated by the 7 Geo. 4. c. 74. The dispensary act, 45 Geo. 3. c. 91, is as follows:—

"And whereas the distance of many parts of each county from the infirmary therein established, does not allow to the poor of those parts the advantages of immediate medical aid and advice which such infirmary was proposed to

afford; be it therefore enacted, that in all cases where the said corporation shall certify to the grand jury of the county wherein such corporation is established, that they have actually received, from private subscription or donation, any sum or sums of money since the preceding assizes, for the purpose of establishing in any town or place therein a dispensary for furnishing medicine and giving medical aid and relief to the poor, it shall be lawful for such grand jury to present to be raised on the county at large, and paid to the said corporation, a sum equal in amount to the sum or sums so received by such corporation, to be applied by the governors and governesses thereof, or such committee of them, not fewer in number than five, as they shall appoint for the purpose at any general quarterly meeting, together with the monies so received by private subscription or donation, in providing medicines and medical or surgical aid and advice for the poor of such town or place and its neighbourhood, in such manner as they or the said committee shall in their discretion deem most advisable; and that all monies so raised for such local dispensaries, as well as all monies so received from private subscription or donation for their use, shall be accounted for upon oath at each summer assizes before the grand jury and the court.

"And be it further enacted, that every person who shall subscribe and pay towards the establishment or maintenance of any such local dispensary, or towards the county hospital or infirmary, any sum not less than one guinea, shall be a member of the body corporate of the infirmary or hospital of such county for one year, from the date of the payment thereof to the said body corporate, so far as relates to the management and direction of such local dispensaries; any thing in the said act to the contrary notwithstanding." This act is amended by 58 Geo. 3.

The grand juries require the medical attendants of dispensaries to have attended lectures on midwifery.

Surgeons.—The Royal College of Surgeons was incorporated by 24 Geo. 3, in the year 1784, and this charter having expired, it was renewed by the 10 Geo. 4, during the last year. The members of this college refuse to meet those of the London and Edinburgh Colleges in consultation, and look upon them as an inferior order of surgeons, and exclude them from all situations of value, though, according to the authority of Mr. Willcock, a member of the London College has an undoubted right to practise, and of course enjoy his rights and privileges in every part of his Majesty's dominions.

Apothecaries.—By the 31 Geo. 3, the company of apothecaries are empowered to prevent all persons who act as apothecaries without their licence, the action to be brought in the Courts of Record in Dublin, and the penalty of £20. The statute requires an apprenticeship of seven years to qualify for examination for the licence. The act also requires, that every apothecary shall keep a record of the names of all persons to whom he sells arsenic; and not to supply it but to respectable persons.

"Medical practitioners are allowed remuneration for attending coroner's inquests, but the sum shall not exceed five pounds, no matter how far they have to travel.—10 Geo. 4.

The legislature of this empire has entrusted vast power to the legitimate members of the medical profession, in deeming their evidence conclusive, in an immense number of civil and criminal proceedings; and confided to them the protection or destruction of the best privileges of our glorious constitution—the life, liberty, honour, and property of every rank in society. Every man of sense in the profession ought to reflect seriously on the great responsibility he owes the public, the dignity of the faculty and his own reputation, when he is called upon, as every man may be, to discharge the duty of medical jurist. In order to remind him of this most important duty, I shall insert a list of cases in which medical evidence is required, and shall follow the arrangement of Sir W Blackstone, in his Commentaries upon the Laws of England. *Cases in which medical evidence is required.* In the first place, such evidence may be called for by all courts of judicature, in respect to the absence of witnesses or jurors, who plead indisposition as an excuse; and no medical man can, consistently with his duty to the laws of the realm and to the dignity of his profession, certify otherwise than truly. In a word, the practitioner should feel himself bound, by every principle of honour, not to impede the administration of public justice, nor to grant a certificate for exemption from attendance unless on proper grounds. This principle should guide us in all cases, and especially in applications for absence from military or naval duty. The medical jurist is morally and legally bound, on all occasions, to speak "the truth, the whole truth, and nothing but the truth."

But in criminal process they are often referred to, as in certain cases of reprieve. The most common example of reprieve, which is referred sometimes to medical men, is where a woman is capitally convicted, and pleads pregnancy

in stay of execution. Upon this point the law is very defective, for it supposes the fœtus inanimate unless it has quickened, though the infant is alive the moment of its formation. The law is as follows:—

"In this case, the judge directs a jury of matrons to inquire into the fact, and, if they bring in their verdict, quick with child, (for unless the child be alive in the womb, it is not sufficient) the execution is stayed, either till she is delivered or proves, by the course of nature, not to have been with child at all. But if she proves with child a second time, she cannot have the benefit of this reprieve; for she may be executed *before the child quickens*, and the law will not be evaded by her incontinence.

"Another cause of reprieve is, if the offender become insane between the judgment and execution; for, though a man be sane when he commits a crime, yet, if he become insane after, he shall be indicted; if after indictment, he shall not be convicted; if after conviction, he shall not receive judgment; if after judgment, he shall not be ordered for execution."

Medical evidence is required when a prisoner affects insanity, or when an impannelled juror pleads illness.

Liability as Witnesses.—The next subject that claims attention is medical evidence. There is no part of the duty of medical men of such serious consequence to the public and to their own reputation, nor one which is generally more unpleasant to their own feelings. Like all other witnesses, "they must appear when supœnaed, or forfeit one hundred pounds to the king, and ten pounds to the party aggrieved, with damages equivalent to the loss sustained by their want of evidence, but no witness is bound to attend, except his expenses are first tendered to him, unless he reside within the bills of mortality, and is summoned to give evidence within the same.

By 7 Geo. 4. c. 40, "all persons appearing upon recognizance or subpœna to give evidence in prosecutions for felony, either before the examining magistrate, the grand jury, or on the trial, are entitled to their expenses and a compensation for loss of time, and this although no bill of indictment be preferred. The same provision extends to cases of misdemeanor, with the exception, that no allowance is made for attending the examining magistrate."

It is right to state that medical men must divulge professional secrets when giving evidence in courts of law. Phil. on Evid. v. i. p. 135. Elem. of Med. Jurisprudence, by

Paris and Fonblanque. Yet this seems contradicted in a recent work, but the witness will be directed by the court.

The next division relates to persons and classes in every rank of society, as clergy and laity, civil and military, masters and servants, and a variety of minor divisions.—With respect to the clergy, there is one point worthy of the attention of medical men, namely, that the Archbishop of Canterbury "exercises the right of conferring all the degrees which are taken in the universities." It need scarcely be stated, that the Primate of all England has very recently conferred the degree of medical doctor. The class in society is composed of the nobles and commons, and here the rule of precedence only need be alluded to. In the table of precedence, we find the order as follows:—Next to knights' younger sons, stand colonels, next doctors, then esquires, and next gentlemen. "The title of esquire is now commonly conferred on literary characters, the higher classes of merchants, bankers, attorneys, solicitors, and medical men."

Divorce.—The law of this country is as follows:—"A total divorce is given, whenever it is proved that corporeal imbecility existed before marriage. In this case the connexion is declared to have been null and void *ab initio*. Imbecility may, however, arise after marriage, but it will not vacate it, because there was no fraud in the original contract, and one of the ends of marriage, the procreation of children, may have been answered." Blackstone's Commentaries, by Christian, v. 1. p. 140. An excellent account of the causes of impotence and sterility is given in Dr. Beck's Medical Jurisprudence, and by M. Bousquet, in a work entitled De l'Amour Conjugal; the latter includes the moral as well as the physical causes. Dr. Blundell related a case in his lectures, which proved impregnation may take place, though the urethra open through the corpus spongiosum. "The infant was the exact similitude of the father." I have known a case in which two inches of penis sloughed, the patient recovered and had a child. The penis may slough to the pubes, and on recovery the sufferer may procreate.* These cases are exceptions to the received opinions. The subject of doubtful sex or hermaphroditism, is fully considered by the writers already referred to. Blackstone asserts that monsters can inherit, and shall be considered male or female, according to that kind of sex

* See our last volume, p. 322, Mr. Hurd's case.

which doth prevail, (B. 2. p. 247,) and it ought to be baptised. "Coke Littleton, 8. a. The same rule guides in cases of tenant by the curtesy." The ancients have warranted cases of procreation between hermaphrodites, which are entirely unworthy of credit, for every anatomist knows the difference between the male and female pelvis, a difference that renders the process of parturition through that of the male physically impossible.

Parent and Child.—The law defines "a legitimate child, is one born in lawful wedlock, or within a competent time after a lawful marriage." Though pregnancy is commonly terminated at the ninth calendar month, it may be protracted to a longer period, to the tenth, eleventh, eleventh month and a half, and no limit is placed by the law on the subject.*

Rights of Authors.—"In the case of Abernethy *v.* Hutchinson, an injunction was applied for to restrain the publication of the surgical lectures of the plaintiff; the application was refused, on the ground that the lecturer had no *written* copy of his lectures, prior to their delivery. The principle laid down was, that, though any one may have a property in an oral discourse, or even his own thoughts, yet, to establish a right to such property, there must be a *visible* and tangible record, by writing, of its existence, otherwise it cannot be identified, and the owner's claim established."

Libel.—A fair criticism on the works of a professional artist, in the course of his professional employment, is not actionable, however mistaken it may be; if it is unfair and intemperate, and written for the purpose of injuring the party criticised, it is actionable. Soane *v.* Knight, Moo. & Malk. 74. M.S. 1827.

Cotton Mills.—The 6 Geo. 4. c. 63, comprises important provisions for the preservation of health, and regulating the hours of work of children who are placed in such factories.

Insurance of Lives.—A medical man can insure his life for the amount of property he derives from his profession. It is right to mention what the law considers good health.

"Where there is an express warranty that the person is in *good health*, it is sufficient that he is free from any existing ailment; for it can never mean that he is free from the

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* Ryan's Manual of Midwifery, &c. 1829, art. Duration of Pregnancy. See further observations by the same author, Lond. Med. Gaz. Dec. 19, 1829. p. 371.

seeds of disease. Even if the insured labour under a particular infirmity, if it can be proved, by medical men, that it did not at all, in their judgment, contribute to his death, the warranty of health has been fully complied with, and the underwriter is liable.

"With respect to the risk which the underwriter is to run, it is usually inserted in the policy, and includes all suicide; or death by the hand of justice. When the risk is once began, there can be no apportionment or return of premium, though the underwriter is discharged."

Offences against the public peace.—If a medical man attend professionally at a duel, he is liable to be indicted for murder, should the opposite party lose his life. Hence medical men remain some distance from the scene of action, but sufficiently adjacent to afford aid if necessary.

Offences against the public health.—Any trade or business injurious to the public health, whether by the erection of an establishment, which might contaminate the air by noxious inhalations, is a misdemeanor at common law.

Exposing a child abroad, when labouring under small pox, either inoculated or natural, is an indictable offence.

The 43 Geo. 3. c. 58, Lord Ellenborough's act, already referred to, in speaking of abortion, included cases of shooting, or attempting to shoot, stabbing, or cutting with sharp instrument, as felonies; but this act is extended by 9 Geo. 4. c. 31, Lord Lansdowne's act, which comprises any attempt to poison, drown, strangle, stab, cut, or wound, even with a blunt instrument, as capital offences; and the concealment of the birth of a child, whether by a married or single woman, is made a misdemeanor.

Self destruction.—The usual practice of juries, in cases of self-murder, is to bring a verdict of *insanity*; judging, probably, that the act of self-destruction is such a strange anomaly in human conduct, such a wide aberration from the principle of self-preservation, which universally actuates sentient beings, as to form of itself unequivocal testimony of deranged or maddened intellect.

The medical practitioner ought to be intimately acquainted with general and morbid anatomy, or the elements which compose the different tissues of every organ in the human body, otherwise it is impossible for him to appreciate the changes produced by disease. We have now works of reference on this point, those of Dr. Craigie, Mr. Grainger, Mr. Storer, Martinet, &c. &c. It is unnecessary to adduce arguments to prove that the life, liberty, and reputation of

those accused of homicide, chiefly depend upon medical evidence.

Rape.—Rape is the offence of having carnal knowledge of a woman by force, against her will, which, by the 18 Eliz. c. 7, is felony, without benefit of clergy.

The carnally knowing and abusing any woman-child, under the age of ten years, in which case the consent or non-consent is immaterial, as by reason of her tender age she is incapable of judgment or discretion, is felony. Carnal knowledge of a child, between ten and twelve years old, with or without consent, is a misdemeanor.

A boy, under fourteen years of age, is deemed in law incapable of committing a rape, and, it seems, is not punishable.

In an indictment for rape, the party ravished is an admissible witness; but the value of her testimony must be left to the jury. For instance, if the witness be of good fame, if she presently discovered the offence, and made search of the offender; if the party accused fled for it; these are concurring circumstances, which give greater probability to the injury, after she had opportunity to complain of its perpetration; if the place where the fact is alleged to have been committed is where it was possible she might have been heard, and made no outcry: these carry a strong, but not conclusive, presumption that her testimony is false or feigned.

Moreover, an assault to ravish, however shameless and outrageous it may be, unless it amount to some degree of consummation of the deed, is not a rape.

It is the essential character of this crime, that it must be against the will of the female on whom it is committed. And if a woman be beguiled into her consent, by any artful means, it will not be a rape; and therefore, having carnal knowledge of a married woman, under circumstances which induced her to suppose it was her husband, was held, by a majority of the judges, not to be a rape. Russ. Ry. C. C. 487. However, the crime is not mitigated by showing that the woman yielded, at length, to violence, if her consent were obtained by duress, or threats of murder; nor will any subsequent acquiescence on her part do away with the guilt of the ravisher. It is a rape to force a prostitute against her will; so it is for a man to have forcible knowledge of his own concubine, because the law presumes the possibility of a return to virtue. A man, however, cannot be himself guilty of a rape upon his own wife, for the matrimonial consent cannot be retracted. 1 Hale, 629; but he

may be criminal in aiding and abetting another in such a design.

All who are present, of both sexes, aiding in the perpetration of rape, are principals in the second degree.

Unnatural Offence.—Buggery, from the Italian *buggerare*, is a carnal copulation against nature; as a man or woman with a beast, or a man with a man, or a man unnaturally with a woman. It was anciently punished with burning, some say burning alive; but it is now a capital felony, and punished, as other capital felonies, with hanging.

The law requires the same evidence of penetration and completion in this case as in the preceding crime; both parties are equally guilty, as well as all present and assisting therein. If committed on a boy under fourteen, it is felony in the agent only. 1 Hale, 47.

Blackstone properly observes on this truly unnatural offence, that it is a "crime which ought to be strictly and impartially proved, and then as strictly and impartially punished. But it is an offence of so dark a nature, so easily charged, and the negative so difficult to be proved, that the accusation should be clearly made out; for, if false, it deserves a punishment inferior only to the crime itself." This law is modified by the 9 Geo. 4. c. 31, already cited.

Anatomy.—The exhumation of dead bodies, even for the purpose of anatomical science, is a misdemeanor, it being contrary to common decency, and repugnant to the general feelings of mankind. 2 Leach, 560.

Curtesy, by the law of England, is where the wife had an estate in fee, and has issue born alive, but the mother dies, and the husband holds the lands during life. I have elsewhere cited cases of this kind, in which medical evidence alone decided the question.—*Manual of Midwifery.*

BIBLIOGRAPHY.

PHYSIOLOGY.

1. *Singular Phenomenon produced by Opium.*—M. Cavalier states that he had used an enema, consisting of two ounces of mucilage and a grain and a half of opium. He was seized with nausea, but no vomiting; and having removed the cover of the night-lamp, the appearance of the light produced vomiting, and this increased whenever he submitted to the action of light. He endeavours to explain this curious phenomenon, but leaves it as obscure as he found it.—*Rev. Med. Fran. and Etrangere.*

SURGERY.

2. *M. Dupuytren on wounds produced by fire-arms, especially those received in the late revolutionary struggle.*—His introductory remarks related to the state of the hospital recently, at the period in question. The first combats took place in the Palais-Royal and in the streets St, Honoré and Richelieu on the evening of the 27th, when six or seven gun-shot cases were carried into the Hotel Dieu; but it was on the day of the 28th, and morning of the 29th that the greatest number was received. The height at which the thermometer stood during the two latter days was remarkable; and it may not be unworthy of notice, that it was in summer, and at a like elevation of temperature, that the great insurrections of *the* Revolution occurred.—The fact is left to the physiologists for explanation; it will be more important for us to consider the effects of this state of the atmosphere on the wounded patients. The vulgar opinion is, that hot weather is unfavourable for the treatment of wounds—the contrary is the truth; hot weather, in fact, is never the exciting cause of hospital sore or gangrene. M. Larrey has long since made this remark; he observed that in Egypt the cure of wounds went on far more easily and rapidly at a very extraordinary elevation of temperature than in cold countries—in Russia, for example. Several, however, of the fatal cases which have occurred in the Hotel Dieu may be indirectly attributed to the temperature; for many of the patients, oppressed with the heat, threw off their garments and bed-clothes, while exposed to currents of air injudiciously established in the wards, and thus were attacked with severe abdominal inflammations. Cases of arachnitis, pleurisy, pneumonia, and liver complaints, became frequent—many of them fatal; while the smell of the wounds and the crowded wards had apparently no ill effect. It ought to be made an invariable rule in hospitals never to open opposite casements at one and the same time; but first those of one side, and then the other alternately.

The Hotel Dieu was most centrally situated with regard to the principal scenes of action, and hence received by far the greatest number of the wounded—about 400; those chiefly who were injured in the combats of the Grève, the Chatelet, and the Louvre. The hospitals St. Antoine and St. Louis were also pretty well supplied. It must be observed, that the combatants in these struggles were very differently circumstanced; on one side there was a numerous army (not less than 9 or 10,000 men), well provided with arms, well disciplined, and expert; on the other, throngs of people in a state of excitement, full of ardour and courage, but without order or command, their only arms—pistols, old muskets, fowling-pieces, broad-swords, and some cannon (when they could be procured), but cannon without proper ammunition, they being obliged to charge their pieces of ordnance with paving stones, wedges of wood, lumps of lead, billiard-balls, &c. It will hence be easily accounted for why the wounds inflicted by the military were so much more serious than those made by the citizens. Much less ravage, however, has been

produced by cannon-balls than might have been expected, in consequence, no doubt, of the irregularity of the streets and the numerous indentations and places of shelter; for more mischief was done by case-shot, which was very abundantly made use of. Nor has any instance been observed in the Hotel Dieu of the total removal of a limb by artillery; portions have been carried off by pieces of balls, &c. one woman has had a great part of the deltoid taken away by a piece of bullet—the head of the humerus is exposed, but she is going on well. A young man, in the ward Sainte Marthe, has received a severe wound in the chest; the ball entered at the anterior superior region, and has been extracted from the back; he also is pretty well. It was asserted that the soldiers used *chewed balls*, and the people hammered ones, in order to render the wounds the more grievous. This was not true. To chew a ball is by no means so simple a business, and all that the best teeth can do upon it is to make a number of holes on the surface without prominences—not certainly tending to render the projectile more murderous; and as to the compressing of the bullets, if a hammer was at all employed for the purpose, it was simply to beat them out, so as to make them fit the fusils whose calibre would not otherwise admit them. It was asserted, too, that some of the arms were poisoned; but this was also a complete falsehood.—*Journ. Hebdomadaire.*.

MIDWIFERY.

3. *Extra-uterine Pregnancy.*—Dr. Wilmans relates a case of extra-uterine pregnancy in Hufeland's Jurn. der Parkt. Heildkund Marcht, 1829, in which the fœtal bones escaped by the rectum and bladder. During the period in which the bones were passing, the woman had had four natural labours.

Mr. S. Cooper has requested our advice in a case somewhat similar. The woman has had a living child during the passage of the bones per vaginam, a femur, a rib, and one parietal bone of a fœtus of four months have only passed as yet.—Ed.

MATERIA MEDICA.

4. *Mode of Solidifying Turpentine, Oil of Turpentine, and Balsam Copaiva.*—M. Faure, apothecary at Bordeaux, proposes the following mode for effecting the object at the head of this article. He triturates 14 drachms of pure clear turpentine, and 36 drachms of calcined magnesia in a marble mortar, until they are accurately mixed, and he next places the compound in a close vessel. In twelve hours it will be of the proper consistence for pills. He employs nearly the same process for the solidification of the essential oil. He mixes 6 drachms of pure turpentine, 2 of oil, and 36 of calcined magnesia. He places the compound in a close vessel, and agitates it from time to time. In six or eight days it will be of the pillular consistence. The balsam is also hardened by magnesia.—*Jour. de Med. Pratique de Bourdeaux.*

5. *Efficacy of Belladonna in Pertussis.*—M. Mequel has administered belladonna in the commencement of hooping cough, in

progressive doses, until signs of narcotism have appeared, such as agitation and redness of the face, when the dose is to be diminished, or the medicine entirely discontinued; the remedy loses its effects, if kept for a year, when two-thirds of the grain of the root will have little effect on a child two years old. The dose of the fresh root is one-eighth of a grain three times a day.—*Arch fur Mediz. Er. fah rung*, 1829.

6. *Cure of Fascial Neuralgia by Belladonna.*—M. Claret asserts, that he has cured six cases of fascial neuralgia by friction, over the painful part with ten grains of belladonna, reduced to the consistence of honey by admixture with water.—*Rev. Med. Fran. et Etrangere.*

7. *Efficacy of Secale Cornutum in Hæmorrhages.*—Dr. Spazani has related cases of menorrhagia, epistaxis, uterine congestion, hæmoptysis and hæmaturia, which he cured with secale cornutum. He thinks the medicine contra-stimulant, and that it possesses a peculiar action on the minute vascular ramifications.—*Annali Univer. di Medicines, Marzo.*

8. *Use of the Fumes of Belladonna in Phthisis.*—Dr. Palozzi has derived great benefit in his own and other cases from smoking the leaves of belladonna for a quarter of an hour, morning and evening. —*Il Raccogliatore, No.* 1.

9. *Use of Nitro-muriatic Pediluvia in Diseases of the Liver.*—Dr. Tannini has spoken in high terms of the value of the nitro-muriatic bath in chronic affections of the liver.—*Osservatore Medico di Napoli, Aprile.*

10. *Menstruation continued to the 94th year.*—A case is recorded in the *Ann. Univ. di Med.* of a female, aged 94, whose relatives were remarkable for their longevity, and who continued to menstruate from the 53rd to the 94th year, and at present she is in perfect health.

CHEMISTRY.

11. *New mode of preparing the carbonate of iron.*—Take of sulphate of iron and sub-carbonate of soda, each 8 ounces. Pound each salt, and dissolve them separately in warm water. If necessary, filter. Being filtered and cool, mix the solutions in a deep vessel, capable of holding one or two gallons of water, which fill up cold. Stir, let subside, and then decant the clear liquid from the precipitate. Fill up again with water, and likewise again decant; and repeat this operation two or three times, so as to separate the soluble salts. Next put the precipitate on a filter of cotton or linen cloth, supported by a square frame. When the water has ceased to pass, gather into one hand the edges of the filter, so as to make it a sort of bag, and with the other twist it round from the holding hand downwards, so as to squeeze out the remaining water. The precipitate will now have the appearance of clay, too soft for moulding. With soft sugar and aromatic powder, in suitable proportions, make it into an electuary.

Thus we obtain a carbonate of iron, uniform in its properties, hardly deteriorated by the process it undergoes, and little liable to change by keeping.

The precipitated carbonate of iron, while yet moist, is soluble in carbonic acid. Hence a teaspoonful of the above electuary is soon dissolved in a glass of ginger beer, except the aromatic powder it contains. It may be asked, therefore, whether an eligible medicine might not be obtained as follows:—"Having filled a dozen of bottles with ginger beer, divide among them the precipitate from an ounce of sulphate of iron, and an ounce of sub-carbonate of soda; then cork and set them aside, as usual, till they be ready. I presume that the production of carbonic acid, by the fermenting process, would go on as usual, and that when drawn in due time, we would find the carbonate of iron entirely dissolved in the ginger beer.—*Glasgow Med. Journ.*

BOTANY.

12. *An Introduction to Systematical and Physiological Botany; illustrated with explanatory engravings.* By *Thomas Castles*, F. L. S. *Member of the Royal College of Surgeons, &c. London*, 1830. 12°. pp. 285. *E. Cox.*—The design of the present work is to place before the student a comprehensive outline of the Science of Botany in as plain a manner as possible. The author who is favourably known to the profession by his numerous publications, evinces his usual zeal and industry in the work before us. He has arranged a very useful introduction to the study of Botany, divested as free from technicalities as the subject allows. His work is therefore calculated for the general reader. Its contents are as follow;—history of botany, elements of botany, language of botany, Linnæan artificial system, Linnæan natural system, Jussieu's natural system, anatomy and physiology of plants, and harmonies of vegetation. As an elementary work, this production may be perused with advantage. It is a popular work not calculated for medical students, but they will find the author's introduction to medical botany worthy of attention.

MEDICAL POLICE—APOTHECARIES' COMPANY.

13. *Regulations to be observed by Students, whose attendance on Lectures shall commence on or after the 1st of Jan.* 1831.*—Every candidate for a certificate to practise as an apothecary, will be required to produce testimonials of having served an apprenticeship† of not less than five years to an apothecary.

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* Students who are at present pursuing their medical studies, and those who may begin to attend lectures at the commencement of the next medical session (viz. October), will be received as candidates for examination by complying with the regulations heretofore published.

† The apprenticeship must have been served with a person legally qualified to practise as an apothecary, either by having been in practice prior to or on the 1st of August, 1815, or by having received a certificate of his qualification from the Court of Examiners.

Of having attained the full age* of twenty-one years:

Of good moral conduct†: and,

Of having devoted at least TWO YEARS to an attendance on lectures and hospital practice.

The candidate must have attended the following courses of lectures‡:—

Chemistry—Two courses, each course consisting of not less than forty-five lectures.

Materia Medica and Therapeutics—Two courses, each course consisting of not less than forty-five lectures.

Anatomy and Physiology—Two courses. *Anatomical Demonstrations*—Two courses; of the same extent as required by the Royal College of Surgeons, of London.

Principles and Practice of Medicine—Two courses, each course consisting of not less than forty-five lectures, to be attended subsequently to the termination of the first course of lectures on Chemistry, Materia Medica, and Anatomy and Physiology.

Botany—One course.

Midwifery; and the *Diseases of Women and Children*—Two courses. To be attended during the second year.

Forensic Medicine—One course. To be attended during the second year.

Students are moreover recommended diligently to avail themselves of instruction in *Morbid Anatomy*.

The candidate must also have attended for *twelve months*, at least, the physician's practice at an hospital, containing not less than sixty beds, and where a course of clinical lectures is given; or for *fifteen months* at an hospital wherein clinical lectures are not given; or for *fifteen months* at a dispensary§ connected with some medical school recognized by the court. The whole of such attendance to be subsequent to the first year of attendance on lectures.

The testimonials of attendance on lectures, and hospital practice, must be given on a printed form, with which students may be supplied, on application, at the under-mentioned places.

In *London*, at the beadle's office, at this Hall.

In *Edinburgh*, at Messrs. Mac Lachlan and Stewart's, booksellers.

In *Dublin*, at Messrs. Hodges and Smith's, booksellers.

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* As evidence of age, a copy of the baptismal register will be required in every case where it can possibly be procured.

† A testimonial of moral character from the gentleman to whom the candidate has been an apprentice, will always be more satisfactory than from any other person.

‡ The lectures required in each course respectively, must be given on separate days.

§ Certificates of attendance on the physician's practice at dispensaries will continue to be received until the 1st of Jan. 1833, from all such as have heretofore been admitted, but after that time the present regulation will be strictly adhered to.

In the provincial towns, where there are medical schools, at the hospital, or from the teacher who keeps the register of the school.

Students are enjoined to observe that no other form of testimonial will be received; and that no attendance on lectures will qualify a candidate for examination, unless the teacher is recognized by the court.

The teachers in Dublin, Edinburgh, Glasgow, and Aberdeen, recognized by the constituted medical authorities in those places respectively, are recognized by the court.

REGISTRATION.

A book* is kept at the Hall of the Society for the registration, at stated times, of the names of students, and the lectures, 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 February, June, and October, 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 one of the teachers† in 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.

Each student, at his first registration, will receive the printed form on which he is to obtain the certificates of his teachers.

The examination of the candidate will be as follows:—

1. In translating parts of Celsus de Medicinâ, or Gregory Conspectus Medecinæ Theoreticæ, Pharmacopœia 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.

NOTICE.

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 de-

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* The book will be opened for the registration of those students whom these regulations affect, on the 1st of Feb. 1831.

† The students will be informed at each school, respectively, of the name of the teacher to whose care the register will be confided.

posit 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.

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 half-past four o'clock.

(By order of the court) JOHN WATSON, Secretary.
Apothecaries' Hall, Sept. 9, 1830.

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.

For information relative to these Regulations, medical students are referred to Mr. Watson, who may be seen at his residence, 43, Berners-street, between the hours of nine and ten o'clock every morning (Sunday excepted); and for information on all other subjects connected with the "Act for better regulating the Practice of Apothecaries," application is to be made to Mr. Edmund Bacot, clerk of the society, who attends at the Hall every Tuesday and Thursday, from one to three o'clock.

It is expressly ordered by the court of Examiners, that no gratuity be received by any officer of the court.

MEDICAL JURISPRUDENCE.

14. Dr. Gordon Smith has taken the trouble to reply to our comments on the medical evidence delivered at the late inquest on the unfortunate Miss Cashin, and not only defends that given by Dr. Alexander Thomson, but has been good-natured enough to make a few sharp personal animadversions upon our competency to form an opinion upon the subject. In order to place the justness of his remarks fairly before our readers, we must premise a few words in explanation, and observe, that "a man always speaks with pain of himself." In common with many eminent men, Dr. Smith was pleased to favour us with the highest eulogy for our articles on Ethics and Medical Jurisprudence, and employed language such as "these articles will immortalise you," &c. &c. In a letter which was to be read at the Medico-Botanical Society, when the noble president, Earl Stanhope, and council proposed the editor of this journal, as Professor of Toxicology, he stated "If the expression of my opinion as to your elegibility can be of the slightest use to you,

it is at your service in any shape; and I hope the day is not far distant when we shall be *fellow labourers* in the strictest sense of the word, and for the benefit of society, in a department of science hitherto known almost (I grieve indeed to say it) ONLY to ourselves." In a communication dated August 9th, requesting our opinion on a matter of vital importance to the interests of the study of jurisprudence, he said, "I shall give any alterations you may propose the most candid and deferential attention." Unfortunately we forgot the story of Gil Blas and the archbishop of Toledo, and in an evil hour, did suggest some alterations in the matter, and *hinc illæ lachrymæ.* In justice to ourselves and our critic, we must observe, that our suggestions were generally adopted, and we firmly believe chiefly contributed to the subsequent acquirement of the object we both had in view. We received the warmest acknowledgments from our correspondent, and again on the appearance of our last number; but with an expression of regret for our strictures on Dr. Thomson's evidence In ten short days afterwards, Dr. Smith publishes his reply in the "Lancet," doubts all our pretension and competency to teach or even offer an opinion on medical jurisprudence; and gravely advises us to study the best works upon the subject. But to crown all, he has since favoured us with a most friendly letter, in which he says, "Allow me to congratulate you upon the formidable position of the medical jurist, and also on the distinguished part you will now be called upon to perform in that capacity. The Apothecaries' Company have done their duty, as you will perceive by their new regulations. You and I must pull together if possible, notwithstanding the *jobation* I have given the Medical and Surgical in the "Lancet." This is rather strange language addressed to one who knows nothing of jurisprudence, and whose incompetency was so lately pronounced by the writer *ex cathedra.* We are extremely sorry that Dr. Smith, to whose talents we have ever paid that tribute of respect which they so well merit, should be placed in so awkward a position as the eulogist and censurer of one who never gave him any cause of offence. If his opinion of us in the reply which we hasten to insert be the real one, what was that of the above correspondence? or *vice versa.* Could he not discuss a scientific question without descending to personality, or must he convey sneers as little worthy of his own character and station, as we shall shew they are useless to his defence? But enough: we shall refute his reply by his own published opinions. He must have forgotten the recorded opinions in his "Principles of Forensic Medicine," and in his "Analysis of Medical Evidence," when he broached the most contradictory doctrines in the "Lancet." We must leave him to explain which he wishes to be of standard authority. Leaving him to arrive at a conclusion, we fearlessly affirm that we could cite the whole of the writers on ethics and state medicine in this and other countries against this assertion, "Dr. Thomson is a good example of what a medical jurist ought to be," as exemplified at the late inquest, but

our opponent shall be our chief authority. In reviving this discussion, Dr. Thomson has to thank his chivalrous friend; and we must assure him that we should not have done so voluntarily, and also that we should be extremely sorry to give him pain, much less offence. He will recollect that his evidence, and that of all the other medical men, are fair subjects for impartial criticism; and he will bear in mind, that our talented contemporary, the Med. Chir. Rev. and the Med. Gazette, have been much more caustic on the occasion than ourselves.

We shall now insert Dr. Smith's reply, and add our rejoinder.

To the EDITOR of the Lancet.

"SIR,—In the last Number of one of the monthly medical Journals, I was sorry to find some animadversions upon Dr. Alexander Thomson, and upon the report delivered by him to the jury, which so carefully investigated the cause of Miss Cashin's death. To these I beg to offer a few words in reply.

"I agree with the writer of the article that the Doctor presents "a good example," &c., but my assent to the truth of the observation is dictated by a different view of the cause. He is, in my opinion, most decidedly *a good example*, and if such an example were generally imitated, we should not be disgusted so often as we are with the unintelligible slip-slop and unredeemed nonsense, uttered by medical men, upon occasions of judiciary investigation."

Dr. T. is really a good example of what a medical jurist ought not to be, for the following reasons. He swore there was no slough, and that he could not state what was the cause of death without examining the brain and spine, after Mr. Brodie had sworn there was slough or mortification on the back, which was the cause of death.

"When there is a great difference in the testimony between medical witnesses, there must be something wrong."—*Principles of Forensic Med., by J. Gordon Smith, M.D, 2d. ed. p.* 527.

Endeavours were made to reconcile this discrepancy, which were neither satisfactory to the profession nor to the public. "It will not do under such circumstances to receive one statement first and afterwards substitute another. Such practice would strike at the foundation of evidence."—*Analysis of Med. Evid. by same*, p. 43. To retract what has been decidedly affirmed would be rebutting his own evidence.—*op. cit.* p. 75. "A scientific witness would be truant to his own character, if when publicly called upon to speak of his knowledge, he gave an imperfect or erroneous statement, which it might fall to the share of others to correct; and it does appear to me, that it would be little more in his favour if he corrected himself upon compulsion.—p. 88. "The report goes out to the world, and the testimony of the medical man runs the gauntlet of all those who may be able or disposed to display its defects and more serious vices."—p. 89.

It is contrary to the principles of ethics and medical jurisprudence

for a medical witness to act as counsel for the prosecution, to cross examine witnesses, to appeal to the coroner and police magistrate for the committal of the accused, to appear before a judge when holding the accused to bail; in a word, to become the prosecutor. We defy Dr. Smith or any one else to cite one volume out of 10,000 on forensic medicine, which maintains that such a witness is a good example of a medical jurist. We shall allow the Doctor to speak upon this point. He observes in cautioning the medical witness against *bias* or *partiality*, "without proceeding farther in the general denunciation of this impulse," &c. * * * * I shall confine myself to a simple warning of danger to the witness. "I believe it is a general rule of evidence, that no person interested in the question can be a witness."—*op. cit.* 70, 71. And we most firmly believe, that Dr. Thomson's evidence will go for nothing at the Old Bailey, for this very reason.

"I hardly apprehend that the Doctor is exactly "a tyro in medicine," for I remember being present, *many* years ago, when he eloquently and learnedly took a conspicuous part in a discussion at the Medico-Chirurgical Society; and I have ever since entertained a high respect for his talents and acquirements. I believe he has, in the interim, been sedulously and successfully engaged in applying the first of these advantages to the improvement of the other. But I take it for granted, that the writer does not know him personally, and from certain facts which have recently transpired, you may possibly conceive him to be *novus*, if not *juvenis*, in the profession."

To this we answer, that Dr. Thomson was a student at the London University last winter, and from his evidence as published in our last, is both *novus* and *juvenis* in the profession. This is also the opinion of the editors of the Med. Chir. Rev. and Med. Gazette, so that if we err, we do so in good company.

"Fault is found with his report, upon the following general grounds; into particulars it is neither requisite nor possible for me to enter:—1. That he ought to have had no hesitation about the eschar being the cause of death; 2dly. That the examination of the brain and spine was unheard of as the means of discovering the cause of death—appending to this remark the surmise, that the cause of death—from several circumstances specified, might be looked for in the brain with utter hopelessness of success; 3dly. That the Court was puzzled by his technical description of every organ in the body; 4thly. That the body was disinterred without the slighest necessity; 5thly. That there is not a well informed man in the profession who would not declare the sloughing to be the cause of death; 6thly. That no man acquainted with the effects of local and constitutional irritation, would hesitate a moment in forming an opinion on the cause of death in this unfortunate case; 7thly. That it is a principle in *judicial medicine*, that medical men should be as intelligible and as conclusive as possible; 8thly. That they should avoid all unnecessary displays of technicality and "rigmarole."

"Such are the charges quoted in the order in which they appear, and I proceed to consider them *seriatim*:—

"1. It is observed that the existence of the eschar was proved by one of the most scientific and eminent surgeons of London. No one will question the claims of the gentleman alluded to; but it is not always the most eminent practitioner who forms the best medical witness. I record this as *a principle* in judiciary or forensic medicine, and could very easily quote practical illustrations in support of it; but of some of these the writer is or ought to be well enough aware already. Thomson acted upon a knowledge of the importance of the occasion, and of the rules which, in similar circumstances, ought to direct our conduct. He was quite right in hesitating before pronouncing *a positive* opinion in a matter of such moment. It is also to be observed, that the surgeon alluded to had finished all that part of the investigation which devolved upon him; whereas the gentleman who has *received* (without *incurring*) the censure of the critic, was at the time yet engaged in pursuing *his*."

The last paragraph scarcely requires refutation, for it refutes itself. If Dr. T. was quite right, Mr. Brodie was quite wrong, and this requires no farther comment. The profession will judge for themselves. But if the reverse was the fact, as our contemporaries and every man of science we met with during the inquiry admitted, then the gentleman alluded to *incurred* the censure he *received*. We are ready to admit, that he was actuated by the best motives in defending the interests of science and humanity; but that is not the question at issue.

"2. I should have expected *a teacher of medical jurisprudence* to have bestowed commendation, instead of disapprobation, concerning the second article animadverted upon; but I am compelled to take him as I find him. So far is the course of examination instituted by Dr. Thomson from being "unheard of," that no other is observed by the best medical jurists. *All* the cavities must be examined before any necrotomist can swear to the real cause of death. For, although he may not find traces of a *positive* nature, the result of such a careful and minute inspection will enable him to deny the existence of a variety of causes which might be alleged without foundation; and such denial he cannot possibly be in a condition to make, unless such a course of examination shall have been attended."

We should like to see Dr. Smith cite some medical authority for examining the brain or spine, in such a case, or in cases of severe burn, tetanus, and hydrophobia, for the actual discovery of the cause of death. We would advise him to refer to ("and study") the works of Sir A. Cooper, Mr. Travers, &c. for the received opinions on the effects of severe local irritation when produced in a person in perfect health; and inform us what morbid appearance in the brain or spine can explain the cause of death. We repeat that such an examination is never made, is unheard of; and even admitting that congestion, inflammation or effusion was discovered in the head or

spine, and produced by an eschar on the back, the size of the crown of a man's hat, what would be the inference, but that the injury on the back was the cause of death? Is it not, we ask, a received opinion, that intense pain of any kind, if allowed to continue, must destroy life, independently of all structural lesion? Will not the slightest wound induce tetanus and death, and the brain be found healthy? We never said a word against examining the cavities, and therefore this part of the reply was gratuitous and requires no answer. We regret our opponent's disappointment at our fallacy of dogmas as a teacher of medical jurisprudence; and we hope he may speedily regain his usual spirits, and not distress himself too much about our deficiency. With respect to the necessity of technical expressions, we must insert another paragraph before we offer our reply.

"3. I am not aware that the Court complained of having been puzzled by him; he was at hand to explain any thing of an obscure or unintelligible nature. It is the prudential and proper line of conduct to be pursued, in drawing up *official reports*, to use professional or technical expressions; for these go before the public, and it is a fertile source of error and confusion to adopt popular terms, in which the foundations of science were not laid, and which are not, even now, admitted into the nomenclature."

"4. The disinterment of the body was rendered necessary, because the family of the deceased opposed an inspection to the full and requisite extent; it therefore became essential to be armed with authority for the purpose of judiciary satisfaction. In the mean time the interment had taken place; and whatever further investigation it was thought onerous to make, you will agree with me could not be conveniently performed in the grave. Disinterment is a frequent occurrence for such purposes.

"Had it been my duty to have occupied the place of the author of the report cavilled at, my report would have been at least as technical, leaving it to the Court to ask for explanations where such might have been wanted. Allow me, as things happen to be, to ask into what domesticated terms Dr. Thomson's censurer would render the following, which occur in the report?—*Reticulation; abdomen; tense; tumid; acromion process; spinous process of the occipital bone; cellular tissue; fascia; mediastinum; phrenic; sanious; diaphragmatic: congestion; bronchitis; purulent; pleura; costal; pericardial; tubercle; abscess; mucous membrane; capsular; stellatæ; pulmonary artery; valves of the heart; effervescence; petechiæ; peritoneum; cardiac portion of the stomach; duodenum; mesentery; ilium; colon; rectum; fæculent matter; flatus; arachnoid;* and some others which I have not quoted. Who can render these into plain English? Or are there not some of them which, if by circumlocution they could be so rendered, the public prints would not hesitate, if they were even able, to express?"

To this we reply, that there was no morbid appearance in the body which could account for death, except the eschar on the back; and there-

fore it was unnecessary to employ such irrelevant technical expressions or render them into domesticated terms; and we reiterate our opinion, "that the court was, and according to Dr. Smith, must have been puzzled by a technical description of every organ in the body," which were all healthy except the stomach and pleura, and were unnoticed by the most experienced of the witnesses. "For any witness to *babble* in a court of justice is highly indecorous; for a man of science to do so on matters of opinion would be ridiculous."—*Principles of Forensic Med. supra. cit.* The same author directs us in giving evidence "to advance our judgments in the most precise and simple manner, and condemns the plan of overwhelming the court *by a flow of garrulity*, and that a witness may gallop off in this way, and perhaps proceed to some distance, *sed cui bono.*"—*Analysis.* "His opinion ought to be conveyed in a perspicuous manner."—*Haslam, Hutchinson.* "He should avoid as much as possible all obscure and technical terms, and the unnecessary display of medical erudition."—*Percival's Ethics.* "He should study logic and not rhetoric,"—*J. Gordon Smith, M.D.*

"8. The last article of animadversion is completely answered by this reply to No. 7. But I must request some explanation of the term "rigmarole." Although my early manhood, and the prior portion of my professional life, were spent in the service of his Majesty, wherein we may learn the meaning as well as the application of queer terms, I should have stretched myself under many a bush before I had found out "rigmarole" to be applicable to such a report as the one in question."

Our capacity is too limited to enable us to comprehend the exact meaning of this paragraph, we are totally at a loss to discover the relevancy of the writer's campaigns in his Majesty's service, "wherein he learned queer terms, and his stretching himself under a bush," to discover the applicability of rigmarole "to the report in question." As we have not enjoyed such great facilities of acquiring our etymology, being engaged for the greater part of our lives in the medical schools of Dublin, Edinburgh, London, and Paris, we admit our opponent's superiority, while we refer him for the solution of the important point at issue to his old acquaintance Samuel Johnson, who will inform him that the import of the object of his fruitless research is nothing more nor less than "a repetition of idle words," which was strictly applicable to the greater part of the report in question. And the same authority informs us, that our opponent's term for such evidence happens to be synonymous with our own for *babble*, means to "talk idly," so that here we may join issue. We must in turn request some explanation of the term "*jobation*" So much then for our opponent's defence of Dr. Thomson's evidence; we leave him to enjoy the fruits of the victory he has achieved. We shall not disturb him in his triumph in demolishing so feeble an antagonist; but ask him a simple question at parting. Does he seriously believe, that there is one eminent physician or surgeon in

this empire who agrees with him, that his friend is a good example of a medical jurist? His last paragraph refers entirely to ourselves, and deserves consideration.

"For the present I shall go no further; but if the writer in question seriously intend to teach medical jurisprudence, I fear that I must exhort him to study the most approved authors upon the *principles* of that singular science. I thought that *medical jurists* entertained no difference of opinion upon such matters. It remains, therefore, to be cleared up, whether such a difference between the writer and myself really exists, or whether this display on his part does not entitle me to question the validity of his pretensions.

I am, Sir, your obedient servant,

J. Gordon Smith.

Professor in the University of London.

September, 1830.

We are deeply indebted to the writer for his very sincere and friendly exhortation, but beg to inform him that we have long since carefully studied the most approved authors on the subject, and among them even his own productions. We fear, however, from the facts stated in the first part of these remarks, and the tenour of his "reply," it behoves us to call to mind the salutary admonition, *Timeo Danaos*, &c. Without questioning his infallibility, we must observe, that our published opinions on this singular science, are not *contradictory*, and we suspect that we have proved to his satisfaction, that the difference of opinion which he has fancied to exist between us, is simply the offspring of his own imagination. Be this as it may, we doubt much whether this display on his part does not entitle us to question the validity of his pretensions to an infallibility and a superiority which he imagines he enjoys over all his contemporaries. He will please to bear in mind that the science of forensic medicine flourished long before his time, and was encouraged in Edinburgh many years before he was found amongst its cultivators, and will continue, even though deprived of his patronage, and therefore its friends and advocates ought not to excite either peevishness or jealousy in his bosom.

We can also tell him in the most positive terms, that he will ere long have more rival teachers than one to demolish, and when he commences his next attack, we would strongly advise him not to commit himself as he has done on this occasion, by giving his opponent an opportunity of refuting his arguments by his own recorded opinions. The lateness of the inquest which concluded on the day of publication of our last, prevented us from commenting as we wished on the medical evidence on the occasion in question; and we shall now offer a few remarks upon it. The discrepancy of the medical witnesses is most remarkable, we find them confounding three different diseases. Mr. Brodie swore there was sloughing, "a term," says he, "synonymous, or nearly so, with mortification."—*Med.*

Chir. Rev.—While every tyro is aware that these terms are perfectly distinct from each other, and from gangrene.—Vide Cooper's Surgical Dictionary, 1830. Dr. Thomson affirmed, "there was no sloughing, for by sloughing we mean the coming away of a dead part." Dr. King, or Dr. Hogg, or Mr. Wildgoose did not state the scientific term for the state of the back, whether gangrene, mortification or sloughing. Dr. James Johnson designated the state of the back incipient gangrene; but all agreed that the state of the back was the cause of death. The diversity of opinion among the medical men as to the exact nature of the disease, is highly discreditable to the majority of them, as men of science and as medical jurists. We entertain no doubt but all will receive a formidable cross examination at the trial; and we cannot help thinking, that an intelligent jury of plain strait forward Englishmen would be puzzled to pronounce what was the exact disease of the back in this case. It is even quite impossible for any scientific man who has perused the evidence, to say what was the exact morbid condition of the eschar; but every medical man of common sense and ordinary acquirement must at once declare that the eschar was the cause of death from its effect on the nervous system. We apprehend the judge will expatiate upon the discrepancy of the evidence; and as to Mr. Long, he will come off with flying colours. His fame, however, will suffer; his patients will decline, his power of preventing and curing all diseases will be questioned; and gullible as John Bull naturally is, he will display his ordinary good sense, and say, has not this man lost two sisters in one week? That the public should be imposed on by quacks is what any sensible medical man must expect, when he looks at the state of the profession, when any illiterate scoundrel may proclaim his infallibility, while the president and censors of the College of Physicians, with ample power to prevent them, are busy in intriguing about the court for their own personal aggrandizement, and forgetting to discharge the sacred trust reposed in them by the legislature, for the protection of public health, and the interests of the whole profession, of which they are but an insignificant part, and when their conduct is fairly examined, they must be pronounced by every thinking man, as dangerous and arrant humbugs in the true sense of the word, as the villainous empirics whom they allow to sacrifice his Majesty's subjects. We have shewn from Mr. Willcock's work, in a former article, that the Colleges of Physicians and Surgeons have full power to punish quacks and irregulars; and why in the name of reason, science, and humanity, do they not do their duty?

15. *Trial of Quacks.*—At the Lancaster assizes, J. Ferguson, aged 30, was indicted for killing Betty Kay, at Great Bolton, on the 12th July. It appeared he was not regularly educated as a medical man, but lived in his youth with his brothers, who were surgeons in Bolton, that he had relinquished the profession, and employed himself as a weaver, but attended women in childbed. He agreed for 5s. 6d. to deliver deceased; was intoxicated, inflicted injury on

her, and allowed her to die of hæmorrhage from retained placenta. He was found guilty, and sentenced to six months imprisonment *only!*

At Bristol assizes, an action was brought against a Dr. Soligman, who represented himself physician general to the army of the King of Prussia. He advertised to cure "watery gout, broken navels, dry bumkins, windy cramps under the breath rib, &c." The plaintiff, a *Mr. Greenhorn*, brought an action for the recovery of 7s. 6d. a day, for 90 days, which he paid the doctor for attending on his son, who had dislocated his ancle. The treatment consisted of frictions to the shoulder, which were to replace the bone with loud roaring, but unluckily failed to produce this effect. The physician general recovered the suit, as the plaintiff was satisfied with his terms.

Copy of Petition presented to the House of Commons, by Mr. Hume, Tuesday, July 6, 1830.

To the Honourable the Commons of the United Kingdom, in Parliament Assembled:

The Petition of the undersigned, Member of the Honourable Society of the Inner Temple,

Humbly sheweth,

1. That your Petitioner considers the toleration of that abominable nuisance, Medical Quackery, or Empiricism, as a disgrace to a country professing Christianity and civilization, and has long regretted that the vile and destructive trade of tampering with the lives and health of the community should have received a legal sanction and protection by virtue of the Stamp Duty on the villanous trash.

2. That the mischievous trade of Quackery and imposition is daily increasing, and that hordes of empirical jugglers are engaged in its propagation in every quarter of the metropolis, and make their periodical circuits throughout the country, scattering death and destruction among the population of the empire, and fattening on the murders which they are continually perpetrating with their poisons: and, to add to the monstrous combination against the lives and health of the community, that the aid of even the pulpit has been invoked to further the propagation of the imposture. Instances are on record where mercenary dissenting preachers have been wicked enough to sermonize and expatiate on the pretended and miraculous virtues and benefits of the poisonous nostrums of the mountebank jugglers and impostors.

3. That the culpable toleration of the frauds of those vermin, and of the secret and wide-spreading destruction of health and life which is the consequence of their murderous nostrums, is a national opprobrium, equally disgraceful to the legislature and the government, and has been so stigmatized by many eminent foreign writers. Was there ever a more monstrous absurdity exhibited in the most barbarous country and the most uncivilized age, than that empirics and impostors of the most detestable description should be legally and authoritatively enabled to rob mankind of their health, their property, and their lives, and to announce that they practise their impostures

under the sanction of a government Stamp Duty, and vend their nostrums as "*prepared and sanctioned by his Majesty's august authority!*" and that all this mischief should be allowed to be inflicted on society merely for the sake of the paltry and disgraceful revenue, arising from the pest, to the Exchequer?

Wherefore your Petitioner prays, that your Honourable House will be pleased to devise some wholesome regulations, calculated to suppress the frauds and murderous designs of jugglers and impostors of all descriptions, and at the same time to repeal that most monstrously impolitic statute, the Patent Medicine Act.

And your Petitioner, as in duty bound, will ever pray,

(Signed) JOHN DINGWALL WILLIAMS.

Inner Temple, June 21, 1830.

MISCELLANIES.

Metropolitan Society of General Practitioners.

To the Editor of the London Medical and Surgical Journal.

16. Sir,—As your Journal was once the advocate of apothecaries, I trust you will do an old subscriber the favour of inserting a few remarks on the utility of the "Metropolitan Society of General Practitioners." In the formation of this society every effort was made to avoid giving offence to any portion of the profession, nor can any of its friends perceive in its rules any thing which they have cause to regret. That the great body of general practitioners, who are excluded from all connection with the medical corporations, should endeavour to protect their own interests is not very unnatural, and that they should endeavour to establish a fund for the relief of distressed members of the profession, including all classes, is not an objectionable proceeding. They are not apothecaries nor surgeons, but a distinct class of practitioners which society has sanctioned. They only seek to defend their interests; and what class of the profession has not done the same? A great deal has been said against the society, because it has not been established at a public meeting and so on; but allow me to ask what good has resulted to the cause of reform from public meetings? What has become of all the intended meetings—when are they to take place? The truth is, Sir, that sober-minded men are opposed to such meetings, and will never come forward as public disputants. The editor of the *Lancet* and yourself object to the term general practitioner, but neither of you have condescended to propose a substitute * for it. I repeat that those who adopt that title are not

* We readily insert the above, though it reached us too late for the department of this journal allotted to original communications. We have never said a word against the society in question, as it appeared to us to be unobjectionable and worthy of support from the class of the profession it more immediately concerns. True we have objected to the unclassical and unmeaning term, General Practitioner, which we defy any man to translate into any of the learned languages; under this impression we acknowledge our inability to propose a substitute for it.—ED.

surgeons or apothecaries, that their education differs from that of either, though it comprises that of both, and consequently entitles them to practise surgery and pharmacy. If the public sanction them, I am at a loss to discover of what import is a title.

I am, sir, your obedient servant,

A GENERAL PRACTITIONER.

The interests of the public and of the profession will be thus greatly promoted, and one important step gained towards the cause of medical reform. The nefarious quacks, and the ignorant pretenders to physic will receive that chastisement they so well deserve; and legitimate members of the profession will have some opportunity of enjoying their rights, and obtain that recompence for which they sacrificed their time, talents, and property. We need scarcely observe, that the example of Middlesex would be followed by every county in the united kingdom.

17. *London University.*—Mr. C. Bell has resigned the professorship of surgery, and Mr. Pattison has been appointed his successor. Mr. Bell continues to teach physiology. At the suggestion of Mr. Pattison, Mr. Bennett has been associated with him in the chair of anatomy. Mr. Bennet is assisted by Mr. R. Quain in the demonstrations and dissections.

18. *Expense of Medical Education in the London University.*—The expense of the course of medical education in this institution is 66*l.* which is from 20*l.* to 30*l.* more than in the majority of private schools in this metropolis, and far exceeds that of the schools in Dublin or Edinburgh. This is bad policy.

19. *Metropolitan Society of General Practitioners.*—We are happy to inform our readers, that the Society of General Practitioners have taken premises at 4, Regent-street, where they have a reading-room supplied with the medical periodicals, magazines, and daily papers. They invite all classes of the profession to become members of the society. An institution of this description was much wanted, and cannot fail to receive that encouragement which it so well merits. We cordially wish it success.

20. *Medical Coroners.*—Though Mr. Wakley has lost his election for the coronership of Middlesex, yet he has much reason to be proud of the immense support he received from above 3,500 of the independent freeholders of the county. The contest has effected one grand object, and that is in informing the public of the necessity of appointing medical coroners. Had the public press acted impartially, Mr. Wakley would have been successful. There can be no doubt of his success on the next occasion, which is near at hand, and then the empirics and the thousands of unqualified practitioners in this metropolis will have cause to tremble. The public health will be more carefully attended to, and every class of medical men, in every relation of society, must discharge their duty with care, caution, attention, and according to the received opinions of the profession.

Medical Appointments at Court

21. "There is much whispering in the Profession relative to the recent medical appointments about His MAJESTY's person, and to the use made of a delegated authority, which we notice that if the rumours be incorrect they may be the sooner set right.

All the medical appointments of His Majesty as Duke of Clarence are said to have been superseded, and the name of one party only to have re-appeared among those appointed to attend the King. Sir H. Halford, Sir Gilbert Blane, and Sir Matthew Tierney, have been appointed Physicians in Ordinary to His Majesty, to which a salary of 300l. per annum is annexed. Sir Henry Halford, as President of the College of Physicians (a regulation procured by himself from the late King, but for some reason or other never acted upon till now) is *ex officio* one of the Physicians to the King, nay the first Physician; but, as he may not always continue President, he has taken the precaution to be appointed Physician in Ordinary in the usual course; which double appointment of the same person to the same office is said to give the fortunate holder a right to a double salary, that is, six hundred instead of three hundred pounds per annum. Sir Henry Halford stands doubly at the head of the list, though in conjunction with Sir Gilbert Blanes a physician of greater age, of the highest scientific character, the oldest and longest medical adviser of his late Majesty, at the head of his list during his whole reign, as well as that of his present gracious Sovereign before his Accession, and the only one of the gentlemen whose names are above recorded who had the honour of attending the Duke of Clarence in early life. It is also said that a Dr. Hawkins, a young physician of singular good fortune as a medical pluralist (there being fewer stipendary places in the medical profession than any other) has been appointed Physician to the Royal Household (Sir Gilbert Blane, being dismissed from this place also) holding at the same time the appointment of Registrar to the Royal College of Physicians, Physician to the Middlesex Hospital, and Professor to the King's College; also, last if not least, about to become nephew by marriage to the President. When the appointment of Physician to the Household was first announced, there was a general impression that it was Dr. Bisset Hawkins, a most promising young physician, and already very favourably known to the philosophical and professional world by an ingenious and scientific work: but this turns out to be an error.

We stated, lately, that owing to some influence of the back stairs, the name of Sir Gilbert Blane, which was directed by His Majesty to be placed first on the list of his Medical establishment, had been, notwithstanding His Majesty's injunction, placed after that of the President of the College of Physicians, that is after that of Sir Henry Halford's. We were unwilling at that time to go farther, in order to allow the authors of this intrigue an opportunity of rescinding an act equally derogatory to their own honour and to his Majesty's best interests.

As our hint has been disregarded, we shall now redeem our pledge with the public, and state some circumstances from which it may be seen how far we were authorized in the assertions we have already made.

We affirm, on authority which none of the parties concerned will dare to contradict, that His Majesty wrote, with his own hand, to Sir Henry Halford, requiring him to place Sir Gilbert Blane's name first on the list of his physicians. We affirm also, that Sir Henry Halford, in answer to the inquiries of a certain official of the household, did write, that *in consequence of His Majesty's pleasure, expressed in his own kand writing, he had placed Sir Gilbert's name foremost on the list.* We affirm, thirdly, that the list, as it now stands, and by which the two first places are assumed to himself, is such as it came from the hands of Sir Henry Halford himself. It is no part of our duty to reconcile words with actions. We state the facts plainly and simply, as we believe and as we know them to be. It is evident, however, that here a great act of injustice has been done, and that the King's kind intentions have been intercepted by a servant and a delegate.

These are not times to trifle with the faith of Princes. The world is witness, in other countries, of the ruin induced by the falsehood and selfishness of courtiers. We trust that our present gracious Sovereign, whose benevolent intentions have been so unequivocally manifested, will be preserved from the snares of such false friends."—*Sun.—John Bull. Fiat justitia, ruat cœlum.*

. Nothing has occurred for a long time which has excited more disgust and disapprobation throughout the profession than the late appointments of the medical attendants to his most gracious Majesty. Even the silly and ridiculous bulletins, which were pure nothings, were consistent when compared with the appointments in question. Every one inquired "who is Dr. A.? who is Dr. B.? and who is Dr. C.? I have never heard of any of them. They are unknown in the annals of science." But most of them are fellows of the College of Physicians, and the personal friends or tools of the president; and to him they owe their unmerited elevation. There is nothing extraordinary in a man serving his friends or dependents, provided he does not sacrifice the interests of those who have stronger claims to notice. That our gracious and truly magnanimous sovereign would supersede his former attendants, men to whom he confided the care of his health for many years, is an idea which no man in his dominions would entertain for a moment. So far from this being the case, we know from authority that cannot be doubted, that his Majesty actually inserted, with his own hand, some of the names of his former *physicians*, and first on the list that of the talented and erudite Sir Gilbert Blane, Bart. By a degree of insolence on the part of some of his servants, which forcibly reminds us of Cardinal Wolsey, who, in corresponding with the court of Rome, modestly commenced with, "*Ego et rex meus,*" Sir Gilbert was deprived of one of his appointments to make room for a juvenile successor, and his name was placed *second* on the list. Oh, shame, where is thy blush! It is impossible to designate this audacious and unjust conduct in appropriate language. Of the parties concerned, we speak impartially; we do not enjoy their personal acquaintance, but when we see an individual of Sir Gilbert Blane's splendid talents and distinguished character, one who has

stood high in official situation, who has been associated in those splendid naval events which have raised the glory of this empire, who has made naval medicine what it is, by his wise and prudent regulations, which have mainly contributed in the prevention of the horrid diseases of our fleets, armies, and hospitals, and which even received the admiration of Lord Spencer as First Lord of the Admiralty, who appointed him one of the Commissioners of the Sick and Hurt; and so interested our most gracious Monarch, then Duke of Clarence. through whose influence he was appointed Physician Extraordinary to the Prince of Wales, and Physician to the Royal Household; and who had numerous other marks of respect from the royal family and the government at different times, when we see such a man as this slighted by base intrigue, we must in common with the independent part of the profession use the strongest terms of reprobation of such conduct. But to return to Sir Gilbert. In addition to the many distinctions already enumerated, he has been repeatedly applied to by his own and other governments for instruction and advice on important matters of public health. He was called upon, in conjunction with the royal physicians and other leading characters, to draw up the regulations on the subject of quarantine, which formed the basis of the act of parliament on this head. He was also called upon in 1800 to offer his advice on the best mode of managing the convicts in the Hulks at Woolwich, to prevent infection, and visited Newgate for the same purpose by the authority of the Secretary of State for the Home Department. He was likewise consulted by the Secretary of the Colonies, as to the best mode of transporting our army from Egypt, to avoid the danger of importing plague. The Board of Controul applied for his suggestions in ameliorating the regulations of the medical service in India, and of the transports to Botany Bay. The committees of the House of Commons have also requested his opinion on various subjects. He was dispatched to Walcheren to give his opinion; and it was novel that a naval physician should supersede the first army medical authorities. His report, made conjointly with the army physicians, caused the government to abandon the expedition, too late to repair past evils, but in time to save the lives of thousands. On his return, the Prince Regent conferred upon him the title of Baronet. As a literary and scientific writer, he stands one of the first. His Medical Logical holds a first place in our medical literature. He is the only physician in England who is a member of the Royal Academy of Sciences of Paris, and was elected in preference to Hufeland and six other candidates, We said he was consulted on the subject of state medicine by other governments. He received a gold medal from the late Emperor of Russia, and another from the King of Prussia; and a letter of thanks from the President of the United States of America, written with his own hand. He was personally known to George the Third for more than half his reign, and received from him great attention; and enjoyed the confidence of his late Majesty, who appointed him his physician, and also to the household, a situation in which, contrary to the will of the sovereign, he has been unjustly deprived in the late appointments.

"He is one of those," says his biographer, "who though officially connected with the court, has neither sacrificed his own dignity nor his scientific pursuits, at the shrine of favouritism and dependence; on the contrary, he has studied to owe his professional distinctions to *merit* alone, and who would scorn to draw his pre-eminence from college monoply to the *exclusion of talent* wherever it came from, or to obstruct its progress. Sir Henry Halford should have been aware that those professional characters in whom his Majesty has as much confidence as in himself are licentiates, some of them even with Scotch honorary degrees." Sir Gilbert is a Fellow of the Royal Societies of London, Edinburgh, and Gottingen, a proprietor of the Royal Institution, and Member of the Imperial Academy of Sciences of Petersburgh, and of the Royal Academy of Sciences of Paris, as already mentioned. We are indebted to a work entitled "A Picture of the Royal College of Physicians of London in 1827," for much of this narrative; a work which also contains a faithful memoir of Sir Henry Halford himself, and concludes that of Sir Gilbert Blane in these words:—

"Before closing the memoir of this distinguished physician, whom we may not improperly term "President of the Licentiates," for he has, it well known, declined being a Fellow; we cannot avoid making some comparison between him and the present President.

The head of this learned body should certainly always stand high as a literary character, and be distinguished no less for his learning, than his mere professional knowledge. We do not mean to say that Sir Henry Halford is deficient in medical *acumen*, but, compared with Sir Gilbert Blane, he is not equal as a scholar or a writer. His only work, already noticed, his *Grand Climacteric*, is a production of which it has been sarcastically said, that it had neither *subject* nor *object*; the subject (the disease) being a *nonentity*, and the object (the cure) being not even touched upon. Certainly, much might have been said on the Laws of Longevity, and the Regimen adapted to old age. Sir Henry's failure in these respects, perhaps gave rise to Sir A. Carlisle's treatise on Old Age and its Diseases.

Sir Henry's pamphlet on the Appearance of the Remains of King Charles I., when exhumated at Windsor fifteen years ago, particularly the appearance of the vertebræ cut through by the axe, was merely written for the moment, to mark him as the chosen attendant of royalty on this melancholy occasion. For besides these, there appears only one paper under his name, in the 6th volume of the College Transactions, on "the sudden and unexpected Fatality of certain Diseases." It would be invidious to criticise this, as the intention is good; but is clear, the writings of a professional man are the only criterion of his real merit, and it will be decided more impartially by posterity, when court favour and court intrigue are past, whether the physician, at the head of practice and of the College, was also at this period at the head of Medical Literature."

Sir Gilbert, has offered prize medals for the encouragement of medical officers of the Royal Navy, and the improvement of physic and surgery, in that part of the public service, the terms on which these are to be obtained, we insert hereafter. The medal is now in full opera-

stood high in official situation, who has been associated in those splendid naval events which have raised the glory of this empire, who has made naval medicine what it is, by his wise and prudent regulations, which have mainly contributed in the prevention of the horrid diseases of our fleets, armies, and hospitals, and which even received the admiration of Lord Spencer as First Lord of the Admiralty, who appointed him one of the Commissioners of the Sick and Hurt; and so interested our most gracious Monarch, then Duke of Clarence. through whose influence he was appointed Physician Extraordinary to the Prince of Wales, and Physician to the Royal Household; and who had numerous other marks of respect from the royal family and the government at different times, when we see such a man as this slighted by base intrigue, we must in common with the independent part of the profession use the strongest terms of reprobation of such conduct. But to return to Sir Gilbert. In addition to the many distinctions already enumerated, he has been repeatedly applied to by his own and other governments for instruction and advice on important matters of public health. He was called upon, in conjunction with the royal physicians and other leading characters, to draw up the regulations on the subject of quarantine, which formed the basis of the act of parliament on this head. He was also called upon in 1800 to offer his advice on the best mode of managing the convicts in the Hulks at Woolwich, to prevent infection, and visited Newgate for the same purpose by the authority of the Secretary of State for the Home Department. He was likewise consulted by the Secretary of the Colonies, as to the best mode of transporting our army from Egypt, to avoid the danger of importing plague. The Board of Controul applied for his suggestions in ameliorating the regulations of the medical service in India, and of the transports to Botany Bay. The committees of the House of Commons have also requested his opinion on various subjects. He was dispatched to Walcheren to give his opinion; and it was novel that a naval physician should supersede the first army medical authorities. His report, made conjointly with the army physicians, caused the government to abandon the expedition, too late to repair past evils, but in time to save the lives of thousands. On his return, the Prince Regent conferred upon him the title of Baronet. As a literary and scientific writer, he stands one of the first. His Medical Logical holds a first place in our medical literature. He is the only physician in England who is a member of the Royal Academy of Sciences of Paris, and was elected in preference to Hufeland and six other candidates. We said he was consulted on the subject of state medicine by other governments. He received a gold medal from the late Emperor of Russia, and another from the King of Prussia; and a letter of thanks from the President of the United States of America, written with his own hand. He was personally known to George the Third for more than half his reign, and received from him great attention; and enjoyed the confidence of his late Majesty, who appointed him his [illegible] and also to the household, a situation [illegible] sovereign, he has be[illegible]

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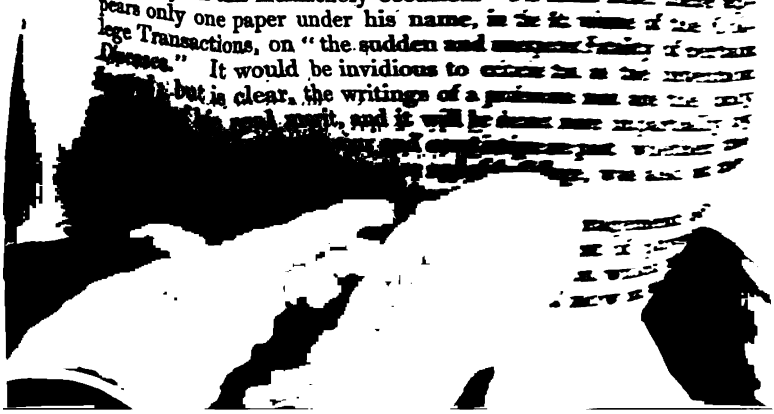

tion, all but the engraving of the die, which will cost the benevolent donor 150l. and the whole expense, will cost him more than 500l. It is highly gratifying to observe this venerable character, as warmly engaged as ever, in promoting the interests of mankind and his profession: and every one of his enlightened and independent contemporaries must feel highly indignant at his having been treated with contempt or neglect. But he is only one of the numerous distinguished physicians, who have been badly treated in the late appointments. It would be invidious to name others; but we ask, why have the medical attendants of our gracious and truly beloved Monarch, when Duke of Clarence, been deprived of that promotion to which they were justly entitled? It is universally known through the profession that the exclusion of these individuals, was contrary to the King's wishes and commands, and is solely to be ascribed to those, to whom he delegated the power of appointing his medical attendants. It is truly astonishing that this power should be partially exercised, and still more so, that a sovereign distinguished for every virtue that adorns the human character, should be represented as having forgotten the interest of his former medical attendants, in whom he had reposed the utmost confidence for many years, and treated them with cold indifference and neglect, and blasted all their long cherished hopes, and just prospects of preferment. The conduct of those who have placed their august master in such a light, deserves his greatest displeasure; and it has received the strongest reprobation of every independent member of the medical profession. The silence of our contemporaries upon this subject is highly inexcusable, but we agree with Junius. "that the liberty of the press, is the palladium of all civil, political, and religious rights of Englishmen"; and with Curran, that it is, "that great sentinel of the state, that grand detector of public imposture * * * * when it sinks, there sinks with it, in one common grave the liberty of the subject and the security of the crown." The press is the grand, and only corrector of abuses in our profession, and as such we shall ever fearlessly employ it.

Plan and Regulations of the establishment and adjudication of two Prize Medals for the encouragement of the medical officers of the royal navy, and the improvement of physic and surgery in that department of the public service. Founded by Sir Gilbert Blane, Baronet, First Physician to the King, F.R. SS. Lond. Edin. Gött. Member of the Imperial Academy of Sciences of Russia, of the Institute of France, &c.

Sanctioned by the Board of Admiralty, 2d March, 1830.

1. The founder considering how much it will conduce to the advancement of the public service, that emulation should be excited among the medical officers of the royal navy by honorary distinctions for professional merit, has vested the sum of three hundred pounds in the three per cent. consolidated bank annuities, in the Royal College of Surgeons of London in trust, with the dividends which shall be from time to time receivable, for the purpose of conferring, once in two years, two Gold Medals of equal value, on two medical officers, surgeons of ships of war, in commission, or assistant surgeons of king's ships in commission, not bearing surgeons, who, in the time

required, shall have delivered, into the proper office, journals, evincing the most distinguished proofs of skill, diligence, humanity, and learning in the exercise of their professional duties; these journals to be delivered in the form in which they have been kept from day to day, stating the symptoms, as they shall have occurred at the time; but without prejudice, or hindrance, to their making such observations practical or theoretical as they may judge proper to annex to them.

2. The first selection to be made by the medical commissioners on the 12th August, 1831, from the journals delivered between the 12th of July, 1827, and the 12th of July, 1831. All future selections, to be made on the 12th of August, at the interval of two years from each other, from the journals delivered in the two preceding years up to the 12th of July immediately preceding such selection.

3. In the selection of these journals the founder proposes that the medical commissioners of the navy shall, out of the whole journals delivered to them in the course of the intervals above specified, make choice of such as in their judgment possess the highest degree of merit, in number not more than ten, nor less than five, which shall be transmitted to the founder during his life-time, for his selection out of the number so sent, of two, or one, in case there should not be another of sufficient merit, the author or authors of which, in his judgment, may be most deserving of the prizes. And after his decease, the said journals to be conveyed to the president of the College of Physicians, who, after due examination, is to communicate them to the president of the College of Surgeons, and after proper deliberation, the said presidents are to call to their assistance the Senior Medical Commissioner of the royal navy, and jointly with him select from the said journals one, or two, the author or authors of which, in the opinion of the majority, possess the highest merit, and become thereby entitled to the medal or medals. The medal or medals, when adjudged, are to be put into the hands of the attending medical commissioner to be by him presented to the successful candidate or candidates. All the journals of the first selection to be returned into the custody of the medical commissioners.

4. In case of the impossibility of performing the before mentioned duties through the illness or unavoidable absence of the parties described, the duty is to devolve on the next in rank, that is on the Senior Censor of the College of Physicians, the vice president of the College of Surgeons, or the Junior Medical Commissioner.

5. In case it should happen at any of the periods of adjudication, that in the opinion of the founder, or of the two presidents, after his decease, there shall not be found a journal or journals of adequate merit to entitle any candidate to the prize, the medal or medals shall be withheld until the next period of adjudication, and the unadjudicated medals are to be conferred on such, as may possess sufficient merit over and above those subject to adjudication at that period. But this regulation is to be so construed and limited, that no more than four prizes shall be adjudicated at any period; and if the unadjudged medals should exceed this number, their value in money is

to be given to the Supplemental Fund for the children of medical officers.

6. In case at any time the founder, or the two presidents shall omit to make the adjudication for a longer period than three months, they shall be considered as having forfeited their right, and the ultimate selection shall devolve on the medical commissioners, who in case of difference of opinion may call in such a referee as they may judge necessary or advisable.

7. The founder shall provide and deposit with the Royal College of Surgeons, the die engraved for the medal, from which they will cause the medals to be struck at the prescribed periods, and to be delivered to the medical commissioners to be presented by them to the successful candidates.

8. No successful candidate to be admitted as a competitor a second time.

9. The presidents of the Royal Colleges of Physicians and Surgeons, and the senior medical commissioner, to be considered as guardians of the fund and its equitable administration.

10. In case any of those surgeons, whose journals have been appointed to an hospital, or any other situation on shore, except that of medical commissioner, such surgeons shall still be deemed eligible candidates for the medals in case of adequate merit.

11. After a lapse of not less than ten years from the decease of the founder it shall be competent for the presidents of the two royal colleges, and the medical commissioners of the navy, to hold an interview for the purpose of consulting whether any and what additions and alterations would be advisable in the preceding plan and regulations, and to adopt them, in case of their being unanimous for the adoption: subject themselves to the approbation of the Lord High Admiral, or the commissioners for executing the office of Lord High Admiral.

The founder, with all deference to the high professional authorities who are to adjudge the medals, begs to suggest and recommend as follow—

1. That a book be kept in the custody of the medical commissioners of the Royal Navy, wherein is to be transcribed the plan and regulations, and to serve also as a record of the periodical Adjudications, and wherein not only the names of the successful candidates may be inscribed, but also of all those of the first selection; among whom it cannot be doubted, that there will be found tokens of merit, which may go without their due reward from the limited number of medals, and all of whom will of course possess a considerable share of merit above the unselected, and be deserving of consideration.

2. That there be transcribed into this book of record such remarks as may have arisen out of the examinations, deliberations and discussions of those appointed to adjudge the medals, and which may prove a source of much vuluable information, not only for the interests of the Navy but of the community at large, while it will open a source of liberal and useful intercourse between the members of the different public professional institutions of the Empire, provided some degree of publicity should be given to them.

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CRITICAL REVIEW.

I.—*A Practical Treatise on the Diseases of the Eye.* By WILLIAM MACKENZIE, Lecturer on the Eye in the University of Glasgow, and one of the Surgeons to the Glasgow Infirmary. London, 8vo. pp. 861. 1830. Longman & Co.

II.—*Traité Pratique sur les Maladies des Yeux, ou Lecons données l'Infirmarie Ophthalmique de Londres en* 1825 *et* 1826, *sur l'Anatomie, la Physiologie et de la Pathologie des yeux. Par le Docteur* W. LAWRENCE, *traduit de l'anglais avec des notes, et suivi d'un Precis de l'anatomie pathologie de l'œil.* Par le Docteur C. BILLARD (d'Angers.) 8vo. pp. 499. London and Paris, 1830. J. B. Bailliere.

MR. MACKENZIE'S work is decidedly the best and most comprehensive on the diseases of the eye ever published in this country, and will be one of reference and standard authority. He describes about two hundred and eighty diseases, and many more, if we include the different species. Such a work was much wanted, for there is nothing equal to it in our language. It is a work of great practical utility, and will find a place in every medical library. The author has afforded ample proof of great observation, extensive experience, considerable research, and high talent. No man can say of this production, "a book is a book, although there is nothing in it." The contents alone occupy ten pages of small close print. There is no book making here, the pages are large and solid, and every one of them replete with valuable and varied information. It is quite impossible to review a work of this extent, we can only notice a few articles. The following account of gonorrhœal

ophthalmia forms a great contrast to Mr. Lawrence's description detailed in our last, but especially as to the treatment. We are extremely happy to observe our comments on the dangerous plan recommended, of abstracting blood, while any can be obtained from the vein, supported by such high authority. A moment's reflection must convince any man who calls to mind the difference of age, sex, temperament, habit, state of general health, and idiosyncrasy, that no rule can be safely laid down as to the quantity of blood which ought to be taken; for the effects of loss of blood are so various as to set all rules at defiance. Hence few practitioners of the present day will order a definite quantity; they use the caution, so well expressed by the phrase, pro ut ferant vires; and the man who orders the removal of a certain quantity, forgets one of the most important and valuable principles of science. The excessive and profuse depletion upon which we comment, is not deemed necessary by the author before us.

"*Treatment.* This ought to be exactly the same as in the Egyptian ophthalmia. Abstinence from all stimulants; blood-letting, both general and local; and the exhibition of purgatives, or emeto-purgatives, and diaphoretics, are to be had recourse to in the early stage. The discharge is to be frequently and carefully removed with the muriate of mercury collyrium, the conjunctiva is to be touched once or twice a day with the nitras argenti solution, and the lids are to be prevented from adhering by the use of the red precipitate salve. Counter-irritation ought to be employed from the very first, by means of sinapisms and blisters to the neck, between the shoulders, or behind the ears. If either the pain of the eye is pulsative, or the circumorbital region affected with nocturnal paroxysms of pain, calomel and opium are to be given, till the mouth is sore. Warm fomentations, the vapour of laudanum, opiate friction of the head, and the like, will serve to moderate the pain; but our chief reliance must be placed on depletion, counter-irritation, scarification, and smarting applications to the conjunctiva, for removing the disease. Snipping out a portion of the chemosed membrane, so as to procure a considerable flow of blood, is highly serviceable.

"Bleeding alone must not be depended on. 'The inflammation produced,' says Mr. Bacot, 'in the four instances that have come under my observation, is of the most violent and intractable description, and has produced the total destruction of the organ of vision, in the space of two or three days, notwithstanding the most vigorous employment of general and topical blood-letting, and other antiphlogistic means.'

"The acetate of lead and the sulphates of zinc and copper, at least in the early stage, will be found to aggravate the symptoms. These are the local remedies recommended by Mr. Allan; and the case already quoted, the publication of which does great credit to

his candour, shows how little adapted these applications are to this disease."—p. 370.

Our author describes purulent ophthalmia of new-born children, which is so important, that we insert the article in full.

" Infants, soon after birth, are subject to a puro-mucous inflammation of the conjunctiva, commonly denominated *ophthalmia neonatorum*, or the *purulent ophthalmia of infants*. We have reason to believe that this disease is, in general, an inoculation of the conjunctiva by leucorrhœal fluid, during parturition; and that, therefore, it may be prevented, in almost all cases, by carefully washing the eyes of the infant with tepid water, as soon as it is removed from the mother. This is too seldom attended to; the child is allowed to open its eyes, the nurse sitting down with it on a low seat before the fire, or in a draught of cold air from the door, and nothing is done to the child for perhaps half an hour or longer. Exposure to the light, to the heat of the fire, or to the cold draught from the door, are all likely enough injuriously to excite the eyes of the new-born infant; and, accordingly, some have been led to attribute the purulent ophthalmia which so frequently shows itself about the third day after birth, to these causes. It will, in general, be found, however, that when the child becomes affected with this ophthalmia, the mother has had leucorrhœa before and at parturition, and that the eyes have not been cleaned for some time after birth. To this the ophthalmia seems to be owing, for, like a disease communicated by contagion, it is sudden in its attack, and much more violent than we almost ever see catarrhal ophthalmia, so that it resembles in this respect the Egyptian, or the gonorrhœal inflammation of the conjunctiva. That some of the cases of purulent ophthalmia, in infants, are catarrhal, is by no means unlikely; occasionally they may arise from the application even of gonorrhœal matter from the mother; but by far the greater number, I believe to be the consequences of leucorrhœal inoculation.

" *Symptoms.* It is commonly on the morning of the third day after birth, that the eyelids of the infant are observed to be glued together by concrete purulent matter. On opening them, a drop of thick white fluid is discharged, and on examining the inside of the lids, they are found extremely vascular and considerably swollen. If neglected, as this disease but too often is, or treated with some such useless application as a little of the mother's milk, the swelling of the conjunctiva goes on rapidly to increase, the purulent discharge becomes very copious, and the skin of the lids assumes a dark red colour. In this state the eyes may continue for eight days, or a few days longer, without any affection of the transparent parts, except perhaps slight haziness of the cornea. About the twelfth day, however, the cornea is apt to become infiltrated with pus, its texture is speedily destroyed, it gives way by ulceration, first of all exteriorily to the pus effused between its lamellæ, and then through

its whole thickness, and this either in a small spot only, or over almost its whole extent, so that sometimes we find only a small penetrating ulcer, with the iris pressing through it, in other cases the whole cornea gone, and the humours protruding.

" It is melancholy to reflect on the frequency of destroyed vision from this disease, especially as the complaint is completely within control, if properly treated. The attendants unfortunately are not alarmed sufficiently early, by what they consider as merely a little matter running from the eye; and but too often it happens that medical practitioners are also betrayed into the false supposition, that there is nothing dangerous in the complaint, till the corneæ burst, and the eyes are for ever destroyed. Many children have been brought to me in this state; but the most deplorable instance which I have witnessed of the effects of this disease, when neglected or mistreated, was that of two twin infants, from Perthshire, for whom I was consulted, some time ago. One of the children had lost the sight of both eyes totally, while the other retained a very partial vision with one eye.

" That this disease is a puro-mucous or blenorrhœal conjunctivitis is sufficiently evident. It is scarcely necessary to spend time in refuting Mr. Saunders's notion of its being an erysipelatous inflammation. His opinion regarding the mode in which the cornea is destroyed in this disease appears of more importance, and equally incorrect. He maintains that it is by sloughing, not by suppuration and ulceration, that the destruction of the cornea is effected. The opportunities which I have had of watching the progress of the affection of the cornea have convinced me of the contrary. Onyx or infiltration of pus between the lamellæ of the cornea is the uniform harbinger of destruction; the lamellæ exterior to the pus give way by ulceration; the ulcer spreads and deepens, till the cornea is penetrated, and often almost altogether destroyed. Any thing like mortification, or sloughing, I have never seen. The coming away of the purulent infiltration, exposed by ulceration, must have given rise to Mr. Saunders's notion of successive sloughs.

" Infants labouring under this ophthalmia are fretful and uneasy, and rest ill during the night. The tongue is white, and bowels deranged. If the disease is neglected, the flesh wastes away, and the integuments become loose and ill-coloured.

" *Prognosis.* When a child is brought to us with this disease, our first business is carefully to clean and examine the eyes, explaining to the nurse the manner in which she is to remove the purulent discharge from time to time, and stating plainly what is likely to be the result of the morbid changes already present in the corneæ. If these important parts are only free from ulceration, and from purulent infiltration, however violent the inflammation may be and profuse the discharge, our prognosis may be favourable—the sight is safe. If there is superficial ulceration, without onyx, probably a slight speck may remain. If the ulceration is deep, an indelible opacity must be the consequence. If the iris is protruding through a small penetrating ulcer, the pupil will be permanently dis-

figured, and vision more or less impeded. If the ulcer is directly over the pupil, the probability is that the pupillary edge of the iris will adhere to the cicatrice, and vision be lost until a lateral pupil be formed in after-life by an operation. If there is a considerable onyx, we can promise nothing, for although under proper treatment, the matter may be absorbed, this is by no means a certain result; the purulent exudation may, on the contrary, increase, the cornea burst, and the eye become partially or totally staphylomatous. Whenever the person who brings the child to me announces that the disease has continued for three weeks, I open the lids of the infant with the fearful presentiment that vision is lost, and but too often I find one or both of the cornea gone, and the iris and humours protruding. In this case, it is our painful duty to say that there is no hope of sight,

"*Treatment.* 1. As it is of the utmost importance to remove the purulent discharge, from time to time, in the course of the day, I may perhaps be excused for explaining minutely how the eyes are to be cleaned. The surgeon lays a towel over his knees, on which to receive the head of the child, whom the nurse, sitting before him, lays across her lap. The fluid for washing the eyes is the tepid solution of one grain of corrosive sublimate in eight ounces of water. The lids are opened gently, and, with a small bit of sponge, the purulent discharge is removed. The lower lid, and then the upper, are next everted, and wiped clean with the sponge. The upper lid has a tendency to remain everted, especially if the child cries. This is overcome by pushing the swoln conjunctiva into its place, and bringing down the edge of the lid. All this ought to be repeated three or four times, or oftener, in the twenty-four hours, by the nurse.

"2. The corrosive sublimate collyrium, used in cleaning the eyes, tends gently to repress the discharge. Alone, however, it is not sufficient for that purpose, and we have recourse, therefore, to astringent applications of more power. The solutions of nitras argenti and sulphas cupri are those I have found most useful. Once, or at most twice a day, I apply, with a large camel-hair pencil, the solution of four grains of the former, or six of the latter, in an ounce of distilled water, to the whole surface of the inflamed conjunctiva, immediately after having cleaned it as above described. Not only the local, but even the constitutional good effects of removing and restraining the purulent discharge are very remarkable. The first night after the use of the collyrium and drops, we generally find that the infant has been much quieter than it had been when the disease was neglected.

"3. To prevent the eyelids from adhering during the night, the red precipitate ointment is to be applied along their edges at bed-time.

"4. The above remedies are perfectly sufficient to remove this disease, if had recourse to within two or three days after the first symptoms have shown themselves. I have seen two applications of the nitras argenti solution, viz. on the third and fourth days

after birth, or first and second days of the disease's showing itself, remove the complaint completely, although thick matter had been secreted by the conjunctiva. In cases attended by a discharge less distinctly puriform, the use of the red precipitate salve at bed time has sometimes been sufficient. In cases, again, which have been neglected for perhaps eight or ten days, it is necessary to take away blood from the conjunctiva by scarification, or from the external surface of the eyelid by the application of a leech. The latter may be had recourse to in the first instance, and unless followed by marked abatement of the redness and swelling on the inside of the lids, the conjunctiva may next day be divided with the lancet. The taking away of blood in either of these ways is productive of much benefit, and ought by no means to be omitted, if there be any tendency to chemosis or any threatening of haziness of the cornea. A more profuse loss of blood than can be obtained by the methods here recommended, I do not consider necessary.

" 5. A remedy of great service in this disease is the application of blisters behind the ears, or to the back of the head. Cantharides plaster spread on a bit of candle-wick, and laid between the head and the external ear, is a convenient mode of breaking the skin; and by continuing this application either constantly, or several hours daily, a continued discharge will be procured. As soon as there is a discharge of matter from the blistered parts, we find an amendment in the affection of the eyes; but if the ears are allowed to get well, we often observe a renewal of the inflammation of the conjunctiva, and a more copious flow of puriform matter, which again subside if the blisters are reapplied.

" 6. An occasional dose of castor oil will be found useful.

" 7. Recovery from this disease is often tedious. For weeks, we continue the treatment above recommended, and although there is no change for the worse, nor any affection of the cornea, and perhaps but little purulent discharge, still the conjunctiva continues inflamed, and the symptoms on the whole stationary. Under these circumstances, I have found small doses of calomel highly useful. From a quarter to half a grain daily will be sufficient.

" In threatened disorganization of the cornea, Mr. Saunders has strongly recommended the extract of cinchona. The sulphate of quina will probably answer better, and be more easily administered. Half a grain may be given twice or thrice daily.

" 9. The relaxed conjunctiva, after the purulent discharge has entirely subsided, may be advantageously touched once a day with vinum opii, in place of the metallic solutions. I have sometimes treated cases with the vinum opii throughout, but I consider this remedy as more applicable for the chronic stage of the complaint than for the acute."—p. 365.

We endeavoured to give a list of the diseases of the eye described by Mr. Mackenzie, but it was impossible to condense one line of his extensive contents, or to occupy ten pages of our space in the mere enumeration of the diseases of which he

has so ably and lucidly treated. The following comprehensive account of scrofulous ophthalmia merits attention:—

"Scrofulous ophthalmia is distinguished from all the other inflammations of the eye by symptoms so very striking, that any one who has seen the disease once or twice, cannot mistake it, even although the general habit of the patient be concealed from him. Slight redness, great intolerance of light, pimples or small pustules on the conjunctiva, and specks on the cornea, resulting from these pimples, are the symptoms which characterize this ophthalmia; a disease to which scrofulous children are so liable, that out of the 100, 90 cases of inflammation of the eyes in young subjects are of this kind. It is very often the first manifestation of a scrofulous constitution; and, neglected or mistreated, becomes the frequent source of permanently impaired vision, or even of entire loss of sight. This disease seldom attacks infants at the breast; from the time of weaning till about eight years of age is the period of life during which it is most prevalent. Sometimes only one eye is attacked; at other times, both are affected from the first. Not unfrequently, the disease passes from the one eye to the other. When both are inflamed at once, the one is generally much worse than the other.

"*Symptoms*—1. *Redness.* At the commencement of the disease the redness of the conjunctiva is very slight. It often exists only on the inside of the lids. Sometimes a few scattered vessels are seen coursing through the conjunctiva towards the cornea; in other cases, no enlarged vessels are perceived, so that the disease in this incipient stage, is distinguished more by intolerance of light than by any direct signs of inflammation. In most cases three or four enlarged vessels are discovered, running from either angle towards the cornea, or over its edge towards its centre. They are evidently superficial, and even project above the level of the conjunctiva. Not unfrequently they form a considerable fasciculus; and we know from abundant experience of this disease, that at the end of such a cluster of vessels, a pimple is very likely to appear, if already there does not exist something of that sort too small as yet to attract notice. Although in by far the greater number of cases, the redness is scattered, it sometimes happens that it is pretty general over the conjunctiva, even from the first. As the disease advances, the redness becomes increased, and the sclerotica also appears somewhat inflamed.

"2. *Pustules—Ulcers—Protrusions—Specks.* This ophthalmia is an eruptive disease. It affects the conjunctiva, not as a mucous membrane, but as a continuation of skin over the eye. One of the most remarkable symptoms of the disease is that at the apex of each of the bundles of blood-vessels, there arises one or more phlyctenulæ or minute pustules. In many instances, a single minute elevated point, of an opaque white colour, near the centre of the cornea, is all that is to be seen of this kind; in other cases, numerous pustules or phlyctenulæ are scattered over different parts of the conjunctiva, some on the cornea, and others over the sclerotica. The edge of the cornea is a very common situation for them. They vary in size according to

the part of the conjunctiva in which they appear, being commonly smallest on the cornea.

" Beer has particularly mentioned phlyctenulæ as distinguished from pustules in this eruptive ophthalmia. We unquestionably meet with pimples of different sizes in this disease Some patients have them all small like what are termed phlyctenulæ, and others have them all large like pustules. The former contain a smaller quantity of fluid, and that thin and colourless. The fluid contained in the latter is greater in quantity and more like pus. I have not been able to decide whether there is any specific difference between the phlyctenular and the pustular cases. I have frequently observed that the pustular cases are not, in general, attended with so much intolerance of light. The cases in which children lie for weeks and months with their eyes shut, are phlyctenular. The pustular variety certainly does not differ from the phlyctenular merely in the inflammatory action being more severe in the former; for we meet with cases of very large pustules, in which the inflammation and pain are moderate, compared to what attend some cases of phlyctenula. The ulcer which succeeds to phlyctenula is sometimes superficial, but at other times it grows deep, and penetrates into the substances, or even through the cornea, so that no distinction can be grounded on the kind of ulcer which follows the bursting of these pimples.

The phlyctenulæ and pustules which occur in scrofulous ophthalmia may be absorbed; and then, if situated on the cornea, they leave a little albugo, the effect of that effusion of coagulable lymph which surrounds every circumscribed abscess, but which will, in general, be totally removed by absorption in the course of time. Occasionally it happens, that after an albugo is removed by absorption, a transparent dimple is left in the cornea, which is long of filling up. In some cases, we see the albugo begin to spread over the cornea in an irregular manner; pretty considerable red vessels running into it, and additional lymph being supplied to it, so as to form what I call *vascular speck*, which is a very tedious and troublesome symptom.

" Fully as often, these pimples burst, and become small ulcers, sometimes superficial and considerable in extent, more frequently deep and funnel-shaped. This forms one of the most distressing and formidable symptoms of the disease. Over the sclerotica, indeed, an ulcer, arising from the rupture of a phlyctenula, or pustule, is of less consequence, but, on the cornea, the transparent inlet of light, an ulcer of any description is an event exceedingly to be deprecated. It is very apt to disfigure the eye: and by the opaque cicatrice, which it leaves behind, permanently to obscure vision.

" The formation of an ulcer, especially if it be situated on the cornea, always produces an increase of pain and redness; the pain being greatly aggravated on any attempt to move the eye, and accompanied by a gush of hot tears.

" The ulcer produced by a pustule is apt to become surrounded by a soft reddish edge, easily excited to bleed, especially if situated in the loose conjunctiva over the sclerotica; but on the cornea, the edge of

the ulcer is sharper and more abrupt, and the surface of a gray or ash colour, is frequently covered with an adhesive flocculent matter. It but too often happens that this kind of ulcer is permitted, by neglect or mismanagement, to penetrate gradually through the whole of the laminæ of the cornea, into the anterior chamber. Through the little fistulous opening of the cornea thus formed, the aqueous humour is discharged, and a small portion of the iris protruding, looks not unlike the head of a fly. Hence this symptom is termed *myocephalon*. This piece of iris unites, by adhesive inflammation, to the opening through which it is prolapsed, the ulcer around it gradually contracts and whitens at the edge, the protruded portion of iris disappears, and a white indelible cicatrice of the cornea partially or entirely prevents vision. A cicatrice of the cornea is called a leucoma, in contradistinction to albugo; the latter opacity being the result of effusion, not of ulceration. If the ulcer has extended deep into the substance of the cornea, and much more if it has penetrated through it completely, the leucoma which follows remains for life, although in the progress of growth, and after a length of time, it may contract considerably. The cicatrice resulting from a superficial ulcer may entirely disappear. Indeed the cicatrice from a superficial ulcer is sometimes transparent from the first.

"If several pustules form on the cornea at the same time, it sometimes happens that they unite with one another before they burst, so that the purulent matter is infiltrated between the lamellæ, and thus a kind of onyx is formed. At other times, onyx appears at the lower edge of the cornea, independently of the existence of pustules.

"In some cases of ulcer of the cornea, the progress of the ulcer is unimpeded till the whole thickness of the cornea is penetrated, except the lining membrane; which seems to arrest the ulcerative process, but being unable to withstand the push made by the aqueous humour, is projected through the ulcer in the form of a small vesicle. This is what is called *hernia corneæ*. At last this vesicular protrusion gives way, the aqueous humour escapes, prolapsus of the iris follows, and a dense opaque cicatrice will be the result.

"Where there has been an extensive prolapsus of the iris, through an ulcer of the cornea, the pseudo-cornea which is formed over the protruded portion of iris, is sometimes unable to withstand the pressure of the aqueous humour, but is pressed forwards so as to form a partial *staphyloma*."

Our author next accounts for the pain, intolerance of light, epiphora, occasionally iritis, ophthalmia tarsi, and then makes some pertinent remarks upon the strumous diathesis, food, air, exercise, clothing, climate, exciting causes, as measles, scarlatina, small pox, dentition, and injuries applied to the eyes. He then describes the treatment.

"We are obliged to speak of the treatment of strumous ophthalmia in very different language from what we employ in advising remedies

for almost any other inflammatory disease of the eye. In other ophthalmiæ, we say, follow this plan of treatment which we recommend, and the disease will speedily be overcome. We speak thus of the catarrhal ophthalmia, and of several others, but we cannot speak in this way of the scrofulous. We are forced to confess that in many cases this ophthalmia proves rebellious. If it be asked why it does not yield even to the best directed treatment, we answer this question by proposing another; namely, why does an inflamed gland of the neck, in a scrofulous individual prove so troublesome, going on to suppurate in spite of every means adopted to promote resolution, and after it has suppurated and burst, continuing to discharge for years? The *strumous constitution* is the cause of the extreme tediousness of this ophthalmia, as well as of the frequently intractable nature of other strumous diseases; and till we discover means for curing scrofula, this ophthalmia will continue occasionally to mock, by its stubbornness, even the best and most carefully pursued plan of cure.

"Is it curable then? Are we to do nothing for it; but shake our heads, and leave the eyes to be destroyed? Not at all. Much may be done to relieve this disease. Although it is very difficult to cure it thoroughly, especially when the patient continues exposed to the influence of the same causes which originally produced it, yet it is rare indeed that medical treatment does not moderate the symptoms, and avert those changes in the transparent front of the eye, which in neglected cases are so often the cause of loss of sight. But when the practitioner does meet with cases, as sometimes he must do, which receive no benefit for weeks and months, but perhaps rather get worse, notwithstanding all that is done for them, he must not blame himself too much, but reflect on the intractable diathesis with which, in such cases, he is called to contend, and which he cannot change, and but too often can scarcely in the smallest degree ameliorate.

"In the treatment of this disease, it is necessary constantly to bear in mind that it depends on a constitutional cause. To relieve the local affection, therefore, will not be sufficient. We must endeavour to improve the general health.

"1. *General Remedies.* 1. *Bleeding.* General blood-letting is hardly ever required; nor need local bleeding be had recourse to, unless considerable febrile excitement, as well as local distress, be present. When the inflammatory action runs higher than ordinary, or where it is suddenly or violently augmented by the formation of pimples or ulcers on the cornea, it is proper to moderate the impetus of the blood by the application of leeches to the eyelids or the temple. If the constitution is not as yet impaired by long continuance of the disease, and the employment of many debilitating remedies, repeated recourse must be had to the use of leeches, so long as the redness of the conjunctiva is considerable, and the intolerance of light acute. It must be kept in mind, however, that not unfrequently we may dispense with bleeding entirely, by putting the patient under the influence of tartar emetic; and that by

depletion alone, no case of this disease can ever be cured. On the contrary, repeated bleedings, without the use of other remedies, reduce too much the general strength, and render the eye more susceptible of destructive changes.

"2. *Emetics and nauseants.* One of the most powerful and successful methods of treating scrofulous ophthalmia is by means of tartar emetic, either in such doses as to produce vomiting; in smaller quantities frequently repeated, so as to excite nausea; or combined with a purgative. There is perhaps no remedy in the whole materia medica which possesses equal powers of a sedative kind in this disease. It reduces very considerably the necessity of general and local blood-letting.

"I generally commence the treatment of a case of scrofulous ophthalmia with an emetic, either of ipecacuan or tartrate of antimony, and with uniform good effects.

"In cases where there is considerable quickness of pulse, I frequently put the patient on a course of nauseants, or of emeto-cathartics. For instance, to an adult a mixture may be given of from one to four grains of tartar emetic, with from one to two ounces of sulphate of magnesia, dissolved in a pound of water. Of this solution two or three tablespoonfuls may be taken every half hour till vomiting is excited; after which, the dose is to be repeated at intervals of three, four, or six hours, as circumstances may require. This is the method to be followed in acute cases. In chronic cases, the nauseant may be exhibited at longer intervals. It may then be more conveniently exhibited in pills; each pill containing from a quarter to half a grain or more of the tartar emetic.

"In cases of children, the same solution of tartar emetic and salts may be employed, or a solution of tartar emetic by itself, or powders of the same rubbed up with a little sugar. From the twelfth to the sixth of a grain, may be given according to the age of the child, thrice a day. When there is much quickness of pulse, this plan will often prove effectual, while purgatives or tonics would produce little or no good.

"3. *Purgatives.* In children labouring under strumous ophthalmia, there is commonly a full and hard abdomen, and a loaded state of the stomach and bowels. Even in feeble and emaciated children, it will usually be found, that, by the exhibition of purgatives, a large quantity of unnatural fœculent matter will be discharged. In such cases the administration of purgatives is followed by marked benefit; without these, other remedies avail but little. In recent cases, a purge of calomel, with jalap, rhubarb, scammony, will often be sufficient to remove the attack of ophthalmia altogether. Such a purgative is to be repeated at intervals of two, three, or more days, according to the urgency of the symptoms. It not only empties the bowels; but reduces very powerfully the impetus of the blood in the affected part, increases the action of the absorbents, and restores to a healthy state the secretions of the digestive organs. It proves, in short, alterative, as well as depletive; and its use as such may be persisted in, in many cases, for a length of time, with very decided

benefit. I have found the purgative plan to be more useful than any other, in those cases in which an impetiginous eruption over the body accompanies the affection of the eyes. Care, however, must be taken not to push its debilitating action too far.

"4. *Tonics.* There are several remedies of this class, which prove strikingly beneficial in the treatment of scrofulous ophthalmia.

"After a trial of numerous and various internal remedies in this disease, I have found none so useful as the sulphate of quina. It exercises a remarkable power over the constitutional disorder which attends this ophthalmia, and thereby over the local complaint. The dose which I employ is generally a grain thrice a day, rubbed up with a little sugar; in very young children, half a grain; and in adolescents or adults, two grains. Cinchona is not a new remedy in this ophthalmia. Dr. Fothergill recommended it many years ago in very strong terms; but its powers, in the form of powdered bark, or in any other form in which I have tried it, are insignificant in comparison to those of the sulphate of quina. In most instances, its effects are very remarkable; and, indeed, (although I have met with a few cases which appeared to resist its beneficial influence), in most of the little patients to whom I have administered it, it has acted like a charm; abating, commonly in a few days, the excessive intolerance of light and profuse epiphora, promoting the absorption of pustules, and hastening the cicatrization of ulcers of the cornea. The use of this medicine may be begun as soon as the stomach has been cleared by an emetic, and the bowels put to rights by repeated doses of calomel with rhubarb, or some other such purgative, unless the pulse is very quick, when small doses of tartar emetic will be preferable, or when an impetiginous eruption is observed on the surface of the body, in which case a course of purgatives ought to be adopted."

Chalybeates are used next to quinine; the precipitated carbonate of iron and tartrate of potass and iron, are the forms of iron said to be most useful. Rhubarb and super carbonate of soda are also recommended, and the mineral acids, especially the sulphuric, will also be found useful. Tepid baths are soothing in the acute stage, while cold bathing and change of air, are highly beneficial after the attack is subdued. A dry, warm, inland situation, is preferable to the sea coast. The glow from the sea is very apt to aggravate slight attacks, and give rise to relapses.

"5. *Alteratives.* Calomel is very often administered in strumous ophthalmia; more frequently, however, as a purgative than as an alterative. That this medicine is injurious to children, does not admit of doubt. That their constitutions are often shattered by an indiscriminate use of calomel, and that in this way they are rendered more susceptible of suffering from the exciting causes of scrofula, is a truth which, at the present day, is overlooked to a most lamentable degree.

" Given as an alterative in strumous ophthalmia, I have frequently known mercury prove injurious, because mistimed; that is to say, it was administered before the irritation depending the acute stage of the disease was moderated by depletion, After local blood-letting, and the use of evacuants, we sometimes find decided advantage from the exhibition of calomel with opium. This combination may even be pushed, in some cases, till the mouth is affected, with benefit.

" 6. *Diaphoretics.* Keeping up a healthy action of the skin is of much importance in this disease. This may be done by the tepid bath every second or third day, followed in adults by the use of the flesh-brush. Dover's powder at bedtime sometimes proves useful, by promoting a healthy action of the skin, as well as soothing irritation, and procuring sleep. In cases where the perspiration is immoderate, this medicine is not less remarkable for its good effects than where the surface of the body is dry and husky. Tartar emetic operates also with good effect on the skin, and sympathetically on the conjunctiva.

" 7. *Diet.* During the continuance of an attack of active inflammation, abstinence from animal food, and from all kinds of fermented and heating liquors, should be strictly enjoined; but when the acute symptoms have subsided, and the disease assumed a chronic character, the patient ought to be put upon rather a generous diet. As there can be no doubt that unwholesome food is one of the chief causes of scrofulous ophthalmia among the poor, it is of much importance to procure for the patients in these circumstances, a more invigorating diet. It is necessary strictly to forbid the use of articles likely to derange the stomach; as pastry of every sort, comfits, vegetable jellies, and preserves; and indigestible substances, as unripe fruits, nuts, and the like.

" 8. *Temper.* This disease is extremely apt to render the child fretful, and by mismanagement to lay the foundation of bad temper, which, on the other hand, tends much to prolong and aggravate the symptoms. We find in good-natured children, and in those who are under proper management, that the disease disappears much more readily; while in spoiled children, who cry perhaps for hours after the eyes are examined, or after the application of any remedy, it is apt to become almost incurable.

" 9. *Position in bed.* The head should be raised as much as possible during the night. On no account, ought the child to be suffered to lie burying its face in the pillow.

" *Local remedies.* 1. *Shading the eyes.* The morbid irritability which marks this disease so strikingly through all its stages is to be relieved by wearing a broad green shade over the forehead; and by avoiding all employment of the eyes upon minute objects, especially in a strong light. It will not be necessary to confine the patient to a dark room, nor to forbid him from going abroad in fine weather. We often see children labouring under strumous ophthalmia with handkerchiefs bound over their eyes, especially when they are taken out of doors. This practice is decidedly injurious, heating the eyes too much, and adding to the intolerance of light.

" 2. *Evaporation.* In recent and slight attacks, the inflammation,

pain, and irritability, may be moderated by the use of evaporating and slightly astringent lotions, applied tepid or cold according to the feelings of the patient. In most instances, they agree better in the tepid state. A decoction of poppy-heads, with a few drops of alcohol; a weak solution of acetate of ammonia; a little rose water; or a solution of one grain of corrosive sublimate in eight ounces of water, will answer the purpose. The application of cold water to the eyelids, face, and head, generally gives relief in this ophthalmia; but in many cases, the reaction which follows is hurtful. The same may be said of alum curd, and cold sugar of lead poultices, enclosed in a thin linen bag, and laid over the lids at bedtime.

" 3. *Fomentations.* When the symptoms are in any degree severe or of long continuance, warm soothing applications will be found more useful than cold ones. With a bit of sponge or flannel, the eyes may be fomented once or oftener in the day with hot decoction of chamomile flowers, or of poppy-heads, or with a hot infusion of opium. Much relief is experienced from exposing the eyes to the vapour of laudanum, or of camphor, raised by means of a cupful of hot water. Warm poultices during the night are often useful. They are to be made with crumb of bread, warm water, or sugar of lead water, and a little fresh butter; and never with milk.

" 4. *Scarification* of the inside of the eyelids, especially in chronic cases, where the palpebral conjunctiva is much loaded with red vessels, will be found one of the most valuable means of cure. In cases of vascular speck, division of the fasciculus of vessels running over the sclerotica to the albugo, cannot be dispensed with; no other remedy having the same power of checking this very annoying and dangerous symptom.

" 5. *Counter-irritation.* We derive great benefit from blistering in this disease. The intolerance of light is often suddenly and almost completely removed by this remedy, the child being enabled, in a few hours after the blister rises, to open its eyes, although it had not done so for months before. The temples, behind the ears, the crown and back of the head, and the nape of the neck, are situations generally chosen for the application of blisters. The last is the most painful, but not the least effectual. In general, the discharge ought to be kept up, by the use of some stimulating dressing; or if this is not done, a quick succession of blisters ought to be employed.

" Friction with tartar emetic ointment has sometimes been had recourse to in this disease, for the purpose of bringing out a crop of pustules. This is a practice much more painful than blistering, the pustules if considerable in size leave indelible pits, and from mismanagement of the remedy large portions of the skin are sometimes made to slough; so that, on the whole, blistering is preferable.

" Issues in the neck or on the arm are beneficial, both in relieving the symptoms of strumous ophthalmia, and in preventing relapses

" 6. *Stimulants* applied to the inflamed surface of the eye, in this disease are decidedly useful. Indeed it is scarcely possible to effect a cure without them. The impetiginous state of the conjunctiva, or in other words of the skin covering the eye, which constitutes stru-

mous ophthalmia, not merely bears stimulants, but like most other chronic cutaneous diseases, is uniformly benefited by their application, if they be well chosen, carefully used, and properly timed. They often act as the best local sedatives, if applied after the acute inflammatory excitement is subdued by the general remedies already enumerated. Employed before this is effected, they will scarcely fail to prove hurtful. In this respect, the treatment of scrofulous ophthalmia is directly contrary to that of the puromucous inflammations of the conjunctiva; for in them we employ stimulants from the very first, but in the scrofulous ophthalmia we must delay till the symptoms of irritation are somewhat abated.

"Various stimulants have been used in this ophthalmia; but the nitras argenti solution and the red precipitate salve are the most deserving of confidence. Next to them, I would place the vinum opii. Whichever be selected, its application must be continued with regularity once a day, or once every two days, the child being laid in the horizontal position, the head fixed between the knees, and the lid opened so as fully to expose the diseased membrane. The solution of four grains of the nitras argenti in one ounce of distilled water is the stimulant which I generally employ. It evidently possesses very considerable power in abating the vascularity of the conjunctiva, hastening the absorption of pustules, cicatrizing ulcers, and clearing specks of the cornea. The relief which it affords to the intolerance of light is not the least of its good effects. In this, it probably operates by inducing the healing of minute ulcerations, and the contraction of enlarged blood vessels, both of which give rise to the sensation of sand in the eye, to spasm of the lids, and epiphora. Whenever ulceration is present on the cornea, recourse should be had to the solution of nitras argenti. A stronger solution than that of four grains to the ounce of distilled water may be employed, and with a small camel-hair pencil applied directly to the surface of the ulcer, without permitting the solution to spread over the rest of the eyes.

"7. *Solid Caustic.* Where an ulcer threatens to penetrate deep into the substance of the cornea, or when it has already perforated into the anterior chamber, with or without prolapsus of the iris, it is proper to touch the ulcer, or the myocephalon, every second or third day, with a pencil or lunar caustic, filed to a sharp point. Scarpa has given the best account of the effects of this remedy, to which I shall again have occasion to refer, under the head of *ulcers of the cornea.*

"8. *Belladonna.* The case of James Tassie, already detailed at page 394, strikingly illustrates the utility of applying the extract of belladonna in cases of central ulcer of the cornea. Even when the edge of the pupil is involved in such an ulcer, the dilating power of the belladonna may be sufficient to free it, and thus to preserve the pupil entire. In cases of perforating ulcer near the edge of the cornea, I am inclined to refrain from the use of belladonna; for, while the dilatation cannot in this case be carried so far as to remove the iris from the vicinity of the ulcer, I believe the state of palsy,

into which the iris is thrown, is apt to favour rather than prevent prolapsus.

"*Relapses.* No disease is so apt to recur as scrofulous ophthalmia. It is therefore necessary for children who have once suffered from it to be submitted, from time to time, to the inspection of their medical attendant, who must endeavour promptly to subdue every sympton of a re-attack, and to conduct his patients safely through that period of life which is most exposed to the disease. In this way, much mischief will easily be prevented, which, neglected, may require years to remove, or prove altogether beyond remedy."—pp. 400.

Variolous, morbillous, and scarlatinous ophthalmiæ. are generally neglected by practitioners, though they are among the most common diseases destructive to vision. We therefore place them before our readers.

"In former times small-pox proved but too often the cause of serious injury to the eyes, or even of entire loss of sight. It was by far the most frequent cause of partial and total staphyloma. But since the introduction of inoculation, and still more of vaccination, such injurious effects from variolous ophthalmia are much more rare.

"*Symptoms.* In most cases of small-pox, pustules form on the external surface, and on the margins of the eyelids. When they are numerous, as in confluent small-pox, they cause such swelling of the lids as completely to close the eyes. As the disease proceeds, matter is discharged partly from the meibomian follicles, partly from the variolous pustules, the eyelids are glued together so that the eys cannot be opened for days, and merely from this state, without any pustules being formed on the conjunctiva, the eyes are irritated and painful. At last, as the disease subsides, the swelling of the lids falls so that they are again opened, and the eyes may be found uninjured. It is in this way that the vulgar talk of persons being blind in small-pox for so many days, and then perfectly recovering their sight. But although the cornea has not suffered in these cases, the eyelids and the lachrymal apparatus are often left in an injured state; and not unfrequently small-pox proves the exciting cause of strumous affections of the eyes and eyelids, which may continue troublesome for years. The small-pox pustules on the lids are apt to destroy the eyelashes, to leave red marks and scars, render the edges irregular, and liable to inflammation and excoriation from slight causes, and to produce ophthalmia tarsi, and very frequently trichiasis and distichiasis. Chronic blenorrhœa of the lachrymal sac, and pustular conjunctivitis, are also frequent sequelæ of small-pox.

"Schemes have been proposed for preventing the pustules of small-pox from spreading to the face, or at least for moderating the effects of the eruption. We find that this disease is apt to attack with peculiar severity any part of the surface of the body labouring at the time under accidental irritation, and hence it has been supposed that soothing applications may moderate the eruption and its

effects. Covering the face with a cloth spread with cerate, and fomenting it from time to time with chamomile decoction, have been used for this purpose, and can do no harm. When the pustules on the eyelids are fully matured, we may afford considerable relief by pricking them one by one with a needle, so as to evacuate their contents; and by carefully removing the crusts which form after the pustules burst, having first softened them with some mild ointment. The lids are frequently to be bathed with tepid milk, and bits of sugar rag moistened with the same are to be laid over them.

"There is in every case of small-pox, some redness of the conjunctiva. But danger is chiefly to be apprehended when a variolous pustule or pustules appear on the cornea, where, unfortunately, they are much more apt to occur than on the conjunctiva covering the sclerotica. A pustule on the cornea, forming at the time of the general eruption, is extremely apt to prove destructive. When it bursts, the ulcer thus formed but too often deepens and spreads, the cornea is penetrated, the iris advances and adheres, the pupil may thus be obliterated, or the cornea being much changed in structure, and adherent, in a great part of its extent, or completely, to the iris, partial or total staphyloma may be the result. In bad cases, almost the whole of the cornea is destroyed, by infiltration of matter and ulceration.

"During the suppurative stage of small-pox it is difficult to say what extent of mischief is going on in the eye, under the closed and swoln eyelids. If the patient feels pain in the ball itself, with dryness, stiffness, and a sensation of sand in the eye; if the uneasiness be much increased on attempting to move the eye, or on exposing it to light even through the swoln lids; and if in addition to the matter discharged from the pustules on the edges of the lids and from the meibomian follicles, there is a frequent discharge of hot tears, then it is probable that there is acute variolous conjunctivitis, and perhaps pustules on the cornea. But if the eye is easy, only shut up from the state of the lids, there is probably no danger. The eyes, however, are not safe, even after the small-pox pustules over the body have blackened and the scabs fallen off. I have seen both pustule of the cornea and onyx produced after the general eruption was completely gone. This has been called with sufficient propriety, *secondary variolous ophthalmia.* It sometimes occurs as late as five or six weeks after the patient has recovered from the primary disease. It is certainly not so severe an affection as the primary, but is still dangerous in regard to vision. A dull whitish point is observed in the cornea, with surrounding haziness; the whiteness becomes more extensive, amounting perhaps to the 12th of an inch in diameter, and then the part becomes yellow. If two or more points should form, the whole cornea is rendered nebulous; or this effect may be produced from one large variolous pustule. An onyx at the same time may appear at the lower edge of the cornea. The sclerotica is reddened. Pain and epiphora are excited on exposure to light.

The secondary variolous ophthalmia seldom leads to destruction of the cornea. By proper treatment, the matter of the pustules or

onyx is sometimes absorbed. In other cases, ulceration takes place, leaving, after cicatrization, a permanent leucoma or white speck. The surrounding haziness of the cornea is gradually dissipated: vision is injured according to the situation and size of the leucoma. By the formation of an artificial pupil, vision may in many cases of this sort be restored. Even when partial staphyloma has formed, this operation is often applicable.

"*Treatment.* The best general treatment of small-pox must be followed; a moderate temperature, tepid ablution, and a cool regimen. Emetics are occasionally useful; even blood-letting may be cautiously employed in some cases, and laxatives are always to be administered. If the eyes are particularly affected, they must be frequently bathed with tepid water or poppy decoction, and the edges of the lids smeared with a little cold cream. In many cases, the lids are so much swoln, and so completely sealed up, that it would be in vain to attempt any application to the conjunctiva, till the eruption begins to fade and the swelling to fall. Leeches may be applied, not only without impropriety, but with decided advantage, behind the ears or on the temples, and followed, if it appear necessary, by blisters. About the eighth or ninth day of the eruption, free purging will be found useful, not merely in reducing the suppurative fever, but in relieving the uneasy and inflamed state of the eyes. The lids now begin to be opened, so that a little fluid can be injected between them and the eyeball. A weak solution of nitras argenti, or diluted vinum opii, may be used for this purpose.

"As to the treatment of secondary variolous ophthalmia, I have found tartar emetic, given so as to vomit and purge freely, to be productive of the best effects, evidently abating the inflammation, and promoting the absorption of the pustules and onyx. Leeches and blisters are also useful. As soon as the acuteness of the inflammation is somewhat abated by these means, much advantage will be gained by putting the patient on a course of sulphate of quina. Undiluted vinum opii appears to answer best as a local application. The eye is to be touched with it once a day. Belladonna is to be applied to the eyebrow, in order to keep the pupil dilated.

"A certain degree of conjunctivitis always attends measles and scarlet fever, but is in general much less severe than the variolous inflammation of the eye. In measles and scarlet fever, the change which the skin undergoes, amounts to little more than vascular congestion, and the conjunctiva, a prolongation of skin, betrays therefore little more during the presence of these diseases, than some degree of redness, with intolerance of light, slight pain, and epiphora. Occasionally, however, we have phlyctenulæ, onyx, and ulcers of the cornea, brought on by the morbillous and scarlatinous ophthalmiæ, particularly when the subject is scrofulous. Indeed, it is difficult to distinguish either of these ophthalmiæ from the scrofulous, till the eruption on the skin makes its appearance. On the other hand, we often hear of the dregs of the measles and of scarlet fever producing affections of the eye and eyelids. By this, is generally meant that the scrofulous diathesis has been called into action by these diseases,

and that ophthalmia tarsi or phlyctenular conjunctivitis has been the result.

"In measles there is a catarrhal affection of the Schneiderian membrane, with sneezing and cough, and occasionally the attending conjunctivitis is not so much eruptive as blenorrhœal. I have seen cases in which the eye had been destroyed by severe puro-mucous ophthalmia excited by measles.

"In some rare cases of scarlatinous ophthalmia, the iris and capsule of the lens become affected. I operated some time ago on a boy of about eight years of age, in whom specks of the anterior hemisphere of the capsule were brought on in this way.

"*Treatment.* The affection of the eye in measles and scarlet fever, does not in general require active treatment. The eyes should be guarded from strong light, bathed occasionally with tepid water, and the bowels kept freely open. If the symptoms are more than commonly severe, leeches may be set on the temples, and blisters applied behind the ears, or to the nape of the neck. The nitras argenti solution will be found highly useful, whether the ophthalmia be eruptive or puro-mucous. Sulphate of quina may be given internally with good effects.—p. 406.

The remaining sections in this chapter are as follow:—rheumatic, and catarrho-rheumatic ophthalmia, scrofulous corneitis, rheumatic, syphilitic, pseudo syphilitic, scrofulous and arthritic iritis, choroiditis, retinitis, aquo-capsulitis, inflammation of the crystalline lens and capsule, inflammation of the hyaloid membrane, traumatic, compound and intermittent ophthalmiæ. In conclusion, we have to state, that every disease of the eye is described in this work. We strongly recommend it for its accuracy, perspicuity, comprehensiveness, and the very important practical details with which it abounds. It is an accurate, well digested, well written work, evincing deliberation, research, judgment and fidelity. It is one of the best monographs which modern times have produced, and is a valuable addition to our medical literature. It will add to the well-earned reputation of the author, and it is highly creditable to the university to which he belongs.

Mr. Lawrence's excellent lectures on the anatomy, physiology, and pathology of the diseases of the eye, formed the best and most comprehensive work, until the appearance of that whose analysis we have concluded. We need scarcely observe, that these excellent lectures were published in the Lancet, in 1825, and are now translated into French, and further extended by Dr. Billard, the accurate translator, who was pupil to the author, and obtained his permission to publish the edition before us.

It would be a work of unnecessary labour, to trouble the reader with Mr. Lawrence's opinions, which must be familiar to every one, and we may merely observe, that they comprehend a faithful account of fifty-seven diseases of the organ of vision and its appendages, to which are added, by the translator, the following:—defects of primitive conformations, anopsie, monopsie, augmentation of the number of the eyes, anormal situation of the eyes, defect of conformation of the lids, anomalies of the lachrymal gland, anomalies of the iris, optic nerve, and lens, congenital alterations of the humours of the eye, general considerations on the lesions, and accidental tissues of the globe and dependencies, congestions, inflammations, divers alterations of the eye, accidental productions, divers modes of disorganization of the eye, hypertrophy, and atrophy. This is a cheap and valuable work, which ought to be in the possession of those who have not an English edition, as it contains a good deal of highly valuable information. It is well translated, and the additions of Dr. Billard are interesting and instructive. We strongly recommend it to students as a substitute for the former, which is treble the expense, and too voluminous for this class of readers. Young practitioners, who are setting out in their career, will find it a valuable addition to their libraries, and even the most experienced must be instructed by the additions, which are not to be found in any work hitherto published on ophthalmology in this country. On many occasions Mr. Lawrence differs from his contemporaries, and the opinions of a man so eminent are entitled to notice and respect.

III.—*On the recent Improvements in the Art of distinguishing the various Diseases of the Heart, being the Lumleyan Lectures delivered before the Royal College of Physicians in the year* 1829. By JOHN ELLIOTSON, M.D. F.R.S., &c. &c. London, 1830. Folio. pp. 36. Longman and Co.

DR. ELLIOTSON is a powerful advocate of auscultation, and strongly defends Laennec, to whom he pays the just tribute which his great discovery deserves. The avowal of our author is candid and honorable to his own high character, as will be seen by the following extract:—

"The discoveries made by Laennec in the symptoms of these disorders are great enough to entitle him to all the honours which

have ever been acquired in our profession. He has enabled us to judge of diseases, often not otherwise with certainty distinguishable or not at all, and this with an accuracy inconceivable to those who are unacquainted with his investigations; to distinguish diseases of the heart, which were formerly, and are still too often all, either expressed by the easy term disease of the heart, without a specification of the parts affected in the complicated organ; or as often passed over entirely, while the case is mistaken for hydrothorax, or some pulmonary affection, and to distinguish diseases of the lungs, which, in many cases, could not be pronounced upon with accuracy, of which, in others, the diagnosis was always uncertain, and moreover to point out the very part affected.

"But the very accuracy of Laennec's discoveries is objected to. We are asked *Cui bono?* The answer is plain. It is universally allowed that every disease should be described, and its nature ascertained, as accurately as possible. Now with every advance in accuracy of description, and in knowledge of the source of symptoms, diagnosis imperceptibly and inevitably becomes more accurate. To condemn accurate diagnosis is therefore to condemn accurate knowledge—to rest satisfied with imperfect information when industry would give us more—to admire ignorance when knowledge is within our reach. Besides, diagnosis ought to be universally cultivated without reference to its utility in particular instances. It is a part of our science; every part must be cultivated for the perfection of the whole, and what may not be practically useful to-day, may become so to-morrow, &c.

"But there is immediate utility in the discoveries of Avenbrugger and Laennec. No one will pretend that the diagnosis in chronic diseases of the chest is, with the exception perhaps of phthisis, generally satisfactory. Before I adopted auscultation, I know that I frequently discovered diseases of the heart after death where I had not previously suspected it, and frequently found the organ sound when I had supposed it diseased. When I was correct in expecting to see organic affection of the heart, I was often wrong as to the precise nature of the lesion. Too often has auscultation at once revealed distress of the heart to me, when, by good practitioners, no affection of the heart, or even of the chest, had been suspected, or the case had been named nervous palpitation or asthma, when the lungs had been regarded as the seat of the malady, or the case been treated with the more violent remedies of hydrothorax. Repeatedly have I seen chronic bronchitis, with extreme congestion of the lungs, mistaken for hydrothorax, and unavoidably so, from the omission of percussion and auscultation, because the symptoms were precisely the same, with the exception of those which percussion and auscultation only could disclose. Inflammation of the substance of the lungs takes place continually during other diseases, without being obvious before death to any but the auscultator and percussor. Without the aid of the ear, who can ever distinguish emphysema of the lungs, or in every case pneumato-thorax? Both may be readily mistaken for hydrothorax," &c.

Dr. Stokes, of Dublin, and Dr. J. C. Gregory, of Edinburgh, have adduced ample proofs in corroboration of our author's opinions; indeed, every ardent cultivator of science bears similar testimony, and it is only the lazy routinists, who oppose the splendid and important modes of discriminating pulmonic and cardiac diseases in the manner suggested by the proposers of auscultation and percussion. Dr. Elliotson, however, is of opinion that semeiology must be duly considered, and by both methods an accurate diagnosis may be arrived at.

He details some interesting cases of diseases of the heart, which are well worthy of attentive perusal, the narration of which would far exceed the limits by which we are circumscribed; and after all there could be little practical advantage derived by placing them before our readers. Unfortunately cardiac diseases must be ranked among the opprobria of our art, though it is a matter of great interest, to be able to draw a correct diagnosis and prognosis.

There is one great fault in this production, and that is, it is published in folio, and at a very high price for the small quantity of matter which it comprises; the plates are good, and well engraved from the accurate drawings of Mr. Alcock, which might be reduced to the quarto or octavo form. It is a great and prevailing error to publish works at extravagant prices, which render them inaccessible to the largest portion of the profession, and stimulate the unprincipled to piracy. Sir Astley Cooper and Mr. Charles Bell have fallen into this error, and may be fairly said to have printed, but not published, many of their works, and thus excluded nine-tenths of the profession from the advantages their productions afford. Hence the cheap and spurious editions of expensive works, which compel the publishers to reduce their exorbitant charges. Had Dr. Elliotson's work appeared in an humbler form, it would be in the hands of every practitioner, as no physician in the kingdom stands higher, and more justly so, than he does in the estimation of his contemporaries. He defends Laennec's opinions on the motions of the heart, in opposition to Dr. Corrigan and others, and we shall now place the opinions of all parties before our readers.

"Laennec's correctness, in ascribing the first of the two sounds of the heart's action in health to the ventricle, and the second to the auricle, has been called in question, some asserting that the first sound is the result of the auricular contraction, and the second of ventricular; some that they occur at the moment of the dilatation, not at the moment of the contraction of the cavities; and some that

Laennec was right in regard to the ventricular sound, but that the second sound cannot arise from the contraction of the auricle, as Harvey, Haller, Senac, all declare that the auricle may be seen to contract immediately before the ventricular actions; and they consider, therefore, the sound which follows the ventricular, to be produced by some unknown cause, and the auricular contraction to be without sound, two very singular and very considerable suppositions. The alteration of the sound in narrowing of the respective openings proves, I think, that Laennec is right; for if the opening from a ventricle is narrowed, the healthy sound ascribed by Laennec to the ventricles is altered; and if the opening from an auricle is narrowed, the healthy sound ascribed by him to the auricle is altered. An argument, in favour of the priority of the auricular contraction, has been deduced from the veins of the neck, in some cases, regularly swelling, immediately before the pulse is felt. But the obstruction of the auricle causing this swelling, does not, I apprehend, occur during their contraction, for at that moment there is a free space in the ventricles to receive the auricle blood, and it is only a part of the auricle that has the power of contraction. The obstruction which produces the swelling must take place as the ventricles becomes filled, and the auricular blood consequently accumulates, and therefore the swelling of the veins must be expected when the ventricles will receive no more, viz. immediately before they contract, or while they are contracting. There is no wonder, therefore, that the arteries, according to this account, beat first; then a second sound of the heart is heard, I presume the auricular action; and then a short interval occurs before the veins pulsate—before the blood accumulates in the auricles previously to their contraction. The jugular veins are said, by some, always to be dilated quite synchronously with the pulse of the arteries.

" Since the delivery of these lectures, Laennec's accuracy has been called in question by others, and the stroke of the heart's apex, and the first sound of the heart, declared to happen before the pulse, and to be produced by the dilatation and repletion of the ventricles; and the second sound to occur at the moment of the contraction of the ventricles, and to arise from the flapping of the parietes of the emptied ventricles together.

" I would reply in the first place, as before, that when an obstruction exists at the mouth of the aorta, or pulmonary artery, a morbid sound occurs at the moment Laennec supposes the ventricles to contract, and when at either auriculo-ventricular opening, at the moment he supposes the auricles to contract. This could not happen had he mistaken the periods of the ventricular and the auricular contractions. Secondly, when the pulse at the wrist follows the stroke of the heart, it does so after only a very minute interval—such as may be explained by the distance of the radial artery from the heart—and actually occurs decidedly *before* the auricular sound, that which is now declared to be the ventricular. Moreover, when the pulse at the wrist is observed to follow the stroke of the heart, the pulse at the innominata (so much nearer the heart) may be found

to precede that at the wrist, and to occur all but simultaneously with the heart's stroke, so that the relative distance of the parts explains the whole difference, and the pulsation of the arteries in all cases clearly arises from the stroke of the heart. If an artery is observed still nearer the heart than the innominata, no interval between its pulse and the stroke of the heart is perceptible. In four cases of aneurism of the ascending aorta, producing a strongly-pulsating tumour to the right of the sternum, this and the heart, when the fore-fingers were placed upon both, were felt, and by all seen to pulsate quite synchronously. When the obstruction is at the mouth of the aorta or pulmonary artery, the preternatural sound I have always noticed synchronously with the pulse; when at an auriculo-ventricular opening, in the intervals of the pulse, after or before it. It sometimes, in the latter case, is so prolonged as to last till the pulse is again felt, so that there is no interval, but merely an equal alternation of the ventricular and the preternatural auricular sound; or even an interval occurs after the ventricular stroke, probably from the auricle not being disposed for contraction at the usual time, on account of its contraction having been so lengthened by the difficult escape of its blood, that a longer repose is required than just during the ventricular contraction; here the auricular sound occurs first, then the ventricular, and then the interval.

"Thirdly, the sounds considered by Laennec to be auricular and ventricular are heard loudest both in health and when morbid, at the seat of auricles and ventricles respectively."

Dr. Corrigan's opinions are corroborated by Dr. Stokes and Mr. Hart, in a short paper in the October number of our northern contemporary; and also by another from the pen of our talented correspondent Mr. Dobson. It is a curious fact, that these three gentlemen should have arrived at the same conclusion with Dr. Corrigan, and without the slightest knowledge of each other's experiments. Dr. Stokes and Mr. Hart have recorded the following opinions:—

"1st. That in a state of health the impulse of the heart precedes that of the arteries.

"2d. That the interval between the impulse of the heart and the pulse in the arteries is in the direct ratio of the distance of the vessels from the centre of the circulation. Thus the interval between the impulse of the heart and that of the arteria innominata is often so slight as to be scarcely perceptible: the pulse of the carotid presents a longer interval, and so on with the rest.

"3d. The pulsations of arteries in different parts of the body, but at equal distances from the heart, are synchronous. Thus between the pulsations of the femoral and the radial artery, as felt at the wrist, no difference could be observed.

"4th. The greater the distance the longer will be the interval; then the pulsations of the radial artery always precede those of the tibial.

" 5th. That, although the actual pulsation depend on the systole of the left ventricle, yet the diastole of the vessels does not occur synchronously in all parts of the body, but is progressive.

" All these observations are most easily made on the healthy adult subject, whose heart is acting slowly, but at the same time strongly."

Mr. Dobson's opinions will be found in our last, to which he has added the following proof in the Lancet;—

" Having introduced my hand into the thorax of a dog, I grasped the two venæ cavæ, so as to preclude the entrance of blood into the heart. What was the effect? Why the action of the heart was still maintained! Though somewhat enfeebled, *it continued to dilate and contract alternately* and regularly. The circumstance, which seemed remarkably peculiar, was, the *diastole*, both of the auricles and ventricles, was apparently more energetic than the *systole*. In this experiment I witnessed the following phenomena:—

" 1. That, during the *diastole* of the ventricles, the heart was visibly *augmented in size*; and that, during the *diastole*, it was when the stroke against the side of the thorax occurred, not only the apex, but the anterior surface of the heart, impinged against the thoracic wall.

" During the *systole* of the ventricles, the heart *diminished in size*, and receded into the thorax.

" Remembering that, as taught in the schools, this stroke of the heart against the chest resulted from the aorta endeavouring to straighten itself, when blood was thrown in, tilting the apex against the chest. To obviate this effect I grasped the venæ cavæ, and thus removed that attributed cause, but the phenomena occurred as before.

" These experiments and observations were made at the least twelve months ago; consequently, previous to the publication of Dr. Corrigan's interesting essay."

We shall closely watch the progress of this inquiry, and place it as early as possible before our readers.

IV.—*Transactions of the Association of Fellows and Licentiates of the King and Queen's College of Physicians in Ireland.* New Series, vol. i. Dublin, 1830. J. M. Leckie.

Another volume of the valuable Transactions of the Dublin physicians has just issued from the press, which, like its predecessors, is replete with sound practical information. We feel much obliged for an early copy of the work, and shall place a portion of its instructive contents before our readers. There are two papers by Dr. Mont-

gomery, Professor of Midwifery to the College, which are deeply interesting, and prove the author to be a man of acute observation and sound judgment. The first is entitled "Case of Ovarian Disease of a remarkable Character," illustrated by two well executed plates;—the second, "Description of a very remarkable malformation in a fœtus, in which nearly all the abdominal viscera and the intestinal canal were external to the body;" illustrated by an engraving. We shall notice each of these curious and valuable papers, and allow the author to introduce himself to our readers.

"*Ovarian Disease.*—Mary Clarke, aged 45, the mother of nine children, the youngest of whom was nine years old, was admitted into Sir P. Dun's Hospital, and came under my care on the 15th of August, 1828. She complained of a tumour in the right iliac region, which she had first perceived about seven years before; in addition to this she had slight ascites, which had commenced within the last four months. She formerly had hernia at both sides, greater at the right; the intestines, however, did not now descend, but the sac was distended by the descent into it of some of the dropsical fluid. She said that she had been for some time annoyed by frequent discharges from the vagina of the fluid like water, which came away in small quantities, and she had suffered occasionally from uterine hæmorrhage; on examination per vaginam, I found that there existed a small cauliflower excrescence of the os uteri; the urine was scanty, and the pulse weak, but not much accelerated.

"The countenance had the peculiar expression of distress, which we so frequently observe in patients reduced and harassed by ailments depending on considerable organic alteration in some internal viscus or structure, and exhibited a very unpromising appearance; this expression of the countenance, to which, I confess I attach much weight, taken in combination with the disease of the os uteri, the tumour in the abdomen, and the ascites, which I looked on as its effect, justified, I thought, the most unfavourable prognosis; and although I determined on, and adopted the administration of diuretics and other remedies, I had but little hope of advantage from their use.

"After the bowels had been freely emptied, she took a combination of calomel, digitalis, and squill in pills, and a solution of crystals of tartar, which was afterwards exchanged for decoction of broom tops. This treatment was after ten days discontinued, as the bowels appeared to be disordered by it.

On the 17th, a good deal of uneasiness and tension, with some pain in the right side and across the abdomen, were complained of, which symptoms were relieved by the application of leeches to the abdomen, and the use of the warm hip bath. Pills of calomel and squill to be taken, which in two days so disagreed, that they were omitted on the 29th. At this period a great increase had taken place in the quantity of urine; but notwithstanding this increase of natural

secretion, the effusion into the abdomen had greatly accumulated, and occasioned a most distressing sensation of tension.

"I wish here to remark particularly, that the distress complained of was altogether out of proportion to the degree of distension, and in consequence, the poor patient was excessively anxious to have the fluid drawn off by tapping, before it was apparently necessary, and when the tension was not sufficient to admit of the operation; in two days more, however, the fluid had considerably increased in quantity, causing a great addition of suffering, which the patient described as affecting her chiefly at the right side, and across the lower part of the abdomen, the situation chiefly occupied by the tumour.

"August 31.—She was tapped by Dr. Jacob at the left side, as far as possible from the tumour; and about six quarts of a clear yellow fluid were drawn off with great and instantaneous relief, both of the pain in the side, and indeed, of all the uneasiness previously complained of. I observed that as the fluid was passing through the canula, several thin membraneous flakes passed with it, and on examining these afterwards, I was impressed with the idea that they were portions of ruptured hydatids.

"The evacuation of the fluid, and the consequent flaccidity of the abdominal parietes, allowed a more satisfactory examination of the abdominal tumour, which could be traced down into the pelvis at the right side, and extending beyond the median line of the abdomen; the liver did not appear to be at all enlarged.

"September 3.—Uneasiness about the bladder and perineum; relieved by leeches and a warm bath.

"September 4.—Four days after the operation of tapping, an accumulation of the fluid in the abdominal cavity was evidently taking place, and anasarca appeared in the left leg and thigh. I directed pills of blue pill, squill and opium, with draughts containing nitrous ether, and the abdomen to be well rubbed three times a day with a liniment composed of three parts linimentum ammoniæ, and one part oil of turpentine.

"September 8.—In consequence of heat of skin, full pulse and some pain in the side, I had eight ounces of blood taken from the arm, which produced no relief.

"September 9.—Complained of diarrhœa, to which I directed immediate attention.

"The means hitherto used for the cure of the dropsy were totally inefficient, and the fluid re-collected so rapidly, that the operation of tapping was again performed on the 11th of September, at the earnest desire of the patient. The same quantity of fluid as before was drawn off, and a substance of a reddish colour, and membrano-gelatinous consistence, escaped through the canula as on the former occasion; and, as before, the most complete relief followed the operation.

"On examining the abdomen, the tumour was manifestly greatly increased in size; as well as I could judge, it was at least half as

large again, as at the time of the first tapping, though the interval was only twelve days.

" The question may naturally occur, what was done for the disease of the os uteri? In truth, I paid it no separate attention, the excrescence was very inconsiderable in size, and the quantity of watery discharge so trifling as to be of no importance; for which reasons, I deemed it advisable to direct all my attention to other circumstances.

" The diarrhœa still continued unabated, notwithstanding the means used to restrain it, so that at the end of five days she was much weakened and exhausted; but the dropsical effusion did not now accumulate with so much rapidity as before.

" September 17.—Ordered a grain and half of sulphate of quinine, with extract of gentian three times a day, port wine, and rice boiled in milk.

" September 19.—Evidently sinking; complained of pain in the stomach and bowels, which appeared to arise from flatulence, and was completely relieved by a carminative draught containing acetum opii.

" September 20.—Still lower; entreated for a repetition of the draught, which she got; was perfectly collected.

" September 21.—Was unable to swallow, but spoke plainly, and was quite collected; died at 5 p. m.

" Examination, eighteen hours after death.—Great emaciation of the body; the left leg and thigh much enlarged by anasarca; on opening the abdomen the bowels were found much inflated, and immersed in a considerable quantity of a deep yellow coloured serum, similar to what had been previously evacuated by tapping; on turning over the body to get rid of this fluid, a quantity of pus, certainly not less than two pints, escaped from the abdominal cavity; I remarked generally of the viscera, that very little blood remained in their vessels.

" On turning aside the integuments, a very singular appearance presented itself; a tumour chiefly composed of fine membranes, dividing it into innumerable cells, which, with their fluid and transparent contents, resembled, at first sight, hydatids; the membraneous septa dividing the cells were supplied with blood vessels of a considerable size running along their edges, so that the whole tumour presented a clear red colour. At its upper and left part there was a deep cleft or fissure, into which the open hand might be passed without any force, and when carried downwards, and towards the right side, it entered a round sac equal in size, and much resembling a large flat turnip; this was the right ovary which lay just under, and was filled with the same structure as the part of the tumour first brought into view.

" In fact, it seemed as if the peculiar structure had at first grown in the ovary, which thereby became greatly enlarged, until at length the coat of the ovary had given way, and out of the fissure so formed, the morbid growth continued to enlarge, turning over

the edges of the fissure, and covering the front and sides of the ovary in which it had formerly been contained, so that the tumour was in a great measure turned inside out:

" This change in the state of the tumour might, I conceive, have happened in one of two ways; either by the coat of the ovary giving way to the pressure of the morbid growth within it, which seems probable, from the circumstance of that substance having evidently continued to grow out of the fissure; or the breach in the coat or capsule of the ovary might have been produced by external violence or accident, a cause but too probably true, as I afterwards ascertained that the poor creature had been exposed to a great deal of ill-treatment from a brutal husband. The tumour was of such a size, that while its inferior extremity was in the pelvis, its superior border was as high as the ensiform cartilage, its length being twelve inches, and its breadth nine.

" Some slight, but firm membraneous bands connected the tumour to the neighbouring parts; these I divided, and the uterus and bladder were removed from the pelvis along with the tumour, their natural connexion being carefully preserved. On examination, the uterus itself was found enlarged to twice its ordinary size, and scirrhous; the os uteri exhibited the numerous flocculent processes, which are all that remain of cauliflower excrescence after death; the left fallopian tube was healthy, but the ovary was somewhat enlarged, tuberculated on its surface, and very hard; the right fallopian tube was healthy, and the marginal process by which its fimbriated end is ordinarily connected to the remote extremity of the ovary, was attached over the surface of that body, in this case so enormously enlarged. The liver was rather smaller than usual, and perfectly healthy.

" On this case and dissection I would now wish to make two or three brief observations. With regard to the tumour itself, without wishing to theorize or offer any opinion on its peculiar nature, I believe, in the first place, that it is a form of disease not before observed, as affecting the ovary, or at least not hitherto described, as far as my research enables me to speak. I have dissected a great number of cases of ovarian disease, and have preserved specimens in my museum, of almost all the different species enumerated by authors, but to none of these does the disease in this case bear the slightest resemblance in character; another peculiarity, which I look upon as very remarkable, consists in the open state of the tumour, and its internal surface being in consequence exposed in the living body, and literally in a great degree turned inside out.

" From the surface thus exposed, serum must have been abundantly poured out, and hence perhaps a cause, or at least one source of the effusion into the peritoneum, and whether the circumstance can be fairly attributed to this, or to some other more general cause, it is to be recollected, that during the period in which the effusion took place most rapidly, the tumour was found to have nearly doubled its surface.

" The state of the tumour appears to me also to account for the great disproportion between the uneasiness felt, and the degree of distension existing.

" It seems not so easy to account for the œdema of the thigh and leg occurring at the left side, while the tumour was at the right. A very intelligent pupil, Mr. Dwyer, who gave me his valuable assistance in the dissection, suggested that it might perhaps have been caused by the weight of the tumour pushing the enlarged and scirrhous uterus forcibly to the opposite side of the pelvis, and I agree in the probable correctness of this ingenious suggestion.

" The situation of the tumour explains at once the reason why the intestine did not descend into the herniial sac.

" A circumstance of much interest is the formation of such a quantity of pus, as evidence of very considerable inflammatory action having taken place, without its existence being indicated either by the degree of pain or the character of the pulse. At no period during her illness was the pain at all severe, but consisted rather in a sense of general uneasiness; and free pressure could all along be borne with little or no inconvenience; the pulse though frequently rather quick, between 90 and 100, was as often not accelerated, and always soft and feeble. Throughout the whole course of the treatment, I considered general blood-letting not only uncalled for, but absolutely inadmissible, except on the day mentioned, and then it was productive of no benefit, but the removal of the fluid from the cavity of the abdomen in both instances, produced at once complete relief, so that every part of the abdomen could be pressed and handled with the greatest freedom, without inconvenience to the patient.

" This appears an interesting illustration of the fact long since noticed by Morgagni and Van Swieten, and recently so ably insisted on, and established by Dr. Abercrombie, that abdominal inflammation may exist even in its destructive form, without its existence being indicated either by pain, or the state of the pulse.

" Perhaps I ought not to omit to mention that I was much struck, as were those present at the examination, with many points of identity in the appearances presented to us, with those usually witnessed, as the pathological results of puerperal fever.

" The appearance of the tumour, and its relation to other parts, are represented in the engravings; the parts themselves, exactly as they were removed from the body, are preserved in my museum."—p. 11.

The author commences his description of a malformation in a fœtus, by referring to Geoffray St. Hilaire's Philosophie Anatomique Monstruosities Humaines, for a case somewhat similar, but which scarcely lessens the claim to novelty in this instance. The lady was delivered at the seventh month, and the fœtus presented the following appearances:—

"The size of the fœtus is what might be expected in the seventh month, its length being fourteen inches: the upper part of the thorax, with the arms and hands, are well formed and justly proportioned, as are also the head and face, the features of which are even more than usually handsome and expressive; a rare circumstance in cases of monstrosity of this particular description; see plate 3. The lower part of the thorax is compressed, both from the sides, and backwards towards the spine, and this compression backwards is still more remarkable in the integuments of the abdomen, outside of which lies the whole of the alimentary canal (except the œsophagus,) together with the liver, pancreas and spleen. Viewed anteriorly, the liver is the object which most prominently arrests the eye, and below it the convolutions of the intestines; if the liver be raised or turned aside, the stomach, pancreas, and spleen present themselves immediately behind it.

"The placenta remains attached by its funis, which is very short, not more than four and a half inches long, and having its vessels running parallel, instead of being twisted round each other, as they should be; attached to the circumference of the placenta are the natural membranes, and an additional membranous pouch is firmly attached to one part of its anterior surface, which will require a more particular description.

"There are neither genital organs, nor anus, in the usual situation of these parts. In the monster described by St. Hilaire, these parts were in their natural situation, which was also the case with those described by Rudolphi: see pp. 188 and 199.

"The left thigh and leg are well formed and naturally placed, but the right limb is distorted, and from its connexion with the pelvis, returns at an acute angle with the body, so that the foot lies when undisturbed, towards the right ear.

"Viewed posteriorly, the lobulated external surface of the placenta, one lobe of the liver, the stomach with its great arch directed *upwards*, the spleen, and a tumour about as large as a goose-egg, springing from the lower half of the spinal column, are the objects which appear necessary to notice, in order to complete this general description of the external appearances.

"Dissection.—The contents of the thorax did not differ in any respect that I could observe from the ordinary condition of the viscera contained in that cavity.

"The abdomen, of course, presented several peculiarities. In the first place, the anterior integuments lay in contact with the spine almost throughout, so that in fact there was but little cavity, except in one situation, which was immediately behind the umbilicus, and there collected into one spot, lay the only abdominal viscera which were internal.

"They lay in a sort of sac of about an inch and half diameter, and consisted of one kidney, with its renal capsule and ureter, the uterus and vagina. 'Il n 'etait resté, dans la cavité abdominale chez notre monstre, d'autres visceres, que ceux des systemes urinaire et sexuel.' St. Hilaire, p. 191.

"The kidney lay towards the left side of the sac, with its renal capsule in its proper situation, the ureter was about two inches and a half long, somewhat convoluted, and alternately distended and contracted throughout its length; I could not, after the most careful examination, ascertain where it terminated; air blown into its renal extremity first distended its cavity forcibly, and then gradually escaped from the remote end; but where I could not discover by dissection. I traced it to the surface of the uterus, where its tube was so diminished as to be incapable of transmitting a bristle: it passed through the peritoneal covering of that organ, and was insensibly lost; neither could I discover any organ or cavity like the bladder, nor could I, as I have just said, trace the single ureter to any external opening by which fluid might escape, had it been secreted by the kidney.

"In St. Hilaire's monster there were two kidnies, with ureters following the usual course, and terminating in the bladder, p. 190.

"A little to the right side of the entrance of the cord into the abdomen, is a small regularly formed circular aperture, with prominent edges; marked G in plate 3; this is the external orifice of, or entrance into the vagina, which lies immediately behind the integuments, and is in form of a circular pouch of about half an inch, or a little more in diameter; into the remote end projects the os uteri of a natural form and appearance, but the uterus itself is malformed, being of this shape, and having only one fallopian tube running off from its apex, as if it were a continuation of the part, and having a continuous cavity as in the bicorned uterus of a quadruped. I could not discover any ovary at either side of the uterus.

"Immediately over and at each side of the small external aperture of the vagina, are two corrugated and prominent bodies of a spongy texture, and about as large as peas: from their situation and structure, I presume they are imperfectly and malformed labia. Between these bodies and a little to the right of the orifice of the vagina, is a very small circular aperture, marked H in plate 3, which, from its situation, I concluded was the orifice of the urethra; but no such duct exists, and this small aperture is impervious, and merely a very short cul de sac.

"St. Hilaire's monster was a male, and the genitals presented but little irregularity, p. 199.

"The anterior integuments of the thorax and abdomen were quite closed both above and below the umbilicus, nor was there any deficiency of integument in that part; a circumstance in which this specimen differs from the examples of external viscera, which I have been able to find recorded. In that described by St. Hilaire, the trunk was open anteriorly, 'superieurement jusqu' a la naissance des clavicules, et inferieurement jusqu'a la symphyse des os anterieurs du bassin.'—Philosophie Anatomique, p. 184.

"The œsophagus occupied its natural situation from the fauces to near the cardiac orifice of the stomach, where it issued from the abdominal cavity to join the stomach which lay outside; its passage through the integuments being protected by a close union with the parts

through which it passed: the stomach, spleen, pancreas, and liver, were placed as nearly as possible in their natural relations with regard to each other, and were perfectly well formed, as was also the intestinal canal, which consisted almost exclusively of small intestines only; by tracing it from the stomach downwards, I found that its termination was at the opening of the ileum into the cœcum, where it forms the ileo-cœcal valve, which however, in this instance, opened externally, and the contents of the intestines passed out freely when pressed the valvular orifice at M; the appendix vermiformis is attached to this opening, but there is no further portion of the cœcum, colon, or rectum to be found; in fact the whole of the large intestine is deficient.

"These abdominal viscera were evidently, during the uterine existence of the child, contained in the pouch of membrane already mentioned as adhering at one of its extremities to the serous surface of the placenta; and at the other end attached all round the umbilicus to the edges of the circular space, within which are the orifices of the vagina and intestine, labia, &c. and then enlarging, it formed a flask-shaped bag or sac, within which lay the external viscera, to which it had in this way the relation of the abdominal peritoneum, and for which, indeed, we may look upon it as having been a sort of substitute.

"On more minute examination of the relations of this membranous pouch, I find that it is formed by the amnion disposed in a curious way; the pouch lies between the cavity of the amnion and the investing chorion, but yet having amnion both inside and outside of it; it seems that while the child lay as usual in the general cavity of the amnion, the abdominal or umbilical region *remained* in contact with the amnion, as it always is in the first period of fœtal life, and then the external viscera, as they grew, pushing forward, carried before them the amnion with which they were in contact, and reflected it upon itself, forming a pouch, just as the abdominal peritoneum is related to the liver or stomach.

"I find this arrangement corresponds remarkably with the account given by St. Hilaire of the disposition of the membranous septa observed in his case, which he describes as 'disposés pour la plupart comme les lâmes du peritoine, ils étaient une continuation des membranes de l'amnios.' see p. 210.

"This preternatural union between the fœtus and its placenta is made by St. Hilaire, the essential character and cause of a class of monsters in which the brain is partially outside the cranium, and enveloped in the attached membranes; to this class he has given the name *hyperencephali*.

"Very lately also a book has been published by Rudolphi on this subject, entitled 'Monstrorum trium, præter naturam cum secundinis coalitorum disquisitio.' These were all hyperencephali, and except in the formation of the head, exhibited nothing remarkable; the work contains nothing to illustrate the specimen I am describing.

"The umbilical cord ran along the reflected portion of the amnion of nearly five inches in length, and instead of being free as usual,

with the membranes surrounding it, it was bound down by the amnion, and lay quite flat on the surface of the placenta, and along the duplicature of the amnion; it contains only one vein and one artery; the exact origin or course of the single artery, I regret I am unable to describe; the parts having been so dissected before I discovered the peculiarity, that I could not trace the artery to its source.

"The tumour on the back is *spina bifida*, arising from the lumbar vertebræ, and presenting nothing but the ordinary construction of such tumours; its size was (before opening it) such as to contain about six ounces of fluid, and having cut out the back of the vertebral column all along from the connexion with the skull, the dura mater is displayed from its exit from the cavity of the cranium along the spinal canal, from which it issues, where the lumbar spinous processes are deficient, and dilating, forms the lining membrane of the tumour.

"The bones of the pelvis, posteriorly, are very loosely connected to the sacrum, and anteriorly have no connexion at the symphysis, the bones of the pubis being separated from each other to a distance of nearly three quarters of an inch, so that in fact there is no pelvic cavity.

"The spine is very much distorted, having both an anterior and lateral curvature.

"A very accurate cast of this monster was taken before the parts were disturbed, and is preserved, together with the body of the monster, in my museum; for a correct representation of the general appearance and form, see plate 3."

V.—*The Dublin Hospital Reports and Communications in Medicine and Surgery.* Vol. V. 8vo. pp. 631. Eight Plates. Dublin, 1830. Hodges and Smith.

It affords us much gratification to notice another volume of the Dublin Hospital Reports, and also to inform our readers that it far excels its predecessors in importance and varied practical information. It is admitted by every well informed medical man, that the Dublin Reports and Transactions are among the best, if not the very best, of our clinical productions; and we are happy to state that "arrangements have been made to ensure the co-operation of the physicians and surgeons of the Dublin Hospitals, and it is hoped that the Reports will in future contain a much more extensive series of hospital communications, and consequently it is in contemplation to publish them at shorter intervals. The first part of the sixth volume will appear on the 1st of March, 1832."—*Preface.*

The contents of the volume before us are as follow:— 1. *Clinical Report of Cases in the Medical Wards of the Meath Hospital during the Session of* 1828 *and* 1829, by Robert J. Graves, M. D., &c. and William Stokes, M. D., &c. 2. *Practical Observations on certain Diseases of the Anus and Rectum*, by A. Colles, M. D., &c. 3. *Observations on the Mucous Membrane of the Rectum*, by J. Houston, M. D., &c. 4. *A case of Aneurism of the Abdominal Aorta, with Dissection and Observations*, by T. E. Beatty, M. D., &c. 5. *History of two cases of Aneurism successfully treated by Ligature*, by W. H. Porter. M. R. C. S., &c. 6. *Physiological and Practical Observations on the Utero Placental Circulation and the Phenomenon of the Placental Soufflet, with its utility in detecting the existence of Pregnancy, and the death of the Fœtus in Utero*, by Evory Kennedy, M. D., &c. 7. *Observations on some of the Affections of the Fingers and Toes, attended with Fungous Growths*, by F. Rynd, A. B. &c. 8. *A case of Ruptured Intestine, with remarks on some effects of Contusion of the Abdomen*, by J. Hart, M. R. I. A., &c. 9. *Pathological Observations*, by John Houston, M. R. I. A. 10. *A case of Obstinate and Extensive Psoriasis successfully treated*, by W. West, M. D., M. R. I. A. 11. *Cases of Diseased Brain*, by Robert Law, A. M., M. D. 12. *Small and frequently repeated Bleedings in Hæmoptysis and Incipient Phthisis, recommended in a Letter to R. J. Graves*, M. D., from John Cheyne, M. D., &c. 13. *Contributions to Ophthalmic Surgery*, by Arthur Jacob, M. D., &c. 14. *A case of Inflammation of the Vena Cava, Iliac and Femoral Veins*, by John Crampton, M. D., &c. 15. *Cases of Cancer Uteri, with Observations chiefly intended to illustrate the pathological changes caused by that Disease*, by W. F. Montgomery, A. M., &c. 16. *An account of two newly discovered Muscles for compressing the Dorsal Vein of the Penis, in Man and other Animals, and also of a similar provision for compressing the Veins of the Chameleon's Tongue*, by John Houston, M. R. I. A., &c. 17. *Report of the Wellesley Female Institution*, by Samuel Cusack, M. D., &c. 18. *A case of Encysted Abscess in the centre of the Spinal Cord*, by John Hart, M. R. I. A., &c. 19. *Experiments relative to the Carbonic Acid of Expired Air in Health and in Disease*, by James Apjohn, M. D., &c. 20. *A case of Chronic Cynanche Laryngea, in which the operation of Tracheotomy was performed*, by W. H. Porter. 21. *On the Effects produced by Posture, on the frequency*

and character of the Pulse, by R. J. Graves, M. D., &c. 22. *Report of the Coombe Lying-in Hospital*, by Richard Reed Gregory, Member of the Royal College of Surgeons, and Master of the Hospital. 23. *Case of Foreign Bodies in the Trachea*, by Rawdon M'Namara, M. R. I. A., &c. 34. *Observations on a peculiar convulsive Disease affecting young Children, which may be termed Spasm of the Glottis*, by H. Marsh, M. D., &c.

The authors of these papers are generally professors or lecturers on medicine and surgery, and, with two or three exceptions, are hospital physicians or surgeons. Every article is ably treated, and abounds with valuable practical information. We are sorry to state that the volume reached us too late for analysis in this number, except Dr. Montgomery's articles, which arrived earlier, but we shall notice it very fully in our next and succeeding ones. The report by Drs. Graves and Stokes occupies 128 pages, and comprises an account of a great variety of interesting cases. The succeeding papers are equally valuable; the whole deserve unqualified approbation. We strongly recommend the work to every class of practitioners. We only wish that the medical officers of all large hospitals in Great Britain would imitate the example of their Dublin contemporaries—a wish entertained by the whole profession. There is no reasonable excuse to be offered for the neglect of the hospital physicians of England and Scotland, and that usually given, "want of leisure," might be as justly offered by the writers before us, many of whom are in the most extensive practice.

It would be much better for the medical officers of the metropolitan hospitals to report their own cases, and authenticate them, than have them garbled and mutilated as they generally appear at present. Authenticated reports would be much more satisfactory to the profession than the anonymous and imperfect ones now given. If the medical officers treat their patients scientifically, they can have nothing to fear by publishing their cases. Let any unprejudiced man compare the London, Dublin, Edinburgh, and continental hospital reports, and he must be surprised at the vast contrast between them. This is a fact which cannot be doubted by those acquainted with the present state of clinical literature. Of late years, we seldom see the age, constitution, temperament, habit, or former diseases of the patient recorded, so that the majority of cases published are of no value, as the treatment must be modified by the above circumstances. In all the foreign reports, these circumstances are invariably attended to, and thus are the cases valuable.

VI.—*Medico-Chirurgical Transactions*, Vol. XV. Part II. 8vo. pp. 451. London, 1830. Longman and Co.

This volume contains only three papers, and is one of the most insignificant hitherto published by the society. The first paper is "on the anatomical characters of some adventitious structures," by Dr. Hodgkin. The author commences with a description of cysts formed by serous membranes, which, he says, differ from hydatids. He divides them into two species;—1st, simple cysts, which have not the power of reproduction;—2nd, compound cysts, which reproduce. The first kind is exemplified by cysts in the choroid plexus, and the second, by those in the ovaries and folds of the broad ligaments of the uterus. Simple serous cysts are found in the base of the brain, choroid plexus, eyelids, and along the edges of the tarsi, or deep in the eye, lungs, female mammæ, folds of the broad ligament and ovary. When present in the ovary, they form ovarian dropsy.

The second class of adventitious serous membranes, are found in the broad ligaments, uterus and ovaries. The internal surface of these cysts present elevations more or less rounded, and of various sizes, covered by the lining membrane of the sac. These tumours are cysts of a secondary order, containing a serous or mucous secretion. On the internal surface of these secondary cysts, are clusters of tertiary cysts covered by the lining membrane of the cyst in which they are contained. The membranes of these cysts are liable to inflammation, both adhesive and suppurative. When adhesion occurs, it becomes difficult to discover the structure of the cyst, and when suppuration is present, it is confined in one or more sacs, as we see exemplified in paracentesis of ovarian dropsy.

The secondary cysts are of three kinds; the first has neither slender necks nor broad bases; the second has slender peduncles; the third has a broad attachment and flattened form.

Adventitious cysts, assuming the form of reflected membranes are also found in the testicle, female mamma and eye.

Dr. Hodgkin proceeds to consider the heterologue deposits confounded by anatomists, under the names of cancer, scirrhus, and carcinoma. He thinks they may be grouped in one family. He gives the following account of their structure:—

"If we carefully dissect down to the surface of these tumours," says Dr. H. "we shall usually find that it has a capsule or covering,

which has, I believe, generally been supposed to consist of the altered and condensed cellular membrane of the parts which have given way before the growth of the tumour. This idea is probably correct with respect to the unequally thick external part of the capsule; but if we dissect carefully, and examine those tumours in which the process of decay has either not commenced, or has made very little progress, we shall find that surface which is next to the mass of the tumour more or less smooth and even, and on raising it we find that it is reflected over one or more somewhat periform bodies, attached by a base, which is generally narrow and peduncular, to some part of the circumference of the enclosing capsule. Unless the tumour is very small, it is much more common to find several rather than a single body of this kind, and as there is often little, if any fluid intervening between them and the enclosing capsule, their form is somewhat modified by their mutual pressure. Sometimes, though more or less closely applied to each other, these pedunculated bodies are perfectly detached at their sides, and may, consequently, be readily traced to the point which forms the common origin of their peduncles. At other times these bodies are so adherent amongst themselves, and the membrane covering them is so tender and delicate, that without very great care the arrangement of their structure may be overlooked, in consequence of the pedunculated bodies being broken or torn through in a different direction from that to which their mode or formation would naturally dispose them. * * *

"If we continue dissecting and raising the outer cyst, forming the reflected membrane which covers the radiating pedunculating bodies, we shall generally find, that on one or more sides it dips down deeply into the mass of the tumour, and forms a part of the septum which separates the one packet of pedunculated bodies from the others which generally concur to form the mass of the tumour; for it comparatively rarely happens that the tumour is composed of a single cyst filled with pedunculated bodies. On examining the different encysted packets of pedunculated bodies which compose the tumour, we shall often find some indication of their having taken their origin from nearly the same spot, which is generally the most indurated part of the tumour. We may likewise observe, that the different secondary tumours, or encysted bundles of pedunculated bodies, are in very different stages of progress."

Dr. Hodgkin gives the following account of scirrhous tumours:—

"True scirrhous tumours appear sometimes to depend on a single primary tumour, at other times, several may be satisfactorily made out. That part of the tumour which appears to have been the common origin of the primary cysts, where there are more than one, or from which the contained pedunculated bodies radiate when there is only a single primary tumour, is in general the most indurated portion, and is, at the same time, the most indistinct in its structure. When examined externally, after the surrounding natural structures

have been carefully dissected off, this part of the tumour is found to be the most irregular, has a somewhat corrugated appearance, and suggests the idea of its having been the sort of root by which the adventitious growth was implanted on the natural structures. The radiated appearance so strongly insisted on by most authors who have described scirrhous tumours, and the rationale of which I trust I have shown, is particularly conspicuous when the section passes through this point. The fluid part of a true scirrhous tumour bears in general a very small portion to the rest of the structure, it has a viscid or mucous character, more especially where softening has not taken place; but where this process is going on, it assumes the character of an offensive ichorous discharge, and acrid and highly deleterious qualities have by some been ascribed to it.

"The process of softening sometimes commences internally at one point, at other times in several small isolated points; in others, again, the ulceration through the integuments is the first part of the process of decay.

"True scirrhous tumours, notwithstanding the length of time during which they continue to grow, very rarely acquire a considerable size. Indeed, it not unfrequently happens, that the wasting of the neighbouring structures, and more especially of the female mamma, which is by far the most frequent seat of true scirrhus, more than compensates for any increase of volume dependent on the new formation.

"The tumours now under consideration, in many instances remain for a length of time in an indolent state, without passing into a state of softening, or producing an external ulceration. Before this ulceration takes place, the tumour becomes adherent to the skin, and though there is generally but little redness observable in these tumours, a spot, most frequently of small extent, becomes of a bright and cherry-red or of a purple livid colour before the continuity of the integuments is destroyed. It is needless that I should again describe the characters of a malignant ulcer, which are in general very completely seen in the ulcerative stage of true scirrhus. It may, however, be said, that the ulceration of true scirrhus is attended with a more decided loss of substance than that of the next form of tumour of which I shall speak—viz. cerebriform cancer, and which is often attended with large, rapid, and irregular growth from the ulcerated surface, whence the names of fungoid disease, fungus medullaris, &c. have in all probability been derived. The ulceration of true scirrhus is indeed bounded by its elevated wall of circumvallation; but the central parts, gradually hollowed away by the softening of the very imperfectly organized structure, present a foul and deep chasm."

Our author inclines to believe that scirrhous tumours may be thrown off by sloughing, granulations occur, cicatrization follow, and a cure be effected. He states that scirrhus uteri does not present cells or cavities, though the tumour acquires a greater size than in other parts. He next describes the growth of encephaloid tumours, cerebriform

cancer, medullary sarcoma, spongoid inflammation, fungus hœmatodes, and fungoid disease. The diagnosis offered, differs in no respect from that which is generally found in works upon the subject.

The second paper is entitled "Observations on the statement made by Dr. Douglas, of Cheselden's improved lateral operation of Lithotomy," by John Yellowly, M.D. The object of this essay, is to prove the error committed by Douglas, John Bell, and others, which is as follows:—

"His knife first enters the groove of the prostrated or straight part of his catheter, *through the sides of the bladder immediately above the prostate*, and afterwards the point of it continuing to run in the same groove in a direction downwards and forwards, or towards himself, he divides that part of the sphincter of the bladder that lies upon that gland, and then he cuts the outside of one half of it obliquely, according to the direction and whole length of the urethra that runs within it, and finishes his internal incision, by dividing the muscular portion of the urethra on the convex part of his staff."—p. 346.

This mode of operating is not mentioned by Cheselden in any of the editions of his works, and is one, according to Dr Y. "which makes it difficult to believe that it was actually performed."

The third paper is entitled "Pathological Researches on inflammation of the veins of the uterus, with additional observations on phlegmasia dolens," by Robert Lee, M.D. We have noticed this in our last vol. pp. 330, 331, in an original essay on phlegmasia dolens, and shewed how Dr. Lee, in a preceding vol. of the Trans. before us, maintained phlebitis of the crural veins was the cause of the disease. In further disproof of the opinion, we refer the reader to our notice of M. Tonnelle's autopsies of puerperal fevers, which shew extensive uterine phlebitis without any swelling of the inferior extremities—a fact also attested at p. 331, already referred to. The cases narrated by M. Dance, of the Hotel Dieu, and referred to in the essay on phlegmasia dolens, are also exceptions to the pathology proposed by Dr. Lee. We are ready to admit, however, that swelling of an inferior extremity, may possibly arise from uterine phlebitis, but contend that it is by no means so frequent an occurrence as one is disposed to imagine.

ORIGINAL COMMUNICATIONS.

I.—Mr. Mitchell's *case of Calculi in the Vesiculæ Seminales.*

To the Editor of the London Medical and Surgical Journal.

Sir,—The following case will probably merit a place in your valuable Journal; if so, you will oblige your most obedient servant,

Charles Mitchell, Surgeon.

A tall man, of good complexion, aged 45, was attacked with rigors after exposure to cold in the month of January, accompanied with cough and pain in the chest; the rigors were most severe during the night, continuing sometimes upwards of an hour, upon the decline of which warmth ensued, followed by profuse perspiration.

He applied to Dr. Pinkard, under whose care he continued for six weeks, during which time he took nauseating powders, but objected to bleeding, which was proposed; and finding that no advantage accrued from the powders, he left them off. A week after, while walking in the street, conversing with a friend, his intellect became impaired; he talked irrationally and was confused; the man asked him if he knew what he was talking of, when he felt entirely lost. The man saw him home, when his speech left him, and continued so for two days, only returning upon the application of a blister to the nape of the neck, and the administration of a purgative. I saw him in the beginning of March, when he complained greatly of the pain in his chest, attended with tightness, and accompanied by difficult respiration, cough, and sweating; considerable elevation of shoulders during inspiration, and attended with pretty high action of the circulatory system. Upon placing the ear over any part of the right side of the chest, a hissing noise was distinctly heard (caused, I presume, by the air rushing into a hollow cavity.) He was bled to six ounces, blood was cupped and buffy; had a blister applied to his chest, and took ʒiss. of liq. potassæ in the course of the day, with a view to mollify any tubercular formation, with half a grain of squill and digitalis four times a day. In the course of six days the sweating became very troublesome, although the other symptoms had considerably lessened in their severity.

He now took two drachms of diluted sulphuric acid, with twenty drops of laudanum, in the course of the day.—Another patient, who was hectic from consumption, and under the use of the acid and laudanum, had a severe attack of colliquative diarrhœa, notwithstanding which she continued one drachm of the acid. On the fourth morning after the diarrhœa ensued, she was seized with griping in her bowels, unusually violent, with an inclination to go to stool, when she emitted nearly one pound of blood, which coagulated; after which she recovered rapidly, the diarrhœa entirely ceased, the sweating subsided, the cough and spitting gradually abated. (However, this must be attributed entirely to a natural effort of the system.) From this digression, I must advert to the other patient, who continued the acid and laudanum for three weeks; when the cough and pain had become so severe, attended with puriform expectoration, that it was necessary, in consequence of the existing irritation, to extract blood, which was done to ʒiv. Two days, however, only elapsed, when he lost his speech a second time, while walking in the street; he returned home; appeared pale and cold, with his mouth drawn to the left side. In the course of a week he lost the use of the right side, but retained the feeling. Three weeks afterwards he had a fit of suffusion of the face and eyes, drowsiness, accompanied by sickness; after which the phthisical symptoms subsided, the cough being only occasionally troublesome. A blister was applied to the nape of the neck, and renewed a second time without advantage; he was confined to his bed till the latter end of August, during which time the bowels remained regular and appetite good. In fact, little characterised these months, excepting pain in moving the right arm, which was apparently exquisite. Towards the latter end of August he became severely affected with cholera, which continued for twenty-four hours; it at length however yielded to opiates, but the accompanying diarrhœa continued, attended with tenderness all over the abdomen; moreover the right iliac region, where five leeches were applied, succeeded by a blister. Chalk and opium were administered without effect; I proposed a small bleeding, but the friends objected. An opiate injection produced a little quietude, not only in the bowels, but of the whole system; the relief being temporary, the diarrhœa continued, the cough became considerably aggravated, the appetite failed, sleeplessness ensued, until the skin was literally constricted upon his very bones; when finally, nature drew a veil over his existence.

Autopsy.—Upon removing the skull cap and dura mater, a thin coating of lymph was effused underneath the arachnoid—the pia mater was injected with blood—the ventricles and base contained not less than eight ounces of serous fluid, although the man remained sensible to the last. The left ventricle had acquired a greyish appearance—the anterior lobe of the left hemisphere was softened, so much so, indeed, as entirely to obliterate the anterior cornu of the left ventricles, the medullary matter of which swam in flakes upon the serous fluid. Upon removing the sternum and true ribs at their cartilages, the right lung was found firmly adhering to the ribs, through the medium of the pleuræ; each stroke of the knife, upon which, and the adhering portion of the lungs, exposed fresh collections of matter. One very large abscess had burst, and the matter insinuated itself at the lateral origin of the diaphragm; the left lung contained numerous tubercles, from the size of a pin's head, forming a regular series to that of a walnut, without any regular formation of matter.

The lower part of the jejunum, and the whole of the ilium had a dark appearance, so likewise the lower portion of the ascending part of the colon, the villous coats of which were unusually vascular, a degree of deposition elevating its villous coat preceding its absorption, forming ulceration, was continuous throughout the whole course of the ilium; the mesentery was extremely vascular, and its glands considerably enlarged. The cœcum, caput coli, had, besides deposits, four large ulcerated places, thickened at their edges; two large ones, as in the lower part of the colon, within two inches of the cœcum, one as large as a shilling. The transverse arch and descending portion, was perfectly free from vascularity, deposit, or ulceration. The right vasicula seminalis, contained more than two hundred stones, which, I presume, depended upon the inactive state of the genital system, by which the secreted semen became viscid, gorging up the passage, or so much so, to find an entrance into the passage; and the animalculæ, which Leewnhock discovered, by the aid of a microscope, no doubt formed a nucleus for the earthy deposit, showing the vast number contained in a small quantity of semen, when its thinner part becomes absorbed. Six of these animalculæ I once observed without the assistance of a microscope, being the third sensible emission of a young man, unacquainted with the nature of a discharge; the second of which produced nausea and vomiting; I saw the third upon the cover of a book which he brought me. I had no doubt as to its

nature, and upon strictly questioning him, I soon found that he had procured his semen by artificial means, for which he received a severe censure. The small gelatinous eminences, which I conceived to be the animalculæ, swam in, and were surrounded by a pale, thin, milky fluid. Upon the peritoneum, as it lies over the upper part of the sacrum, and is reflected from the anterior surface of the rectum upon the posterior of the bladder, there were numerous glandular eminences, and from the fact of them being repeatedly met with, as well as elsewhere, it falls favourable to those physiologists who have deemed glands as essential to secretion under every circumstance.

Lamb's Conduit-street, Oct. 16, 1830.

II.—Mr. Foote, Jun. *on Intermittent Head-ache.*

J. B. æt. 24, married, tall and pale, of the sanguineo-lymphatic temperament, of general good health and regular habits. Exposed himself to cold by sitting without fire, with wet feet and damp clothes the whole day, after a thorough drenching in "the pitiless storm."

On the 26th August, 1830, he complained of severe head-ache, increased by stooping, and accompanied by an intolerance of light, exposure to which considerably aggravated the pain. It is situated at the top of the head, over the brow, and in the eyes, with a sensation of heaviness in the head and eyes; the scalp hot, the eyes glistening, inflamed and suffused with tears: pupils highly dilated and did not contract on the approach of light: his vision was also in some degree affected: tongue white and furred; complained of pain on pressure on the region of the stomach, and on the lower margin of the liver: pulse quick and hard (100): bowels open.

A bleeding *ab rachio* was directed, but he would not allow it to be performed. In consequence the following medicines could only be given:—

℞. Ext. colo. c. gr. x. Hyd. submur. gr. ii.
P. antim. gr. ii.
Mft. Pil. ii. nocte sumend.
Magn. sulph ℥j. mane summend.

27th A. M.—The medicine has not yet operated, and the pain is much increased, as also the heat about the scalp: pain in the stomach, the photophobia, &c.

He now consented to be bled, and twenty ounces were abstracted from the arm, when he fainted. On recovering, he said that the pain, though much relieved, was not entirely gone; in consequence a few more ounces were allowed to flow, and that not succeeding in removing the pain, eight leeches were applied directly to the temples, four to each, which, after bleeding some time, removed it completely. Soon after the leeches fell off, the aperients began to act, and he considered himself as cured; but that not being relied on, small doses of the *tartarized antimony* were administered occasionally throughout the day, keeping up a slight degree of nausea.

28th.—A fresh attack of pain, heat of the scalp, &c. has again occurred. At eight in the morning, the same hour as yesterday, the coincidence of the hour of the attack induced some questions; by his answers to which it was discovered, that the head ache, aversion to light &c. had occurred for four mornings previously at the same hour. It was now considered as a genuine intermittent, and to be treated as such; but the pain being excessively severe, and as he earnestly wished to be relieved from it, six leeches were applied: they bled freely, and speedily removed the pain. Afterwards

℞. Liquoris arsen. gtt. xii.
Aquæ. distill. ℥iv.
Sp. lavend. c. ℥ss.
Mft. Mist. sum. 3 tiam a partem, 7 hor.

29th.—The pain recurred this morning as severe as ever, *but at seven instead of eight:* bowels not open since the preceding evening.

Habeat pil. purg. statim sumend.

He had likewise a lotion, composed of the strong acetic acid and rectified æther, to sponge the forehead with.

When the pills had operated, which they speedily did, the pain was much relieved; and had entirely disappeared by ten, in so much that he again considered himself cured, and craved for something more substantial than his antiphlogistic regimen allowed him.

℞. Lig arsen. gtt. xviij.
Dec. cinchon. ℥iv.
Sp. lavend. c. ℥ss.
Mft. Mist. 3 tiam partem, 12 ma, 1 na mer.
et 7 mis horis sumend.

30th.—The pain has again recurred this day one hour previous to the former attack, namely, at six in the morning; but it is not quite so severe. The pills, as yesterday,

again removed it, and near the same hour, when the following mixture was administered:—

℞. Sulph. quinæ. gr. ix.
Aq. m. vir. ℥iv.
Acid. sulph. dil. gtt. xv.
Tinct, aurant. ℥j.
Mft. Mist. sum. 3 tiam partem,
1 ma mer. et 5 tis horis.

31st.—The pain did not occur until half past seven, and was very trifling in comparison with the other attacks. It went off at nine, thus lasting only an hour and a half. The mint water was changed for the inf. aurant. c. as it did not sit easy in the stomach.

Sept. 1.—Nearly well.

III.—*Inquest on the Body of Miss Cashin.*

To the Editor of the London Medical and Surgical Journal.

Sir,—I trust that you will deem the best answer to the notion of my inability to have conducted such an examination as that of the body of Miss Catherine Cashin will be found in the opinions of a few celebrated anatomists and pathologists, under whom I have had the honour of studying, or with whom I have the pleasure of having studied. The opinions, of which the following are extracts, were obtained when I was a candidate for the situation of curator to the museum of a public body. Dr. Alexander Monro, of Edinburgh, observes, "It affords me much gratification to bear testimony to your zeal and progress in the study of anatomy, so that I think you well qualified for discharging the duties of the office to which you aspire." Dr. Knox, of Edinburgh, with whom I studied for some time in his private dissecting-room, says, "I with much pleasure, and independent and wholly uninfluenced by personal motives, declare you to be exceedingly well qualified to hold such an office, and that there are very few persons to be found possessing either your abilities or industry." Mr. Charles Bell, in writing to Mr. Brodie, states, "His education has been very complete, his attainments are of the first order, and such as must make him very useful to a new institution. You may see his preparations and his drawings, by which you will perceive that he is excellently well calculated to form or add to a collection, as well as to make it useful to the students." Mr. Bennett, the professor of anatomy in the University of London, writes the following opinion: "I have had the pleasure of intimately knowing Dr. Alexander Thomson since the opening of the university, where he has been a most zealous student, and can, therefore, with confidence bear testimony to his undoubted capability to fill the office he aspires to in King's College. I have met, both at home and abroad, in my capacity of teacher, many young men, who probably

may excel Dr. Thomson, each in some particular department, but never have I known one whose information and acquirements were so comprehensive and extended. With such attainments I deem Dr. Thomson peculiarly well adapted to perform the duties of a curator, an office, which of all others in a medical school, requires in the individual holding it an education of the highest order. I can testify particularly to Dr. Thomson's knowledge of anatomy, and from the specimens of preparations made by him, I believe him to possess a very superior taste and tact in that very difficult department." Dr. Granville, who has watched me more or less through life, observes, " I have found him anxious for knowledge, assiduous in his enquiries, original in many of his researches, and dexterous as well as skilful in dissecting, making preparations and taking drawings of the various parts of those animals, which engaged most of his time and attention. His scientific qualifications are in perfect accordance with his desire to advance natural history and the science, which teaches the structure of man; all which circumstances added to his great zeal and natural bias for philosophical investigations, render him well qualified for the situation of a *curator* of an anatomical museum of natural history in general." Mr. King, well known for his anatomical powers, late of Aldersgate-street, writes to me. " This I can affirm, that I never saw a post mortem examination better conducted than what I saw you engaged in, I mean that of the body of Miss Cashin. I saw enough to convince me you stand, or ought to stand, among the first men in our profession." Dr. Clark, of Cambridge, no mean anatomist, certifies, " that Mr. Alexander Thomson, of St. John's College in this University, has lately passed the medical examination with great credit to himself; and that in the anatomical department thereof, which came under my own more immediate observation, he distinguished himself in such a way, as to allow me to state without reservation, that I consider him well qualified to discharge the office of Physician to the London University Dispensary, with honour to himself and benefit to the establishment." Mr. James Syme, the celebrated surgeon of Edinburgh, and my old teacher of anatomy, writes me thus; " You possess the advantages of excellent talents, extreme fondness for your profession, and opportunities of studying it, in all its branches, that fall to the lot of few of its members. It will afford me great pleasure to hear, that you have succeeded in obtaining the situation which is at present the object of your wishes, and so far as my recommendation can go, I most freely give it." I will trouble you with only two more opinions out of the hundred which I laid before the Council of King's College, but which I have since withdrawn, because I will never belong to any institution which has not liberality inherent in its constitution. I shall now give you the opinion of a gentleman, who is known never to say MORE than he thinks of any man, and never to restrain himself from expressing a bad opinion he may entertain of any man. Few men, therefore, escape the lash of his tongue, still fewer the shrug of his significant shoulder ——. I mean Dr. D. D. Davies. " In my own department

of instruction at the university, I can safely say that no student, who attended my lectures at the same time with yourself, gave more pertinent answers to my questions in the class-room examinations, nor furnished at other times more various and substantial evidence of a full and perfect comprehension of my principles and precepts. I am moreover aware, that your general character in the university has been that of an ardent and successful student. Your devotedness to the study of pathological anatomy seems to me to give you a peculiar claim to notice, as a candidate for the office of curator of a museum of anatomy. I shall be most happy to hear of the success of your application." Lastly, Sir, let me lay before you the opinion of the accomplished and scientific Dr. Hope, of St. George's Hospital, one of my old fellow students: "I have been acquainted with Dr. Alexander Thomson since the year 1822, and can bear testimony to the extraordinary zeal with which he prosecuted his professional studies while in Edinburgh. He distinguished himself particularly for his profound and exact researches in physiological and morbid structure, for the beauty and fidelity of his delineations of disease, and for the prominent part which he took in the debates of the Royal Medical Society on practical as well as scientific subjects. Since his return to London I have seen him prosecuting clinical studies with his wonted ardour, and I have great pleasure in expressing it as my opinion, that he is calculated to become a distinguished member of his profession, and an ornament to any public institution to which he may be attached." Such, Sir, are some of the golden opinions, that from twelve to fourteen hours honest labour daily for thirteen continuous years, in three universities, has procured for me. They must disarm my enemies of the force of their sarcasm, as they remove the foundation for a belief in my ignorance and incompetence. With regard to my youth, it is my proudest ornament and greatest consolation, because with God's blessing my years shall only add improvements to my mind, and confirm in me the strong love of truth for the sake of humanity, which my virtuous mother early taught me to consider, as the grace and ornament of brilliant talents, the best apology and safeguard for those that are inferior. I must acknowledge your urbanity and gentlemanly demeanour to me, and thank you sincerely for this opportunity of vindicating my honour.

ALEXANDER THOMSON.

70, George-street, Euston Square.

WE publish with pleasure an authentic account of Dr. Alexander Thomson's detail of the necrotomic appearances of the body of Miss Cashin; and also subjoin a very complimentary testimonial from the jury in that gentleman's favour. To this we add a few extracts from the testimonials of some of the most eminent professors of anatomy and surgery in this empire, in proof of the zeal, industry, and ability

with which he has pursued his studies. We cheerfully insert these documents to shew the profession, that we have had no sinister motive in commenting upon his evidence; and we shall as readily admit communications from any of the other medical witnesses on whose evidence we animadverted, if requested to do so. Before the words we now indite will appear, the trial of the accused will have taken place, of which we shall give a special report, and it will then be seen whether our remarks and predictions were right or wrong. At all events we are conscious of having acted fairly and impartially, and of having had no object in view, but the promotion of the dignity of our profession and the interests of humanity.

Dr. Alexander Thomson's account of the autopsy of the late Miss Cashin:—

"On examination we found the body well proportioned, plump, and in good condition; the hair of a dark brown. Anteriorly over the whole of the abdomen and thighs, the skin peeling apparently from the effects of decomposition. The skin of the neck, shoulders, and face covered with green reticulations in the course of the blood vessels. The neck above the clavicles swollen and puffy, feeling when pressed as if containing air. The lower part of the face and upper lip covered with semi fluid-blood, which was discharged from the nose in the act of removing the body from the coffin. The features were well formed, and the nose prominent and straight, lips thin and mouth distorted to the right side; the nails grown to a considerable length but straight. Breasts full and plump; abdomen tense and tumid, and face of true proportion; body equally well proportioned at the back. The back and shoulders of a greenish hue, excepting a patch of about nine inches long and six and a half broad, and diagonally of about seven and a half inches irregular at the margin, denuded of cuticle and of a black colour, intensing towards the centre, and reddening towards the margin, and a little beyond the margin towards each shoulder. The spot was equi-distant from the acromion process of each shoulder, and spinous process of the occipital bone. The surface of the sore was hard and dry; the true skin, for the scarf skin or cuticle had been removed double the thickness of that beyond the patch, indurated and semi-cartilaginous, offering great resistance to the knife. The cellular substance, fasciæ, and muscles blended into one hard mass, from which they could with difficulty be separated by dissection. The cellular substance, fascia and muscles of the remainder of the back and posterior half of the lateral parts of the thorax and abdomen, minutely traversed with vessels carrying red blood, and the fat of these regions of a reddish colour. The cellular tissue of the back and loins infiltrated with serum. The anterior mediastinum healthy in appearance, but distended considerably with air. The cellular membrane in the course of the phrenic nerve also distended with air; the left cavity of the thorax contained about an ounce and a half of sanious serum, but neither in its costal, diaphragmatic or pulmonary portion was traversed by vessels containing red blood. The lungs of this side readily

collapsed, and expelled the whole of the air, and appeared of a dull greenish blue hue exteriorly, and interiorly of a purple dark port wine hue, apparently from venous congestion. This lung had at its superior part a small adhesion connected with a cicatrix of the lung, arising from an old attack of bronchitis; this cicatrix contained, however, two small cavities, filled with purulent fluid. The lungs of the right side white, internally they were of the same hue and appearance as those of the left; were everywhere in close adhesion with the mediastinum diaphragm and thoracic parietes through the medium of their pleura, which was connected by recent but organised adhesive bands, traversed minutely by longitudinal and parallel vessels, carrying red blood to the costal, diaphragmatic, pericardial and mediastinal pleura. The lobes of this lung were adherent to one another by more ancient adhesions; and at its upper part it contained a cicatrix similar in form, appearance, structure, and magnitude, which was about that of a walnut, to the cicatrix of the left lung, but containing no recent purulent matter. Neither lung contained any tubercles, nor do I believe from their appearance ever had, for the bronchial glands were in a perfectly healthy state, and the cicatrices noticed were evidently the result of abcesses of some earlier period of life, which had been long entirely obliterated. The bronchial tubes of both lungs, and the whole of the trachea was minutely injected with red blood, but in no case did there appear ulcerations of their mucuous membrane, while the hue of the blood was so dark, and the blood itself so recently decomposed, that it would be impossible for me to say more than that I do not believe it to have been arterial blood, because there was no matter effused into the bronchial tubes or trachea, the surface of which was nearly dry. The pericardium, though opaque, was entirely free from any appearances of recent inflammation, although it contained about three teaspoonsful of sanious serum. I must, however, observe, that the foregoing observation applies chiefly to the capsular parts of the pericardium, for there were some small stellulæ of red vessels on that part investing the heart itself, and some unusual injections of that portion of it which surrounds the heads of the great vessels, viz. of the aorta and of the pulmonary artery. The valves of the heart were perfectly natural in every respect, but the whole of the lining membranes of the heart were much and deeply stained with the blood, which in all the cavities of the heart, was in a state of effervescence and decomposition. The substance of the heart was unusually pale and yellowish buff in hue, and the whole more flaccid than usual. This substance contained no injected vessels, but a few bloody petechiæ. The abdominal cavity contained two or three teaspoonsfull of sanious serum. The peritoneum was not, however, traversed by red vessels in any part except in the region of the mesentery, where it was considerably inflamed. The stomach was externally of a red hue as if stained with blood, contained internally about half a wine glassfull of dark greenish brown fœtid viscid mucus, and had its mucous membrane most minutely and densely studded with stellulæ of red vessels, particularly in the cardiac por-

tion of its greater curvature. The same appearance was observed in the first three inches of the duodenum. No other trace of inflammation was found in any part of the intestinal tube, which was opened and very carefully and minutely examined, from one end to the other. Indeed the branches of the mesaraic arteries, after reaching the intestinal tube, were remarkably destitute of blood. The whole of the surface of the ilium was covered with thick, pappy, reddish, translucent, and somewhat viscid mucus; the latter part of the ilium and the colon and rectum contained a considerable quantity of soft, natural, healthy looking fæculent matter. It is worthy of remark, that the whole of the intestinal canal was distended with flatus, and had its coats more attenuated and translucent than I ever remember to have seen in any case that I have examined.

Account of the Examination of the Brain, Muscles of the Back, and of Spinal Marrow.

The deep seated muscles of the back were in a soft and pappy state. The external coat of the spinal marrow was universally of a reddish brown hue, which was partly removed by washing in water. No minute vessels carrying red blood were traceable in it, so that this colour might arise either from a stain or from inflammation. About four inches of that part of this coat, which covers the hinder half of the spinal marrow, lying immediately under the centre of the sore of the back, was very much thickened. Between the thinnest layer of this coat, and the free serous or arachnoid coat, were found several small bands of recent adhesive matter. The remaining membranes, particularly of the posterior half of the spinal marrow, were also highly coloured, perhaps from a stain. No trace whatever of disease was found within the cavity of the head.

Letter from the Jury to Dr. Alexander Thomson.

London, 2d September, 1830.

Sir,—Allow me, in the name of myself and my fellow jurymen, to requst your acceptance of our testimony, in opposition to the malicious, false, and despicable attack made upon you in the "London Medical Gazette" of last week. We beg you to receive our thanks for your minute and careful examination of the body of the unfortunate Miss Catherine Cashin, for the patient and clear manner in which you explained to the jury the meaning of every technical term which you employed, and for the unhesitating and open manner in which you answered all questions, from whatever person they came, for the deep interest you have taken in this case, and for your whole conduct during the inquest, which we shall not soon forget.

We have the honour to be, Sir,

Yours respectfully,

(Signed by the Jury).

IV.—*Observations on Forensic Medicine.* By M. Rayn, M.D.

There are many bodily imperfections which are not sufficient to deprive married persons of mutual succour. The principal end of conjugal union is the establishment of a contract, by which the parties promise the exchange of mutual succour, and many of the ordinary infirmities are not a sufficient motive to prevent consolation being given by those affected. Marriage is defined a civil and religious contract between male and female, by which they engage to live together in mutual love and friendship for the purpose of procreation. Some diseases are aggravated by marriage, as inveterate scrofula, epilepsy, confirmed phthisis; and as these and other diseases may be communicated to the offspring, they are considered by many as impediments to matrimonial union. Again, rachitis is often transmitted to infants; and this rachitic predisposition in the female, predisposes her to spinal and pelvic deformity, and it too often happens in such cases, that the female, the day she hopes to be a mother, is consigned to the tomb. Mania and other forms of mental imbecility, are impediments to the marriage contract. It is necessary for this compact that there should be capacity to contract, and the consent of both parties. The various requisites for conjugal union, are seldom duly considered by society; in fact, few persons trouble themselves about them. The age, constitution, or health of the parties, are scarcely ever considered, though highly important. All physiologists agree that early or premature procreation is objectionable on many accounts, from the imperfect developement of the parties, the smallness of the pelvis, which exposes the woman to protracted suffering during parturition, and too often to loss of life. It is universally known to all practical obstetricians, that females, who become mothers at an early age, purchase the honor of maternity at a very dear rate. Such persons are liable to numerous disorders during gestation, the pelvis is unable to support the gravid uterus, it is too small for the passage of the infant, consequently parturition will be laborious and protracted, and finally must be completed by artificial means; while the degree of pressure on the important organs of the pelvis, produced by parturition, causes great suffering and danger to the woman, and may be followed by deplorable disease, or death itself. It is also generally admitted by the most eminent writers, that the present mode of female education is highly injurious to

health, predisposes to spinal curvature, and consequently to pelvic deformity, thereby rendering the object of procreation highly dangerous to the other sex. Writers on spinal diseases have very fully illustrated this position. Again, great injury is inflicted on the natural developement of females, by the custom of tight lacing, the functions of the thoracic and abdominal viscera are impeded, the developement of the mammæ and nipples is prevented; these parts are removed by absorption from pressure, the lactiferous ducts are almost obliterated; the nipple is undeveloped, and therefore lactation is impeded, and the natural food of the offspring greatly diminished. Duges, and other foreign writers, allude to unnatural excitement of the generative organs, and contend that masturbation is the cause of rickets and of various chronic and incurable diseases. In the male sex, it is productive of the worst consequences, and often causes impotence and sterility. The female is unfit for the purpose of procreation until after the twelfth or fourteenth year, or until menstruation is established; for at an earlier age the sexual organs are undeveloped, there is no venereal desire, and sexual intercourse is painful. Hence the cruelty and barbarity of violating female children of tender age, which shall be farther explained in the description of rape.

The male is also incapable of performing his part in the mysterious process of procreation until after puberty, and according to the law of this country before the fourteenth year. He is not qualified to enter into matrimonial engagements until the completion of the twenty-first year.

There is no subject which distresses married persons so much as want of family, or leads to so much domestic feuds and unhappiness, and finally to the nullification of marriage. It is necessary for the medical jurist to be fully informed of all the causes which disqualify both sexes for the object of procreation. All disqualifications for matrimonial union may be divided into two classes; 1, those caused by defect of mental power; 2, those caused by defect of sexual organization. The disqualifications are therefore moral and physical, and are expressed by the terms impotence and sterility. These terms are often used synonymously, though widely different. Impotence consists in the incapacity for copulation, or in the impossibility of exercising the venereal act; sterility consists in the aptitude of the organs for procreation, without the power of reproduction. Thus a person may be impotent, but not sterile and vice versa. Some writers apply the term impotence to the male, and sterility to the female, but such a distinction is arbi-

trary and unscientific, the female may be impotent from malformation, and the male sterile, from excessive venery. We may observe here, that sterility does not afford a just plea for the nullity of marriage. We have now to consider the manifest causes of impotence in both sexes, physical and moral.

Physical manifest, natural or accidental impotence, of the male.—The causes of manifest impotence of the male, are absence of the penis or testicles. There must be total loss of the penis, as the slightest penetration into the vagina is sufficient for procreation. (Blundell, Richerand, Hurd, in Lond. Med. & Surg. Journ. vol. iv.) The absence of the testicles from the scrotum, is no proof of their non-existence in the abdomen; unless the penis be small, the voice puerile, the beard absent, the form delicate, and the whole physical and moral constitution feminine. It is well known that the testicles may not descend into the scrotum, and be fully developed in the abdomen, and perform their functions perfectly, and according to some writers, much better than in the natural situation. The removal of one testicle by castration or disease, is no impediment to procreation. (Astley Cooper, Marc. Dict. des Sc. Med.) When both testicles are diseased, their secretion is injured or destroyed, and impotence is the consequence. Both testicles may be removed by castration, yet procreation be effected, as the vesiculæ seminales may contain a sufficient quantity of semen for one or two prolific emissions, after which the person will be impotent. But such persons, and also eunuchs, have erection and emission, which consists of the prostatic fluid, the mucus of the seminal vesicles and urethra.

The urethra may open above the pubes in monsters, (Duncan and others), and in such cases the individual is impotent. Mahon and many other jurists, contended that individuals were impotent who where affected with hypospasdias; that is, when the urethra opens through any part of that canal from its orifice to the scrotum. If the opening be so placed that it may enter the vagina, impregnation will follow. Frank relates a case in point. He knew a father so affected, transmit it to his son, and even to three generations. Another individual had three sons. Bull. de la Faculte de Medicine, 1810. Morgagni, Petit-Radel, Sabatier, who was hypospasdiac, Gauthier and Richerand have observed analagous facts. Dict. de Sc. Med. art. Hypospasdias.

Sometimes the urethra opens along the dorsum penis; this constitutes epispasdias. It is evident that the reasoning employed in the preceding case is applicable to this.

Dimensions of the penis, extraordinary thickness and length, are considered by some writers as causes of impotence. Fodéré is of opinion that the respective organs may be so disproportionate, as never to be adapted to each other; and the physical inconveniences are such as to expose the female to great injury and danger to her health. It must be admitted, however, that thickness of the penis, which excites great pain in some women, procures voluptuous sensations in others, and that the vagina is capable of great dilatation, which may be effected by gentle and gradual efforts, and reduced to a state capable of receiving the virile member. Though extreme length of the penis may produce contusion of the os and cervix uteri, it cannot be deemed a just cause of impotence, because, by certain precautions, this danger may be avoided, unless there is great difference between the age of parties. Diminutiveness or shortness of the penis is no proof of impotence, for the reasons already stated. Obliquity, tortuosity or bifurcation of the penis, stricture of the urethra, phymosis, paraphymosis, or excessive length of the frænum, cannot be considered absolute causes of impotence, as they can be remedied by surgical operations. Large scrotal herniæ cause recession of the penis, and render coition impracticable; but in some cases relief may be afforded. The same observations apply to large hydrocele. Sarcocele or scirrhus of testicle does not cause absolute impotence, as it may be removed by operation; and one testicle remaining is sufficient for procreation. The testicles may disappear by disease, (Hamilton, Larrey, Fodéré,) or by the use of iodine. Three conditions are necessary on the part of the male for copulation—*erectio et intromissio penis, cum seminis emissione.* Impotence in men depends on defect of some one or more of these conditions; erection, intromission and ejaculation of the spermatic fluid. The causes of impotence are more commonly observed in man than in the other sex; and this is easily accounted for, by the greater part the male has to perform in nuptial congress. This is evident from the phenomena which give the virile member the form and disposition proper for erection, the introduction of the organ, and the ejaculation of the semen, effected by a violent and complicated action, which requires a concurrence of many indispensable conditions, as the organs not only contract spasmodically to effect the expulsion of the male fluid, but all the body participates in this convulsion at the moment of emission, as if nature at this instant forgot every other function. The causes of impotence in man arise from two sources, from malformation

of the genitals, or from want of action in them; but in females, impotence can only depend on malformation, natural or acquired, as the organs have little to do in the act of copulation, they being merely auxiliary to it.

The causes of want of erection may be divided into physical and moral. The physical causes depend on defects of the body, as paralysis of the penis, curvature of the spine, frigid and apathetic temperament. The moral causes are such as act powerfully on the imagination, and suddenly produce an atony of the genitals, or induce an inactivity in organs properly developed. The genital organs, says M. Virey, offer two states during life, in the young and old, which are the frozen zones of existence, the intermediate state is the torrid zone of life. The infant has nothing to give, the old has lost all. This doctrine, though generally correct, admits of exceptions, as children have been precociously developed even before the fourth year, examples of which I have cited in my work on Midwifery; and our author described a boy, aged seven years, a native of the department of Lot, who was as fully developed as an adult, and who made the most furious comic attacks on his female acquaintance, and absolutely deprived one of them of that which she could never regain. On the other hand, a Frenchman, aged ninety-nine, married a tenth wife, and was a father at 102 (Bosquet), and Thomas Parr, married at 120, and performed his nuptial duties so well at 140, as to make him forget his old age. He was even compelled to appear in a white sheet at one of our churches, for an amour, in his 150th year. He outlived nine kings of England. (Elliotson.) But in general, the power of procreation continues from puberty to the 65th year. Immaturity of age, or senescence, may be put down as the first causes of want of power of erection. Among such causes, we must reckon a frigid or apathetic constitution, a total insensibility to sexual desire, and this is said to be an aggravated or profound lymphatic temperament. Descourtliz describes persons of this temperament in these words:—"The hair is white, fair and thin, no beard, countenance pale, flesh soft and without hair, voice clear, sharp and piercing, the eyes sorrowful and dull, the form round, shoulders strait, perspiration acid, testicles small, withered, pendulous and soft, the spermatic cords small, the scrotum flaccid, the gland of the testicles insensible, no capillary growth on the pubes, a moral apathy, pusillanimity and fear on the least occasion, are symptoms of anaphrodisia, or impotence, or sterility; and any one having the majority of these signs, is incapable of copulation or generation." Propositions sur l'Anaphrosidie.

A habitude of chastity is another opponent to erection, such as in the ancient fathers of the desert, and in those, who by fasting and other forms of church discipline, extinguish those feelings implanted by nature, but in their opinion contrary to that purity which should distinguish those who have made vows of chastity. The organs of such persons decay like all corporeal organs, whose functions are not exerted. Long continued debauchery will cause impotence, whether with women or by musturbation. Every practitioner has met with cases of both these kinds. The impotence, says Pinel, caused by the latter excess, reduces youth to the nullity of premature old age, and is too often incurable. Drs. Gregory and Parry have forcibly commented upon this baneful habit, as also many other distinguished writers. Long watching, great fatigue, mental or corporeal, want of nutriment, excessive evacuations, sanguineous or otherwise of blood, bile, fæces, saliva, menses, scorbutic cachexia, marasmus, peripneumony, hydrothorax, anasarca, malignant fevers, diseases of the brain and spinal marrow, whether from external injuries or poisons, and numerous other diseases, are temporary causes of impotence. Sexual desire is suppressed by acute diseases, and returns after convalescence. Zacchias and Beck relate numerous cases in proof of this position. We see this further illustrated during the convalescence after fevers, when erection often occurs. Some diseases stimulate the generative organs, as calculus in the kidneys or bladder, gout, rheumatism, hæmorrhoids, leprosy, and other cutaneous affections. Excessive venery is a frequent cause of want of erection and impotence. I have been consulted in numerous cases of this description, especially after marriage. And this is a frequent cause of want of family in young married persons.

The abuse of narcotics, saline refrigerants, acids, acid fruits, iodine, camphor and nitre, are causes of impotence. Of all causes cold is the most powerful. Thus in the Polar regions, there is neither love nor jealousy.

Moral Causes.—There are no facts which so evidently prove the influence of the moral over the physical state of man, as the phenomena of erection. A lascivious idea will arise in the midst of our gravest meditations, the virile organ will answer its appeal, and will become erected, and fit for the functions which nature has confided to it. But another thought arising, will instantaneously extinguish with the most frigid indifference, all our amorous transports.

This statement is well exemplified by the effects of the

passions. Chagrin, inquietude, and debilitating passions, prostrate the whole economy, jealousy, and profound meditations, impede the faculty of procreation. Thus at the very moment when enjoyment is about to be commenced, too eager desire, the trouble which seizes on too ardent an imagination, the excess of love, the fear of not being loved, timidity, respect, doubt of capability, the fear of being surprised, the shame of excessive modesty, on being in the presence of witnesses, antipathy, the sudden knowledge of some physical defect in the female, aversion from filth, odour and pre-occupations of the mind, are sufficient to oppose erection, and to abate it most suddenly. But who can enumerate all the moral causes capable of impeding or destroying erection? A sigh, doubtfully interpreted, a recollection, an equivocal word, are sufficient to destroy the illusion, and congeal the most violent passion. A newly married man has become suddenly impotent, on discovering his bride was without a hymen; and a debauchee has as suddenly become anaphrodisiatic, on finding the membrane perfect. (Dict. Des. Sc. Medicales.) And thus with a literary man, a philosopher, or those who have a ruling idea, which excites the brain more than the sexual organs. The fear of being impotent is the most frequent and powerful cause of this condition. Thus the cases related by the immortal Hunter, and the absurd impressions of former times as to the influence of his Satanic majesty, and his worthy colleagues the witches. Men supposed there was no physical power when the moral state had consumed their desires, and they were impotent, as long as they supposed themselves so. Such is the power of the moral over the physical state of man. How many impotent persons of this class were cured with bread pills by Hunter; and how many are annually cured by mere placebos? In remote ages, men allowed the illusions of the imagination to have a most extraordinary power over their minds and bodies. This was most remarkable in the subject before us.

Thus we cannot easily comprehend how the power of rue, or St. John's wort, could prevent a man properly developed, from performing his nuptial duties, on his bridal day; nor how the pronunciation of a few obscure and unintelligible words could have a similar effect. These words were to be written on paper with the blood of a bat, sewn up with a needle, which was used in making the shrouds of the dead, and then the charm was to be tied round the neck of the new married man. (Venette—also les Secrets du Petit Albert.) To cure these enchantments, the church prescribed prayers, and the doctors physic. Mr. Hunter's

plan was best. He ordered timid bridegrooms to refrain from any venereal combats for a week, no matter what might be their desires, and then to try their prowess. This cure was effectual, and many of his patients succeeded sufficiently as to remove all unfavorable impressions of impotence ever afterwards. They casually took some mild form of medicine, and a few drops of tincture of opium each night, during the period of preparation.

Impotence natural, manifest or accidental in woman.—It has been long held, I think erroneously, that the generative organs of the female are more complicated than those of the male; and therefore, that the causes of impotence are more numerous and less apparent in the other sex. If we examine the genital organs of both sexes anatomically, we will find them equally complicated, and possessing an equal adaption or arrangement of parts, as well as an identity of structure. Thus we find the structure of the penis, very similar to that of the genital fissure and vagina, the double fold of prepuce the cavernous structure, its performance of a part of the genito-urinary functions, the openings of the vesiculæ seminales and uterine tubes, the vesiculæ seminales and uterus, the testes and ovaries, the spermatic cords and the uterine tubes. We also find the diseases of one sex as numerous as those of the other, and those who doubt the assertion, need only refer to the works of Chopart, Titley, and others, on diseases of the genito-urinary organs of the male, for ample proof of the position. I need scarcely observe, that diseases of the vasa deferentia, vesiculæ seminales, the pressure of tumours, hydatids, &c. on these parts, diseases of the prostate gland, urinary calculi, diseases of the urethra, fistulæ in perineo, diseases of the bladder, penis and scrotum will be found as numerous as those of the generative system of the other sex. Besides, it would be inconsistent with the wisdom and beneficence of Providence, that one sex should have more to do in the perpetuation of the species than the other.

The causes of impotence in woman, are malformations or diseases of the organs subservient to procreation. Some of these causes are apparent, others obscure. The apparent causes are obliteration of the external sexual organs, both soft and hard, absence of the vagina and uterus, and great deformity of the pelvis, with numerous diseases of the external and internal genitals. The vagina and uterus have been found to consist of a dense fleshy substance, (Morgagni, Mott, Fodéré) and the vagina has been partially closed by such substance, (Pare, Ruysch, Fabricius, Physick, Fodéré.) In my work on Midwifery, I have said,

" the vagina may be absent, (Haller, Vicq. d'Azyr. Journ. des Scavans, Boyer, Caillot, and Willaume,) unusually small, impervious from adhesion, tumours, or a frænum passing above the hymen, or it may be filled with a fleshy growth. If too narrow, it may be dilated with a bougie or a tent sponge; and when unattended to, must be divided by incision, to admit the passage of the infant. It has closed up after conception. There is sometimes a great congenital confusion of parts, so much so, that it would be tedious, if not impossible, to describe them. In cases of extreme narrowness, impregnation may take place, and the canal be gradually dilated during parturition. I have seen four cases of cohesion of the labia externa, at the age of puberty, so complete, that only a small probe could be introduced at the superior commissure. The vaginal canal may be totally or partially obliterated, and in such cases an operation is impracticable, and impotence absolute." The vagina has opened into the bladder, (Sue) rectum, anterior parietes of the abdomen, and pregnancy has occurred in the two latter cases. Morgagni attests that of the abdomen, lib. v. epist. 67; and the last is given in the Annales de Med. de Montpellier, which led the celebrated Louis to propose the following question to the casuists:— " an uxore sic disposita uti fas vel non, judicent theologi morales?" Barbant cites two examples of pregnancy of this kind. Dic. des Sc. Med. art. Impuissance. Orfila contends such malformation is a cause of impotence, for though coition is not physically impossible, it is contrary to the laws of morals and of nature. The Royal Court of Treves annulled a marriage in such a case. In cases of vesico-vaginal, recto-vaginal fistulæ, and amplification of the vagina from laceration of the perineum, inflammation and ulceration may occur and impede sexual intercourse, but such cases could not warrant a divorce, as they occurred after marriage. Excessive straitness, or partial occlusion of the vagina, are not impediments to procreation, as fecundation may occur, if the spermatic fluid be applied inside the labia, as already mentioned. Besides, fecundation has happened, and the hymen perfect. Ruysch, Pare, Smellie, Hildanus, Mauriceau, Boudelocque, Nægele, Nysten. Jour. de Med. de Corvisart, and Leroux. Prolapsion, and some forms of ulceration of the vagina, are only temporary causes of impotence. Cauliflower tumours of the clitoris or nymphæ may be temporary causes of impotence, as also tumours in the vagina. Manual of Midwifery, p. 55. Burns. Trans. Dublin College of Phys, 1824, v. 4. Ed. Med. and Sur.

Journ. 1805. Leucorrhœa is one of the most common causes of sterility.

The uterus may be absent, (Columbus, Schlegel, Morgagni, Meyer, Renauldin, Hamilton, Bousquet, Theden, Engel, Lieutaud, Caillot, Ford, and Breschet.) I might quote numerous writers who describe the cavity of the uterus divided by a septum, but it is not stated whether or not procreation was impeded. Many authors have also described partial or total obliteration of the uterine cavity, among whom are Bichat, Lallement, Segard, Gardien, &c. The uterus may be double, that is, there may be two uteri. Haller, Purcell, Med. Facts. vol. 3. Mem. Med. Sci. v. 4. Lond. Med. Journ. 1782, v. 3. Dict. des. Sc. Med. T. 6. Duges, Journ. de Progres, v. xxii. A vicious direction of the os and cervix uteri, or complete occlusion of the former, are irremedial causes of sterility. The whole of the causes of impotence and sterility in females, may be arranged under three classes; 1, those depending on the organs which receive the male fluid, namely, the genital fissure, the vagina and uterus; 2, malformation or diseases of the organs that transmit it to the ovaries, and reconvey the embryo to the uterus, and these are the fallopian or uterine tubes; 3, the malformation or diseases of the ovaries or organs, which supply the germ for fecundation. Inflammation, ulceration, scirrhus, cancer, ossification, calcareous deposit or tumours in any of these organs, may be the cause of sterility. In fact, any disease of the female genitals, attended with much constitutional disturbance, may be held a temporary cause of sterility. Tumours of various kinds, callosities, cicatrices, adhesions, from disease or mechanical violence, displacement of the uterus, prolapsus, procidentia, retroversion, antiversion, lateral obliquity, and the various disorganizations incident to muscular, serous and mucous tissues, when present in the female organs, are causes of sterility. In the last volume of this Journal, is an account of two singular cases of procidentia uteri; in both impregnation was effected through the natural orifice, though permanently fixed without the genital fissure for years. I have also published cases of dysmennorrhœa, in which pregnancy occurred. In the disease called irritable uterus, so well described by Gooch and others, a cure may be effected. In absence of the ovaries and uterine tubes, there can be no conception, or in dropsy, or enlargement of the former, or in occlusion or adhesion of the latter to the uterus, or adjoining parts. There are some cases of constitutional sterility, which are inexplicable; for example,

those in which a woman has had no family for years, and at length becomes a mother.

The principal moral causes of impotence are hatred, disgust, fear, timidity, an excessive ardour of desire, divers ramblings of the imagination; in a word, every passion strongly excited, that is to say, all cerebral action so strong as to diminish that of the genital organs, which require for cohition great exaltation. Impregnation may happen under such circumstances. Fodéré is of opinion that complaisance, tranquillity, silence, and secrecy are necessary for prolific coition; it is arrested as if by enchantment, by noise, dread, fear, publicity, jealousy, contempt, repugnance, slovenliness, by love too much respected, and by every thing that can illumine the imagination.

Many of the causes of impotence in both sexes may be removed, but many are beyond the reach of art. It has been long maintained, that the powers of the mind have great influence in promoting and impeding the process of procreation. Much may be said for and against this position. In discussing this question in the work so often referred to, I have said—"In order to have coition effectual, there is a mutual relation necessary—a union in mind and pleasurable enjoyment as well as in body, and unless this union of love be mutual, conception will seldom, if ever happen; for it has been long observed, that frigidity and reserve in either party, will defeat procreation—a want of love being a certain cause of barrenness. Hence, in unequal marriages, where one of the party is old and the other young, there is scarcely ever offspring. Again, it has been observed, that in cases of rape, impregnation seldom occurs.

"In order to effect procreation, there must be an ability and fitness of disposition in the sexual organs of both parties. The disproportion of the organs impede or prevent conception. This is observed very often, when persons of extreme difference of stature cohabit. The most frequent cause of want of family, is too frequent intercourse; the male semen will be too weak, and the female will become relaxed, have increased mucous vaginal discharge, which will extinguish the vivifying principle of the male altogether. Hence we see strong, young, vigorous, and amorous persons remain married five, six, and seven years without children. I know three respectable families in this predicament. I am inclined to think that the male semen is not sufficiently strong when only allowed to accumulate for a day; in fact, all healthy persons who desire children, should cohabit but once or twice a week, and they will be seldom

disappointed in their expectations. The sexual act is not performed well when repeated too often. Hence when boys or extreme young persons get married, they seldom propagate. It is an opinion, that the greater the quantity of semen, the more perfect the formation, and even future disposition of the offspring, and the greater the pleasure experienced by both sexes. The first opinion is attested in the inspired writings, Gen xlix. v. 3. The more the semen is preserved, it is more powerful and ought to be retained for a few days, in order to render the sexual congress effectual.

"Care, thought of business, sorrow, sadness, and depressing passions should be avoided, as they have a bad effect on the conception. This has been long the prevailing opinion among mankind, especially among physicians, naturalists, and I might add, sentimentalists too."

On the other side, I have said, in disproving the vulgar notions, that the power of the mother's imagination can deform the infant.

"Conception is independent of the mother's will and pleasure. How many women are desirous of children, and yet have none; while others, not only conceive, contrary to their wishes, but go to their full time in despite of the various means they wickedly and designedly employ to destroy the fœtus. Again, the nutrition and growth of the infant go on according to the laws of nature, whether the woman wishes or not. It is also out of the mother's power to choose a boy or girl—to have one or more children at a birth—to cause the infant to be fair, dark, large or small, weak or strong, or to give it her own or the father's features. If then, women cannot, by imagination or will, promote or impede conception, how can any one believe, without derogating from the power and wisdom of God, that they can disfigure the infants, and injure the works of nature? Is it not absurd to suppose that the mother has more influence over her child, than over her own body? The idea is preposterous. If she cannot, by the strength of her imagination, make any mark on her own body, or change the figure, situation, quantity, and number of her own limbs, why should we believe she can do so to the body of the infant? Is it not silly and ridiculous to think, that if the affrighted mother apply her hand to any part of her body, which may be done accidentally and undesignedly, this can affect the same part of the infant? Does she mark that part of her own body, by such application of the hand?"

From the preceding statements, we may, I think, deduce the following general principles:—

1. To declare either sex impotent, it is necessary that certain physical causes be permanent, malformations or accidental lesions, and be evident to our senses, which art cannot remedy, and which prevent the faculty of exercising a fecundating coition.

2. These causes, when rigorously examined, are few in number.

3. The moral causes of impotence ought not to be taken into consideration, as they would serve as an excuse for an individual accused of impotence.

In this country the medical jurist is seldom required to decide questions of impotence or sterility in our courts of justice, but every medical practitioner may be consulted in private, either before or after matrimonial engagements. He may be the cause of great domestic trouble, and embitter the life of male or female. He should be exceedingly cautious in fixing the stigma of impotence or sterility on either party. The legitimacy of children may be contested on a plea of impotence, and such a plea may be offered by a man accused of rape. It is therefore evident, that a proper knowledge of the subject is necessary to the medical practitioner.

BIBLIOGRAPHY.

PHYSIOLOGY.

1. *Of the Pulse and its Modifications.* By S. Jackson, M. D. Assistant to the Professor of the Institutes and practice of Medicine and Clinical Practice in the University of Pennsylvania.—It has been a subject of dispute whether the arteries experienced a dilatation in consequence of the impulse communicated to the blood by the contraction of the ventricles. A very slight dilatation certainly does occur, though much less than formerly supposed, or might be believed, from observing superficially the pulse. This point appears to be very accurately settled by the experiments of Spallanzani, Parry, and Poiseuille.

Three circumstances govern the pulse, of which it furnishes the indications; 1st, the frequency or slowness, force and rythm, or order of the ventricular contractions; 2d, the quantum of blood actually contained in the vessels or proper vascular system, which is governed by the state of the capillary and areolar circulation; and 3d, the state of the arteries.

1st. The pulse depending so much on the action of the heart, partakes of all its aberrations from the natural state, and these de-

viations are the consequence of idiopathic affections of the heart, or of its sympathetic disorders. The last are the most common, for the diseases of acute, and most of those of chronic irritations, extend their influence to the heart, and involve it in the morbid condition.

The modifications of the pulse arising from the contraction of the heart, are those affecting its frequency, slowness, force, and rythm or mode of pulsation.

Frequency of the pulse is the most constant and certain symptom of an existing irritation in the organs. Whenever the heart experiences irritation, either sympathetically or primitively, its contractions are quickened, and so long as a frequent pulse continues, whatever may be the improvement of other symptoms, we should always suspect a lurking inflammation, and endeavour to exterminate it. The diminution of the frequency of the pulse, in acute diseases, is uniformly a favourable sign, while its persistance is as positive an evidence nearly of the continuance of the disease. In convalescence from gastro-enteritic fevers, after the perfect reinstatement of the alimentary organs in their healthy state, I have frequently found the frequency and irritation of the pulse continue, and every attempt to increase the diet or invigorate the patient by tonics, to be attended with febrile excitement. The irritation of the heart in these cases, at first merely sympathetic, had become established permanently, and did not terminate with the cessation of the primary irritation. It is to be overcome by local depletion from the cardiac region, blisters to the same part, small bleedings, and restricted regimen. If neglected, organic disease of the heart will sometimes succeed, or the patient be cut off by dropsical effusions.

Frequency of the pulse may be combined with its force and fulness, but they do not necessarily accompany each other.

The contractions of the heart, in the majority of persons, average from sixty-five to seventy in the minute; above that number, the pulse is said to be frequent. It often mounts as high as one hundred, one hundred and twenty, and seldom beyond one hundred and fifty in the minute.

When the contractions of the heart are very feeble, from the emptiness of the vascular system, they increase in frequency, as though the deficiency in the quantity of the blood circulating, was to be compensated by the increased velocity of the circulation. It is scarcely possible to mistake the frequency of the pulse from this cause, for the frequency produced by irritation. It is always attended with extreme weakness of the pulse.

Quickness of pulse differs from frequency; it has reference to the time of each pulsation, and depends on the systole of the heart being performed with a rapid contraction. Most commonly it accompanies frequency of the pulse, and is an evidence of existing irritations. The frequent pulse of exhaustion is generally a quick pulse.

Slowness of pulse is usually employed as opposed to its frequency and expresses the fewer number of pulsations than is usual in a given

time. Rareness or paucity of pulse would be a more correct designation, to distinguish it from slowness, as contrasted with quickness. The diminution in the pulsations of the heart, manifests the absence of irritation in that organ, or its declension, if they had been previously frequent. Rareness or paucity of pulse accompanies at times a full and strong pulse, particularly in the congestions of the cerebral organs, and is also an attendant on a small and feeble pulse, especially in chronic diseases, attended with serous effusions. It is produced by digitalis, and appears to be a specific action of that remedy, diminishing the irritability of the heart, and consequently the number of its contractions.

Slowness of pulse, as opposed to its *quickness*, has relation to each pulsation. It arises from the same causes as rareness of the pulse, a state of ab-irritation or asthenia of the heart or mobile organ of the circulation, and sometimes of the softening of its parietes.

A strong or forcible pulse proceeds from the energy of the ventricular contractions. Most commonly it belongs to a fulness of the vascular system, or plethora, and manifests excitement and vigour in the heart. It attends on hypertrophy of the left ventricle.

A feeble pulse marks, in most instances, a low state of excitement in the heart, and indicates exhaustion of the vascular system. It may be accompanied with slowness or frequency. In carditis and pericarditis the pulse is said to be feeble, which then proceeds from the disability of the ventricles to contract, like other muscles, when they or their sheathes are in a state of acute inflammation.

The last modification of the pulse emanating from the heart, relates to its rythm, or mode of action. In this respect, the pulse may be equal or regular, unequal or irregular, and intermittent. In a regular or equal pulse, all the pulsations are similar; a pulse is unequal or irregular, when the pulsations do not correspond to each other in frequency, quickness, and force; a pulse is intermittent, when, after several pulsations, there occurs a momentary repose. These conditions of the pulse proceed from different modes of contraction of the ventricles. The irregular and intermittent pulses belong to organic diseases of the heart, and occur also in acute diseases, from sympathetic disturbances in that organ, which, I am disposed to believe, are only excited by irritations of the digestive organs. At least, I do not recal pulses of that character in the diseases of other organs, except of the heart itself. The irregular is a more unfavourable than the intermittent pulse. I have known instances in which an intermittent pulse was natural to the individual; it continued for years, and during the enjoyment of good health.

2d. The capillary system modifies the pulse, as to fulness or emptiness, by determining the quantity of blood contained in the vascular system, and regulates, in these respects, the state of the direct circulation. This last supplies the capillary system, which attracts from the arterial and withholds from the venous vessels the proportion of blood it requires, determined always by the state of its excitation—the vascular or direct circulation is governed, as to repletion or vacuity, by the state of the capillary circulation in the

different organs. Fullness or emptiness of pulse are, then, indications of the condition of the capillary circulation. These states of the pulse are produced, however, under particular circumstances, and in a manner requiring to be noticed.

When a limited extent of the capillary system is engorged with blood, as occurs in irritation and inflammation, the circulation of the congested part, is sluggish or suspended, and the portion thus affected, ceases to admit further supplies for the time, from the artery conveying the sanguine humour to it. The amount of blood which previously passed into the capillaries, is now accumulated in the artery, and passes into the veins exclusively by the direct communication, existing between those vessels. They are consequently replete with blood—the artery, completely distended, is full and hard, and it more perceptibly manifests the momentum of the heart's contractions. This I regard as the correct explanation of the full, strong pulse, felt in the arteries supplying an inflamed part, as in the radial artery, in very acute inflammation of the hand.

Inflammation of the brain or meninges with light congestion, produces the same effect in the carotid arteries; and to a greater extent, the same circumstance is observed in the extreme congestions of the brain, as in apoplexy. In these last cases, the pulse of the whole vascular system, is full, strong, and often slow. The degree and extent of the congestion, which occupies the external as well as internal capillaries of the head, arrests the capillary movements, and of course the demand of these organs receiving in a natural state, as is estimated, an eighth of the whole circulating fluid, while the general torpor of the capillary system throughout the economy, which attends on this disease, diminishes, in some degree, the call made on the circulating fluid. The vascular system, in consequence, acquires a repletion of blood, the vessels are distended, the pulse full and strong, and as no irritation exists in the heart, its contractions are slow.

Precisely the reverse is the effect on the general or vascular circulation and pulse, of irritation in the extensive membranous tissues rich in capillaries, and in capacious organs of highly vascular structure, producing in them profound congestions. The quantity of blood these organs and tissues are capable of containing, and which, under the influence of irritation they abstract and withhold from the vascular system, is so great as to reduce the general circulation to a state of extreme exhaustion. A small deficient current flows through the arteries and returns immediately by the veins. The heart in a state of asthenia, contracts with feebleness on its half-distended cavities, and the pulse is scarcely to be perceived, and sometimes is entirely absent, when the volume of blood is not adequate to bring the elasticity of the arterial coats into action.

In the commencement of irritations of the internal viscera, especially of the digestive or alimentary organs, before reaction, or the irradiation of the irritation into other organs has ensued, the capillary and areolar circulation of the external surfaces is diminished, the capillary circulation concentres towards the seat of irritation, where the blood accumulates, and is detained until it is dispersed by the

establishment of reaction. This concentration of the circulating or nutritive humour in a portion of the capillary system, forms the cold stage of fevers, and is the essential condition of visceral congestions, which have formed so prominent a feature of late in some systems, though their mode of production was not understood. Its direct effect is to abstract blood from the vascular system, equivalent to a depletion, and the quantity of blood of which the vessels are deprived, is proportioned to the intensity and extent of the concentric movements of the capillary circulation, and degree of congestion induced; it is often equal to the abstraction of many pounds of blood. Hence arises, in this state, the weak, feeble pulse, a sign of debility in the contractions of the heart, and emptiness of vessels.

The same result, as to the vascular circulation and pulse, is produced by extensive irritations of the cutaneous surface. determining sanguine congestion of its capillaries. This state exists in the eruptive fevers, or exanthematæ, when of a high grade, and which are then attended with a weak, empty pulse. Scarlatina, when of intense character, as in its malignant form, is a remarkable illustration of the fact. The disease, in this state, exhibits the skin from the head to the feet of a deep red, demonstrating the actual presence of red blood in the skin, in a quantity entirely unnatural. The internal mucous tissues, in this malignant form of the disease, is shown by dissection to be in the same condition. Here then is presented the ocular demonstration of the permanent congestion of the cutaneous capillaries, the detention of a large quantity of the circulating fluid in them, and its consequent deprivation from the vascular system. Now in this form or stage of scarlatina, the pulse is always deficient in fulness and force, and in the highest grades of the disease, the pulse is reduced to such extreme exility, it is scarcely distinguishable.

This feeble, empty pulse of scarlatina maligna, has been supposed to be the consequence of extreme debility of the vital powers, and to require the sustaining energy of stimulants and tonics. I have never witnessed from their employment, more, even when lavishly administered, than a transient effect on the circulation, and by augmenting the morbid irritation of the cutaneous and mucous surfaces, and thereby confirming their congested state, they have increased the vascular exhaustion, and have enfeebled to a greater degree, the action of the heart and pulse. Cold or tepid evaporating ablutions, used according to circumstances, by diminishing the cutaneous irritation, relax the capillary congestion, the blood resumes its natural course into the vascular system, which fills up and expands, and the pulse acquires fulness and firmness. I have seen, in scarlatina, the pulse, as ablutions were employed or discontinued, become alternately full and firm, or empty and feeble. In rubeola or measles, when malignant, and in confluent small-pox, the exhaustion of the vascular system, and extremely small and feeble pulse, are produced in this same manner.

This principle, which I consider as of the highest importance in a practical view, when fully appreciated, has a very extensive application;

and it places in a very clear light, the important fact, that a patient, in irritations of great activity, is threatened at the same instant with impending dissolution, from opposite conditions of the organs—that is, from extreme feebleness and exhaustion of the vascular circulation, and violent congestive irritation in the capillaries of the cerebral, pulmonary, or abdominal viscera, suspending their functions. It exhibits also the necessity, under those circumstances, of resorting, at the same instant, to a compound and opposing treatment, explains the objects to be attained by it, and the manner in which it is to be directed.

3d. The arteries modify the pulse, when they are themselves in a pathological state, to which they are subject, as well as the other organs of the economy. Acute inflammation, as in arteritis, causes firmness in their coats, and the pulse is then hard. The inception of ossification renders the pulse obscure, and when it is complete, the artery losing its elasticity no longer responds to the shock communicated by the heart, and the pulse is lost. The coats of the arteries, in some instances, are softened from a species of infiltration of fluid into their interstices, which lessens their elasticity and impairs their power of reaction.

The calibre of the artery has an influence over the pulse. I have seen, in a case of dilatation of the heart, all the arteries preternaturally small, and which produced a remarkably small pulse. Undue enlargement of the arteries is not uncommon. The pulse, in a normal state of the circulation, is then large and full, and under excitement, is exceedingly deceptive. It appears to indicate profuse and repeated bleedings, but fails with rapidity under sanguine depletion, assuming a peculiar yielding and flaccid sensation, as though the vessel contained a gaseous or exceedingly tenuous fluid.

The pulse in many individuals is very feeble; it is scarcely discernible. They enjoy, notwithstanding, excellent health. The energy of life does not depend on the force and velocity of the vascular or direct circulation, but on the activity of the capillary circulation. Persons who are prone to obesity, have usually a small and feeble pulse. It is a common explanation of the fact, to attribute it to compression on the arteries from the accumulation of adipose matter. This is not correct; the arteries and whole vascular system in such persons, is not developed to the same extent as in others, and the vascular circulation is more inactive.

The pulse is in some instances entirely absent, without interfering with health. This circumstance occurred in the mother of Dr. S. of this city. The pulse disappeared during an attack of acute rheumatism, which did not appear to retard her recovery, and it never returned during her subsequent life. She was active in mind and body, and possessed unusual health. In no part of the body could a pulse be detected. I attended her during a part of the time of her last illness, which was an acute inflammation of the intestines, but no pulse existed. She died while I was absent from the city, and an examination was not made to elucidate the cause of this remarkable phenomenon.

A great variety of pulses have been described by writers, who have drawn between them fine lines of discrimination, and attempted to establish a particular pulse for every disease, and for every critical symptom, the occurrence of which, it was believed, could be predicted with certainty, or whose existence could be announced merely by the pulse. By the late Professor Rush, the pulse was regarded as a perfect nosometer, measuring with nearly absolute precision the state of the whole economy, and the grade and character of every morbid condition.

These exaggerated views of the importance of the pulse, originated before the circulation was discovered, and the production and nature of the pulse was known. They were subsequently maintained by erroneous opinions of the character of the circulation, its active forces, and the structure and office of the vessels. The direct circulation alone was understood, the capillary, and interstitial or parenchymatous were not comprehended, and the heart and large arteries were believed to be the sole causes of the circulatory phenomena. But if the doctrine of the circulation we have advocated, founded on the analysis of the organs and mechanism of this function, be adopted as correct, it must be clear, that the pretensions claimed for the pulse, as a universal diagnostic standard, must be considerably reduced. As a positive indicator, it characterises only the action of the heart, and the degree of repletion of the vessels. The state of the capillary circulation, and consequently of the organs of the economy generally, is not manifested directly by the pulse, which in the determination of this point, is of secondary importance. For this purpose it is to be taken in connexion with the symptoms exhibited in the disturbances of other functions, and compared with them. The heart sympathising in most cases in the morbid affections of all the important organs, and the circulating fluid being influenced in its distribution by diseases of intensity, the pulse serves to give the value of the other symptoms, and to render their nature manifest; and it thus furnishes secondarily and by comparison, signs indicative of the condition of the capillary circulation, and the character of the pathological state of other organs than of the heart.

From this examination, it then results, that the pulse is not a general nosometer, but, as a standard of disease, is principally confined to the affections, either primitive or sympathetic, of the heart, and of the direct circulation. When, as frequently occurs, the heart and the direct circulation, from a paralysed or quiescent state of the sympathies, do not participate in the morbid disturbances of the organs, the pulse fails entirely in presenting any positive indications of the state of those organs or the nature of the affection.

The forces regulating the direct and the capillary circulation being distinct, and the offices of the two being totally different, they are often placed in a state of antagonism, and exhibit phenomena of opposing characters. The pulse in these circumstances, while it faithfully marks the precise condition of the heart's action, and the state of the circulation, would betray us into fatal errors, if it were consulted in order to determine the condition of other organs. In

the congestions of the abdominal and thoracic viscera, the functions of those organs are oppressed with a load of blood, while the heart is barely kept in action from the extreme deficiency of that humour in the vascular system. In the close also of diseases of acute inflammations, widely diffused throughout the economy, important organs are pressing on to disorganisation, demanding local depletion, and other sedative measures, with revulsive operations, while the action of the heart is fainting from debility, and requiring to be sustained by diffusible stimulation. These opposite indications cannot be revealed by the pulse. They are to be determined by other signs, and a reliance on the pulse, in the manner that has been taught by high authorities, as a guide in estimating the condition of the economy, and in directing remedial measures, will lead to wrong conclusions, and a practice often fraught with mischief.

MISCELLANIES.

MEDICAL JURISPRUDENCE.

Extraordinary Inquest at Hampton. from Observer, Oct. 3.

2. Yesterday (Oct. 2) an inquest, under extraordinary circumstances, was held at Hampton, before Mr. Stirling, to inquire into the cause of death of Frances Clarke and her unborn child. The death took place about two months ago, and a considerable degree of excitation has existed for some time in the neighbourhood, owing to a rumour that her death was caused by the unskilful treatment of Mr. Bowen, a medical gentleman who attended her in her confinement. A great number of medical gentlemen attended to give their opinion on the subject. Mr. Wakley was also present.

The body was removed from the grave, and placed on a tombstone, round which a canvas tent was erected. It was inspected by the jury, and was not in such a state of decay as had been expected.

Ann Ellam deposed, that near three months ago, she was sent for by deceased, between five and six of a Sunday evening. She went, and at the desire of deceased, went for Mrs. Chilman, the midwife. Mrs. Clarke had been taken in labour about four o'clock that morning: was very bad indeed, and all that night her cries and screams were dreadful; towards morning she was very bad, and said she must die. Witness went to Hampton for Mr. Davis, who was from home, but his assistant, Mr. Bowen, came about half-past ten, and remained about half an hour; he returned about nine at night with instruments, which he used; about seven o'clock on Tuesday morning, at Mr. Bowen's desire, they sent out for a boot hook, which he used with Mrs. Clarke, and at a quarter past ten Mrs. Clarke died; when witness asked Mr. Bowen if he thought there was any hope of the labour being over, he said, yes, very soon. Mr. Taylor was sent for, to which Mr. B. did not object, but he refused to write a note for him; Mr. Bowen was using the instruments at the time—he used them with very great force, so that the perspiration poured off him; he placed his feet against the bed and

pulled with great force; when asked how he was going on, said that when he wanted skill, he would send for it, and if they could find out any one that could do more than he could, they might send for him; he afterwards insisted on assistance being sent for, when the hook Mr. Bowen was using gave way; there was a sound as if a stick had broken, and the child's arm came off. Mr. Taylor sent an answer that he would come, if Mr. Bowen would only write a note for him; Mr. Bowen was very cross; I never received such rough treatment before.

Sarah Chilman, a midwife, sent for a doctor in proper time, and was glad to get her own neck out of the halter; she proposed to Mr. Bowen to send for Mr. Taylor, but he said, if Mr. Taylor came, he would leave; the deceased wished to have Mr. Taylor, and said he had been with her before, and brought her through it.

Mr. George Jewel, surgeon, and teacher of midwifery, stated, that he was present at the examination of the body that morning; he considered the removal of the arms, under the circumstances, perfectly justifiable; the instrument called a blunt hook might have been proper to apply, and a boot hook was a good substitute, (both hooks were here produced, and very nearly resembled each other.) Assuming the facts to be as stated in evidence, he conceived that the use of instruments was fully justified. Judging from the appearances and evidence, he should say that the practice of Mr. Bowen was correct.

Mr. George Taylor, surgeon, of Kingston, stated, that he never saw Mr. Bowen before that day; there was no sufficient evidence to warrant the assertion that the practice of Mr. Bowen in the case was erroneous; unless under very extraordinary circumstances, witness should not have taken off the arms.

Sir Andrew Halliday, of Hampton Court, Physician to their Majesties,* stated that he had had a conversation with Mr. Bowen on the subject, in consequence of the reports he had heard, and Mr. Bowen had fully satisfied him he was not to blame.

The Jury expressed themselves satisfied with this evidence.

The Coroner called the attention of the jury to the evidence given by a professor of the obstetric art, to the difficulties frequently attending labour cases—for example, the Princess Charlotte of Wales, who could command the first advice in the kingdom, fell a victim in such a case. The jury, after consulting for about half an hour, returned the following verdict:—"Died by the visitation of God, and we are of opinion, that the medical attendant is not in any respect to blame."

During the examination of the witnesses, several persons in the garb of gentlemen, some of them medical men, interrupted the proceedings by impertinent observations. It is astonishing that they were not silenced by the coroner, or if incorrigible, as the report states, that they were not turned out of the room. Medical, men who display

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* This is erroneous. Sir Andrew is not physician to their Majesties.—Ed.

party spirit, act in open violation of the received principles of ethics, degrade their profession, and impede the administration of justice.

Assuming the above report to be correct, this inquest is one of interest to all those engaged in the practice of obstetricy. It gives rise to many serious reflections, and affords a salutary lesson to practical obstetricians. For the medical jurist it is one of importance. We shall therefore offer a few comments upon it.

The disinterment of the body after a period of three months, for the purpose of judicial investigation, though required by law, could be of little, indeed of no use, in such a case as this. If the pelvic viscera were injured by pressure of any kind, the effects of such could not be discovered after such a lapse of time. No man living could testify with positiveness upon the subject. The evidence before us is inconclusive and imperfect, and of course unsatisfactory. It does not appear what was the habit of body, the temperament or constitution, or age of the deceased—how many children she had had, or what was the presentation, whether shoulder, side, arm, arms, &c. It is clear, however, that the arms were removed, and must have presented one or both, or must have been brought down for that purpose. It does not appear whether opium was given, or any attempt made to turn, though it is clearly manifest to any man of judgment or experience, that turning ought to have been attempted and performed, before the operator was justified in dismembering the infant. Had opium failed to tranquillize the parturient action which was violent, the lancet should have been employed, and the patient bled nearly to syncope, or if strong and plethoric, to complete fainting, when turning could be easily performed. The immense force employed in extraction was not warrantable, according to the opinions laid down by the best obstetric writers, of this and foreign countries. Making every allowance for the purturbation of mind of the operator, he ought to have recollected the after consequences, and that though he might succeed in effecting delivery, the recovery of his patient was not to be forgotten. Too many young practitioners lose all sight of after consequences, and consider the employment of instruments the grand point, quite forgetting that if any injury be inflicted by them, the woman will most probably die in a few days afterwards; and, instead of gaining reputation by the operation, their characters suffer very considerably. Whether Mr. Bowen followed the usual course of practice in this case, cannot be learned from the evidence. But one thing can be learned, that his peevishness and refusal to write to the practitioner in whom his patient had confidence, and desired, was highly culpable. It was contrary to the maxims inculcated in every standard work on midwifery, and on the ethics of our profession. It is well known to obstetricians of experience, that the presence of a stranger, and of one in whom the patient has no confidence, for if she had in this case, she would not have desired other assistance, is highly prejudicial to the progress of natural

labour, and placed the practitioner in an unenviable situation in such a case as that before us. We have known and recorded two cases in which the females lost their lives, in consequence of the behaviour of medical men, and soley from fear, but it is unnecessary to dwell upon a point that no man can dispute.

The next part of the evidence which deserves attention, is that of medical witnesses. Mr. Jewel considered "the removal of the arms under the circumstances perfectly justifiable." It is unfortunate that he did not state the circumstances, as we are totally at a loss to surmise what they could be, unless in embryotomy. Indeed, we know of no circumstances, unless embryotomy, which could justify such a proceeding; they have never been mentioned during our long perpetual pupilage under Dr. Hamilton, nor have we ever stumbled upon them in the course of our obstetric researches, which we have given some proof, are not the most limited. No man could condemn, in more forcible terms, the removal of the arm, than Dr. Hamilton, and for the sound reason that its removal could not change the position of the infant; and this is the opinion of the best obstetric writers. In such cases the operation of turning ought to be performed; and if impracticable, which may happen, though rarely, if the proper measures be employed; then the thorax ought to be eviscerated in the manner described in our work on midwifery, and delivery effected, which may be done successfully, as we have accomplished and already recorded. But the arm or arms need not be removed for the reasons already assigned. The French and American writers are also of this opinion: But it does not appear from the testimony of the case before us, whether or not the infant was extracted—we should think not from the facts stated; and if this be the case, we are not much surprized that the good people of Hampton should have displayed "a considerable degree of excitation" on the occasion. It is very extraordinary that this inquest should have been delayed for two months; if it was necessary at all, it should have been held at a time that the morbid appearances of the body, if any, could be accurately described. But if Mr. Davis be one of the court attendants, and there is a gentleman of that name one of them, then the Gordian knot is cut. We do not by any means insinuate any thing against Mr. Davis, whether court, or no court attendant, for from all we have heard of the gentleman, who is, we believe, surgeon to his Majesty, he is a most honorable man, and an ornament to his profession. What we mean to say is simply this, that in case Mr. Davis, the employer of Mr. Bowen, is attached to the court, the people in the neighbourhood, however excited they might have been, might have considered their remonstrances useless. This was a false view, for if his most gracious Majesty, or his amiable and beloved consort heard of the affair, there was no doubt from their philanthropy and benevolence, but an inquiry *would* be instituted. We shall offer no remark upon the cause of death in this case, nor upon the verdict of the jury. We are glad that a member of our profession was honorably acquitted; and we trust, should he see our remarks, that he will remember

that the case is one for fair and impartial criticism; and moreover that our observations are conjectural, so far as the inquest is concerned. The case is one which shews that the absolute necessity of employing medical men of sound erudition and extensive experience, as witnesses and coroners; men who would sift the affair to the bottom, and not present to the profession such an imperfect statement as that before us. For strong reasons we shall not dwell upon this topic any longer. The only other point worthy of remark is, the allusion to the Princess Charlotte's melancholy fate. It is to be regretted that some one present did not inquire of the worthy coroner, how it happened, that the heiress to the British sceptre, the expected successor to Elizabeth and Ann—she who possessed the wit and energy of the one, and the wisdom and gentleness of the other—the young, the fair, the cheerful, the symetrical, the healthy, the enobled, the exalted, the wealthy, the admirable and beloved Princess Charlotte, had not the benefit of farther advice, or the best advice in the kingdom. She, "who was all the heart wishes, or eye looks for in woman," adorned with all that earth or heaven could bestow to make amiable, the pride and hope of Britain, in the spring of life, "fell a victim," says the worthy coroner, "in such a case." It needed no ghost from the tomb to communicate this information; but much more important information is wanted, which, happily for the wicked, cannot be revealed by the dead. A time, however, will yet arrive, when the secret will be revealed to the whole human family. Perhaps it may be in the bosom of the coroner, and the medical men present neglected the interests of the profession, in not inquiring what was the cause of death in her Royal Highness's case, and also the death of her of her innocent helpless infant. They could all have assured the coroner, that women of fine form, in the prime of life, in good health, and especially whose families were remarkable for their longevity, seldom, if ever, fall victims "in such a case." We should not have touched this topic had our remarks applied to the living, and those to whom they do apply, are no longer sensible to praise or censure.

> Whatever is, is right. This world 'tis true,
> Was made for Cæsar—but for Titus too.

DISSENSIONS IN THE LONDON UNIVERSITY.

From the foundation of the London University to the moment we write, we have been, and still are its zealous though feeble advocates. We cherish the noble principles upon which it is founded; and we deeply regret that dissensions of no ordinary character should have arisen in its halls. The medical profession has been anxiously waiting for a detail of these dissensions, which has not as yet been afforded. Such a detail is not more interesting to medical men than to the public at large. In giving an authenticated account of the disputes and turmoils of this institution, we have no motive, no object to serve by such a narrative. We cannot be accused of partiality

towards the writer, whose public conduct on a late occasion, called forth our severest animadversion. Though we regret in common with the profession that medical men should interfere in politics, yet we must freely admit the high professional attainments of Dr. Thomson, and the harsh and unwarrantable manner in which he has been treated by the Council and some of the Professors, and the imperious and indignant manner with which the most distinguished students have been assailed by a junta of the Council. It is manifest that the complaints of the students ought to have been attended to, and if just, ought to be redressed, for surely the Council must be aware, that when students discover any incapacity in their teachers, they can never derive instruction nor shew that respect and attention due to their Professors. The appointment of Professor Bennet is the clearest proof of the justness of the students' memorial; and the Council acted unwisely and indecorously in branding the students with such opprobrious epithets, as " impudent, factious, ignorant," and at the same time being compelled to comply with their wishes. It will be seen by the following narrative, that our observations are warranted, and it is to be regretted that an institution, whose motto is " Patens omnibus scientia," and which we hoped to see the first in the world, should be the theatre of discord. We by no means admit, that students should intermeddle in the management of the University; but from the facts before us, they acted with strict propriety in respectfully remonstrating with the Council, and their remonstrance should have been met without delay, indecision, or shuffling. The Council ought to be fully aware, that many who entered the University had completed their anatomical studies elsewhere, and also that some of the best anatomists in Europe were among their own professors, and therefore that the students were enabled to discover any imperfection in teaching this branch of medical education. We have further to observe, that we cannot approve of the strong language of many parts of the subjoined document, for the suaviter in modo is as important on the present occasion as the fortiter in re. We have also to mention, that we disapprove of the publication of some letters which were never intended for the public eye, and can be only justified by the tergiversation of the writer towards the individual to whom they were addressed. In republishing the memorial to the Council, we have to inform our readers, that it has been printed, published, and circulated throughout the country, and even under such circumstances it should not appear in our pages, were it not indespensibly necessary to complete the chain of facts set forth in this communication. The public and the profession are anxious to learn the cause of the dissensions in the University, and have an undoubted right to be fully and fairly informed upon the subject. We sincerely regret the situation in which the Council and some of the Professors appear, and reiterate our declaration, that a sense of public duty alone induces us to insert this communication, however well authenticated its details have been by the gentlemen who have entrusted it to our care. It is necessary for the Council, the students, and the public,

that a correct statement of the causes of the discussions should be published.

To the Editor of the Medical Gazette.

A SOP FOR CERBERUS!

SIR,—It is indeed a melancholy truth, that the London University has been divided by dissensions among the Professors, by discontent among the pupils, and by the determination of four members of Council, who have been taking upon themselves to elect professors obnoxious to the students, to oppose all the wishes of those pupils, from whom alone they derive their credit and support. At the conclusion of last session, during which the murmurs of discontent against the ignorance and indifference to science of Professor Pattison, had been gradually swelling upon the ear, Eisdell, who gained the gold medal in Dr. Grant's class, and who had peculiarly distinguished himself above the other anatomists of the school by his accurate and extensive knowledge of developemental anatomy, sent a protest to the Council, complaining of Professor Pattison's total neglect of this very important branch of anatomical science, and also of the general deficiency of his lectures in regard to the new facts in anatomy and doctrines in physiology. Dr. Davis observed, "that that *fellow* Eisdell, ought to be expelled immediately," an observation of which Professor Parrazzi has naively remarked, "that it was far more Austrian than English." Mr. Pattison told Eisdell that "he was disappointed in his character." The medical professors, however, in a body were DELIGHTED; for, they had long been acquainted with and deplored the total inadequacy of Professor Pattison to fulfil with credit either to himself or to the institution, the arduous duties of the anatomical chair. The Council, however, though they were by no means unacquainted with the serious objections urged by the pupils against Professor Pattison, although these objections recalled to their minds the discussions, which had occurred at the commencement of the institution in regard to the propriety of choosing this gentleman, after what had transpired at Glasgow, in preference to Messrs. C. Bell, Bennett, Mayo, and King, the other candidates for the chair of anatomy; and the fact, that Mr. Pattison, after a somewhat severe discussion, had been admitted by the casting vote of the Chairman of the Council, while they rejected with disdain the silly proposal of one of the professional (proh pudor) members of their body, instantly to adopt the suggestion of the haughty and tyrannical Davis, wrote to Eisdell to inform him, that "they could not institute an examination into the conduct of a Professor upon the representation of *one* pupil."

At the same time, however, Eisdell was given to understand PRIVATELY, that neither the medical faculty as a whole, nor the Council were averse to the inquiry, though they wished to have more plausible ground for its institution. Thus encouraged, and believing the ONE, owing to these private hints, to be emphatic, what could Eisdell do but consult with his friends? He consulted with Mr.

Henry Cooper, who agreed with him, but hesitated to hazard his name to a document that would drag him before the public. He also asked my advice, and I recommended him to institute a general inquiry into all the circumstances of the case, and if he found the active and industrious portion of his fellow students coinciding with him in opinion, to draw up a memorial, to be signed by all of them, and forthwith presented to the Council, requesting an inquiry into the conduct of Professor Pattison. This advice I gave him on the very day I left town for Cambridge, the day of the distribution of prizes to the medical classes, to undergo my examination for my degree of M.B. I remained three weeks in Cambridge, during which period I had no communication with any student of the London University.

On my return I found that my advice had been adopted as soon as given, and that a memorial had been signed by all the medalists, excepting two, viz. by seventeen of the men who had been crowned with the honours of the University, many of whom had also attained honours at the close of the preceding session, while of the remaining two, one has since declared, that "he will never do any thing at variance with HIS OWN immediate interest;" the other signed most cordially the letter, for sending which I was first excluded from the University.

Three weeks, then, had elapsed since the sending in of this memorial, and three weeks more were allowed to elapse before any notice was taken of it, because the coup d'etat portion of the Professors, and we have such a body among them, much resembling in their humble delinquencies, the depraved and despotic counsellors of Charles, urged their party in the Council (of course you are not surprised to hear of parties in so heterogenious a mass of milk and water Aristocrats and Whigs as constitute the Council) to protract the investigation, till such time as the students should have been summoned by their parents to the hospitable shelter of their homes. These men well knew that if this were not done, the profession would laugh at the farce of presenting men with medals, and thus calling the attention of the public to their uncommon talents and superior acquirements, and then neglecting their representations or insulting them, by retaining as their teacher a person, the ignorance of whom had been most loudly complained of by those very pupils, who had taken honours in his own class. There was also another and a deep design, which was to protract the period of investigation beyond the annual meeting of the proprietors, lest these should attach, in the honesty of their hearts, and in their deep desire for public improvement, more importance to the document than certain members of the Council had done, particularly Dr. Birkbeck, who was instrumental in procuring the election of Professor Pattison, and whose reputation, therefore, was implicated in proving the man he had urged so strongly upon the notice of that body, in spite of the moral and other objections urged against him, to be unjustly attacked, free from ignorance, replete with science, repentant for his moral delinquencies, and the object of a malicious conspiacy.

Thus, then, this public meeting of the proprietors stole a march, by the policy of these gentlemen, upon the indignant pupils, and in its result furnished new matter to fret the old sore, as well as to open a new one; for, Dr. Birkbeck, full of his projects for varnishing the character of his friend, in spite of the universal desire of the Council to pass by this business in silence, was ill-advised enough not to only to bring Professor Pattison on the tapis; but, by eulogizing him to the skies, to try and bring a sort of reflective praise upon himself, for having almost insisted upon the election of so great and admirable a man, in spite of the moral scruples of the prudish dames of the Council. I am told by those that were present, that, as soon as he broached this topic, a blank astonishment and panic paleness, sat upon the face of all the Council, but particularly on that of the Warden; while the frowns and contortions of Mr. Brougham's countenance, in his effort to stop the eulogistic zeal of the worthy Doctor, were so frightful that they absolutely paralysed the energies of Drs. Thomson and Turner, who had determined severally to answer his observations. Had Dr. Birkbeck told the truth, that is the whole truth, no ill could have arisen from his speech, but either intentionally, or through a culpable ignorance, seeing that he was one of the Council, he stated that this *learned and amiable importation from America* had been charged with inefficiency; but in a very impudent manner by one student only, and that an *ignorant student*, meaning Eisdell. Now, long ere his speech was made, the Council were in possession of the complaint, signed by all the medalists; and moreover, nothing could be more dastardly in Dr. Birkbeck than this attempt to raise his friend's reputation upon the ruin of Eisdell, who, so far from being an ignorant man, is highly respected by all his fellow pupils, and by all the Professors, who know him, on account of his good acquirements, his industry, and his perseverance, of all of which he gave most splendid evidence, when he succeeded in beating Mr. Phillips, one of the present demonstrators, and Mr. Blackmore and Mr. Garner, both excellent anatomists, in their contention for honours in Dr. Grant's class of comparative anatomy. The knowledge of these facts, the deep conviction of the injustice of the attack upon Eisdell, the indifference of the Council to the statement, which had been almost *solicited* from the medalists, the designed protraction of the period of investigation, disgusted the students, and led many of them to retire to their summer destinations, leaving the matter in the hands of those, who were left behind. Some of them indeed, who had no intention of returning to town, but yet felt a sort of lingering desire to see their alma mater flourish, remained a few weeks longer, but to no purpose. In the mean time the Professors took every occasion to blame the supineness of the medalists, to make complaints personally to various members of the Council, to cultivate the dissatisfaction of the pupils. Thus, it is well known, that Drs. Thomson and Turner, and Professor Parrazzi, had many conferences with Mr. Brougham and Lord Auckland upon the subject, and stated explicitly to these gentlemen the absolute necessity of the removal of Professor Pattison, for the success and welfare of

the school. Mr. Bell had already tendered his resignation, and had explicitly stated, or had been understood to state, in his valedictory lecture, that "unless one teacher was removed from the school, he should not again have the honour and pleasure of addressing his pupils." Moreover, Mr. Bell took care to inquire sedulously of every pupil, who went to him for a certificate, what they thought of the prospects of the school, and by every one was informed that there were two requisites to its ultimate success—a more scientific Professor of Anatomy and an Hospital. To such a height did this professional desire for change arrive, that several Professors declared unequivocally, publicly, privately, and unreservedly, that they would leave the institution if Pattison remained; and one went so far as to say to the Clerk in the robing room, before all the menials of the institution, that unless Professor Pattison was dismissed, he, the Clerk, might consider his five shares as in the market. It was impossible for the pupils, who were visiting in the Professors' families, not to perceive the feelings so congenial to their own; and, as they could not remain longer in town, those, who had remained expressly for the purpose, waited upon me in a body, and requested me, in their absence, to watch for them the progress of the business, to give them early information of whatever might be doing, and to insist, by every honourable and upright means, on the division of the professorship of anatomy, or the entire removal of the present Professor. To aid me in this respect, they left with me the statements of the reasons of their objections, with a request to send them in, as soon as called for by the Council. I accepted this commission, not because I knew any thing of the merits of the case, but because having been president of the Medical and of the Literary & Phil: soc:, of both of which I was one of the founders, I felt that the students, who were my individual friends also, had a sort of claim both upon my services and on my kindness, while I knew, from my intercourse with the Professors, that the inquiry was most anxiously desired by them, and by no means obnoxious to the more sensible and thinking portion of the Council. No sooner had these men left town than the Council appointed a committee of investigation, who sent for the individual statements of every one of the seventeen pupils. I immediately sent to the Warden those which had been left in my possession; and the result was, that the committee determined on examining personally as many of the seventeen as could be assembled by a certain day. Only four, however, could be found in or near town, and of these four, it unfortunately happened that all, with the exception of Eisdell, were first years pupils, and could not therefore be so much depended upon as those, who were more advanced in their studies. Some discrepancy is said to have been found in the statements of these four, which were confined, by desire of the Commissioners, to mere matters of neglect, as they very conscientiously observed that THEY were wholly unqualified to enter into matters of science.

The Commissioners, however, satisfied of the negligent and imperfect nature of the course that had just been delivered, made their report accordingly; and the Council prepared a reprimand, which is

stated to have been so severe that not even Professor Pattison could have retained his chair under it. Upon this being intimated to the friends of Professor P. he acquiesced in their advice, that he should divide his labours with Mr. Bennett. The Council consented, after this proposal being made, to the suggested arrangement, and to mollify the language of their intended reprimand. Hence sprung the arrangement, which was convented among the Council and Professors, and nothing more would have been done by the pupils, had Professor Pattison at once divided the professorship upon the return of Mr. Bennett from the Continent, whither he had been for the purpose of recruiting his health, and where his kind hearted family had taken care that he should not be harassed by the turmoils of the institution. Professor Bennett, to whom I now took care to mention the wishes of the pupils, was desired by the Council to meet Mr. Pattison, in order to make arrangements for the division of the professorship. Several meetings took place, without leading to any results, Professor Pattison having wished to make Mr. Bennett a "Supplemental professor," as may be seen in the following letter to myself:—

"My dear Thomson,—I have substituted from my epistle to you from Boulogne,* a certificate of my opinion of you. I fear it is too weak; I feel that you deserve that I should say *more*, but I am deterred from doing so, by apprehending that *more* from so humble a personage as myself might be construed into *too much*. However, I shall re-write it if you wish. Pattison and I are still at issue; he proposes to make me a "*supplemental*" Professor, at which I *kick*. We are to arrange it, if possible, to-day with Lord Auckland. Your father caused me to disappoint you yesterday, so you will excuse me. This evening I shall let you know how the affair goes. In the mean time *say nothing*, I pray you.

"Your's sincerely, J. R. Bennett."

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* The epistle from Boulogne contained a request to me to offer myself for one of the demonstratorships at the London University, instead of seeking for a situation in King's College; it was, as you see from the foregoing, removed, because Mr. Bennett, who had not heard of the disturbances while in France, was informed by me that I should not offer myself for the situation, but was shewn to many of my friends, who know that it not only solicited me to offer myself, but promised me the utmost support of the writer. (A convincing proof this of my ignorance and want of connexion with the institution, as stated in last week's Medical Gazette.) If Professor Bennett is angry at his letters being published, he must remember that the "galled jade *will* wince," that when men conspire with one another to gain an end (as the Professors have done) and then desert their tool, through a grovelling fear even of Mr. Brougham's thunder, he can only defend himself by turning *king's evidence*.

At last, an arbitration was consented to, as may be gathered from the following,—

Wednesday.

"My dear Thomson,—A THOUSAND thanks for the pamphlets; you shall have them to-morrow, as I have not time to read them. I have nothing to tell about the affair—It is *ut antea*. To-morrow, Thursday, two friends from each meet, to try and settle the business.

"Yours, &c. J. R. BENNETT."

So, Sir, you see I am not the only person, who felt a THOUSAND pleasures in seeing the pamphlets, for re-publishing which my motives have been called those of the *foulest malignity*. In fact, these pamphlets had been circulated freely enough among the Council, had been the cause of the exertions among the Professors to rid themselves of their companion—were sent to Mr. Bennett, not by me, who had never till then seen them, but by Alexander Shaw; let me ask for what purpose? Was it to facilitate the pending negociation? Or was it an oblique missile, thrown slyly into the enemy's camp, with a hint from the *physiological castle*? At any rate, Mr. Bennett did permit me to take a copy, and I now possess the original. Moreover, Mr. Bennett never objected to this pamphlet being re-published, till he had stooped to shake hands with Mr. Pattison, and had donned his new plumes, although he did not wish it to be known that I had first found this pamphlet, of which I had often heard, and that primarily from Parrazziat my father's table, at his, Mr. Bennett's house. In fact he was "*male Pertinax*" I shall here, once for all, state, that my reasons for re-publishing that pamphlet was not to recal the Professor's alleged adultery, but to show that, even in A merica, hehad been accused of ignorance, of a gross system of prevarication, and of a silly attempt to arrogate to himself the discovery of Colles's Fascia. I must however, call upon all honest men, who love the safeguards of British virtue, and upon all parents, whether they would not hesitate in placing their sons under a man of talent, however splendid, whose character was publicly believed to be tarnished by a breach of one of the most direct of God's laws, one, on which society rests its comforts, and founds its existence?

The Arbitrators met, and abruptly parted; and Mr. Bennett's friend recommended him to have nothing more to do with SUCH A MAN. Mr. Bennett informed me of this in the following epistle:—

"Dear Thomson,—I had hoped within the last few days, that some arrangement would have been made between Mr. Pattison and myself, in order to adjust present difficulties; I have now, however, in reply to your enquiry on the part of the pupils, to state, that I see no prospect of any arrangement being made, whereby any change will take place in the delivery of the Courses of Anatomy. In fact, things must go on as before.

"Yours ever, J. R. BENNETT.

"July 29.—To Dr. Alex. Thomson."

Mr. Bennett further informed me, "that he had been to Mr. Coates, and desired him to insert his name as *mere* demonstrator,

the arbitration between Mr. Jones Quain, on the part of Mr. Bennett, and Dr. Conolly on the part of Mr. Pattison, having been broken off, because intruded upon by Professor Pattison, who was not quite prepared at that time, at least, to voluntarily solicit his friend Mr. Bennett, whom he had accused of giving his gold medal to Mr. Phillips, because he was his house pupil, to accept of half of his BURDENSOME Professorship. Is it true then that the Professorship was divided at the solicitation of Professor Pattison?

Finding from this communication that all hope of arrangement had been finally broken off, I proceeded to fulfil my commission for drawing up a strong memorial to the Council, embodying all the most important charges contained in their separate statements, and demanding the dismissal of Professor Pattison, of which a copy is subjoined to the two following epistles, which are copies of two of the statements, and from which it will be seen that I have scarcely expressed, in the memorial, so much as I was authorized to do:

Second Letter of Mr. Eisdell to the Warden.

May 5th, 1830.

SIR,—I have to acknowledge the receipt of your letter, communicating the decision of Council on mine of the 30th April, and regret the necessity of having again to address you on the same unfortunate business; but, as the Council have thought proper to decline, without assigning any reason, proceeding in an enquiry, I am led to conjecture, either that they doubt the veracity of my statements, and therefore think them unworthy of notice, or that the charges I preferred against Professor Pattison were not sufficiently specific to warrant their acting upon them. If the former were the case, I beg now to state, that I can bring forward students, now in the University, who can bear out my statements, and relieve me from the imputation under which I might otherwise lie. If the latter be the case, I proceed now to bring forward some specific imputations, by which his ignorance will be exposed and his inability displayed; and if I am not myself able to substantiate these facts, there are in in the University individuals who can:—

1. Upon a student asking him what nerves pass through the rectus externus oculi, he was unable to afford the information.
2. In demonstrating the peritoneum, he maintained the foramen of Winslow to be a hole in that sac.
3. When speaking of the motions of the wrist-joint, he says, that pronation and supination are performed there.
4. He states the carotid artery and the nerves passing through the cavernous sinus to be *bathed in the blood* of that sinus.
5. He brought into the theatre the heart of a frog to illustrate a double circulation.
6. He neglected to give us the most interesting details of anatomy, viz. the developement of different organs. In fact, when lecturing on the brain, from some of his remarks, he exposed his ignorance of the researches of Tiedeman and others, on the fœtal brain; at least some few of his expressions conveyed to my mind as well as to the mind of an eminent professor, who was present, that such was the case.

Other exposures might be made, had I stored my mind with his mistakes. But, Sir, I consider them things in themselves most trifling, except as connected with the evident want of science, which his lectures constantly display. The anatomy he teaches is such as may be found in Fyfe's compendium, and there has been a general deficiency throughout his whole course. He began *this very course* with promises innumerable, but he has not performed them to the SATISFACTION of the class. In fact, he did not demonstrate the viscera till the last week of the session, and then in a most superficial manner.

The number of the class usually in attendance, and the nature of that class being chiefly of junior students, evince the estimation in which he is held.

I should not have troubled you with this communication, unpleasant, irksome, and anxious task as it is, did I not feel assured that if I were now to sacrifice public good at the shrine of public feeling, I should be doing an injury to the University of London, as well as to its eminent Professors and Students, and I believe that if this affair be not privately settled, there will be a public call for it, which would do great injury to the institution itself as well as to the gentleman most intimately concerned.

For the reason I have chosen to address you privately, I have not hesitated to avow my name.

I am, Sir, your obedient servant,

N. EISDELL.

To L. Horner, Esq.
Warden of the London University.

Tranby, near Hull, June 19th, 1830.

MY DEAR THOMSON,—I am much obliged to you for having given me information on a subject, about which I began to feel rather anxious, as well as for allowing me an opportunity of adding my testimony to that of my fellow students in this important affair.

I do not think I can add to your stock of evidence any individual instances of deficiency or negligence, as from my constant communication with Eisdell, while in town, he is already in the possession of all these facts. Indeed I have been witness of very few. I can, however, substantiate the following:—his constantly using the misnomers, *ductus communis choledoctus*; his having made that canal open at the superior angle of the duodenum; his giving a confused description of the peritoneum; having gone over the stomach, liver, spleen, pancreas, and duodenum, in three-quarters of an hour, repeating the demonstration twice; constant misnomers wherever *two* Latin names occur together, as *membrani tympani, scali vestibuli*, &c. &c. (of great importance to a student in his examination); not knowing the nerves which pass between the heads of the external rectus; describing the carotid artery and the nerves of the orbit, as *bathed in the blood* of the cavernous sinus.

These are a few instances which have fallen under my own observation, and of which I have *distinct* recollection. After all, I cannot

help thinking, that these charges might seem to an *unprofessional* jury, frivolous and vexatious, and that we must mainly depend upon more general accusations, well authenticated by the more respectable and numerous body of the students. Such charges as the following I shall be very ready to sign my name to.

That the demonstrations given by Professor Pattison are vague and desultory, the relation of parts to one another being almost wholly omitted, and the external parts, to which they may be referred, entirely neglected; that the intimate structure of most of the organs is not given at all; their developement never alluded to; that notwithstanding engagements entered into by Professor Pattison with the students to assist and superintend, out of the lecture-room as well as in it; he is seldom about the premises, except during the hour of lecture, and scarcely ever seen in the dissecting-rooms; that his attendants consist almost entirely of junior students, and that their average number daily is not more than fifty, while Mr. Bennett is attended by all the seniors in the school, and seldom musters fewer than 120.

You will see that I have written down these charges hastily, but I have not thought upon them the less on that account. You are at liberty to make use of my name as ready to substantiate any charges which will embody any or all the foregoing; but there are, of course, many others to which I cannot personally vouch.

The report of Bell's resignation will do us much injury; and if your father and Turner follow his example, and start a private school, I should imagine we are DISHED, &c. &c.

Yours truly,
HENRY COOPER.

To Alex. Thomson, M. B.

Memorial from those Students of the University of London, who wish for the Dismissal of Professor Pattison.

To the Council of the University.

Lords and Gentlemen of the Council,

As the charges already preferred against Professor Pattison, on account of his negligence, deficiency, inaccuracy, and evident want of scientific knowledge, have not received the attention, which we had anticipated, and, which their importance demands, we feel bound to express our opinions in a more public and decided manner than we have hitherto done. We have to lament, indeed, that some of us from motives of delicacy, lest Mr. Pattison's reputation might so severely suffer, as materially to injure his prospects, been led to adopt a greater degree of privacy than appears to have been desirable; for, had we known that publicity would have been given to this affair by Mr. Pattison and his friends, we should not have been so delicate and tender of his interest. And, we feel confident that, had Mr. Eisdell's intentions been made known to the *whole* class, previous to their separation, every senior student, as well as the majority of the juniors, would have readily attested the statement, which has

been made by Mr. Eisdell, and corroborated by seventeen of his fellow-students.

Although we appear before you in the character of complainants, we are not blind to the ample and magnificent arrangements, which you have so carefully provided for our instruction. Indeed, of all the medical professors, Mr. Pattison is the *only one*, who has disappointed our expectations, cast a damp over our spirits, paralyzed our exertions, and rendered us thoroughly dissatisfied. We neither met him at the dissecting table, nor at the dispensary, as, from his fair and ample promises, we had a right to expect, We have paid freely all that you demand, and we expect that you will provide, that your public and blazoned pledge of giving much ampler instruction, on a better plan, shall be fulfilled. It is a bona-fide contract between us, and that contract has been broken by Mr. Pattison. He has, in fact, given us nothing, which, as a Professor of Anatomy, he ought to have done; he has neglected the physiological linking of anatomical facts, and omitted to allude to regional, functional, developemental, comparative and morbid anatomy.* What can his lectures be, then, but a dry detail, which we can more successfully and infinitely more accurately acquire for ourselves in the dissecting-room? They are almost wholly confined to mere descriptive anatomy, and here he is so superficial and careless in his demonstrations, as to fall infinitely below Mr. Bennett in the clearness of his illustrations, and in the accuracy of his details.—Were we to assemble instances of his negligence, they would soon fill our paper, and tire your attention. Enough has been already laid before you; suffice it therefore to remind you of a few instances.—What can be said in excuse for his dividing one hour, and only one, between the absorbent system (including lacteals and absorbents), and a flowery, and therefore useless valedictory address, while the former is one of the most important parts of the human economy.

The most important parts of anatomy have been neglected. Thus, of the alimentary canal, the mouth, buccal cavities, teeth, pharynx, and œsophagus, were never mentioned; the stomach was superficially treated of, and its connections and relations imperfectly illustrated. Of the intestinal canal, the differences between the duodenum, jejunum, ileum, colon and rectum, were not clearly indicated; and the organization of the whole was neglected. The assistant chylopoetic viscera, with the exception of the lobes of the liver, were scarcely touched upon. The relation of the abdominal viscera, for the physician of the highest, and for the surgeon of no light importance, occupied the attention of this *splendid anatomist* exactly half an hour. Is not this robbery? or, is it the quackery of ana-

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* Which departments he kindly and condescendedly requested Mr. Bennett to lecture upon, as "SUPPLEMENTAL Professor." The Council cannot be so ignorant of science as not to know that these subjects are the only abstruse parts of anatomy, and alone demand clearness of head.

tomical teaching? Must we eke out a certificate by dragging our attention through such a course?

Into points of science, we understand, and with sorrow, that the Committee, for the investigation of the conduct of Professor Pattison, have refused to enter; but, why? Why, when we charge him with *unusual ignorance* of old notions, and *total ignorance of* and *disgusting indifference* to new anatomical views and researches, do you prevent us from vindicating this charge? It is on these accounts, and on these chiefly, that we call, and that loudly, and with no *friendly voice*, for his dismissal. He teaches that the *ductus communis choledochus* enters into the superior angle of the right quadrature of the duodenum—that pronation and supination are performed at the wrist-joint—that the peritoneum, instead of being a sac having an hour-glass contraction, the maximum of which contraction forms the foramen of Winslow, consists of two true, uncontinuous, sacs, and, that the foramen of Winslow is a real orifice in the peritoneum. Moreover, in making diagrams of the peritoneum, he could not demonstrate how its inflections were made. He has been asked more than once what nerves pass through the two origins, or rather the bifurcated origin of the external rectus muscle of the eye, but he has never yet given an accurate answer. He asserts that the brain is not developed part by part, but all at once—that the nerves and the carotid arteries, passing along the margin of the cavernous sinus are *bathed in the blood*. We fearlessly assert, that there is no anatomist in Europe, who would not reject a pupil he was examining for such blunders, and yet, forsooth, we are to be told of Mr. Pattison's *splendid attainments—splendid certificates. Splendid*, indeed, because signed by a *splendid* lawyer and some American and unknown names—*splendid*, because Dr. Davies has been most busily canvassing for opinions in favour of Mr. Pattison, and has over and over again asserted to the discontented pupils that there is no anatomist in Europe like this Mr. Pattison! But Americans, and lawyers, and Dr. Davis, cannot, combined in one phalanx, packed into one fasciculus, praise such latinity as falls from the worthy Professor, who commonly talks of the *scali vestibuli*, *membrani tympani*, ductus communis *choledoctus*.

We need not, however, urge fresh arguments for the truth of the accusations made against Professor Pattison; FACTS, indelibly imprinted on the mind of every pupil, and, in their hearts, a "monumentum ære perennius," call but far too loudly against him. No senior pupils attend his class, except to save appearances, and when they do, they retire to the remotest corner of the theatre. Of the juniors *fifty* only, and sometimes only *thirty*, of the one hundred and eighty, who fee him as the head of the school, usually attend him, while the majority of both classes indiscriminately absent themselves from his examinations. And why? truly, because he is ignorant, or, if not ignorant, indolent, careless, and slovenly, and, above all, indifferent to the interests of the science.

We urge you, therefore, to remove Mr. Pattison, to seek for some REAL ANATOMIST for our teacher, no man supported by certificates from interested lawyers, or transatlantic and unknown names, no man,

who will not give up his whole time to the cultivation of the science, no man, who will plan cabals, no man, who will be afraid of the strictures of his pupils, no man, who will promise what *he never means* to perform, no man, who will be afraid of the demonstrator being his rival, no man, who will take a mean advantage of his situation as examiner to brand his discontented students, no man, who will lecture upon a case as recovered, which may die the next day, no man, who will not be frequently in the dissecting-room, ardent in his pursuit of knowledge, eager to promote the interest of the institution, determined, by his industry, to bind us more strictly to our alma mater, and truly philosophical in his views of anatomy! Should you, however, neglect our prayer, we warn you that we shall publish this very appeal; shall lay bare the deep and unanswered malignity of the mis-statements attested by Dr. Birkbeck; the mean, party-spirited, wilful duplicity by which he, as the supporter of Mr. Pattison, tried to make the proprietors believe that ONE student only charged that gentleman, and that an IGNORANT student. Could Dr. Birkbeck, a member of the Council, a canvasser for Mr. Pattison, the head of the party against our Warden, and the cultivator of these cabals, could he say that he was ignorant of the seventeen pupils, including the great majority of the medalists, who in a phalanx, charge Mr. Pattison with a palpable dereliction of duty, and urge his dismissal? If so, why is he retained in the Council? Did he know of these facts, why then did he hide them?—because he had an end to serve? Why, then, we boldly ask, is he retained a proprietor of the institution? Why has his mis-statement regarding Eisdell's ignorance —an insult, which we all consider *personal* to ourselves—not been officially contradicted?

Is this the manly government you promised us? Is this the liberality which distinguishes you above the hitherto favoured institutions of our land? Is this "Patens omnibus Scientia?"

Once more, and for the last time we urge you, by your pledges voluntarily given to the public, by your desire for the success of your school, by your hopes of beginning the next session amicably, by your determination to benefit our country, by your love of virtue, honourable feeling, industry, and moral worth, by the honours which you have showered bountifully on ourselves, to dismiss this inefficient, careless, indifferent Professor.

Signed by ALEXANDER THOMSON, M.B.
On the part of the seventeen Medalists not in town.

Signed also by { N. EISDELL. F. R. TAYLOR. E. SERWARD.

Immediately on this being read by the Council, Dr. Hogg, the Apothecary of the Dispensary, with whom I was boarding, was sent for, and desired by the Chairman, Mr. Milne, to tell me their decision, "that Dr. Alexander Thomson be dismissed from, and prevented visiting the Dispensary forthwith." I, of course, instantly left the Dispensary, but wrote several times, and sent friends to procure some written order of the Council, which had desired my

exclusion from their institution. This, however, I was constantly refused, and having been informed that the only members present were Messrs. Milne, Sturch, and Wilson, I presume that there was no written document, as these gentlemen could not form a quorum of the Council. All I could now do was to send in a protest to the Council, in which I individually demanded the dismissal of Professor Pattison, on account of a very disgraceful surgical operation, which he performed in my presence, and which I described in that protest. That I was not justified in doing so, on account of my not being in any way connected with the institution, as stated by the Editor of the "Medical Gazette," will best be answered by the following extract from my protest, not to mention my belief as expressed in the "Lancet," that I was a matriculated student, and my having attended during the whole of the last session the lectures of Mr. Bennett, Dr. Turner, Dr. Thomson, and Mr. Lindley. "I had a right to expect from you at least moderation, because my character is as yet untarnished, because I have done all I can to promote the interests of the institution. I have opened almost every body that has been examined for the Dispensary; I have given instruction to the pupils on morbid anatomy, and on its connections with pathology, which has not been attempted by any one officer of the institution. There have been but few acute cases, which required visitation at their own homes, that have not fallen under my care, and but two or three of these have died, while more than one, who has been given up by the physician, has been restored to health and brought to thank him, with a happy and cheerful countenance. During the two months, in which I saw the portion of the patients, who ought to have been seen by Dr. Conolly,* several patients, who had been months under cure, one indeed thirteen, were dismissed recovered, and when I handed over these patients to that gentleman, there was not one, who was not convalescent.

These are facts, which modesty requires a man under ordinary circumstances to veil, but for the truth of which I appeal to the physicians themselves, to the apothecary, and individually to the pupils, and to the patients, from many of both of which latter classes I now possess letters, thanking me for my kindness and attention. But this is not all. Who that has not been paid for it has added to your museum but myself? I have given full fifty valuable preparations, the spirit for preserving which I have paid for at a great and unusual cost, from the strength required, out of my own pocket.

* Dr. Conolly resigned his situation in the Dispensary, for the ostensible reason, that he was required to sign his name in a book at every visit, a requisition which, while all sensible men must approve of the check it is calculated to exert upon the attendance, both of the Pupils and of the Professors, (some of whom had previously grossly neglected their duty) he considered inconsistent with the character of a GENTLEMAN. The Council, however, made him resume his situation, or resign his professorship. He chose the lesser evil, and the Council consented to rescind the obnoxious resolution.

I have gone to every part of London to open bodies, and I have brought you the spoil. But this is not all. I have presented to you, through Dr. Grant, a large and unexampled collection of flint fossils, which took me three whole years to collect, another of Madrepores from Torbay, together with upwards of a hundred specimens of the shell of the Pholas, in a state of perfect preservation. I presented you also with many fossil bones from Newmarket Heath. But this is nothing. I have now to ask you, who framed and gave the first spirit to your Medical Society, to your Philosophical Society? Who framed the laws of these societies? who was one of the first presidents of both these institutions? Lastly, I spent two whole weeks in arranging your medical library, when you could get nobody else among your officers able, or, if able, willing to work unpaid for the good of science. Moreover, I have still a further claim upon you in being the scientific editor of the first two numbers of the University magazines, where all the scientific articles, including that on a "General Judgment," were the production of my own labour. Finally, I have laboured in most of your classes, and gained the esteem and the highest recommendations from all your good medical Professors; and I have in public and in private devoted my pen, my heart, my tongue to your service. In Cambridge, I have endeavoured to make them believe that you have no want of religion, but wish to strengthen its bulwarks, by preparing the mind to appreciate the value of the evidence collected in its favour, and I have gained you friends in every quarter by my utmost efforts; and for these services, which, considering my age and opportunities, are, I hope to be considered, not small, you have seized upon the first moment to make me an example, an odium, a beacon for your students!

The receipt of this protest was never acknowledged, although it contained actionable matter, although it contained a most severe attack upon Mr. Pattison. If the Council still refuse redress to the pupils, still remain a star chamber, a Polignacian Council, I must publish it, for truth is like the fairy elf that comes up from the furthest deeps through the spiracles of the cumbrous mass that hides her. I heard nothing more publicly of the business until a few days before the Introductory Lecture, when, upon going to the University, I was prevented entering by the porter. I asked him if he had received any written order, and he said no. I now went to Mr. Coates, the locum-tenens, and asked him when the Council planned this new indignity, and whether he had not received orders to send me a written communication on the subject. He said that the order for my exclusion was passed at the same time as that for my dismissal from the Dispensary, that there was no written record of either, that he had not previously put the latter part of the sentence in force, because HE did not think it necessary, and that he had only now had recourse to it, because he was afraid I should make a disturbance at the Introductory Lecture; which means, of course, that he was quite conscious that I had been illused, and that if he were in my place, under such usage, he thought he should make a disturbance; and so this *petit dictateur* did not think it necessary to condescend

to let me know his dictation in writing. This is *the march of intellect* or the *diffusion of useful knowledge!*

I took no further steps till October 5th, 1830. When, at Professor Bennet's suggestion, I sent the following communication to the Warden:—

October 5th, 1830.

Dear Sir,—Professor Bennett informs me, that some person has stated to you, that I have kept away pupils from the University of London, or diverted them to other schools. I shall feel obliged to you for the name of the slanderer; for the statement is *false*. I wonder you can encourage such a report; for it implies that you think I have considerable influence with the pupils. It is at least your interest, as one of the *coup d'etat* school, to pretend a perfect indifference both to myself and to my acts. While I have my pen in my hand, let me ask you, whether the Council desired you to tell the Porter to keep me out, without any notification of their wish being made to me in writing. It is a strange thing to expel a freeman, by putting words in the mouth of a hireling slave.

I am, Sir, your obedient servant,
Alexander Thomson.

To Leonard Horner, Esq.
Warden of the University.

I immediately received the following letter from the Warden:—

My dear Sir,—I have just received your note, and shall be happy to see you, if you will favour me with a call, any time to-day, between two and four o'clock. You will find no obstacle to your admission to the gate or elsewhere. You can come direct to the Council Room.

Yours very truly,
Leonard Horner.

University,
Wednesday, 6th October.

So at last, my Lord is obliged to write, however cautiously. I met him in the evening, when he refused to tell me from whom he had heard the report, that I intended to make a riot (was it an invention of his own? or a jesuitical *apres gout?*) stated that there was no written order for my expulsion. In fact, that it was his own act; that after my assurance he should recal his order, but that he must require me not to go to Professor Pattison's class. I told him that I would make no conditions. He then requested me not to enter Professor Pattison's class-room, a request with which I willingly complied; the more as I had heard from one of the Professors, that he had told Professor Pattison that I intended to visit his class, and that this worthy gentlemen turned quite pale, and seemed very apprehensive. Wishing, however, after consulting my friends, to have the Warden's recantation, in black and white, I wrote him as follows, on

October 9th, 1830.

Dear Sir,—I have been reflecting upon your communication, which appears to me so extraordinary and contradictory to that

made by Mr. Coates, that I beg you to answer my last note in writing. I understood you to say, " that you had been informed by somebody that I intended to make a riot at the Introductory Lecture. delivered by Professor Conolly, and that you, following your duty and taking care 'nequid caperet detrimenti respublica,' had thought proper to order my temporary expulsion; and that in my case, as I had been very troublesome, you did not deem it necessary to pay me the common courtesy of communicating with me in writing, and therefore gave your orders direct to the porter." Am I, or am I not right in my conception of the communication of the Warden of the London University?

Your obedient servant,

ALEXANDER THOMSON.

P. S. I hope you will answer me in writing. Truth needs no evasion!

After this, Sir, to which, by the bye, I received no answer, I packed away my papers, and as my intimate friends well know, had made a determination never again to allude to the disturbances. Accordingly I went, *by permission*, to my friend Mr. Bennett's lecture, which I take this opportunity of saying, I have not heard equalled in the whole course of my studies. After lecture, some conversation between myself and a Mr. Wilson took place in regard to an academical dress. The students agreed with me, that it would be inconvenient, unnecessarily expensive, and, after all, an invidious distinction. I was going, however, on the same evening, to the Medical Society, when the porter again informed me, that I was excluded. I was astonished, and requested permission to be allowed to enter the society, promising to return in a quarter, or, at farthest, in half an hour, for the purpose of apprizing them of this new indignity. The porter kindly granted my request. I went to the room of the society, told them what had happened, and asked them to meet me at the University Hotel upon the morrow, with the view of hearing the letters and documents which had led to my expulsion. I then, after having been insulted (as Mr. Horner acknowledges) by a listening, eaves dropping menial's intruding himself into our society, and haranguing the pupils on the excited state of my feelings) left them to their deliberations. At the advice of my friends, I next morning once more wrote to the Warden a letter, of which the following is a copy:—

October 11th, 1830,

SIR,—I have again, notwithstanding your protestation of friendship and sorrow for your former coercive measures, been insulted by being forbidden the building by your hireling. In consequence of which I have again asked the advice of my friends, Professor Bennett, Mr. Thos. Wakley, Editor of the Lancet, and Mr. L. Estrange, a general practitioner in our neighbourhood. By their advice, notwithstanding your studied evasion of written communication, once more I write to you to DEMAND from Leonard Horner, Esq. that courtesy, which one gentleman has a right to expect from another, viz. an explana-

tion of the reasons, which led him to send to me a repulsive message by a servant verbally, and not in writing. Also to enquire what may have caused you again to issue the obnoxious order, after pledging yourself to me, to Professor Bennett, and to Professor Smith, that it should be withdrawn.

Mr. Bennett suggests that my having spoken to-day in his theatre may be the cause of your ill-tempered and hasty reversion of your pledge. That you may be certified on this point, I shall repeat my observations. A gentleman, whose name I do not know, but whom I have since heard called by the nick-name of *Mr. Pattison's ligament*, proposed that a deputation should wait upon the Council, for the purpose of asking permission for the students being distinguished from those of other schools, by the badges of a silk gown and tasselled cap. I immediately asked him—"Does this proposal, Sir, emanate from a *Professor* or from yourself? because I beg to assure you that at Cambridge it is thought a great grievance to be obliged to wear these trappings, to which no one, who is not obliged, will submit. Moreover, I trust that in the present day the only distinction, which medical pupils of one school will seek from those of another may henceforth be placed solely in the depth of acquirement, the cultivation of natural talent, the manly independance, and the gentlemanly and scientific deportment, which ought to characterise every member of our profession in *particular*." Such, Sir, was the purport of my address, which I humbly submit cannot be construed, even by malice, policy, or jesuitical feeling into an offence against good discipline, good manners, or decent society.

I regret that among my numerous papers I have lost that containing the last part of this letter. Suffice it to say, that in the morning I received the following notice from the pupils:—

Dear Thomson,—I have great pleasure in informing you that a notice, the copy of which I send, has this morning been posted about the University; and I have the honour to request your attendance at the time and place appointed.

Believe me, Yours very sincerely,
CHARLES ROB. BREE.

NOTICE.

The students of the medical school in the London University are particularly requested to meet at the London University Hotel, this evening at six o'clock, when a subject, which materially regards their interests, and the welfare of this Institution, will be brought before their notice.

CHARLES ROB. BREE.
B. COPPERTHWAITE.
N. EISDELL.
WM. CALVERT.
WM. EVANS.

Three of the gentlemen, whose names are signed to this notice, waited however upon me in the morning, by the request of the Warden, who wished me to accompany them to him. I did so, and he informed me in their presence, that the reason of my second exclu-

sion from the University was, his having been informed by two professors that I had intended to make a riot in the medical society. All my friends assured him at once that he had been misinformed, and of their knowledge of my intention not to have recurred to these matters, while I again assured him, that if he would give me the names of the two INFORMING Professors, I would bring all the papers and correspondence that minute, and burn them in the presence of himself and of the students. This, however, he refused; but after a long parley between himself and the three pupils, he consented to allow me to lay all the documents before the pupils, and to explain to them my conduct in the anatomical theatre, immediately after Mr. Bennett's lecture. I leave it to the students to say whether I said any thing that was not true of any Professor; I leave it to them to say whether I used unnecessary violence, and whether, after an hour and a half's dead and silent attention, they did not rend the air with their deafening shouts of applause; whether they did not deeply feel that my motives had not been personal—that their good had alone actuated me—that I had been made a tool of the Professors, while fulfilling the commission of my fellow pupils—that I had been basely and ungenerously deserted by these Professors—that I had been unnecessarily insulted by the Council—that I had been traduced by a faction of three Professors—and that, in my person, every pupil had been excluded from a patient hearing before the Council! For this Council had never inquired into my motives, into the reasons of my connexion with the pupils! They condemned me unheard—they were at once my accuser and my judge!!! And yet, Sir, these are the *cream of the men*, who are the boasted and boasting advocates of freedom of speech, of thought, and when free from licence, even of action!!! The motto over their gate is "Patens omnibus scientia;" their jesuitical reservation is "at least so long as they are good boys, that is so long as they complain of no Professors, point out no abuses, and allow members of the Council to TRADUCE the character of their fellow pupils!!!"

For what has since transpired I refer to the *Lancet*; and am your obedient humble servant,

ALEXANDER THOMSON, M.B.

Of St. John's Col. Camb.—of the Univ. of Edinburgh—
late of the Univ. of London, and late Pres. of the Med.
and of the Lit. and Phil. Soc. in the Univ. of Lond.

Copy of Letters inserted in the Lancet of Oct. 30th. 1830.

University of London, Oct. 14.

DEAR SIR,—We have great pleasure in enclosing the resolutions agreed upon at the meeting yesterday, with only two dissentient voices, and remain,

Dear Sir, yours very truly,

N. EISDELL, Chairman.
T. HOWITT, Secretary.

At a meeting of the medical students of the London University, held in their common room, on Wednesday the 13th of October, 1830, it was resolved, that

1. This meeting views with anxious concern the unmerited displeasure of the Council, lately manifested toward their fellow student Dr. Alexander Thomson.

2. Dr. A. Thomson having fully laid before the students of the University, every particular of his late conduct in connexion with that institution, and submitted to their perusal authentic documents in support of his statements, this meeting begs respectfully to intimate to the Council its unqualified approbation of the motives Dr. Thomson acted upon in the transactions alluded to.

3. The students are fully aware of the deference they owe to the ordinances of the Council, but cannot view, without apprehension, the summary measure which has been put in force in the case of Dr. A. Thomson, viz. his extraordinary expulsion from the University. They conceive it to be a *public* institution, established on a system of enlarged and scientific usefulness to society; and, they think themselves called upon to enter their firm protest against the dismissal of a pupil from its class-rooms, without his having violated any known law, any hearing of evidence, or even an official notice of his dismissal. They are convinced that a proceeding so arbitrary, irregular, and unjust, is incompatible with the best interests of the University, and subversive of the liberal principles, to which it owes its foundation and support.

N. Eisdell, Chairman.

Many of my fellow pupils have called upon me, and informed me, that double the number of names would have been appended, had a communication not been made from the office, stating that I was not a matriculated pupil. As soon as I heard of this, I sent the following letter to the Warden:—

Sir,—Having received a very gratifying communication from ninety-six of my fellow students, approving of my conduct in regard to Professor Pattison, and having been informed by many others of them, who have not appended their signatures to this document, that they have been restrained, by a communication from the office affirming that I am not a matriculated student, from appending their names to this document, the whole tenour of which they otherwise approve; I beg to express to you my surprise at such information, and to inform you, that the moment I heard of it, I went to the office and tendered my money for a library ticket, which was refused. I assure you, that I have been attending the University under the belief that I was a regularly matriculated student; for, when I feed Dr. Davis for his lectures, he informed me publicly, in the presence of his class, that his share of the money at least would be remitted to me from the office.* This money I have never received, although I

* There is an agreement among the Professors that they will receive no money from their colleagues' sons. But the Council do not sanction this agreement, and, therefore, the sons are obliged to purchase a library ticket each year, as no one is

have more than once applied to Dr. Davis for it. I concluded, therefore, that this money was left for me at the office, where I wished it to remain, as my matriculation fee. Under this belief I attended many of the lectures last year. Again, Sir, I wish to ask of you whether, as a gentleman *permitted* by the Council, through courtesy, to attend lectures in their institution, they give you authority to prohibit my entrance without sending me any written document, and through the mouth of the porter? Again, Sir, I wish to know whether you can expel me from, or prevent me entering, the Medical Society, of which I was the founder, as well as the framer of its laws, and am still an honorary member, having paid all my fees. If I, an old pupil by *your* acknowledgment, am excluded in this manner, of what use is it to me to have paid all my fees to that society? An answer to these queries will oblige

Your obedient servant,

(Signed) ALEXANDER THOMSON.

October 15th 1830.

To those Pupils of the University of London, who have signed the Protest to the Council in favour of Dr. Alex. Thomson.

GENTLEMEN,—Allow me to return you my thanks for the kind interest you have taken in my welfare; I wish you had rather had moral courage enough to have insisted upon your own rights, and then you would have been insulted by the Council,* who after reading your testimonial, sent me a letter, of which the following is a copy:—

Copy of the Warden's Letter to Dr. Thomson.

University of London, Oct. 15, 1830.

SIR,—I have laid your letter of this date before the Council, and I am directed to transmit to you the following resolutions of the Council passed this day:—

"That Dr. Alexander Thomson be not permitted in future to come within the precincts of the University, and that the Warden do give the necessary orders for carrying this resolution into effect.

"That a copy of the preceding resolution be transmitted to Dr. Alexander Thomson.

I am, Sir, your very obedient servant,

LEONARD HORNER, Warden."

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permitted to buy a library ticket who does not intend to enter to a course of lectures, to pay that part of the fee which goes to the University chest.

* It is better, however, to observe to you, that not more than six members of Council met on this occasion, as I am credibly informed by two of the Professors. Dr. Birkbeck and Mr. Sturch were I am also told, of the number.

Dr. Gordon Smith is preparing for publication a Syllabus of his own Lectures, and an Abstract of Professor Chaussier's work on Judiciary Anatomy.

List of Books in our next,

All Communications and Works for Review are to be addressed to the care of Messrs. Underwood, 32, Fleet Street; or to the Editor, at his Residence, 61, Hatton Garden.

THE LONDON

MEDICAL AND SURGICAL JOURNAL.

No. 30. DECEMBER 1, 1830. Vol. V.

CRITICAL REVIEW.

I.—*Dublin Hospital Reports and Communications in Medicine and Surgery.* Vol. V. 1830.—(*continued.*)

We have given an account of the valuable contents of this volume in our last, and now proceed to notice them in detail.

The first paper is "a Clinical Report of cases in the medical wards of the Meath Hospital, during the session of 1828 and 1829, by Robert James Graves, M.D. M.R.I.A., King's Professor of the Institutes of Medicine, &c., and William Stokes, M.D., Lecturer on the Practice of Medicine, &c.

The first section is "on diseases of the arterial system—arteritis," illustrated by a case of "gangrene and paralysis of the right lower extremity, arising from disease of the femoral and iliac arteries. It is as follows, and is ably detailed:—

"Patrick Magrath, aged 44, of a strong habit, was admitted on the 7th of Feb. 1829, labouring under loss of power of the right lower extremity.

"For the last six months this man had been exposed to severe hardships. In the beginning of Dec. 1828, he was first affected with alternating sensations of cold and burning heat in the toes of the right foot. The same sensations, soon after, were felt in the leg, accompanied with formications, and diminished power of the limb. Pains in the foot next supervened, and in the course of a month the part became cold, and was totally deprived of sensation.

"On the day of his admission he had attempted to walk to the hospital, when the pain suddenly extended to the calf of the leg with violence. From this time he lost all power of motion in the leg.

"The constitutional symptoms since the beginning of this disease were prostration of strength, anorexia, and constant thirst.

" On admission his intellects were perfect, and the temperature of the body, with the exception of the affected limb, natural. The pain had extended to the thigh during the night; pulse 96, small and soft. On examining the limb we found its temperature to be about 58° of Fahrenheit, and observed some œdema at the ankle and foot. There was complete loss of sensation from the middle of the thigh to the toes; the patient could rotate the thigh slightly, but no other voluntary motion of the limb was possible. The femoral artery appeared like a hard cord; it was painful on pressure, and no pulsation could be felt in the vessel. We further discovered, by the assistance of the stethoscope, that pulsation was wanting in the external and common iliac arteries on this side, while that of the left iliacs was plainly perceptible.

" From these observations we came to the conclusion, that the right common and external iliacs, and the femoral artery, were in a state of permanent obstruction, which would account for the state of the limb.

" Warmth was applied to the limb, and opiates exhibited. In the course of the night the limb became of the natural temperature, the œdamatous swelling extended to the hip, purplish patches appeared at the ham, and the thigh became painful on pressure. Leeches were applied in abundance, and opium freely administered. On the 10th the thigh was more swollen, and presented many vesications; considerable tenderness; temperature 88°. He died the following morning.

" *Dissection.*—No emaciation; the right lower extremity swollen and of a purple colour.

" The brain, lungs, and abdominal viscera, were carefully examined, but nothing remarkable was observed, except that all these parts were unusually exsanguineous. A few crude tubercles were found at the superior portions of both lungs.

" The heart presented the left ventricle in the state of active aneurism, with some thickening and opacity of the aortic valves. The ascending portion and arch of the aorta were perfectly healthy, nor could any disease be discovered in the carotid or subclavian arteries, but in the innominata we observed some red patches where the lining membrane was thickened and softened. The descending aorta was healthy to within sixteen inches from its bifurcation; here a slender red fibrinous clot was found stretching nearly to the bifurcation; beneath this clot the lining membrane was of a deep red colour, thickened and soft.

" The right common iliac, when viewed externally, appeared distended and livid; the left apparently healthy. On slitting down to the bifurcation, we found that the former vessel was completely plugged up from its origin by a dark clot, which extended to the external and internal iliacs, and also engaged the gluteal and obturator arteries. The same disease was found in the femoral and profunda, and extended to the origin of the anterior and posterior tibial arteries, which vessels, including the peroneal, presented a similar appearance as far as they could be traced.

" Along the course of the diseased vessels, the lining membrane of the artery was found soft and thickened. It had a somewhat villous appearance, and greatly resembled an inflamed mucous membrane. In some portions the clot was separated from the vessel by a layer of dark coloured puriform matter, in others it was adherent. The clot in the tibial arteries was not red, and much firmer than in the femoral and iliac arteries.

" In the left common iliac we found the lining membrane of a deep red colour, and the vessel contained some portions of coagulable lymph. The external iliac, and femoral arteries of this side were perfectly healthy.

" No disease whatever could be detected in the veins of the affected limb.

" A large portion of the vasti and rectus muscles was hardened, and deprived of colouring matter. The cellular tissue œdematous; periosteum red but not softened."

Two other cases are detailed—one of aneurism of the abdominal aorta, the displacement of the heart, double pulsation of the heart—sudden death. Dissection was not allowed in this or the succeeding one, of aneurism of the ascending aorta; and as the diagnosis of these cases must have been difficult, obscure, and unsatisfactory, we pass them by unnoticed. The following interesting comment is offered on the case of Magrath:—

" In the highly interesting case of Arteritis, it would appear, that the disease had first commenced in the extreme branches of the arteries of the foot, and had gradually extended from below upwards. The symptoms are in favour of this opinion; the numbness and alternating sensations of heat and cold occurring first in the toes, and afterwards engaging the foot and leg; the extension of the pain upwards, and the coldness of the foot, existing at a time when the thigh preserved its natural temperature, all point out that the obstruction did not, in the first instance, commence in the larger trunks.

" But the appearances on dissection furnish a still more satisfactory evidence of the truth of this opinion. The consistence of the clot decreased from below upwards. In the lower portions of the arteries of the leg it was extremely firm and pale, while in the femoral and iliac arteries it was soft and red. Here also the lining membrane of the vessels shewed marks of recent disease, not observable in the arteries of the leg, namely, redness, softening, and puriform exudation. The existence of redness and softening, with the presence of a coagulum in the lower portion of the aorta, and in the left common iliac, make it highly probable that here was the latest effect of the disease; and that had the patient lived longer, the aorta itself would have become obstructed.

" The occurrence of coloured clots adhering to, and derived from the inflamed portions of the aorta and left common iliac, in which the current of the blood had flowed freely, is worthy of notice, and seems

to suggest the idea, that the fibrinous coagulum found in inflamed arteries differs from that of aneurismal sacs, and is not altogether derived from the coagulation of blood arrested in its course in consequence of the obstruction. Indeed, it is highly probable that the exudation of lymph from the inflamed internal tunic of the artery, is the first cause of obstruction to the flow of blood through the diseased vessel. In the smaller trunks it must very soon fill up the calibre of the artery; in the larger the continued clot probably results from a double source, exuded lymph and coagulated blood.

" In this case the extreme coldness of the limb pointed out, in the first instance, that the circulation was obstructed. Coldness occurs in some cases of paralysis from disease of the nervous system, but it is slight: here the temperature of the affected limb was thirty degrees below the natural standard. This great coldness, and the slight and but little extended œdema observable on the admission of the patient, shewed that the obstruction existed in the arterial rather than in the venous system, and this was borne out by the absence of pulsation in the femoral artery, as observed by the touch, and in the iliacs by auscultation. The latter observation, which we believe to be the first of the kind, was made with great ease and certainty. Having traced the pulsation of the aorta with the stethoscope, we followed the course of the vessel to the umbilical region, where the pulsation could be distinctly heard passing to the left side in the direction of the common iliac. This, however, was altogether wanting in the course of the right common iliac; and as no tumour existed in this situation, it was plain that the absence of pulsation denoted obstruction of the right common iliac artery.

" One of the most interesting circumstances in the case, is the occurrence of inflammatory action in the cellular tissue and skin of the affected limb. It is evident, that as long as the current of blood into the limb took place through the natural channels, the circulation was diminished in proportion as the arterial ramifications became diseased; the extreme parts being first affected, and afterwards the whole limb. During this state of things, the want of feeling and coldness kept pace with the progress of the arteritis.

" But when the inflammation had caused a total obliteration of all the arterial trunks leading from the common iliac of the affected side, nature appears to have made an effort, by means of anastomosing branches derived from the healthy arteries of the opposite side, to restore the circulation in the limb in the same way as happens in cases where the common iliac has been tied. That this effort was successful may be inferred from the restoration of warmth and sensibility to the limb; and it is worthy of observation, that in this and similar cases, where a collateral circulation has been just established, the danger to be apprehended appears to arise, as in frost bitten parts too suddenly restored, not from a deficient, but an over active circulation in the affected extremity, which manifested evident symptoms of inflammation, such as *heat, pain, tenderness, œdema, vesications,* and *superficial gangrene*. The latter we consider in our case to have been evidently the consequence of inflammation, and it is probable

that the gangrene observed in other cases of arteritis arises from the same cause, and not, as Andral seems to think, from a deficient circulation, as he compares it to gangrena senilis, from ossification of the arteries.

" If this view of the subject be correct, it evidently points out the impropriety of continuing the application of warmth after we observe that the collateral circulation has commenced, for the same reason that such applications are improper or even dangerous in the case of frost-bitten parts. Gentle warmth is in such cases at first advantageous; but when the restoration of the circulation has commenced, our efforts should be to moderate, not increase it; a suggestion that may prove useful after the operation for aneurism.

" In the advanced stages of this disease the diagnosis is not difficult; there is paralysis, but this has not been preceded by symptoms of cerebral or spinal disease, and the intellects remain undisturbed. To this, the feeble pulsation, or its complete absence in the arteries of the limb, are to be added, and no difficulty will be experienced in recognizing the disease.

" In its early stages the diagnosis is more difficult. Here, however, an accurate comparison of the temperature of both limbs, and the force of the arterial pulsations, may perhaps lead to a discovery of the disease soon after its commencement, and thus enable us to arrest the progress of the inflammation. At all events the disease might be checked, if not cured, so as to allow the anastomosing vessels time to take on the supplementary action."

In the comments on the semeiology of the cases which we have omitted, the most important statement is, the discovery of the aneurismal condition of the aorta by the stethoscope. There cannot be more able advocates of auscultation than the authors before us; and we must add, that their reports are some of the best and most satisfactory that we have ever perused. They account for every symptom with a degree of physiological accuracy seldom displayed by most of the moderm pathologists. They are intimately acquainted with the most recent doctrines of this and foreign countries, and evince acute discrimination, the most faithful observation, sound judgment, and extensive research.

Our authors next proceed to describe painful swellings of the lower extremity, occurring from inflammation of the saphena vein, after fever, and in the puerperal state, all of which they consider analogous. These cases, with their comments, deserve serious consideration, and throw much light on the pathology of phlegmasia dolens. We give them in full.

" *Painful swelling of the left lower extremity. Inflammation of the saphena vein. Symptoms of intermittent fever.*—During the month of

Feb. 1829, when several cases of ague were in the house, a man named Andrews was admitted, complaining of rigors, followed by a hot and sweating stage, which came on every second day; these he stated had been preceded by continued fever.

"Considering the case as an example of tertian ague, we ordered the exhibition of sulphate of quinine in six grain doses daily. In a few days the type of the fever was changed to that of quotidian, but still, during the intervals, the patient was nearly free from fever.—We now made a more accurate examination, and found that the left leg and thigh were extremely painful and swollen, a circumstance which the patient had concealed. Any attempt to extend the limb produced intolerable pain, chiefly referable to the ham and calf of the leg. The limb was extremely tender on pressure, particularly along the course of the saphena vein, which in its whole extent could be felt like a hard cord. No change could be observed in the temperature of the limb.

"The opposite leg appeared healthy. The saphena was indurated, but not painful on pressure.

"We now omitted the quinine, applied leeches freely to the affected limb, and at the same time exhibited calomel and opium. This treatment proved successful, and the patient was discharged in three weeks with the perfect use of the limb. The saphena having been restored to its original state, that of the opposite side, however, remaining unchanged.

"*Painful swellings of the lower extremities.*—Eliza O'Donnel, aged 21, was admitted on the 3d of June, 1829, with symptoms of gastric fever, and severe pain in the right side under the margin of the ribs. Thirty leeches were applied to the painful part, and aperient medicines exhibited with relief.

"On the 6th, convalescence appeared to have commenced, the menses flowed scantily, and altogether, though great weakness existed, her situation was satisfactory: On the 7th, however, without any obvious cause, we found that she had been kept awake the whole night by a violent pain in the calf of the left leg, which was swollen, extremely tender, hotter than natural, and tense, but was not at all red, neither did it pit on pressure. The tenderness, every where great, was excessive along the course of the saphena vein, which felt cordy throughout its whole extent. Some tenderness was complained of in the pubic region, with scalding on micturition; pulse 108, hard; tongue brown and dry; great thirst.

"Twenty leeches were applied along the course of the saphena; three grains of opium and ten of calomel, divided into six pills, were given in the twenty-four hours, and a hip bath at night. Next day she was greatly relieved, and in a few days her mouth was evidently affected by the mercury, and the pain subsided in the limb, which had decreased considerably in size, was less tense, and pitted on pressure.

"In this case a decided tendency to a recurrence of the affection was observed, and the pain, tenderness, and swelling returned several times, but in a less severe form, and generally yielded to the appli-

cation of leeches and stupes. The pain in one attack was greatest in the calf of the leg, in another at the instep, and in a third at the middle of the thigh. The disease in the left leg, after continuing with intermissions for three weeks, subsided, leaving, however, the limb considerably swollen, and the patient in a state of emaciation and exhaustion.

" On the 28th of June, a nearly similar train of local symptoms commenced in the right leg, attended with so much constitutional irritation and debility, that we were apprehensive of the result.

" The violence of the symptoms, however, subsided after the application of twenty leeches, and the use of remedies hereafter to be mentioned, so that, although her convalescence was tedious, the local symptoms had disappeared before the middle of July.

" It is worthy of remark, that when leeches were applied during the swollen state of the limb, a very large quantity of serous fluid flowed from their bites before any red blood made its appearance.—During this state of the limb, the swelling too was by no means uniform, varying from day to day as to the situation it chiefly occupied, and not unfrequently to the touch *simulating most perfectly*, the fluctuation caused by an abscess immediately under the integuments. The suffering from pain and want of sleep during the whole course of the disease was extreme, and so soon reduced her strength, that the exhibition of stimulating and tonic remedies was found necessary eight days after the commencement of the complaint, and were continued, combined with narcotics and the use of stupes, until she had so far recovered, both from the constitutional and local disease, that we were able to pass to the use of mild diuretics and the application of bandages.

" In this case the leg first attacked had not perfectly recovered when the other assumed the diseased action. In the right leg the corded and knotty state of the saphena vein, and the tenderness along its course, so remarkable in the left, did not exist.

On the subject of the painful swelling of the limb, as observed in the case of Andrews, we shall remark, in the first place, that it is a striking example of the danger that may arise from neglect of accurate examination in any case however simple in appearance. If we had not ultimately discovered the disease in this instance, the worst consequences might have resulted. We shall mention another case briefly, which illustrates the importance of general examination.

" In a female patient much debilitated by fever, convalescence had but commenced when she complained of want of sleep from severe pain in the calf of the right leg. At this time we were not familiar with the disease. On examination of the limb, the skin was of the natural colour, and it did not appear increased in size or swollen in the least. Narcotics were exhibited, but without benefit, and on the following day, the pain being very severe, and occupying a small spot on the leg, a moxa was applied. Next day, on taking down the bed clothes, the left leg was accidentally uncovered, when we were at once struck with the great difference of size of the two extremities. The right, which we had supposed of natural size, was

nearly twice as large as the left, which was emaciated from the long continuance of the fever. It was plain, that in consequence of not comparing both limbs, we had mistaken the swelling of the right leg for its natural state, lost much time in the treatment, and employed a painful and useless remedy. The patient ultimately recovered, but the moxa produced a very troublesome ulcer.

"These cases are good examples of the practical value of diagnosis: so long as we had an erroneous idea of their nature the remedies employed were injurious, but as soon as the real nature of the disease was discovered, the measures adopted were followed by complete success.

"The intermittent fever in the case of Andrews, may be compared to that depending on urinary disease. There is a point of irritation in the system which appears to produce the rigors; and to cure the fever, we must remove its exciting cause. In this case, as in that of urinary intermittent, the exhibition of bark aggravated the symptoms, and we have had several opportunities of observing that this symptomatic intermittent, although it be reciprocally cause and effect, is exasperated by the above treatment. We have seen it in a lady who had lately been confined, in whom there was a tendncy to the formation of mammary abscess. Quinine was exhibited in large doses for several days, and great aggravation of the symptoms of intermittent followed.* In a case of phlegmasia dolens lately treated in the hospital, the woman had daily rigors, followed by a hot and sweating stage. In both these cases the treatment which proved successful was local bleeding, and the use of draughts repeated daily, consisting of the ammoniated tincture of valerian, opium, and sulphuric ether. Indeed in the last mentioned case, whenever this medicine was omitted, the rigors returned; this happened three or four times. The patient ultimately recovered.

"An accurate observation of numerous cases, both of phlegmasia dolens occurring after delivery, and of painful swelling of the extremities appearing during or after fever,† has satisfied us of the pathological identity of the two diseases. In both œdema occurs, unattended by redness, but accompanied by increase of heat, with great tenderness and pain, and followed for a considerable time by impaired motion of the limb.

"In both diseases the swelling and other symptoms are frequently not confined to any one portion of the extremity, but extend uniformly over the leg and thigh. In both diseases, however, we have also often observed, that the pain, heat, and swelling, occupied particular parts of the limb, while the rest was comparatively free from

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* In another patient we observed well marked tertian ague supervene *during the administration of large doses of sulphate of quinine*. In a case of arthritic rheumatism in a person previously healthy, an imprudent attempt at curing the intermittent by still further increasing the dose of sulphate of quinine, induced a fatal pneumonia: in this case more sulphate of quinine had been exhibited antecedent to the appearance of the tertian fever than would have been sufficient to cure three ordinary agues.

† Dr. Tweedie, Edinburgh Medical and Surgical Journal. No. 97.

disease. Thus in some cases a portion of the thigh was intensely engaged, while the leg and foot remained free, and after some days the diseased action seemed to change its place, and successively attacked the other portions of the limb, without, however, any precise order in the mode of succession. In consequence of this, our treatment has been directed to different portions of the limb, according to the situation of the disease; and we constantly found that the degree of swelling in the part attacked was proportioned to the accompanying heat, pain, and tenderness. In some cases we have observed this affection to be attended by a cordy and painful state of the saphena vein, proving that it participated in the disease; but as this state of the vein, where it did occur, was in some cases subsequent to the disease of the other parts of the limb; and as in the majority of our cases of phlegmasia dolens, and in the painful swelling of the extremity after fever in the male and female subject, no such affection of the saphena occurred, we think that the latter cannot in justice be considered as the cause of the disease. The occasional occurrence of the swelling in the inferior portion of the limb in the first instance, and its erratic nature, militate against the idea that the disease proceeds from an affection of the large venous trunks; and in two instances we have seen the disease desert its orginal seat, and concentrate itself in the knee joint, producing obstinate inflammation of the part, which in one case, that of a male after fever, terminated in anchylosis, and in the other, that of a female who laboured under phlagmasia dolens after delivery, the same unfortunate result was with difficulty arrested.

" As the latter occurrence, and many obvious considerations, leave little doubt concerning the inflammatory nature of the disease, it remains to be considered what are the parts engaged. To us it would appear that the subcutaneous cellular tissue is primarily affected, sometimes generally, at others partially. It is not unusual to meet with cases either of general or local anasarca evidently of an inflammatory origin, accompanied by pain and heat, but unattended by redness. The external and vascular layer of the corium remaining uninflamed, will account for the absence of redness in this disease, as well as in the inflammatory anasarca.

" The cellular tissue seems to follow the same law as serous membranes. Moderately inflamed, it effuses an unusual quantity of its natural secretion, *serum*. When the irritation is more intense, the effusion is also altered; it contains more animal matter, approaching in its qualities to coagulable lymph, and sometimes it is of a puriform nature. It is to be remarked, that suppuration has occasionally been observed in phlegmasia dolens when very intense, but usually the effusion appears to be the result of an intermediate degree of inflammation between that which produces puriform and merely serous effusion. The swelling is consequently more apt to produce, by means of the coagulable matter contained in the effusion, considerable hardness arising from the consolidation of the cellular tissue. A state of parts not observed in the beginning or termination of the

disease, when the inflammation is more moderate, which we have frequently pointed out to our pupils both in phlegmasia dolens and the painful swellings of the extremity after fever. Did space permit, further arguments might be adduced from considering the pathology of Barbadoes leg, and the disease termed berri berri in Ceylon.*

" Concerning the treatment, the local antiphlogistic plan preserved in with assiduity, the use of stupes, and after the disease has continued for some time, the liberal use of narcotics, have appeared to be the best means of subduing the disease, when in its acute form: when more than usually obstinate, these means must be accompanied by bandaging, tonics, and diuretics; and when the knee is attacked, frequent leeching, blistering, and the use of the inclined plane.

" The utility of salivation appears to us questionable. In one case we obtained no advantage from the liberal exhibition of iodine. We have been informed by an experienced practitioner, that in several cases of phlegmasia dolens, he has observed marked advantage from the repeated application of blisters to the affected limb; a fact evidently not inconsistent with our view of the pathology of the disease.

" Since the above pages were written we have met with a remarkable case, in which this peculiar swelling of the lower extremity coincided with an inflammatory state of the vein.

" A young man of a strong habit was employed for two successive days in working in a ditch, and was consequently obliged to stand in water above his knees during that time. On the following day he became affected with lassitude, vertigo, and general weakness, and complained of severe pain in the right thigh. These symptoms continued for seven days, when he was admitted into the Meath Hospital.

" On admission his countenance was anxious and depressed; the tongue furred; thirst; headache; urine scanty, turbid, and high coloured; pulse 96; skin mottled with petechiæ. In addition to these general symptoms his respiration was observed to be laboured and unequal, with some cough; face very livid. But his chief complaint was a severe pain in the upper and anterior portion of the right thigh, which was greatly aggravated by motion or pressure. He had also severe pain in the left hypochondrium, increased by inspiration or cough.

" At this time no swelling whatever of the limb could be detected; but in the course of two days the upper portion of the thigh became evidently swollen, the part being extremely tender, elastic, but not at all red. The pain of the side continued, and extensive bronchial and pneumonic inflammation was detected. General bleeding, and very free leeching to the limb, was employed. The blood was not inflammatory, and no relief was experienced by the patient. The swelling of the thigh increased; calomel and opium were freely ex-

* Dub. Hos Reports, vol. iii. *Ridley on Berri Berri.*

hibited, but without any effect. The typhoid symptoms increased, and the patient died on the fourth day after his admission.

" On dissection we found the right lower extremity swollen, and tense in its superior portion, while the leg and foot were slightly anasarcous. The sac of the pericardium contained some sero-purulent fluid, and that portion covering the auricles and great vessels was vascular, and in many places covered with coagulable lymph. Both lungs were in a state of extreme sanguineous congestion, with commencing solidity in their postero-inferior portion, and general inflammation of the pleura, as shewn by a reticular exudation of coagulable lymph, which occurred in greatest quantity in the most inferior portions. The bronchial mucous membrane was universally red, and the tubes filled with frothy mucous. No disease could be detected in the lining membrane of the heart. The right ventricle contained a fibrinous coagulum of the usual appearance. The gastro-intestinal system appeared remarkably healthy, except in the great extremity of the stomach, where the mucous membrane presented a dotted red colour. The spleen enlarged, flabby and pale, was found in a state of purulent infiltration, bearing some resemblance to the lung in the third stage of acute pneumonia.

" The vena cava contained a few portions of a substance of a granular appearance, friable and of a yellowish colour. These did not adhere to the vessel, which otherwise appeared healthy. In the external iliac vein, however, we found, just above Poupart's ligament, a large concretion of a similar nature, nearly plugging up the vessel, and extending into some of the minute collateral branches. The lining membrane was red, and in one point adhered to the coagulum. No puriform matter could be detected. The femoral and popliteal veins were healthy, as also the arteries. The cellular tissue of the limb was pale and œdematous.

" It cannot be denied that this case is strongly corroborative of the opinion before entertained, and lately insisted on by Tommasini,* that the phlegmasia alba dolens is in reality owing to phlebitis.

" Here we find a young man previously in the enjoyment of good health, after a long continued exposure of the lower extremities to cold, becoming affected with symytoms of fever, and a violent pain in the upper part of the thigh. These are succeeded by others indicative of obstruction in the circulation of the limb, and of visceral inflammation, and in a few days the patient dies, with general pleuro-pneumony, pericarditas, and splenitis; and in addition to these the vein is found in an unequivocal state of inflammation and obsruction. It would, however, be unphilosophical to form certain conclusions as to the disease in question from a single case. We have put our experience of the disease now on record, and leave to our readers to form their own opinion."—p. 42.

Though the reasoning offered in this extract seems very plausible, we can by no means admit it conclusive, as we

* See Journal Hebdomad. No. 81.

have repeatedly shewn in our last volume, that phlebitis of the femoral and pelvic veins is not followed generally by swelling of the extremity. This will be seen by referring to our reviews of Mr. Arnott's and Dr. Lee's papers, in the Med. Chir. Trans. 1830; of M. Dance's and M. Tonelle's—papers which have not been mentioned by our authors. But whatever may be the pathology of phlegmasia dolens, all agree in the mode of treatment. In our original essay on the subject, we differed from the talented Dewees, as to the use of narcotics, and we are pleased to have the able physicians before us coincide in our opinions.

The remainder of the report of Drs. Graves and Stokes, comprises an account of diseases of the chest and abdomen, which we shall notice in our next number.

II.—*Medico-Chirurgical Transactions.*—Vol. XVI. Part I. London, 1830. pp. 235. Two Plates: Longman & Co.

This volume contains some interesting papers, and in some measure maintains the character of its predecessors. The contents are as follow:—1. Case of aneurism of the external iliac artery, for which the femoral, and subsequently the aorta, were tied. By J. H. James, Esq.—II. An account of the removal of a tumour situated on the cheek. By James Barlow, Esq.—III. A case of ununited fracture of the thigh-bone, cured by the application of a silver wire, between the fractured extremities. By Dr. Sommé, of Antwerp.—IV. An account of a concrete oil existing as a constituent principle of healthy blood. By B. G. Babington, M. D.—V. Case of phlegmasia dolens, caused by inflammation of the veins of the lower extremity, excited by malignant ulceration of the cervix uteri. By William Lawrence, Esq. VI. Case of extensive inflammation, and obstruction of the veins of the right inferior extremity of a phthisical youth, accompanied by a swollen state of the limb. By T. H. Holberton, Esq.—VII. History of a case of stammering, successfully treated by the long continued use of cathartics. By John Bortork, M. D.—VIII. On the pathology of hooping cough. By James Alderson, M. D.—IX. A further inquiry into the comparative infrequency of calculous diseases among seafaring people, with some observations on their frequency in Scotland. By A. C. Hutchinson, Esq.—X. Practical observations on the healthy and morbid conditions of stumps. By George Langstaff, Esq. XI. A case

of aneurism of the external iliac artery, in which a ligature was applied to the common iliac artery. By Philip Crampton, M. D.—XII. On the glanders in the human subject. By John Elliotson, M. D.—XIII. An account of the dissection of the parts concerned in the aneurism, for the cure of which Dr. Stevens tied the internal iliac artery, at Santa Cruz, in the year 1812. By Mr. Richard Owen, Surgeon.

In our next we shall notice these valuable papers in detail, and are happy to add our testimony in favour of their importance generally. We may merely observe, that the most valuable to the practical surgeon, are those by Mr. James, of Exeter, and Dr. Crampton, of Dublin, which prove that the aorta and common iliac artery may be tied with little difficulty, so far as the operation is concerned.

III.—*A Demonstration of the Nerves of the Human Body.* Part I. The Cervical and Thoracic portions of the Sympathetic, and the Nerves of the Thoracic Viscera. By Joseph Swan. Plates. Folio. London, 1830: Longman and Co.

IV.—*Neurology of the Human Body.* By Borremans, revised and adapted to the English Nomenclature. By T. King, late House Surgeon to the Hotel Dieu, Docteur en Medicine de la Faculté de Paris, Member of the Royal College of Surgeons in London. London, 1830. Folio. Ten Plates: Feuillet Dumus and Co. Leicester Square.

V.—*Analytical Anatomy of the Great Sympathetic Nerve.* By P. J. Manec, M. D. P. London, 1830. One Plate, Folio: Feuillet, Dumus and Co.

The zeal and indefatigable industry of Mr. Swan, as a physiologist and a minute anatomist, are universally known to the cultivators of medical science. The various productions of this author on the nerves, have been duly estimated.

He was perhaps induced to undertake the tedious dissection of that part of the nervous system alluded to above, as a candidate for a prize offered by the Royal College of Surgeons; and the splendid preparations presented by him to the college, obtained for him the unanimous approba-

tion of that body, and the approval of the profession at large.

The fasciculus now before us represents the cranial, cervical and thoracic portions of the great sympathetic nerve; and eight plates are devoted to its accurate illustration. Each view is shewn by two plates, with a difference in the shading; the second is a correct outline of the former, with letters and figures referred to in the letter-press description. It would be foreign to our purpose to enumerate the origin and course of the cerebro-spinal nerves, more especially as the succeeding plates represent them more fully. These plates are very accurately executed, and so far as they extend, are highly valuable. There are, however, two objections to the work. The first is, the unnecessary number of plates to illustrate the same subject; and the second, the great expense, which is nearly three times that of the second work on our list, and eight times that of the third, though either is far more complete and useful. The sum of two guineas is much too high for a partial delineation of the nervous system, and should the succeeding numbers be equally expensive, the work will be placed beyond the reach of a great mass of the profession.

Mr. King's plates, when united, represent the body of an ordinary sized adult. They not only delineate the whole nerves, but almost all the tissues of the body. They are invaluable to the student of descriptive anatomy, and consequently have had a large sale, which was greatly augmented by the lowness of their price, which is fifteen shillings plain, or thirty shillings coloured. The author has published a description in sixteen pages, octavo, and with such a manual the student can acquire an extensive knowledge of the relative situation of parts; especially of the muscles, blood-vessels, and nerves. We strongly recommend these plates to all those engaged in the study of descriptive anatomy, and to junior practitioners. If placed on canvas, they would be a great ornament to the surgery. Mr. King is also engaged in preparing plates of the arteries, of the same size. We wish him every success.

Manec's plate illustrates the origin of the cerebro-spinal nerves and their inosculations. There is an accurate description in letter-press on each side of the figure. In one plate, and one view, there is a complete delineation of the great sympathetic, and at an expense of a few shillings.

When we consider the immense importance of a knowledge of the cerebro-spinal nerves, in explaining the functions, sympathies, derangements of the different organs, and the action of medicinal agents upon the living system, we cannot too strongly recommend the attentive study of this plate to our junior friends. Without an accurate knowledge of the various subjects which it embraces, directly or collaterally, no man can comprehend the innumerable chain of symptoms of disease, nor the therapeutical views which influence the scientific practitioner. This plate well deserves a place in every medical library.

ORIGINAL COMMUNICATIONS.

I.—*Clinical Reports of the Richmond Hospital, Dublin.* By John Swift, Esq. M.R.C.S. London.

Case I. *Trichiasis.*—Miles Brennan, aged forty-three, admitted on the 28th of September, with entropia of both upper eyelids, chronic conjunctivitis, an opaque and thickened state of the membrane investing the front of the cornea, and considerable intolerance of light. The disease had originated about six years ago, from inflammation of the meibomian glands and tarsal conjunctiva, and had for the last three months prevented him from pursuing his occupation as a shoemaker.

30th. Dr. M'Dowel operated on the left eye, by pinching up a fold of skin corresponding in extent to the inverted ciliæ, and sufficient to produce the requisite eversion; through this he passed three single ligatures of strong silk, one at each extremity of the fold, the third in the centre, and having tied them firmly, fixed the ends on the forehead by adhesive straps; a wetted compress was then laid over the eye and retained by a bandage.

On the 10th of October, the ligatures were detached by ulceration, and the success of the operation was evident, as the ciliæ retained a sufficient degree of excision, and the cicatrices were not yet entirely healed. A poultice was ordered to remove the scabs, which formed in the situation of the ligatures. On the 14th the incrustations were removed, and the cicatrization of the parts completed. The hairs remained permanently everted, the skin of the upper lid, which before hung loosely, is thrown into horizontal

folds, and the conjunctivitis and dimness of the cornea disappearing rapidly.

On the 6th of October, the right eye was operated on in the manner recommended by Mr. Guthrie, by removing with the scissors an eliptic fold from the upper lid, and dividing the tarsal cartilage at each extremity of the inverted hairs. The ligatures being passed through the lips of the wound, formed by the excision, were fixed to the forehead in the manner before described. The patient complained very much of the comparative severity of this operation. The former operation has the advantage of being less painful, of greater simplicity, and equally effectual.

Case II. Thomas Reilly, æt. 49, admitted on the 6th of October, with entropium of the left upper eyelid, of six months standing. Four years ago, he had catarrhal inflammation of the lids from lying on a damp floor, followed in two months by inversion of right upper eyelid, severe conjunctivitis and opacity of the cornea. About three months ago, excision of about three-fourths of the tarsus and ciliæ, was performed by Dr. Jacob, with some relief. A few hairs near the punctum lachrymale, which were left behind, became inverted, and continued to keep up irritation in the organ. These have been restored to their proper direction by a single suture, applied as in the former operation. Mr. Guthrie's operation was performed on the left eye with success. The ligatures have been applied in another similar case with decided relief, since the above was written.

Case III. *Iritis.*—Return of inflammation while under the influence of mercury. Bridget Cullen, aged forty, had been in hospital for about a month, with idiopathic iritis of the right eye, for which she had leeches twice applied, a blister to the nape of the neck, and took calomel and opium. She left hospital on the 7th of October, (her mouth still tender) and on the same night was attacked with iritis of the left eye, for which she was re-admitted on the 9th. The usual symptoms were present, viz. severe pain in the eyeball and forehead, lachrymation, intolerance of light. Sclerotic vessels injected, of a pink hue, and running in straight lines towards the cornea, round which they inosculated, forming a vascular zone, considerable irregularity of pupil, the iris being retracted towards the inner and upper part of the eyeball. Eight leeches were applied to the inferior palpebra, the extract of belladonna smeared round the orbit, and ℥j. of the following mixture to be taken three times a day. ℞. olei terebinth. mucilag. acaciæ ää.

℥j. aquæ puræ menthæ aq. piper āā. ℥iij. syrup. cort. aurant. ℥iv.

11th. Pain still severe; three leeches to the inside of the lower lid; a blister to the back of the neck.

13th. Considerable relief from the leeches; complains principally of soreness in the eye; a blister behind the corresponding ear; continue the mist. terebinth.

18th. Pain, intolerance of light, and lachrymation nearly gone—vascularity of sclerotic subsiding. States that the turpentine has produced slight nausea and headache, but no other perceptible effects.

26th. Pain and vascularity of the eye removed; pupil can be fully dilated by belladonna; two points of adhesion to the lens nearly destroyed; vision daily improving.

Case IV. *Amaurosis.*—James Kilty, a healthy labourer, aged twenty, was admitted on the 27th of September, with amaurotic symptoms, the right eye being principally affected. The pupil was considerably dilated, and exhibited but little sensibility to light. He stated, that at the time he first noticed the impairment of vision (last June), he had been employed in mowing, and felt pain and heaviness in the eyeballs and head while stooping at his work. He had also about the same period an attack of cold, and pains in the limbs, which lasted for a fortnight. He first observed, on looking at objects, a cloud before his eyes, and afterwards motes and rings of a dark colour, which expanding, broke up, and were succeeded by similar spectra. The flame of a candle appeared considerably magnified, and of a bright red colour. His sight is better in the shade than in a full light, and from six to ten in the morning, than during the rest of the day. Latterly he has been getting worse, and can scarcely make his way through the streets. His appetite is good, and he has never laboured under any intestinal derangement. No pain in the eyeball or head. Ordered to take submur. hydrag. gr. ij. opii. gr. ss. ter die. and to have a seton inserted in the nape of the neck.

Oct. 22d. Mouth affected; vision considerably improved; can discern minute objects at considerable distances; thinks the left eye is as well as ever; right eye not well, but much improved.

Case V. *Gonorrhœal Ophthalmia.*—Margaret Murphy, a married woman, aged twenty-two, admitted on the 19th of October, with purulent discharge from the conjunctiva, pain, intolerance of light, impairment of vision, and tumefaction of the eyelids. She has been labouring under gonorrhœa for the last two months, but is not aware of hav-

ing applied any of the matter to the eyes. The disease first appeared in the left eye with severe pain, great redness and profuse lachrymation. In two days afterwards the right became similarly affected, and she went to Jervis Street Hospital for advice, where she got mercurial pills, and a wash to inject under the lids. She was bled in three or four days after, once from the temporal artery, to the amount of eight ounces. She became a patient of Dr. M'Dowel's on the 19th. She was ordered to continue her pills, and have the conjunctiva brushed with a camel hair pencil, dipped in a twenty grain solution of nitrate of silver.

21st. The solution had given her considerable pain, but was followed by marked improvement; to be repeated; to omit her pills, as her mouth has become affected.

23d. No discharge from the eyes; pain, intolerance of light and vascularity removed; sight improving; mouth still sore.

28th Discharged cured.

Case VI. *Disunited fracture of the femur treated by the seton.*—Michael Flood, a healthy young man, aged twenty-eight, residing in the country, where he was employed as a labourer, came into hospital on the 18th of January, with a false joint, formed at the junction of the middle and lower thirds of the femur. He stated that about two years and a half since, he had his thigh bone broken by a horse which he rode falling on him. The fracture was simple, but very oblique, and the shortening of the member considerable. In some short time after the accident, he went into one of the provincial hospitals, where the limb was kept in the extended position on a softish bed for two months. When allowed to get up, he found that the first time he attempted to bear his weight on the limb, the fractured portions were not united. He was again confined to bed in the same position for three months, at the end of which no union had taken place, and he was permitted to walk about on crutches, and discharged, after twelve months confinement in hospital, with a false joint. He had been in Stevens's Hospital subsequently some months, and had glue bandages and splints applied, and was put under the influence of mecury with some benefit. A seton was passed between the fragments, which was followed by considerable inflammation and a copious discharge. At the end of a month it was removed, a complete union having taken place, and in a few days the patient began to bear gently on the limb, and was discharged cured, about six weeks after his admission. He returned again on the 10th of July, with

the limb flexible, in the situation of the fracture, and unable to sustain his weight. He stated that being discharged, he employed it very much in digging and walking, being, as he expressed himself, so proud of his recovery, that he thought he could not use the limb often enough. By the aid of rest, full diet, a glue bandage, splints along the limb, and the iodine lotion, the thigh is becoming gradually firmer. He is at present walking about with the assistance of a stick.

5, Sackville Garden, Summer Hill.

II.—*Case of Hydrophobia, from the bite of a dog that had exhibited no signs of rabies, arising at an unusually early period, and terminating fatally in four days.*

[The child was attended by Mr. Frankum, Surgeon, of Lisson Grove, while the case was drawn up, and the examination conducted by Alexander Thomson, M. B., 70, George Street, Euston Square.]

Read to the Westminster Medical Society, Oct. 30, 1830.

THE mother informs me, that at about half-past eight, p. m. of Wednesday, 16th June, her child, a boy of about seven and a-half years of age, was playing before a stable door in Lisson Grove, into which a groom, who was returning from the country with a nosegay in his hand, was about to enter, when her boy, having begged in vain for one of the attractive flowers, was suddenly bitten by a dog that rushed out upon him, immediately upon the opening of the stable door. She, at the earnest solicitation of some of her friends, washed the wounded parts cautiously with brandy, and then conducted him to the house of Mr. Coucher, Surgeon, of Church Street, Lisson Grove, who was not at home.

Half-past nine, p. m., exactly one hour after the accident, Mr. C. being still engaged at a labour, his assistant attended, and rubbed the wound well over with lunar caustic. The child, however, became drowsy earlier than usual; retired to rest at about half-past ten, p. m., but had not been in bed more than half an hour, before he became excessively hot and feverish, in which state, harrassed by incessant restlessness, and tossing himself about in various directions, he remained till about half-past eight, a. m., when the

mother again sought for Mr. C., and finding that he had not returned, asked for an aperient powder.

After having taken the powder, the boy insisted upon putting on his clothes; became, when he had dressed himself, uncommonly lively, and appeared to be in better spirits than usually, singing, dancing, and playing, but soon afterwards became languid, which induced his mother to send for Mr. Frankum, Surgeon, of Lisson Grove, who furnished me with the notes, from which, with the mother's statement, the remainder of these remarks are drawn up.

June 17th, 1, p. m. Mr. F. found the poor boy in bed, though apparently not very unwell, with a wound on the inside of the right leg, at a small distance below the knee. It had evidently been cauterized, and was not complained of as a source either of pain or of irritation. The boy, in answer to the inquiry after his health, said, "Very well, I thank you, Sir," in a somewhat languid tone. The restlessness of the past night was attributed, not without reason, to the influence of the fright. The pulse was frequent, but not hard; the respiration slightly accelerated; the skin bedewed with a moderate perspiration, and the wound roughish on the surface. The boy had been dozing during the whole of the day, and seemed to consider every movement an annoyance. Mr. F. suspecting that the wound had not been very carefully dressed, ordered a blister, rather larger than a dollar, to be applied over it; and a diet consisting of tea-sop, gruel, and barley water to be employed with,

℞. Hyd. submur. gr. ij.
Pulv. antim. gr. i. m.
Ft. Pulv. j. Mitte vj.
Sumr. quartâ quâque horâ unus.

At about half-past eight, p. m. he passed a tolerably natural, though scanty motion; throughout the night continued to doze, and to be annoyed by any attempt to move him; and became, as the night drew on, intensely hot and feverish. In about twelve hours the blister had risen well, and at twelve, a. m. on Friday, 18th, was removed, and replaced by a warm bread and water poultice.

Friday, 18th, 1, p. m. Mr. F. found him still cheerful, readily answering questions, and stating that he felt quite well, but continuing to breathe in a somewhat hurried manner, as if from a sense of oppression. He had rather dozed than slept during the past night, and had had no evacuation of the bladder or rectum since half-past eight last night.

The pulse, though compressible, varied from 96 to 100 beats in a minute; the tongue was rather dry and slightly loaded; the body was entirely free from preternatural warmth, and the skin was moist. At about two, p. m. he took fʒiij. of castor oil in a draught, and had continued to take the powders at regular intervals. At about seven, p. m. the bowels had not yet been opened; the face, hands, and limbs became exceedingly cold; the whole body was bathed in clammy perspiration; the hands swelled and became purple. He had been much troubled by thirst from the commencement of the attack, and had drank plentifully of tea and of toast and water, but had no appetite, and had therefore taken no solid food. At this time he took another draught, containing fʒiij. of castor oil. The bowels were not, however, relieved during the night, which was one of great restlessness and irritability to the little sufferer. Towards Saturday morning the restlessness, the irritability, and the coldness increased.

Saturday morning. The bowels had not been relieved during the night, and the patient became uncommonly restless, refused medicine, food, and drink of all sorts, and violently opposed its administration by clenching the teeth. An injection of salt, dissolved in warm water, was administered at about ten, a. m., and in less than a quarter of an hour was followed by a copious discharge of fæculent matter and of urine. At this period his mother put his feet, which were very cold, into hot water, and kept them there for about ten minutes. Mr. F. now returned to visit him. Before twelve m. the bowels had been two or three times well evacuated, and the patient about this period began to be drowsy, and stated, though reluctantly, that he was quite well, (his mother says he never complained of pain). The pulse was weak and fluttering, and the skin covered with a clammy perspiration. Wine and water, beef tea, &c. were ordered, and offered to the boy, but refused. At about two, p. m. his mother, after much persuasion, succeeded in getting him to take one spoonful of mutton broth. At about three, p. m., he began to be drawn forcibly backwards, to utter piercing cries, and clench and gnash the teeth; he had been in convulsions of a similar kind, but not so violent ever since taking the broth at two, p. m. but the mother at first attributed them to efforts at vomiting. These convulsions much increased in frequency and violence until four, p. m. when he was again visited by Mr. Frankum, who found that every effort to produce deglutition of fluids, whether by artifice, or by the endeavour

of the boy himself, was instantly followed by a violent paroxysm of convulsions, in which the head was violently retracted, the muscles of the face and neck were frightfully contorted, the back so bent or curved, that the abdomen formed the prominent part of an arc. Some bottles, containing boiling water, were now applied to the feet; and some tent wine offered to be introduced into the mouth, only produced a return of the convulsions. By each of the paroxysms, which lasted through several minutes, the strength of the patient was much reduced. About eight, p. m. Mr. Frankum again visited the little sufferer, in company with Dr. Conolly. Similar paroxyms had continued to recur every five or ten minutes. The child, was becoming very feeble and languid, so that these gentlemen gave up all hopes; after which the poor little child being in a state of collapse, during which the breathing could scarcely be traced for the space of half an hour, and at the end of which period he died, without a groan or struggle. The child had taken no medicine or fluid since half past four in the morning, with the exception of the spoonful of mutton broth, which gave rise to the first convulsions. He had not passed urine or fæculent matter since twelve m. The following observations of Mr. Frankum on the case I think valuable:—

"Candour," he observes, "obliges me to confess that I was by no means prepared to expect so unfavourable a result. There were no symptoms in the child of a striking or direct, no positive inflammatory character. He was disturbed, and somewhat restless—free from pain, and yet apparently oppressed with an uneasiness not to be described. He had received but a very superficial injury, and the dog appeared in such a perfectly healthy condition, that hydrophobia was the least to be expected; and were it not for the peculiar nature of the fits, the difficulty of deglutition, and the extent of disease afterwards discovered in the dog, amounting to a confirmed incipient state of rabies, I should at the present moment be quite at a loss to account, in a satisfactory manner, for the death of the child in so short a period; as it is, I do not hesitate to declare my conviction, that it was unquestionably produced by the influence of a morbid poison, introduced into the system by the bite of the dog, and that its early appearance, and unusual characters, were owing to the susceptibility and condition of the child's constitution at the time the mischief was done."

MORBID APPEARANCES, 24 HOURS AFTER DEATH.

The body was that of a child of remarkable beauty, with dark hair, regular well formed features, good proportions, and plump and well formed limbs, with no blemish whatever on the body, except the marks of the cupping instrument of old date, on either side of the anterior of the thorax immediately below the clavicles, and the remains on the left knee, to the inner anterior aspect of the limb, close to the insertions of the sartorius and gracilis muscles of a blister of about the size of a crown piece. Within the margins of this blister were observable, two semicircular black marks, with the concave parts opposed to one another, which I understood at the time, arose from the marks of the teeth of the dog, the wounds from which had been well rubbed over with lunar caustic, soon after the accident. On cutting through the integuments around this blistered part, and dissecting it off, we perceived considerable extravasation between the subcutaneous lobules of fat, which themselves appeared to be rather redder than is usual. But no evidence of deep laceration, or of inflammation, no mark of bruise or deviation in colour or in texture, could be traced on the subjacent superficial fascia. The wound, or injury therefore, was not deep or extensive; and would readily have admitted of the excision of the whole of the wounded part, without danger to the individual. We cannot dwell however too seriously on the fact, that in this case little more than laceration of the cuticle was sufficient to permit of the entrance of the seeds of this horrible disease, for we draw this inevitable conclusion, that it is proper in all cases, however slight the wound, however doubtful the state of the animal, to excise the part fully and freely at first; to cauterize the cut surface may afford additional security, and can be accompanied but by slight chance of danger.

The theca spinalis was found externally unusually dry, and the veins of Breschet comparatively empty; but when the theca came to to be minutely examined, it was found that while it was much injected with florid blood, yet its posterior half was much more so, not only in its fibrous but also in its serous membrane, which was beautifully covered with stellular ramifications of microscopically minute vessels. This half of the theca of the spinal column was also very much thicker than the other, quite opaque, and in several places adherent by its arachnoid lining to the true arachnoid of the spine. In the upper part of the theca, however, near the region of the respiratory nerves, the anterior half of the theca was also very much injected. Between the theca, and the arachnoid coat of the spine was a considerable quantity of limpid serum, about two drachms altogether. The arteries of the posterior column particularly of the upper third cauda equinas column, and of the superior third of the anterior column, were much more injected than is natural. This was seen by Mr. Hinde and others. The chord itself, as well as the medulla ablongata and pons varolii, were of a remarkably firm and hard consistence. The integuments of the head did not appear to be remarkably

injected, The *dura mater* adhered firmly to the cranium, and was very much injected, particularly in its arachnoid layer throughout. The true arachnoid presented no traces of inflammation. The veins and sinuses were remarkably full of black blood, which even in the veins was coagulated. This state of veins prevailed in every part of the encephalic mass, even within the ventricles, in which though the plexus choroides was destitute of arterial blood, its vein was remarkably turgid. The arteries throughout the brain were almost empty, and exceedingly small, a fact which Mr. Frankum and Dr. Conolly both perceived. The cerebrum and cerebellum had both lost their elasticity, and yielded unresistingly to slight pressure of the finger. The ventricles, however, were remarkably dry, and contained no fluid whatever. The cerebro spinal axis, even until we came to the medulla oblongata, had lost its consistence, and all the encephalic nerves were peculiarly tender at their origins.

The chest, when cut into, presented the left lung adherent to every part of the parietes of the cavity, by means of its pleural investment to the diaphragm, to the mediastinal pleura; the connecting bands, though strong, were all recent and traversed by longitudinal vessels, passing from the lung to the parietes of the cavity, or *vice versa* paralelly arranged, and containing florid blood. The right lung, which adhered by a recent band to the upper part of its cavity, had between its lobes several bands of a recent formation, and densely crowded with longitudinal red vessels, collapsed, owing to its parietal attachments upwards, and floated upon about a pint of serum, resembling the washings of recently cut muscles. The pleura of this side costel, mediastinal, diaphragmatic, and pulmonary, was intensely inflamed, and dashed here and there with petechial spots.

The *pericardium* occupied a space of about three times the usual extent, expanding nearly equally round its own region; when cut into, was found distended by a large quantity of greenish translucent serum, containing in it ragged flocculi, of coagulable lymph, very much thickened and coated in every direction, with a sort of flocculent deposit of coagulable lymph of about 1-8th of an inch in thickness, not only on its free or capsular surface, but over its cardial portion. This artificial membrane adhered, however, very firmly to every part of the capsular and cardial part, and connected these two surfaces together by small transverse bands of irregular and ragged coagula. When this artificial deposit was elevated from the pericardium, whether of the capsular or heart, that membrane was in both cases found to be most densely injected, and covered with irregularly distributed petechiæ, and sent several fine and delicate stellulæ of vessels here and there into the new membrane. The cellular tissue connecting the pericardium, with the mediastinal pleura, was most remarkably injected and thickened, so as to render the margin of a section of these two membranes together about 1-6th of an inch in thickness. The cellular tissue was, however, far more intensely injected in the course of the phrenic nerves, the substance of which also had a fleshy appearance from the intensity of the injection of its vessels. The substance

of the heart itself was of a paler hue than usual, the cellular tissue between the muscular fibres appearing to be thickened, all its chambers contained dark coagulated blood; its lining membrane was universally injected with red blood, its tricuspid and mitral valves were denser than usual, and the lining membrane of the aorta was also in the loculi of vesalius round the orifice of the coronary arteries, covered with fine and delicate stellula of red vessels. This last appearance was so peculiar and of such rare occurrence that I displayed it to several friends, Dr. Hogg, Mr. Hinde, Mr. Huddlestone, &c: I never before met with it, although, I think I remember to have heard Dr. Mackintosh, of Edinburgh, describe such an appearance.

There were no apparent pustules or vesicles, such as have been observed by some, under the tongue, but the vessels at the side of its inferior surfaces were more than ordinary turgid with red blood, its anterior was covered with a dense dry fur, of a brownish hue, the posterior part, together with the tonsils, velum pendulum and pharynx, were considerably injected, but particularly the latter. The mucous folicles scattered over the base of the tongue, and around the glottis, together with those, constituting from their denser approximation; the tonsils were remarkably turgid, so as to present the appearance at first of tubercles with ulcerated apices, but upon nearer inspection proved to be clogged and turgid, with an opaque viscid secretion. The œsophagus was considerably inflamed throughout, and about its middle part, sent of a small fistulous orifice, that passed into an indurated and suppurating bronchial gland; from this part downwards the inflammation became more and more intense, till on the central part of the mucous membrane of the stomach, it arrived at its maximum, and adhered, giving rise to a few extravasations in the form of petechiæ. The stomach in fact was of one nearly uniform scarlet hue, throughout the surface of its mucous membrane, but more particularly towards its cardiac end. This inflamed state of the stomach by isolating the gastric glands, enabled us to see them with unusual facility. They are collected irregularly, and arranged with nearly equal proximity round the cardiac and the hyloric orifices, gradually becoming more scattered in proportion as they are distant from these orifices, till at last they may be traced passing in lines of single glands longitudinally along the prominent part of the longitudinal ridges of the stomach, from one orifice to the other. This beautiful and unusual appearance rarely to be seen, may be traced in the preparation preserved in the London University Museum. These are I suppose the glands of Brunner, but I could discover no *quincunx* order, such as that in which they are said by Cloquet to be arranged, as it is true as asserted by that author and by the Dublin dissector, that they are more numerous, or as the latter asserts chiefly confined to the greater and smaller curvatures of the stomach; for the truth of this statement, I refer to the preparation in the University Museum. I ought not to omit observing that Mr. Mayo, in his physiology, describes an arrangement of these glands, approximating more nearly to the truth than that of Cloquet and others. He observes "the glands of the

stomach are largest and most numerous near its orifices. At the conjunction of the œsophagus with the stomach, they form a distinct thickening, from three to four lines in breadth." See the Phys. p. 160, second edition, 1829.

The nerves of the tongue, the glosso pharyngeal, the descendens noni, the lingual nerve, the lingual branch of the fifth, were all of a fleshy colour in the region of the pharynx, owing to injection with blood. The margin of the glottis, the two faces of the epiglottis and the whole of the interior of the pharynx, were in a high state of inflammation, particularly the surface of the cricoid and of the arytenoid cartilages. The laryngeal surface of the epiglottis was considerably swollen, owing to turgescence of its mucous follicles of the same kind, as that which has been related of those of the base of the tongue. The mucous membrane trachea also, and bronchial tubes throughout their ramifications as far as they could be traced, were intensely injected, and in common with the larynx were remarkably dry, as if destitute of the natural secretion. The cellular tissue surrounding the tongue, larynx and pharynx was considerably injected, as was also the thyroid body. The pneumo gastric nerves were not of a very red colour, till it approached the thorax; but as they passed the clavicles, became intensely red and remarkably injected; this continued throughout their course within the thorax. I have already alluded to the high state of injection of the phrenic nerves. The bronchial glands were most of them very much enlarged, indurated, yellow in colour, in some instances of a cheesy consistence, and several in a state of suppuration. Between these, which had apparently been some time in passing into their present state, the left pneumogastric nerve, in its course to the arch of the aorta, had been very much compressed and flattened, and its fibres as it were separated one from another. The substance of the lungs, but particularly of that of the left side, was in a state of high recent inflammation, of the first stage. There were no remnants whatever of ancient disease to be traced in the lungs, saving a small cicatrix at the upper part of that of the left side, which lay immediately beneath the attachment of the pulmonary to the costal pleura, already mentioned as seen in that quarter.

In the abdominal cavity, the liver appeared remarkably bright and florid, its peritoneal investment being much injected. The gall bladder was full of dark-coloured bile. The whole of the intestinal tube beginning from the stomach downwards; was very much inflamed, both in its mucous and serous coat. The duodenum however, the latter end for about a foot length of the ileum, the colon and the rectum, were remarkable for the intensity of the injection of their mucous membranes. The mesentery, however, with the omentum majus and gastero-hepatic omentum, were more injected than any other parts of the peritoneum, saving that which covers the diaphragm.

The kidnies were in a very high state of injection, such as is rarely seen, and the mucous membrane of their pelvis and of the ureters, was intensely inflamed, and here and there dashed with petechial spots. Finally, the bladder was remarkably distended.

REMARKS.

I think it certainly fair to conclude that all the parts more immediately connected with the nerves devoted to respiration, or sympathizing with these, were in a very excited and inflamed condition, while it may certainly be seen in the preparation of the spine of this child, preserved in the University Museum, that there is more injection at the upper part of the spinal column, from which the respiratory system of nerves take their rise, than elsewhere. It may also be noticed in the same specimen, how much more the theca of the posterior column, as well as its other membranes, was inflamed or injected than those of the anterior, a circumstance which may be fairly presumed to account for the enormous susceptibility of the whole of the surface in this remarkable disease. That the prior part of these appearances were found also in the dog, and with one or two others, led Mr. Youatt, now well known to the profession for his ingenious and accurate papers and lectures on this subject, as well as for the extreme urbanity with which he invariably communicates his information to those who wish to give it, as his decided opinion that had the dog been suffered to live, all the ordinary symptoms of rabies would have developed themselves in rapid succession.

Morbid appearances in the dog a few hours after death.

The master of the dog, although he had been conjured by Mr. Youatt not to kill the animal, did however hang it on the morning of the 23d. The dog having hitherto displayed none of the ordinary symptoms of hydrophobia, and indeed no symptoms of disease at all, we were all anxious to ascertain what morbid appearances would be found. The pharyngeal third of the superficies of the tongue was injected and marked with a red blush. The papillæ of the same portion were more enlarged than is usual. The mucous membranes of the inferior surface of the epiglottis, along its median line of the margins of the rima glottidis, of the interior of the larynx, and more particularly of that part covering the body of the cricoid cartilage, of the whole of the trachea, and of its larger ramifications, of the superior part of the pharynx, of the inferior half of the œsophagus, of the whole of the stomach, of the first portion of the duodenum, and of the whole of the rectum, were intensely studded with minute red vessels. In the stomach and rectum indeed, the studding was so dense, that the whole superficies bore a dark red hue, which presented the most minute and beautiful ramifications of vessels arranged in a stellular form. The maximum of intensity occurred about the centre of the greater curvature of the stomach, where, in addition to the blush, were to be seen several extensive patches of effused blood underneath the mucous membrane. The serous coverings of the stomach and rectum were likewise intensely inflamed. In the pharynx, at the upper part, the mucous membrane was considerably injected, but was less and less so in descending the œsophagus, till about the middle third of this pipe, from which spot it became more

and more influenced, till it reached the maximum point already mentioned, as occurring about the centre of the stomach. The stomach contained a considerable quantity of gnawed bones, some fragments of straw and of hair matted together into a ball, all of them enveloped in a thick, viscid, dirty, blackish, brown, disagreeably scented, liquid. The rectum contained some softish, crude, yellow-coloured fœculent matter. The mucous membrane of the bladder also was spotted over with stellular blushes of minutely injected vessels.

The lungs were remarkably florid, and had their own pleura on both sides minutely injected, but particularly that of the left side.—The lungs themselves were engorged with florid blood, being throughout of a bright red colour, and had here and there on their surface opaque and milky spots, about the size of a pea, consisting of coagulable lymph, effused between the pleura and cellular sheath of the lobules of the lungs. The costal pleura of the left side was most intensely studded with vessels carrying red blood, and elevated here and there from the subjacent parts by patches of effused blood, from the size of a millet seed to that of a sixpence; and on the diaphragmatic and pericardial part, by small patches, flat, white, wavy, and as thick at their margin as in their centres, of a consistence resembling fibro, cartilage, varying in size from that of a millet seed, to that of a half crown piece, confluent in some instances into an irregular plate. Besides these, the whole of the mediastinal and diaphragmatic portions of pleura on this side were studded with minute vascular spongy bodies, resembling organized granulations, sometimes scattered and distant, but, along the margin of the diaphragmatic insertion at the side, accumulated into a mass so as to resemble both externally and internally a recent fungus, of florid granulations, and constituting a medium of attachment between the pleura of the ribs, or of the side and that of the diaphragm. The mediastinal pleura was certainly more injected over the course of the phrenic nerve than elsewhere, the pericardium was not inflamed, even in its mediastical part; the heart itself was in no way unsound in its appearance, except in having its systemic auricle, together with the vessels leading to it, and the pulmonic ventricle, and pulmonary arteries, gorged to distention with black blood.

The dura mater and brain presented no unusual appearance, nor did the medulla oblongata, or any part of the cerebro spinal axis, appear remarkably injected. The spinal marrow was not examined, because Mr. Youatt had other engagements. None, who had previously seen dogs that had died under hydrophobia, examined, failed to recognize the marked resemblance of the appearances found in this case to those they had previously observed. Dr. Connolly, Professor Pattison, Mr. Frankum, Mr. Youatt, and myself, left the theatre with the conviction, that had the master had humanity enough to have followed the earnest intreaties of Mr. Youatt, we should have seen the animal pass through all the stages of this dreadful malady.

Prevention of Hydrophobia after the wound.

This case is one of those which clearly points out the invariable necessity of excising the part, however slight may be the abrasion, for here it was very slight, and the utility of the same operation, whether the dog have or have not demonstrated symptoms of rabies, because, as in this case the seeds, as well as the power of communicating or transplanting these seeds may exist, without giving, at least in the present state of our knowledge, any evidence of their existence; for even Mr. Youatt observed none in the dog previous to his death. Acting upon this principle, I have formed the determination of never undertaking the care of a patient, who has been bitten by any dog, at least during the months of June, July and August, unless the patient will consent to submit to excision of the wounded parts. The pain of excision is slight, and if the cut surface of the part be very well rubbed over with lunar caustic, not of long duration, while the wound resulting from it is soon healed, so that even supposing the dog not to have been mad, little inconveniencie is suffered by the patient, while great security will accrue, provided it have been performed in time, supposing the worst happens. I have already guided by these reasons, excised parts since the date of this case, without much inconvenience to the patients, both from the arm of a man and of a boy at the London University Dispensary. I did not in either case wait a moment to enquire into the state of the dog, which in neither afterwards turned out to be rabid. But in both I felt indifferent after the operation to what might have been the state of the animal.

Proposed regulations in regard to dogs, with a view to the prevention of hydrophobia.

1st.—To require all dogs found abroad, without an owner, during the months of June, July and August, to be shot, or otherwise destroyed by the police.

2nd.—To require under a *fixed* penalty, all dogs taken abroad by their owners, during these months, to be muzzled with a basket or wire gauze muzzle.

3rd.—To require all dogs, that may during these months have bitten any person, whether they may or may not have already exhibited signs of rabies, to be taken by the police, or by their masters to a veterinary surgeon, *licensed for the purpose*, and to be left under his care *at a fixed rate*, until such time as they shall be declared by him to be harmless.

4th.—To exact a given penalty from any master, whose dog may be found to be in a rabid state.

These regulations even would offer but slight security, and the last would almost appear tyrannical; but, as this disease if it do not arise from, is certainly promoted by, a want of due attendance to the health of this useful domestic animal, such a regulation might tend to suppress the malady.

70, George Street, Euston Square.

III.—*A Case of Tubercular Disease affecting the Peritoneum, with the result of the post mortem examination, and observations.* By A. Blake, M.D. Member of the Royal College of Surgeons, and Surgeon to the 7th Regiment of Dragoon Guards.

Regimental Hospital, 7th Dragoons, Canterbury.

Acting troop serjeant-major James Gourlay, of the Seventh Dragoon Guards, a man of sober habits, and the bilio-sanguineous temperament, aged 37 years, 18 of which he passed in the service, and during the greater part of that time in the capacity of paymaster's clerk, commenced the duties of a troop serjeant-major about five months ago; in consequence of which it became necessary for him to repass the ordeal of drilling indispensable to the formation of an effective dragoon; such as riding for several hours a-day with or without stirrups, &c. &c. Previous to this change in his pursuits, he led a very sedentary life, and latterly seemed much disposed to obesity, but did not complain of ill health. About three months ago, having then gone through two months of his drill, he applied to me in consequence of a painful sensation of weight, which he experienced in the region of the spleen, and attributed to the exercise of riding. On examination, I was unable to discover any unnatural formation in the part alluded to, which may have been owing to a considerable deposition of fat, which existed in the abdominal parietes. I notwithstanding recommended to the commanding officer, that the riding part of his exercise should be dispensed with for a fortnight; and as the biliary secretions seemed defective, and the bowels sluggish, he took blue pill, bitters, with alkalies, and occasional purgatives. Under this treatment he improved rapidly, and was enabled to resume all his military duties, which he continued to perform until the middle of September; at this period the left side became again painful, and he was attacked with dysentery. I was not then present with the regiment, but the gentleman who performed my duties prescribed castor oil, effervescing draughts, enemata and external fomentations, as the symptoms indicated, without obtaining much relief; a consultation was then held, at which an experienced physician assisted, and it was determined, in addition to the remedies already in use, to try the effects of calo-

mel and opium, pushed so as to affect the system speedily, and also to employ the warm bath, together with mercurial and stimulating frictions, to the affected side. Under this treatment, the symptoms mitigated somewhat, and the bowels were quieted, but costiveness ensued, while the stomach continued irritable. He also continued to suffer from uneasiness in the left hypochondrium, but no direct inflammatory symptoms manifested themselves. At this period also, the abdomen began to tumify, as if from the presence of a mixture of air and serum ; this additional swelling precluded altogether the possibility of examining, in a satisfactory manner, the subjacent viscera. On minute investigation, however, the hand, when pressed on the abdominal parietes, seemed to come down upon a hard substance, situated to the left of the umbilicus, in nearly the situation of the stomach. When I saw this patient on the 19th Sept. I found him in the state above described, and learned that he had admitted having *been without an alvine evacuation for nearly ten days, previous to his having reported his indisposition*, and likewise that he had suffered uneasiness for several days from the pressure of his sword belt on his left side. He also stated that he had been annoyed by a dry short cough, which he fancied depended on the state of his stomach, for some years past. He at the same time endeavoured to palliate the impropriety of his conduct, in not having reported his illness sooner, by alleging his anxiety to become qualified for the rank to which he aspired. Although the nature of his disease did not indicate actual inflammation, I was induced to bleed him, wishing to act on the safe *side*, and with a view to observe the effects of the loss of blood on the symptoms generally; I did not however allow more than 12 ounces to flow, as its loss did not afford any relief, and its quality presented no marks of existing inflammation. Stimulating and mercurial embrocations were then applied to the abdomen, and the mercurial treatment recommended by Dr. Chisholm, of Canterbury, who was kind enough to afford me in this case the benefit of his long experience, was continued. Our efforts were also directed towards allaying the irritability of the stomach, and inducing the return of natural alvine evacuations. To accomplish these ends, effervescing draughts, hydrocyamic, acid, opium, laxatives and purgatives, including croton oil, antispasmodics and emollients, were severally resorted to, but with little better effect. The irritability of the stomach increased daily; and at the same time the nature of the matter ejected from it gradually degenerated

in quality from that of ordinary food, until it assumed more decidedly the character of the black vomit of the yellow fever, which it latterly resembled in every respect. At this period the patient was harassed by an intense *burning sensation* in the stomach, accompanied by most distressing singultus, more particularly when he lay on either side, or in the horizontal position. This latter symptom was in some measure relieved by the occasional administration of magnesia, opium, alum, and the mineral acids, employed in turn; but they did not succeed in removing it altogether. A large quantity of mercury was used in this case, both internally and by friction, but yet the gums were scarcely affected, nor was the effusion in the peritoneal cavity apparently diminished. It did not, however, increase much until within two days of the fatal termination. Nor were the extremities at any period affected with œdema. During the course of the disease, the pulse was quick and irritable throughout, after reaching 120 in a minute; but it did not possess any of the characters indicative of membranous inflammation. The tongue also was but little loaded, and its edges were generally red, and remarkably clean. The bowels, when not under the influence of purgatives, continued obstinate; but the nature of the alvine evacuations, when attained, differed very materially from the matter ejected from the stomach, in as much as they did not possess that resemblance to coffee grounds, which the latter so exactly presented. On the contrary, until within the last three days of existence, the stools were bilious, and comparatively natural. At this period the irritability of the stomach appeared to subside, while the bowels became suddenly relaxed, and the evacuations assumed all the appearance of the matter termed black vomit. About this time likewise, the distension of the abdomen diminished, and the hard body already spoken of could be distinctly traced in the direction of the transverse colon. It communicated to the fingers the precise feeling which the acute edge of an enlarged liver would afford; indeed, the fingers seemed to pass under its edge in so natural a manner, that it was impossible to imagine the tumour to be produced by any other body.

As nature became exhausted from the want of nutrition, general debility and relaxation ensued, the absorbents seemed to lose their power, and serous exhalations accumulated within the cranium and abdomen, inducing symptoms indicative of pressure on the brain, namely, strabismus, loss of vision, stertor, coma, and finally death—a consummation

devoutly to be wished for, in this most distressing and incurable affection. The fatal event took place on the 18th instant.

The post mortem examination was made 24 hours after death, in presence of Drs. Chisholm and Carter, and Surgeons Renwick and Sicard, of this city.

The body generally appeared to have undergone considerable emaciation, while the abdomen was distended as if from ascites. There was not, however, the slightest appearance of œdema in the extremities. On percussion, the abdomen yielded a well marked tympanitic sound, so as to render problematical the presence of much water in it; but a hard substance extending across the abdomen, and resembling exactly in situation and feel the anterior edge of an enlarged and indurated liver, was distinctly recognized by all present. On opening the abdomen by the usual crucial incision, we were surprised to find that notwithstanding the tympanitic sound elicited by percussion, no air escaped, while at least two gallons of a serous fluid rushed out with some violence. After which the real nature of the disease was disclosed. The indurated substance, which we had felt occupying the situation of an enlarged liver, was found to be a tuberculated mass, of cartilaginous hardness, and presenting the appearance of what Mr. Abernethy terms "tuberculated sarcoma," having an indurated and knotty structure, while its summit was covered with red and granulated coagulable lymph. This almost carcinomatous formation was fully an inch in thickness, and in some parts four inches in breadth; it occupied the base of the omentum in its whole extent, and was closely attached to the arches of the colon and stomach.—At the pyloric orifice of the latter viscus, this substance stretched across to the liver, and nearly obstructed altogether by its pressure, the passage of its contents into the duodenum; and in the course of the colon below the anterior edge of the spleen, a circular band was also observed to surround, and strongly constrict that intestine.

This disposition to tubercular formation, although it seemed to have its principal seat in the omentum, was likewise to be found wherever the peritoneum extended; thus its entire surface presented a beautifully stellated appearance, being literally studded with small white tubercles, of a cartilaginous hardness, similar in structure to the subcutaneous tubercle described by Surgeon Wood, in the Edinburgh Medical and Surgical Journal, for the year 1812. The surface of the liver, stomach, and the abdominal surface of the diaphragm,

were not free from these diseased productions; and the mesentery, in its entire course, was prodigiously thickened and indurated by their presence, so much so as to impede the vermicular or peristaltic motion in the intestines, and thereby deprive them of the necessary means of propelling their contents through them, in a direction oftentimes contrary to the laws of gravitation; hence their apparent loss of tone in this affection. On examining the coats of the stomach, they were found to be much thickened from interstertial effusion of coagulable lymph; and its mucous lining was dark coloured, soft, and easily detached; the whole of the intestines, but particularly the cœcum and appendix vermiformis, were also much changed in structure, being thickened and indurated. The liver presented a shrivelled, olive appearance externally, and its interior resembled a nutmeg in colour; but its parenchyma did not seem to be materially altered. The gall bladder was much distended, with black and nearly inspisated bile. The remaining viscera of this cavity were not diseased.

The thorax presented nothing very remarkable; no tubercles were discovered in it. These parasitic excrescences seemed to have limited their habitation altogether to the extent of the peritoneum. The lungs of the right side, however, were observed to be adherent to the pleura costalis, exhibiting the effects of inflammation of some very ancient date; and the intercostal spaces were found to be remarkably wide, owing no doubt to the efforts which nature would have made to enlarge the cavity of the chest, in proportion to the incursion made on it by the abdominal contents. The head was not opened, owing to the time which the other parts occupied in their examination.

A preparation, showing the diseased productions alluded to, has been made and deposited in the Military Medical Museum, established at Chatham, under the patronage of Sir James M'Grigor.

REMARKS.

Cases, which very closely resemble the one just detailed, may be found in the works of Morgagni and others. Baillie also, in his Morbid Anatomy, speaks of scrophulous masses, adhering to the peritoneum, and likewise of cancerous tumours adhering to that membrane, but no author that I have read has described this affection with so much accuracy, both with regard to its nature and symptoms, as Dr. Baron, of Gloucester. The symptoms and result of his dissections related in the cases contained in his work on "Tuberculated Accretions of serous Membranes," so exactly coincide with

the details of the present case, that I am induced to consider the profession under considerable obligations to this author, for having its attention so particularly directed to a species of disease which evidently presents symptoms in a remarkable degree peculiar to itself; and although we may possess the melancholy assurance, that when the disease has once attained a certain height, there is little or no hope of preventing a fatal issue, it is both useful and satisfactory to be enabled to form a just prognosis in such cases, and by early attention to the diagnostic symptoms to discover the real nature of the disease at its origin, at which period alone remedial treatment can be prescribed with any hope of success. After this we must rest satisfied with the administration of palliatives, with a view to sooth the extreme sufferings, which are but the tedious precursors of death.

The case detailed in the preceding pages appears to me to have been of very long standing; and it is more than probable that had not ambition laid hold of the subject of it, and induced him, at his comparatively advanced age, to change his habits suddenly from those of a paymaster's clerk to the active life of a cavalry recruit, he might have been alive still. The perpetual and violent jolting which riding exercise must have caused, no doubt tended to render the growth of the diseased parts more rapid than it otherwise would have been. This disease seems in its first stages to be productive of but little inconvenience, for as long as the parasitic tubercles, which are situated exterior to the viscera, though behind the peritoneum, do not influence mechanically the functions of chylification and digestion, their presence occasions no uneasiness. As soon, however, as they begin to impede these important functions, either by their bulk and general attachment to the intestines, or by making partial pressure on some of the viscera, a consequent train of symptoms is developed. The mere effect on the intestines of being so surrounded and fixed by these tubercular masses, as to have their peristaltic or vermicular motion impeded, is quite sufficient to prevent them from having the power of propelling their contents in a course, as I have said before, which is oftentimes in direct opposition to the laws of gravitation; hence costiveness follows, and very soon after sub-acute inflammation of their mucous linings may be expected as a natural consequence. Excrementitious matter is not meant to sojourn beyond a given period within the system; after which its presence becomes a source of irritation and subsequent inflammation, and ultimately of all the symptoms met with in cases of this nature.

I must here offer my support to the assertions of Dr. Baron, that the sensation of weight and burning heat, referrible to the stomach, or what he emphatically terms the feeling of "*broiling heat*" in that part, may be regarded, when taken in combination with other symptoms, such as vomiting matter, resembling coffee grounds, &c. &c. as a pathognomic sign of this disease; and its presence will aid us materially in our diagnosis in these cases, which must be extremely perplexing to those who have not had experience on this subject, and more particularly so, if they should happen not to have read Dr. Baron's book with attention. I have not ventured to attempt an explanation of the origin or peculiar nature of these productions, which in this case, when examined individually, resembled exactly in structure the sub-cutaneous tubercle of Mr. Wood, already alluded to. Dr. Baron considers them to have a hydatid origin, and recommends a consequent plan of treatment, for which I must refer to his work on the subject.

With regard to his Methodus Medendi, however, I must say that I perfectly coincide with him in the plan he recommends. I also think his views of the cause of the disease ingenious, and probably correct; but I do not feel myself capable of giving a positive opinion with regard to it.

It only remains for me to beg the indulgence of my reader, for the perhaps unnecessary length of these details and observations, which the severity and unrelenting nature of the disease alluded to in them induced me to write.

Canterbury, 25th Oct. 1830.

Note by the Editor.—Dr. Blake need not make any apology for the length of his interesting communication, or the scientific explanation he has given of the symptoms of the disease. His account is accurate, concise, yet comprehensive, and bears ample evidence of the cautious and judicious practitioner. His long and great experience in the army, during a period of 26 years, and in opposite climates, and his original views on delirium tremens, prove him to be a man of a thinking mind, and of faithful observation. It affords us much pleasure to notice contributions from army surgeons, which are generally characterised by the most scientific and sound practical views; in fact, the clinical reports of our military surgeons are much more graphic and scientific than those of civil practitioners; and this is easily accounted for, by reference to the excellent regulations of Sir James M'Grigor and his colleagues at the head of the Army Medical Department.

IV.—Mr. Myers *on Neuralgia.*

Miss G. æt 30, of a sanguine temperament, applied to me, labouring under a violent neuralgia of the right side of the face, along the course of the branches of the fifth pair of nerves; she had been under the care of a physician, and had tried a great variety of remedies, but without success; for upwards of twelve months, prior to my seeing her, she described the pain as a kind of electric shock or fluttering sensation, her countenance was anxious, pulse 100 and irregular, slight pain in the epigastrium, furred tongue, bowels relaxed, menstruation natural, no inflammation or alteration of structure of the parts affected, perspiration natural. By the urgent solicitation of the patient, who imagined that the pain originated in consequence of a diseased tooth, I was induced to extract it; but finding no relief, I ordered her to take the following pills.

℞ Ext. cinchon, gr. xxxvj. sulph. quinin. gr. xviij. miscæ fiat. mass. et divid. in pil xij. capiat ægrè. ij. ter in die habeat, pil hydrarg. gr. iv. alter nocte sum.

When I called next day, she was much the same as before; I desired her to continue with the same pills, at the same time giving her this anodyne draught ℞—P. ipecac. comp. gr. x; tr. opii. m. xxx, sy. ʒii, aquæ ʒii.

Passed a better night than before, having slept two hours, but still there remained a great deal of constitutional excitement, pulse 96, much weaker than before. I ordered her milk diet, allowing to take a glass of white wine daily, desired her to continue her pills and anodyne draught, and in addition ordered her to take an aperient draught, with senna and salts, in the morning. She continued these means for upwards of seven days, without any mitigation of pain or removal of symptoms; the bowels more regular than before. I then thought of trying the carb. ferri. I immediately gave her the following powders and mixture, ordering her to discontinue her other medicines; ℞ pulv. cinam, gr. iij. pulv. capsici, gr. ½ carb. ferri. ℈ij, the fiat pulv. cujus sumat j; 6 quaque hora. ℞ tr. aurant ʒiij, tr. hyosciam ʒii, tr. cinchon ʒj, aquæ ʒivss. ♏ cujus sumat, ¼ part post pulv. I called next day and found she had passed a pretty good night, but in other respects no better; she had three motions of a very black colour, at which she appeared very alarmed, but after having satisfied her on that point, I advised to continue the same medicines omitting the p. capsici and cinam, and increasing the carb ferri gr. x, sing dos, c mist ut antea.

She continued these means for three days, and then told me, that she had a great pain and uneasiness about the anus, which I found to be hæmorrhoids; she had found a relief from the neuralgic pain, and wished to continue her medicines; she could now masticate her food without being put to that excruciating agony she before endured, while exercising that process; I then ordered her to apply a lotion to the piles, composed of alum ʒss, bruised, galls, ʒi, to be boiled in a

pint of water, and strained when cold, to be used, and of Lac sulph. in ʒii, of which she was to take a table spoonful, every night and morning. She continued these remedies as well as the pulv. et mist. for one week, when to my surprise she called upon me, it being the first time she had been from home for upwards of three months, and said that she was much better; her pulse was 80, her tongue moist. I said she had better continue the same remedies, and reduced the dose to 80 grains of carb. ferri, and gave the following pills, immediately; ext coloc comp gr. vij, pil hydrarg gr. iij, p. capsici gr. ɱ in pil ij, st sumend; these pills produced two or three copious, dark coloured motions, and she felt relieved from the pain in the epigastrium, piles disappeared, and the facial neuralgia nearly well; pulse now was 80, complain of throbbing of temples, and nausea produced by the carb. ferri; ordered to continue the same medicines for one week, which she did, and was then all but well, when she complained of palpitation of the heart, which might be seen and heard, quite distinctly. I gave her the following pill, which had the powerful effect of relieving her;—℞. ext. hyosciam gr. ij, pil hyd. gr. j, p. digitalis, gr. ¼, conf 8, s, fiant Pil iij, h, s, sumendæ.

She continued taking the carbonate in doses of 100 grains, four times a day, for three weeks, when she expressed herself as being perfectly cured, and has had no return, although three months since.

V.—*Medico-legal questions, relating to Ambiguity of Sex, and to Utero-gestation.* By M. Ryan, M. D.

Ambiguity of Sex.—Hermaphrodites.—There may be malformation of the genitals in both sexes, but there is no example of one individual possessing the perfect organs of both. Again, the organs may not resemble those of either male or female. There is no truth in the statement, that hermaphrodites have married and propagated, the obstetrician is aware of the physical impossibility of a full grown infant passing through the male pelvis. It is evident that hermaphrodites must be impotent and sterile. The ancients were of opinion that such persons might propagate; even a canonist went so far as to maintain one individual could propagate within himself or herself—"tanquam mas generare ex alio, et tanquam fœmina generare in se ipsa." There is no case on record of a perfect hermaphrodite, and no truth whatever in the assertion that such class of beings can propagate the species. I can see no difficulty in supposing that persons of both sexes, with malformation of the genital organs may marry, when I recollect the curious and

well attested case of a female who dressed in male attire, and assumed the name of James Allen, married another female, and lived as a husband for several years without detection. This case happened in London last year, and was discovered when Allen died, and on dissection was found to be a well formed female. Blackstone says, "a monster having deformity in any part of its body, yet if it hath human shape may inherit, and every heir is male or female, or hermaphrodite; that is, both male and female, and shall be heir according to that kind of sex which doth prevail, and accordingly it ought to be baptised. The same is observed in cases concerning tenants by curtesy." As the brain is generally perfect in monsters, and the mind perfect, it is clear that such persons ought to inherit property. When two perfect bodies are united at the chest or back, as in the cases of the Siamese youths, lately exhibited in this city, and the Hungarian sisters, exhibited in 1723, it would be difficult to determine primogeniture, or right to property.

Utero-gestation.—Pregnancy.

This is a subject which requires great attention from the medical jurist, on account of the numerous relations it has to civil and criminal proceedings. It affects the honor of husband and wife—it arrests the administration of justice when offered as a plea for reprieve—it aggravates an assault when abortion occurs, which renders the crime a felony; it may be pretended, and deception attempted on the medical attendant, and others; or the female may accuse the person of causing abortion, it may be concealed, and it may affect the honor and property of parents and children, as in its protracted state, which involves legitimacy.

For the better understanding of this important subject, it will be necessary to describe the signs of conception and pregnancy, including spurious, extra-uterine, false, pretended and concealed utero-gestation, superfœtation or second conception, abortion, natural and provoked, duration of pregnancy, recent delivery, survivorship of parent or offspring, viability of infant monsters; and lastly, prolicide, fœticide, infanticide. These and all other medico-legal questions relating to obstetricy, I have fully discussed in my work on Midwifery, a plan adopted by foreign writers; but as yet neglected by the writers of this country. I shall notice them as concisely as possible on the present occasion.

Signs of ordinary pregnancy.—The signs of pregnancy may be divided into rational and sensible. The first result from the influence of the uterus on the moral and physical systems of the female, and these are disorders and derangements of the organic functions or vital properties. The second result from the developement of the uterus, and the presence of the fœtus in that organ.

Rational signs.—It is a vulgar opinion professed by Hippocrates and Galen, that a fecundating copulation is accompanied by more vivid enjoyment than an ordinary coition. The following signs usually occur after conception:—there is a change in the moral and intellectual faculties, in the temperament and constitution of the female; the eyes lose their vivacity, their brilliancy, and become languid; the eyelids are surrounded by a blackish, livid or leaden colored circle; the nose is elongated, the mouth is smaller, the countenance is changed, the voice is stronger, the neck fuller, transpiration more odorous, the character more decided, and the passions more violent; the menses are generally suppressed, the mammæ are firmer, more sensible and more developed, sometimes secreting a thin, whitish serous fluid; the nipple is more prominent, the areola is enlarged and of a browner colour. Immediately after conception, the female experiences unaccustomed sadness, a tendency to fainting or complete syncope, horripilations, colic, and a vermicular motion in the uterus, which extends to the abdomen, borborygmi, and rigors. There is sometimes anaphrodisia, sometimes increased salacity. The pulse becomes more frequent, weaker, or fuller and softer, the temperature is increased, the transpiration is more abundant, the urine is more copious, turbid and cloudy, the secretions are increased, there is often ptyalism, the hepatic functions are disturbed, and there are spots and ephiledes on the face and skin. The taste and digestion are depraved, anorexia, nausea, inappetence and vomiting supervene, the female desires innutritious or disgusting foods, as chalk, cinders, putrescent animal food, vegetables, fruits, acid drinks, and vinegar, &c. This inappetence and depraved taste, are followed in a few months by a keen, voracious appetite, but towards the last month of pregnancy, the digestive functions become deranged, as the stomach is so confined by the gravid uterus, that it can contain but a small quantity of aliment.

The moral state is subject to numerous changes, some women, naturally gay and amiable, become sad, melancholy, and insociable, and vice versâ. Many diseases ap-

pear, others disappear, as hysteria, chlorosis, chorea, epilipsy. The whole of these signs are seldom observed in all cases, and are doubtful and uncertain. If all are present they afford strong proof of pregnancy, but never that positive certainty which enables us to give decisive evidence before magistrates.

Sensible signs.—These signs consist in augmentation of the abdomen, in the active and passive movements of the fœtus, in the perception of the fœtal and placental pulsations by means of auscultation, in the evidence afforded by the *touch* or vaginal examination, or *ballottement*, as to the state of the os and cervix uteri in the different stages of gestation, and the developement of the uterus. The most certain of these signs are the touch or ballottement, and auscultation. The touch consists of the introduction of the finger into the vagina, and the application of the other hand above the pubis, the uterus will be felt enlarged, and if gentle percussion be applied above the pubis, the fœtus will be made to strike the finger, which cannot happen unless there be a fœtus and a fluid in the uterus. However, the sign is not always conclusive, for it has existed in extra-uterine fœtation. The sign can only exist about the fifth or sixth month, and has led to mistake even at the approach of parturition. (Capuron Malad. des Fem. p. 72.) The results of auscultation exist, in some degree, when the fœtus is dead, and also in extra-uterine fœtation. The changes of the neck and body of the womb enable us to distinguish pregnancy from hydropsy, tympanites, hydrometra, hydatids, moles, polypi, &c.

The spontaneous motions of the fœtus take place about the fifth month, but some women never perceive them during the whole period of gestation, others imagine them present, when there is no conception. Nervous and hysterical women very frequently make the last mistake. The spontaneous motions of the fœtus and quickening, are not infallible proofs of pregnancy. Auscultation has been called into action to enable us to decide this point. M. Le Jumeau de Kergaradec has applied the ear and the stethoscope to the abdomen, and discovered the double motion of the fœtal heart, and also the pulsation of the placenta, which was synchronous with the maternal pulse. It is to be recollected, that the first must change with the infant, and consequently must be heard in different parts of the abdomen, at different examinations. Dr. Kenedy, of the Dublin Lying-in Hospital, has written in favour of auscultation, in the Dublin Hospital Reports, vol. v. 1830.—

M. Velpeau has tried it in a great number of cases in vain. Traite Elementaire des Accouch. 1829. Dr. Fergusson, of Dublin, thinks it an unequivocal proof. Dub. Med. Trans. vol. 1, 1830. From the preceding considerations, the following conclusions may be drawn:—

1. That the fœtal and placental pulsations, when discovered by auscultation, are positive proofs of pregnancy.

2. That in all cases before the fourth month, the diagnosis is extremely uncertain.

3. That during the five succeeding months, better evidence is afforded by the progress of uterine developement.

4. That there is no infallible sign of pregnancy, except that afforded by auscultation.

Previous to the application of auscultation, it was held by the following authorities, that there was no infallible sign of pregnancy in the early months:—Hamilton, Burns, Mahon, Fodéré, Capuron, Farre, Male, Beck, Smith; Edinburgh Med. & Surg. Journ. 1823, vol. 19. Med. Chir. Rev. 1824. Med. & Phys. Journ. 1825. For exact references, see my work on Midwifery.

Dr. Beck concludes, that it is impossible to decide on pregnancy before the sixth month, but this opinion is refuted by subsequent experience. We may derive advantage from attending to the signs of the different epochs of pregnancy, which are afforded by the developement of the uterus. During the two first months the diagnosis is extremely obscure, and cannot be attempted with any degree of certainty. At the end of the third month, the fundus uteri is developed, directed towards the sacral concavity, round, gaping, and thickened; the limbs of the fœtus may be often felt through the abdomen. At the end of the ninth month, the uterus becomes depressed under the epigastrium, the orifice of the uterus is more easily felt, rounded and often open, the head of the infant can be readily felt. In women who have had former pregnancies, the uterus does not ascend so high as in first cases, as the abdominal muscles have been relaxed, and it therefore inclines more forward. In diagnosticating, in cases of doubtful pregnancy, we should not forget to bear in mind the appearance of the abdomen in ovarian dropsy, and here a careful history of the symptoms will enable us to arrive at a correct conclusion. I have frequently known young women affected with let the hand be immersed in cold water, and suddenly applied to the abdomen of the female; and in cold weather, let the hand be immersed in warm water and applied, when

the motion of the infant will be distinctly felt. I have often acted on these suggestions with success. It is also to be remarked, that the cervix uteri begins to diminish in length at this period, as well delineated by Gooch and Meygrier. At the end of the seventh month, the uterus approaches the inferior margin of the epigastric region. The abdomen affords a dull fluctuation, which differs from that of ascites; percussion affords a dull sound, which is distinguishable from tympanites or meteorism. At the end of the eighth month, the uterus is in the epigastrium, the cervix nearly on a level with the superior margin of the pubis; at the end of the fourth month, the uterus is in the hypogastrium, the spontaneous motions of the fœtus are perceived by the mother, and the diagnostic styled *ballottement*, is afforded to the obstetrician. At the end of the fifth month, the uterus touches the inferior boundary of the umbilical region, and the cervix uteri is elevated in the vagina. At the end of the sixth month, the uterus is felt at the umbilicus, and as this part projects, the motion of the fœtus may be felt by the practitioner. We can now avail ourselves of auscultation. Morgagni proposed the following plan for discovering the motions of the fœtus. In warm weather, this disease, to have all the appearances of pregnancy; the general health suffers little, and sometimes not at all; the catamenia are regular—the usual symptoms of pregnancy are absent, and upon close inquiry, it will be found that pain commenced in the ovary, and the tumour was first in one side. In this, as in all other cases, a knowledge of disease will alone enable us to diagnosticate correctly. This knowledge is to be obtained by reference to the best systems of obstetricy, and by actual experience. It would far exceed the limits by which I am circumscribed, were I to describe the various diseases which may be mistaken for pregnancy. I must refer the reader to the standard works upon this subject. After a luminous description of the diagnosis in the case before us, and all its difficulties, M. Velpeau concludes, " but it is dangerous to forget that there exist causes without number (of deception), and that before the tribunals one ought never to give a decisive judgment, without having previously acquired a mathematical certitude of the fact upon which he pronounces." This is the received opinion of the present time.

Dr. J. C. Fergusson has published five cases of concealed pregnancy in the Dub. Med. Trans. 1830, in all of which he was enabled to discover the pulsations of the fœtal heart and bruit of the placenta. He says, " I conceive it to be

sufficiently established, that either a placenta or fœtal heart being heard, constitutes infallible evidence of pregnancy; evidence upon which a medical man may, if required, conscientiously and positively swear to the fact, which I believe all admit, and our legal records show, could not be done under ordinary circumstances. * * * * The absence of these phenomena amounts, if not to positive, at least to presumptive proof of the contrary." I cannot agree with these conclusions, because many practitioners may not be sufficiently dexterous with the stethoscope to detect the pulsations; and as further evidence is required to warrant the latter conclusion. It is very manifest, however, that auscultation ought to be employed in doubtful cases of utero-gestation.

In cases of extra-uterine fœtation, should the Cæsarean operation, or rather gastro-hysterotomy be performed, the infant cannot inherit property according to the laws of this country. (Blackstone.) This is the only medico-legal point connected with the subject. A point of much importance to be decided is, whether twins be the result of one coition, or of superfœtation. The decision will affect primogeniture. The question has not been discussed by any British writer on forensic medicine except myself.

Superfœtation.—Physiologists are at issue upon the question of superfœtation, or that it is possible for a pregnant woman to conceive a second time. According to Aristotle, a female was delivered of twelve infants, and another of twins, one of which resembled her husband, the other her lover. Some writers maintain that superfœtation is possible during the two first months of pregnancy; the majority hold it possible during the first few days after conception, before the uterine tubes are closed by the decidua. This is the received opinion, though cases are on record which justified Zacchias and other jurists, to conclude that superfœtation might occur until the sixtieth day, or even later. Nothing is more common than to see a full grown infant born, and another of the second, third, fourth, fifth, or sixth month expelled immediately after. I need not cite authorities upon this point, as obstetric works abound with examples. But a few examples may be given. Dr. Maton published an account of a woman who was delivered of a full grown infant, and in three calendar months afterwards of another, apparently at the full time. Trans. Coll. Phys. vol. iv. A woman was delivered at Strasburg, the 30th of April, 1748, at ten o'clock in the morning; in a month afterwards M. Leriche discovered a second fœtus, and on the 16th of September,

at five o'clock in the morning, the woman was delivered of a healthy full grown infant. Manuel Complet de Med. Leg. par Briand. Degranges, of Lyons, attests a case, the woman was delivered at the full time the 20th Jan. 1780; in three weeks afterwards she felt the motions of an infant, and her husband had no intercouse with her for twenty-four days after delivery. On the 6th of July, (five months and sixteen days subsequent to delivery) she brought forward a second daughter, perfect and healthy. On the 19th Jan. 1781, she presented herself, and both infants, before the notaries at Lyons to authenticate the fact. Fodéré, vol. 1. These cases prove the posssibility of superfœtation, four, five, and six months after conception. This may be possible, as menstruation has occurred during pregnancy, (Mauriceau, Deventer, Heberden, Francis, Hossack, Dewees, Capuron, Mayo.) Buffon related a case of a woman in South Carolina, who brought forth a white and a black infant, and on inquiry, it was discovered that a negro had entered her apartment after the departure of her husband, and threatened to murder her unless she complied with his wishes. Dr. Mosely relates a similar case. A negress, of Guadeloupe, brought forth a black and mulatto, having had intercourse with a white and black man the same night. Another negress produced a white, black, and a piebald infant. A domestic of Count Montgomery produced a white and black child at one birth, (Velpeau.) Gardien relates a similar case on the authority of M. Valentin. A mare has produced a foal and a mule, she having been impregnated by a horse, and in five days afterwards by an ass. In treating of this subject, in my work on Obstetrics, 1828, I made the following remarks:—

" Another argument, which I have never seen, occurs to me from analogy, which deserves mention; namely, that each dog will produce a distinct puppy—this no one can deny; for the offspring will resemble the different males that fecundate the bitch in succession. If a number of healthy vigorous men were to have intercourse in succession, immediately after the first conception, I think it probable and possible, that similar superfœtation would happen. I am proud to say, that Dr. Elliotson is an advocate of superfœtation. He explains Buffon's case this way. Magendie is of the same opinion. Medical men must bear in mind, that women have had three, four, and five children at one birth. Various cases of infants of different sizes being expelled in succession, are recorded in our own periodicals. Medical and Physical Journal, v. 22, p. 47.—

v. 24, p. 232. Medico-Chirurgical Transactions, v. 9. Philosophical Transactions, v. 60.

"One of the Pennsylvania newspapers in 1827, recorded the case of an Irish lady, who in eighteen months had at three births twelve living children, all born prematurely. She and her husband were healthy fresh looking people, and only two years married. This case is not recorded as yet, in any of the American Medical Journals; but if it prove to be authentic, it will be the most extraordinary case of fecundity recorded in any country. Cases of twins, triplets, quadruple and quintuble births, are of very rare occurrence; but of these more particularly hereafter." Dr. Golding, of this city, delivered a woman of six infants during the year 1829.

I am happy to add, that Professor Velpeau, of Paris, is of the same opinion. He says, "In according all possible authenticity to these observations regarding their exactitude as demonstrated, the idea which prevails in physiology on generation, permits an easy explanation. Two ovules can be fecundated one after the other, in a woman who accords her favours to two or more men, the same day, or in two or three days afterwards, that is to say, to the moment when the excitation of the first coition causes the effusion of coaguable lymph into the uterus, to form the caducous membrane (decidua.) These ovules may not descend through the uterine tube at the same time, and may be differently developed. But he thinks superfœtation impossible after the decidua is formed. op. cit. The closure of the os uteri after conception, does not take place for some days, weeks, or months (Dewees), but if the male semen be absorbed from the vaginal surface, and conveyed directly to the ovary, as in the elephant, cow, sow, (Gertner) such closure is no objection. Twins have generally but one amnois and placenta, but in cases of superfœtation, each infant has its own membranes and placenta. I once attended a female who was delivered of one infant on Monday, the parturient action ceased, and on the following Thursday, the membranes presented, and she was delivered of a second infant. There was no hæmorrhage, and the placentæ were united. My friend, Mr. Whitmore, sent me a similar union of the placentæ a short time ago. Whether we suppose superfœtation or twins, the medical practitioner ought to notice which was born first, male or female, when the disposal of property or title depends upon the decision. The question is, which was born first, not which was conceived first. Admitting superfœtation to be possible, and

it cannot be denied in the early weeks of gestation, we cannot decide paternity, unless perhaps, when one infant is black or brown, and the other white; but if both males were of the same colour, the decision might be difficult, unless some physical mark on the infant existed in one of them. The following conclusions are admitted in cases of pregnancy. It is now decided that a female may become pregnant, and be ignorant of it until the time of labour. (Fodéré, and Sanders of Edinburgh). This may occur in cases of idiots (Desgranges), when the female is in a state of stupor, either from inebriation, narcotics, coma, syncope, or during sleep. Fodéré, Orfila, Beck, Hebenstreit, and author's work on Midwifery.

Duration of Pregnancy.—Legitimacy.—Hippocrates, Aristotle, Galen, Pliny, Avicenna, Mauriceau, Riolan, La Motte, Hoffman, Schenk, Haller, Bertin, Lieutaud, Petit, Levret, Louis, Astruc, &c., maintained that pregnancy usually terminates at the end of the ninth calendar month, but might be protracted to the tenth, eleventh, twelfth, and some of them said to the fifteenth.

It is also decided by a preponderating majority of the profession, in all countries, that the term of utero-gestation is not uniform; in other words, not invariably limited to nine months. This position is strongly attested by the analogy afforded by the inferior animals, for it appears by the extensive observations of M. Teissier, on the gestation of heifers, mares, sheep, swine, and rabbits, that all these animals exceed their usual periods of delivery. Trans. de l'Acad des Sc. Paris, 1817. Further evidence is afforded by the vegetable kingdom, in which we observe in the same field, on the same tree, shrub, &c. different parts of vegetables arrive at maturity with more or less celerity. Petit informs us that many faculties of medicine, forty-seven celebrated authors, and twenty-three physicians and surgeons, concluded pregnancy might be protracted to the eleventh or twelfth month. He cites a case on the authority of Schlegel, in which pregnancy was protracted to the thirteenth month; the child was admitted to be legitimate, on account of the probity and virtue of the mother, which induced her shopman to marry her, and she bore two children by him, each at thirteen months. Tracy, a naval physician, relates a case at the fourteenth month. Dulignac, a French surgeon, positively asserts that his own wife quickened at four months and a-half, and on two occasions she went to the thirteenth month and a-half, and on the third, to the eleventh month. Desormeaux relates a case of a

mother who had three children, who was maniacal, and whose physician, after all means had failed, recommended pregnancy. Her husband had intercourse with her once in three months, of which he kept an exact account. She was closely watched by her domestics, and she was extremely religious and moral; she was delivered at nine months and a-half (Velpeau.) The last author attests a case which went to 310 days.

The medical evidence in the Gardner Peerage cause, tried before the House of Lords, in 1825 and 1826, throws much light upon the subject. It is right, however, to observe, that witnesses spoke from their personal experience, lost all sight of physiological science, and of the numerous opinions of ancient and modern writers, that "one and all have shewn an extraordinary ignorance on the principles of evidence, will be conceded by every one who examines carefully their testimony. But it may also be doubted whether the question admits of better evidence than has been already proved, or at least arrived at, by them and their professional predecessors." (Dr. Duncan, Edin. Med. and Surg. Journ. 1827, v. xxvii.)

I have condensed this evidence in my work, so often referred to, as follows:—

"The majority of the medical men, examined in the Gardner Peerage cause, were in favour of protracted pregnancy, as Drs. Granville, Conquest, Blundell, Hopkins. Hamilton, of Edinburgh, and Power. Dr. Granville proved that his own wife went to three hundred and six days, even admitting pregnancy to have occurred the day before the interruption of menstruation; and there hundred and eighteen days, if from the middle of two of the last and expected periods. Dr. A. T. Thomson, who attended her, was of the same opinion, that the child was ten months old at birth. Dr. Granville knew other cases of two hundred and eighty-five, two hundred and ninety, and three hundred; and one doubtful at three hundred and fifteen days. Dr. Conquest knew two or three cases at the tenth month.

His patient was a most sensible woman, who had been the mother of six children, and had engaged him and the nurse to attend her at a certain time; went five weeks after, and four with the next. She had other children afterwards, at the ninth month. Dr. Merriman knew cases, at 280, 285, 303 and 309 days, and thought the Gardner case possible; Drs. Blundell and Hopkins, 285; Dr. Power, eleven months; Dr. Hamilton, ten calendar months; and Dr. Collins, of Liverpool, published a case of eleven months soon after-

wards, which occurred two years before. Edin. Med. Journ. April, 1826, v. 25. This is most worthy of perusal. I know a delicate woman, who menstruated the last week in February, 1826, quickened in July, and engaged me to attend on her in November. She had spurious pains in November, December, and January, 1827, and was delivered on the 28th of February, 1827; nearly twelve months from her previous indisposition. I had most serious business from home in November, but by her entreaties deferred my journey in that, and even the next month, and of course I then daily expected her delivery; yet she went two months later. The infant was a girl and of the ordinary size, and she and all her friends thought she would be undelivered from her protracted pregnancy; yet her labour was only of two hours continuance and perfectly natural. I shall ever have cause to remember this case, as I nearly lost some property by deferring my journey to attend upon it. It was a first pregnancy. I most solemnly declare, that the case was a true one, and not fabricated to support any particular opinion. This is the longest instance of protracted pregnancy, which has hitherto been recorded in British medicine. Another argument in favour of generation is, that children often grow more in one year than in seven years before, which would prove the developement may not be the same in the womb. The following accoucheurs were produced against the doctrine of protracted pregnancy, on the Gardner Peerage cause. Dr. Charles Clarke, who in twenty cases, never knew one exceed the term of nine months. His evidence does not controvert the opposite side of the question. Dr. Blegborough had practised extensively for thirty-four years, and never knew pregnancy exceed the ninth month. Mr. Pennington contended for forty weeks and three or four days; and Drs. D. Davis and Gooch were of the same opinion. It is a strange but positive fact, that these gentlemen who came forward to prove pregnancy to be immutable and definite at a certain period, all admitted it might exceed nine months, by four or six days; hence the justice of Dr. Duncan's critical sneer at their evidence. In the case under consideration, the claimant Jadis, otherwise Gardner, was born eleven months after his father went abroad, and his mother had cohabited with Jadis, the father, soon after Lord Gardner had been absent. On his Lordship's return, he obtained a divorce against her, and married again; and the offspring of the second marriage, on claiming his father's title, was opposed by Jadis, who, at the adult age, took

the name of Gardner; and under these circumstances, and contrary to the medical evidence of the majority of the obstetricians, the House of Lords decided against him. The evidence in favour of the legitimacy of Jadis was founded on too few cases, to warrant a perfect confidence in it, or to settle the question of protracted pregnancy. The Edinburgh Medical Jurist justly concludes, by stating that there was not a single new fact advanced by the medical men, in elucidation of the subject at issue; and the reviewer smiles and "wonders at the want of knowledge of the witnesses who appeared to be unacquainted with the nature of legal evidence; and neither their evidence, nor that of the other side, was sufficiently accurate, in not being deduced from physiological science; which, however, in the present state of medical knowledge on the question, could not perhaps be more accurate. On the whole, the weight of the testimony was in favour of the advocates of protracted pregnancy; but the mother having cohabited with another, proved her incontinence; which fact influenced the House of Lords against the legitimacy. After all, the subject remains as obscure as before, and will require much more scientific medical evidence to decide it one way or the other."

Dr. Dewees relates a case of a lady, whose husband was absent on account of embarrasment of his affairs. He returned one night clandestinely, had intercourse with his wife, whose menstrual period was expected within a week and occurred, yet she was delivered in nine months and thirteen days from the coition. Work, 1825. The question of protracted gestation, and more especially the Gardner Peerage case, was discussed at the Westminster Medical Society, in Dec. 1829, when Dr. Granville adduced the following authors in favour of the affirmative side of the question:—Among the ancients, Hostius (Horstius), Sylvius, Harvey, Mauriceau, Levret, Lieutaud, Heister, Delignac, La Cloture, Benedictus, Petit, Smellie, and W. Hunter. Among the moderns, are Osiander, Fodéré, Schoreider, Lentoseit, Spregnel, Adelon, Bardt, Capuron, Orfila, Burns, Desormeaux, Dewees, Hamilton, of Edinburgh, and Merriman. I have already mentioned many others. On the occasion in question, Mr. Chinnock related a case of a female who menstruated Oct. 14, and had intercourse with her husband on the 29th. She was delivered on the 20th of February, a space of two hundred and ninety eight days after the connexion, but labour commenced three days previously. I mentioned the cases narrated in the extract from

my work inserted above; and Dr. Ley and Mr. North took the same side of the question. The whole of the society were of the same opinion, with one or two exceptions. Lond. Med. & Surg. Jour. 1830, v. iv. Med. Gaz. 1830, vol. v. There is no doubt but the weight of medical authority, in ancient and modern times, are in favour of protracted pregnancy; but in the present state of science it is impossible to assign the exact limit. The law of this country assigns no limit to utero-gestation; the law of France limits it to three hundred days or ten months, and allows legitimacy to be contested after this period. (Velpeau.)

Abortion.

In judicial investigations relative to abortion, medical jurists are required to decide the following questions:—1. Has there been abortion produced? 2. Is abortion natural or provoked? 3. Has the fœtus quickened?

Signs of abortion.—To determine whether abortion has taken place, we must always examine the product of abortion, and also the female who is said to have aborted. If we do not see the substance expelled, we cannot give a satisfactory, much less a decisive opinion.

Examination of the embryo or fœtus.—During the two first months of utero-gestation, we must be extremely cautious and take care not to confound the fœtus with a mole or false conception, or with a sanguineous concretion or false mole. At this period, the embryo is enveloped in a capsule formed by two membranes (the chorion and the amnois), united to a spongy mass (the placenta), more voluminous than itself. The first of these membranes is torn, and allows the second to escape in the form of a membraneous sac, to which is attached a clot of blood. On opening this sac, a quantity of fluid escapes, and the embryo will be found in an organized condition. It is a gross mistake in many works on obstetrics, in which it is stated, that the fœtus cannot be recognized at this period. I have a preparation which shews it perfectly formed at two months and a half. There is also an illustration of the embryo at the forty-fifth day, in an organized form, in the excellent plates of Meygrier. We seldom see the substance expelled in early abortions, as it is generally destroyed by the female attendants; and every obstetrician must have been embarrassed by this circumstance, and must have seen cases of supposed abortion, in which the expelled substance was a clot of

blood. Hence the necessity of washing such substance, when any doubt exists, in order to determine whether the substance be blood, a mole, or a real conception. We should also remember the frequency of catamenial obstruction for two or three months, and how often women suppose themselves pregnant when they are not so. In such cases the want of coagulation in the menstrual fluid, proves it not to be blood. In the cases before us it is absolutely necessary to know the appearances of the fœtus at the different periods of gestation. The embryo is visible at the fifteenth day (Meckel), and the ovum is six or eight lines in diameter. It is piriform, elongated, curved, round, enlarged at one extremity, which is the head, and attached to the membrane at the other extremity, having a white cord, which is the spinal marrow. (Velpeau.) Towards the end of the *first* month, the extremities begin to appear in the form of round tubercles, and the umbilical cord is seen attached to the intestine; the liver is large and fills the abdomen. In the course of the *second* month, the head is equal in size to nearly half the body; the eyes are seen as two black spots; the nose, nostrils, and the ears are apparent; the arms and legs begin to appear; the toes and fingers are distinctly observable; there are many points of ossification in the frontal and maxillary bones, the clavicles, ribs, and os ilium. The rest of the osseus system is in a state of cartilage. The penis and clitoris project, and the sex may be determined. The embryo is little less than two inches long, and weighs nearly an ounce. At three months, the fœtus is about four inches long, and weighs nearly three ounces. It is impossible to mistake it at this period, and therefore it is unnecessary to describe its developement any farther.

The law of this empire is extremely defective on abortion, for it abounds with the greatest absurdities. Its intention is humane and excellent, but it is based upon erroneous physiological principles. It enacts, for instance, that the embryo is not animated until after quickening, that is, until half the period of utero-gestation has elapsed, though the fœtus is alive from the very moment of conception. I have described its developement before the period of *quickening*, which I need scarcely observe, could not happen if it were inanimate.

Again, a jury of matrons is to decide whether a woman be pregnant or has quickened, questions which the whole faculty of physic, in every part of the world, could not determine in the early months of pregnancy. It would be as wise to ----int a jury of infants to determine these questions. The

law also enacts it felony to procure abortion before quickening, and subjects the person who does so by any means, or even advises it, to transportation for seven or fourteen years; and to death, if after quickening. Every man must applaud this philanthropic legislation; but it places the medical practitioner in a most dangerous predicament. Thus in thousands of acute diseases, where life is in the greatest danger, treatment must be employed which may produce abortion; and is the practitioner to allow his patient to die without the benefit which his art affords? In some cases of uterine hæmorrhage, the life of the female can only be saved by extraction of the infant. Yet this is producing abortion in the eye of the law. Again, if the woman is so deformed, that a full grown infant cannot be born at the full time, that is, at the termination of the ordinary period of utero-gestation, without a fatal operation, is the medical man to allow the female to be placed in this predicament when he can save her life, and that of her infant, by inducing premature delivery? If the infant arrive at the full term of utero-gestation, it must be destroyed by nature or by art; and by the latter to save the life of the mother. As the statutes now stand this is felony; but a talented legal writer observes, "it may be presumed the operator in such cases only commits *justifiable* homicide, and not the crime of abortion." (Cabinet Lawyer.) Surely the operator can be influenced by no clandestine or sinister motive, in endeavouring to save the lives of the parent and offspring. But to resume the medical part of the subject. We should examine the woman, to ascertain whether abortion has really happened. It is impossible to determine this point during the first two months of pregnancy, as the fœtus is too small to leave any trace of its passage. When it occurs in the last months of gestation, the usual signs of delivery will be present, which will be described hereafter. The expulsion of moles, hydatids, or other morbid growths, should not be lost sight of, and should be carefully examined. The phenomena presented by the abdomen and external genitals, can only be valuable in proof of abortion, when conjoined with the following circumstances:—1. When there is a certainty of pregnancy, and a comparison made between the developement of the fœtus and the period of gestation. 2. When the pregnancy is so far advanced that the changes in the os and cervix uteri are appreciable. 3. When examination is made, immediately after the abortion has taken place.

The practitioner should bear in mind the immense number of causes which produce abortion; and therefore ought to be extremely cautious in making a judiciary report in such cases. Many of these causes are peculiar to the woman, as excessive sensibility, and too great contractility of the neck of the uterus, rigidity of the fibres of the body of the organ; or laxity or flaccidity of its neck; habitual delicacy of health, menorrhagic disposition, or debility of constitution; all acute, and a great number of chronic diseases, fevers, continued and intermittent, inflammations of the various organs, peritonitis, gastritis, enteritis, cystitis, hysteritis, rheumatism, pleuritis, variola, scarlatina, hæmorrhoids, convulsions, pertussis, chronic catarrh, colic, cholera, diarrhœa, dysentery, constipation, gonorrhœa, leucorrhœa, scirrhus,* cancer, retroversion, polypi,† dropsy, and various diseases of the uterus, hydramnios, hysteria, moles with the fœtus,‡ &c. The diagnosis of these diseases is easily established. When abortion depends on rigidity of the fibres of the uterus, it recurs at later periods in successive pregnancies, as the uterus gradually expands; but when abortion is caused by laxity of the neck of the organ, the laxity increases in each pregnancy, and the abortion happens earlier. Among the ordinary or hygienic causes, may be enumerated violent mental emotions, the impression of strong odours, the fright caused by thunder, noise of artillery, sight of extraordinary and frightful objects, errors in diet, stimulating food and drink, abuse of spirituous liquors, too much exercise, as walking, riding, dancing, running, the agitation of carriages or other vehicles, accidental falls, or blows on the abdomen, wounds, tight clothing, immoderate laughter, abuse of venery, surgical operations of any kind, even the extraction of a tooth, &c. Sometimes abortion depends on the death of the fœtus, fromd ebility, ill cured syphilis, monstrous conformation, diseases of the placenta, scirrhus, calculus, hydatis, its implantation over the neck of the uterus, &c. Again, we know that a peculiar constitution of the atmosphere will produce abortion, as an epidemic. (Hippocrates, Fodéré.) All powerful medicines, as emetics, purgatives, mercury, &c. may cause the premature expulsion of the fœtus. Venesection has been employed to produce abortion, but it seldom or never succeeds. A woman has been bled forty, and

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* Bonetus. † Levret. ‡ Morgagni.

another ninety times, and yet arrived at the full period. (Mauriceau.) This remedy is successfully employed to prevent miscarriage, and has been repeated seventeen times in a case with success. Emetics and purgatives often fail to produce the desired effect, and the latter often destroys the female by inducing abdominal inflammations. Emmenagogues also fail in most cases. Various herbs are employed by the vulgar, mentha pulegium, sabina, secale cornutum, artemisia rubra, &c. and unfortunately with effect. But we must conclude that there is no medicine or abortive means, which always produce abortion, and nothing but abortion; there is none which does not endanger the lives of the mother and infant. Irritation of the cervix uteri by mechanical means, and piercing the membranes, justify the truth of the remark, "*Sæpe, suos utero quæ necat, ipsa perit.*" "Every woman who attempts to promote abortion, does it at the hazard of her life." (Bartley.) There is no drug which will produce miscarriage in women who are not predisposed to it, without acting violently on their system, and probably endangering their lives." (Male.) "It has frequently occurred," says Dr. G. Smith, "that the unhappy mother has herself been the sacrifice, while the object intended has not been accomplished."

When called on in courts of justice, to report on an abortion, supposed to be provoked or criminal, we should duly consider the causes already enumerated, the circumstances which preceded it, whether the female has denied her pregnancy, procured abortives, used drastic medicines, applied to various practitioners without acknowledging her real condition, and a variety of other inquiries, which will suggest themselves to every well informed practitioner, before we can decide that she premeditated the crime. If the woman had died, we should examine the uterus to discover wounds, and also the abdominal viscera, as it often happens death is produced by enteritis or peritonitis, though the uterus may have been punctured a few hours before death. This was the fact in a case tried at the Old Bailey, during the last year; the medical witness for the prosecution ascribed the cause of death to the punctures, which were not inflamed; but the witnesses for the prisoner to enteritis. According to the law of this country, the exhibition of any medicine, for the purpose of causing abortion, renders the accused liable to a prosecution for felony; and therefore those young men who vend medicines, ought never to commit themselves by vending the most harmless medicine to applicants in the case under notice. Should the female acknow-

ledge that a certain apothecary sold her medicine for the purpose, he could have no witness to disprove her allegations, and consequently must incur the greatest danger to his liberty or life. Too many young men forget that the crime of abortion is the destruction of a human being; and hence they incautiously supply medicines, in general harmless ones, without the slightest recollection of the perilous situation in which they place themselves. I trust that this caution may be useful to my junior readers.

Medical jurists designate criminal abortion, fœticide, that is, destruction of the fœtus in utero; and apply the term infanticide to the destruction of the new born infant. Both terms are included in the word prolicide. Before we consider this part of our subject, it is necessary to describe the phenomena of parturition, and the viability of the infant.

Of Delivery.

The medico-legal questions relative to delivery are, 1. Do signs exist by which we can determine that a woman has been recently delivered? 2. At what period afterwards can we find traces of delivery? 3. Can a woman be delivered unconsciously? 4. When the mother and infant are found dead, which was the survivor?

Signs of recent delivery.—The signs of recent delivery are observable in the sexual organs, uterus, abdomen, the lochial discharge, state of the breasts, and secretion of milk. In the first days after delivery, the labia majora et minora are dilated, red, tumified, and often inflamed, the vulva is open, the fourchette is partially or completely torn, the orifice of the womb is so dilated as to admit the introduction of one or two fingers into the cavity of the organ; the posterior lip is elongated and thickened; both lips are much thicker than during pregnancy. The womb itself is more voluminous, can be felt above the pubis, or may be felt enlarged by placing one hand on the hypogastrium, and a finger in the vagina. The size and flaccidity of the abdomen, its wrinkled condition, the lochia and milk, are signs of recent delivery; but all may be present after the expulsion of a mole or other morbid growth in the uterus. The lochial discharge has a peculiar odour, and when present is a good sign, but it is liable to be suppressed from a variety of causes, and is entirely absent in some natural cases. Any one of these signs is not conclusive, and does not prove recent delivery, but taken collectively, and above

all, if we can learn the history of the pregnancy or anterior condition of the woman, we may arrive at a correct conclusion. We can only arrive at a proper conclusion during the first six or eight days, for at the end of ten or fifteen days, it is impossible to decide the reality of delivery. It is now decided that a woman may be delivered without her knowledge if completely intoxicated, if stupified by narcotics, a case which I have recently witnessed, if attacked with apoplexy, syncope, delirium or idiocy; and this fact ought never to be forgotten when we are called on to decide questions of infanticide. Another question of great interest is to determine the survivorship of the mother or infant, when both are lost in parturition, for in some cases, if the infant survives the mother, the father inherits the property he had by his wife, and if the mother, the property passes to her own family. This is the law of tenant by courtesy. It is impossible to decide this question unless some person has been present at the delivery. It was decided by the Court of Exchequer, in 1806, that the motion of the lips of the infant proved its vitality. (Smith.) It is now universally known to judiciary physiologists, that a still born infant may be resuscitated an hour after birth, and one case is recorded, in which the infant was pronounced dead, and placed in a corner of the apartment, and at the next visit, which was at the end of twenty-four hours, it was found alive.

It is almost unnecessary to allude to the substitution of a dead child for a living, as such cases are of rare occurrence.

Women have shewn dead children, to appease the wrath of their husbands, who accused them of sterility. Male's Forensic Med. p. 211. Capuron, p. 110. Beck, p. 99. A woman has substituted a living for a dead child. For an account of the appearances of the womb after death, during the first month, the reader should consult Burns, p. 326. The law only requires, that the medical witness shall prove whether the signs of conception were present or not. An infant must be found, in order to bring the charge of infanticide. A woman may be delivered unconsciously, if labouring under coma, or the effects of narcotics. Fodéré, vol. 2, p. 10; and a woman, who died before delivery, was placed on the bier for interment, when the child was born. op. cit. 11. These are exceptions to the general rule, namely, that healthy women must be conscious of labour. Dunlop records an extraordinary instance of a lady having a child, though she and her husband did not think she was pregnant. Edition of Beck, p. 107. Again, a woman without assist-

ance, may have her child so suddenly on the floor, in the street, or water closet, as not to be able to prevent its death.

Circumstantial evidence on the incidents of time and place, of situation and character, most generally guides the decision.

With regard to the death of the child before or after delivery, it is a question that may be agitated in civil and criminal cases; as when the succession to inheritance is mooted, or when a pregnant woman has been maltreated, and her child supposed to have died in consequence.

The life of the infant is inferred from the good health of the mother, the progressive increase of the abdomen, and the motion of the fœtus. But healthy females may bring forth dead children; delicate females have produced healthy children, and the increase of the abdomen may depend on moles, hydatids, dropsy, &c. while the motion of quickening has been caused by flatulence. A woman may suppose she feels the motion of the infant, during delivery, yet a putrid infant may be produced. Various causes may act on the mother, and destroy the infant, as unhealthiness of habitation, mode of dress, want of food, or improper use of it, violent exercise, too great labor, violent passions of the mind, venereal excesses, intemperance, hæmorrhage, convulsions, syphilis, small-pox, falls, wounds, and accidents, inordinate evacuations; in fact, all the causes of abortion, which were enumerated. Pressure in difficult labors, may destroy the infant; improper use of instruments, fainting and diseases of the placenta, will produce the same effect. Yet the child may recover in despite of most of these causes.

The following signs occurring during pregnancy are indicative of the death of the infant—want of motion in the child; the womb feels as if it contained a dead weight, which rolls according to the position of the woman; the navel is less prominent, the milk disappears; the breasts are brown, flaccid, the mother experiences a sense of lassitude and coldness, accompanied with head ache and nausea. If actually dead, and long retained in the womb, putrefaction sets in, the membranes become black, and fœtid discharges take place. Maceration of the body, presence of the meconium, spots on the skin, violet or brownish blue colour of the lungs, the mass sinking partially or entirely in water, weighing about the seventieth part of the body, and the mouth and throat being filled with a glary sanguinolent fluid.

Many of these symptoms are equivocal. The fœtid discharges and state of the skin and bones cannot be depended on. If the medical examiner be called immediately after birth, he can distinguish these symptoms; but he is seldom called so early, and in general not for many days afterwards. The skin will exhibit marks of putrefaction, and will be of a purplish brown or red colour. The umbilical cord is livid, soft, and easily torn. The cranium and thorax are flattened, the sutures of the head are disunited, the brain is almost fluid, and has a fœtid odour. If the death take place after birth, there will be characters of viability and complete developement, signs of external violence, fractures, bruises, perhaps omission of the ligature on the cord, developement of the pulmonary vessels; the arterial and venous canals are straightened or obstructed, lungs spungy, rose colour, swimming in water, also after compression of them; but this happens, if filled with gas, by putrefaction; but if the gas escape by compression, the lungs will sink; the lungs weigh about the thirty-fifth part of the body. The lungs of an infant already dead, if inflated by the trachea, will preserve the air, as if respiration took place; but they will not weigh more than compact lungs. From the fourth to the eighth day after birth, the cord desiccates and falls off, there is a slight desquamation of the epidermis, a yellow colour of the skin, disappearance of thrombus, ecchymosis, or inflammation, and œdema of different parts; on pressing the breasts of either sex, a serous fluid appears. From the eighth to the thirtieth day after birth, the navel will be healed, the foramen ovale, arterial, venous, ducts and umbilical vessels will be obliterated by adhesion, the sutures will be more solidified, and the fontanels diminished.

Prolicide, Fœticide, Infanticide.

Medical jurists have employed the word *prolicide*, to designate the destruction of the offspring, and divided the subject into *fœticide*, or the destruction of the fœtus in utero, and *infanticide*, or the destruction of the new-born infant. I have already stated the law on this subject, 9 Geo. 4, c. 31, which makes no distinction between the murder of an infant not viable, that cannot live, and one that is viable. A woman who destroys her infant not likely to live—for example, soon after conception, is assuredly less criminal than one who destroys it at a later period,

which, if left undisturbed, may become fully developed, and arrive at maturity. The first commits an act upon an imperfect being, which has not acquired the perfection necessary to durable existence—she acts almost on a dead body, *non homo est, qui non futurus est*, the other acts upon a perfect being, which nature destines to occupy a place in the class of her family and of society. If the death of a non-viable infant is less criminal than abortion, the punishment of infanticide ought not to be inflicted, for this is inflicting the greatest punishment for the lesser crime. But as the law stands at present, the researches which the medical practitioner has to make in cases of infanticide are as follow:—

1. After having ascertained the external appearance of the infant, its volume, length, and respective proportions of its different parts, it is necessary to determine whether there exists any original defect of conformation, or any pathological condition which could induce the death of the infant at the moment of birth, or whether it has not been destroyed by pressure during a laborious parturition.

2. After this examination, we should inspect the internal organs, and decide whether respiration has been complete, and consequently whether the infant has been born alive.

3. To determine how long a period has elapsed since the infant was living; and what was the cause of death, whether natural or violent.

4. To determine whether the woman to whom the infant is attributed, is really the mother.

The most important of these inquiries are the following:—Has the infant died before delivery? Has it died during delivery? Has it died at the moment of birth, in consequence of deformity of the mother, or congenital disease? In the first place, we are duly to consider the various causes of abortion, and the signs which indicate the death of the fœtus in utero. The former have been already enumerated; the latter are, the cessation of the motion of the fœtus, the perception of it in different positions by the motions of the woman, the tumefaction or diminution of the breast—signs which are extremely equivocal. But if during delivery the fœtus is not felt to move, the waters are black and fœtid, the scalp soft, placid, wrinkled, and easily excoriated, if the cranial bones are more mobile than ordinarily; there is much reason to suppose that the fœtus has been deprived of life for some time. After delivery, the proofs of the death of the fœtus having taken place some days previously, are the flaccidity of its limbs, desquamation of the cuticle, the skin purple or brown in certain parts, a

serous or sanguineous infiltration of the subcutaneous cellular tissue, especially of the scalp; the umbilical cord soft, flaccid, livid, easily lacerable, the thorax flattened, and its viscera in a state which shews that respiration could not have happened.

If the infant has been destroyed by pressure, by a premature rupture of the membranes, there will be tumefaction of the superior part of the head from uterine pressure, the head is deformed, and the brain will be found apoplectic; or the last sign may depend on compression of the umbilical cord, either by being round the neck or body of the fœtus, or by compression of the parts of the parent. On the other hand, if the fœtus has died from hæmorrhage during labour, in consequence of detachment of the placenta, rupture of the umbilical cord, the body will be of a livid pale colour, the sanguineous system will be empty and collapsed, and if there is rupture of the cord, its extremity will be jagged or irregular.

It would far exceed my limits, were I even to enumerate the various defects of conformation of the woman, or malformation of the fœtus, which may destroy the life of the latter. I can only advise the practitioner to exert his knowledge of anatomy, physiology, and pathology, in any case on which he may be called upon to give his opinion. He should most cautiously consider the defects of conformation and pathological degenerescences, and which may impede the functions of respiration. Though it will be seen hereafter, that the proofs afforded by respiration are inconclusive, and that too much importance has been ascribed to them.

Let us examine the degree of certainty of an infant being born alive, which is prevented by signs afforded by the anatomical examination of the fœtus. Daniel considered that the thorax was amplified by respiration, and this he determined by measuring the cavity before and after respiration. (Comment. de infantum nuper natorum umbilico et pulmonibus.) But the conformation of the chest is subject to too much irregularity, to enable us to arrive at a satisfactory conclusion. Plocquet laid great stress upon the position of the diaphragm, whether depressed towards the abdomen, or elevated towards the thorax; but artificial respiration will affect these positions as well as natural. The size of the lungs affords no positive evidence. Schmitt has seen them fill the chest before respiration, and so much compressed after that process had continued thirty-six hours,

as to render it difficult to decide whether respiration had been established. Besides, there may be uterine, vaginal, and extra-uterine respiration before the complete expulsion of the fœtus, and death occur after the birth. The rosaceous colour of the lungs may or may not exist, and is subject to great variety, so that no dependance can be placed on this sign. It may exist in the fœtus long before maturity. The obliteration of the umbilical arteries and vein, of the foramen ovale, and of the ductus arteriosus, evidently prove that the infant has been born alive. But this change does not happen at the moment of birth, nor sooner than two or three days, and often not before the first or second week; and consequently this evidence, in most cases, is of little value.

Plocquet instituted experiments to ascertain the weight of the lungs before and after respiration, in comparison with that of the whole body, and concluded that the weight was 1:70 before, and 2:70 or 1:35 after respiration. The accuracy of these conclusions is denied by Chaussier, Orfila, and Schmitt, of Vienna. Daniel proposed to immerse the lungs, before and after respiration, in a vessel of water, to the side of which a graduated scale was attached to mark the elevation of the fluid. He said that the condensed lungs would occupy less space than after respiration; this is true, but more delicate instruments are required for the execution of this experiment, before we are justified in adopting it in the practice of legal medicine.

Schreger proposed the immersion of the lungs and heart, the large vessels being tied, in water so far back as 1682; and concluded that when they sunk, no respiration had taken place, and if they floated, respiratory function had been established. This is what is called the hydrostatic test, or pulmonary docimacy, upon which no reliance is placed in any part of Europe at the present period. Numerous objections may be made to this test; 1, the infant may respire before birth; 2, it may respire and be destroyed before birth; 3, an infant may be alive, and may not have respired; 4, the lungs may float before respiration; 5, the lungs may not float after respiration. The infant may respire before birth, and be born dead. (Hunter, Marc, Siebold, Capuron, Osiander, Sabatier, Mahon, Hutchinson.) There may be intra-uterine respiration. Trans. Royal Soc. of London, vol. xxvi. Edinb. Med. and Surg. Journ. No. 73. Hufeland's Journ. 1823. The fœtus may be asphyxiated, or remained enveloped in its membranes and be alive, without respiration. (Buffon, Schurig, Le

Gallois.) A delicate immature infant may respire, and yet the lungs will sink in water; and the infant may be born with pneumonia, pulmonary engorgement, or hepatization. (Billiard.) In the two first cases, the air cannot arrive in the bronchial vesicles, and consequently respiration will be incomplete. In the last, we often find the subcutaneous cellular tissue of the mouth and limbs gorged with sanguineous effusion, which induces some persons to suppose violence has been employed. Billiard has pointed out this error. The lungs may float before respiration, from putrefaction, (Orfila,) emphysena, (Chaussier,) or insufflation. (Morgagni. Dr. Bernt, of Vienna, has put an end to the ancient hydrostatic test, and proposed a new one in its place, which is equally objectionable, in consequence of the complication of his instruments. (Programma quo nova pulmonum doscimasia, hydrostatica, proponitur. Vienna, 1821.)

It is a matter of great importance to determine how long it is since the infant was living; or how long it has been dead. If the skin be soft, and covered with the white unctious matter, which is seen at birth, if the stomach contains but a small quantity of mucous, the large intestines are filled with meconium, and the bladder with urine: it is probable that life had ceased at or immediately after birth. If on the contrary, the stomach contains any alimentary substance, and the intestines any matter except meconium, it is certain that the infant has lived for some time. I have already described the change in the vessels peculiar to the situation of the fœtus. I may mention, however, that the umbilical cord remains soft and humid for fifteen or sixteen hours, and begins to desiccate about the fortieth.

To determine how long the infant is dead, we must consider the state of putrefaction, and all circumstances which hasten or impede it. Warmth and humidity promote decomposition, and already putrifies more rapidly in running than in stagnant water, or in humid earth, than in an argillaceous, sandy or chalky soil.

The next question is, what has been the cause of death. This is often involved in impenetrable obscurity, as lesions, purely accidental, frequently present the appearances of crime. We should endeavour to determine those that are accidental or involuntary, and those that are criminal.

Death of the fœtus from involuntary causes.—I have already enumerated the most of the causes of the death of the fœtus in utero, and may now caution the young practitioner to bear them in recollection, for otherwise he may commit the most serious errors in giving evidence on the

question under notice. Let him remember that diminution or deformity of the pelvis, are preternatural presentations of the fœtus, may cause elongation of the head, tumefaction of the scalp, fractures of the cranial bones, blackness of the face, congestion of the brain, ecchymoses of different parts of the surface of the body, fractures of the limbs and various other lesions, which may be readily mistaken for the result of external violence. Again, the twining of the umbilical cord round the neck or the compression of the os externum, may induce cerebral congestion, as well as marks of strangulation. If the appearances on the head are caused by external injury, they will often exist in situations on which no pressure could have been made. We must always bear in mind the presentation; and by so doing we can often distinguish natural lesions from injuries.

In those cases in which the neck is compressed by the cord, there will be no excoriation, or exoriation of the cuticle. When there is rupture of the cord during labour, there will be fatal hæmorrhage, but if accident happens after birth, that is, after exposure to the air, fatal hæmorrhage will not result. If the cord be lacerated by violence, its extremities will be irregular, but the flow of blood will cease. The infant will not be destroyed by hæmorrhage, unless the cord is divided with a sharp instrument. Should the infant have been destroyed by detachment of the placenta, the pale waxy colour of the fœtus, the discolouration of the viscera, the vacuity of the heart and large vessels, explain the cause of death. The infant may be expelled suddenly, and falling on the floor or on any other hard substance, the skull may be fractured, and the cord torn. Such cases are related by many obstetric writers. I have narrated three examples, and others are attested by Hamilton, Chaussier, Henke, Klein, Pasquier, Meirieu. Jour. Univ. des se. Med. 1820 and 1823. M. Klein collected a hundred and forty three observations on this point, and asserts there was not one infant in the kingdom of Wurtemburg, whose skull was fractured, all recovered. Many fell upon the pavement, two of which were affected with momentary asphyxia. Though the cord was lacerated, there was no fatal hæmorrhage. When sudden expulsion of the infant is alleged as the cause of death, it is necessary to examine all circumstances anterior and subsequent, to compare the dimensions of the pelvis, and the volume of the infant's head, to consider the duration of labour, the position of the woman when the infant has escaped, the height of the fall, the substance with which the head came in contact, and finally, the state of the umbilical cord

which ought to be ruptured at the placenta or umbilicus, but not in the middle. The extremity of which ought to present the sign of laceration.

When an infant perishes at the moment of birth, by choaking of the air passages, and is afterwards thrown into water or into the water closet, it may be supposed it has been destroyed by submersion or drowning. Every practitioner is aware that infants have been precipitated into the latter situation, and that it is extremely difficult to distinguish whether the fluid in the air passages be mucossity, liquor amnii, or an extraneous fluid introduced. When the fluid contained in the trachea is frothy, we cannot positively affirm that the infant has respired, as insufflation would produce the same effect; or a morbid secretion of gas, or the evolution of air by decomposition. If on the other side, the fluid is limpid and free from air bubbles, we can affirm that the infant has not respired, but this is no proof that it was dead at birth, or at the moment of submersion. The rigid examination of the physical and chemical properties of the fluid, will alone enable us to determine its real nature.

BIBLIOGRAPHY.

PRACTICE OF MEDICINE.

1. *Real Bronchocele.*—Real bronchocele, M. Larrey says, consists of one or several tumors filled with air, which during its forcible compression in the upper portion of the trachea, the larynx, or the mouth, has produced small herniæ of the mucous membrane; these tumours rapidly increase in size, so as not unfrequently to exert a violent pressure on the vessels of the neck. They are situated in front, or at the sides of the larynx, between the hyoid bone and the thyroid cartilage, or between the cricoid cartilage and the first tracheal ring, and are invariably produced by violent exertion. The most characteristic symptom of this kind of bronchocele consists in the disappearance of the tumor under compression. In Egypt we frequently observed this kind of bronchocele in the blind, who are very numerous there, and who are employed by the priests to chaunt at the top of the minarets. It generally happens, that after two or three years, such persons became totally unfit for this office, on account of

the occurrence and subsequent increase of these tumors. Since M. L.'s return from Egypt, he has had the opportunity of observing two cases of bronchocele in two subaltern officers, who had for a considerable time been employed as military instructors. One of them had near the larynx two tumors, which were free from pain and crepitus on pressure. They were of equal size and globular form, and the skin by which they were covered was rather tense, but without any morbid alteration. Both individuals had almost entirely lost their voice, being unable to make themselves understood by words, except whilst forcibly compressing the tumors. They were also obliged to breathe with their mouths wide open. In consequence of the continued pressure on the vessels of the neck, the jugular veins had become enlarged, and they suffered greatly from congestion within the head. The application of bladders filled with ice, and of graduated compresses with camphorated spirit and liq. ammon. acetat. greatly reduced the size of the tumors, but did not prevent their reappearance on the least exertion.—*Clinique Chirurgicale.*

SURGERY.

2. *Case of Fungus Hæmatodes.* By Thomas Sewell, M. D. Professor of Anatomy and Physiology in the Columbian College, district of Columbia.—The following case of fungus hæmatodes occurred in the practice of Dr. M'Williams, of this city, the same gentleman whose name I have introduced in a former communication published in this Journal. By the courtesy of Dr. M'Williams, I had an opportunity of examining the case and marking its progress during the life of the patient, and was afterwards requested by him to make the post mortem examination, and draw up an account of its history.

The subject of the case was a Miss W——, of this city, about twelve years old, healthy, active and intelligent.

In Nov. 1828, while in the enjoyment of her usual health, she was attacked with slight pain and lameness in the left thigh. On examination a hard tumour, the size of a walnut, was discovered on the inside of that thigh, situated one-third of the distance from the hip to the knee-joint. This was deep-seated and extremely obscure, being under the thickest part of the fascia lata, but by strong pressure it was found to be moveable and disconnected with the bone. From the time of the first examination of the case, the tumour continued to increase rapidly in size, and was attended with an almost constant, heavy, obtuse pain, which was also extended to the knee and ankle-joints, accompanied with an uneasy sensation in the whole extremity, producing a frequent desire to extend the limb and to change its position. The pain was always more severe and constant in cloudy and damp weather; but at other times would occasionally remit for six or eight hours together. At the end of six months, the tumour had acquired such a size as to disfigure the limb and to prevent the patient standing or walking, and the pain was more severe, and accompanied with a sensation of great heat or burning.

During the last eight months, all the symptoms became aggravated. The tumour increased with greater rapidity than before—its surface became irregular, and exhibited a glossy appearance, interspersed with livid patches and superficial vessels greatly enlarged, and when handled, presented in different parts very unequal degrees of firmness, at some points appearing soft and yielding, as if suppuration had taken place; at others, imparting to the touch a sensation of almost cartilaginous hardness.

Ten days before her death, a rupture of the tumour took place, accompanied by a copious discharge of acrid fœtid sanies, and continued without at all impeding its growth.

She died on the 22d of Jan. 1830, fourteen months from the commencement of the disease.

It should be remarked, that during the continuance of the disease, till within two days of its termination, the appetite was good; large quantities of nutritious food were taken and digested without difficulty; but as the parents justly observed, all the aliment she received seemed to be expended in the development of the disease, rather than in the nourishment of the body.

The treatment of the case consisted principally in topical applications; but these had not the slightest influence in arresting the progress of the disease, or alleviating the sufferings of the patient.

The morning after the death of the patient, the following examination was made:—

The body was found in a state of great emaciation. The leg and foot of the diseased limb were œdematous and considerably swoln. The tumour, as to form, size, and colour, is accurately delineated in the accompanying drawing. It involved the whole thigh, and extended down over the knee-joint, measuring in length fifteen inches, in diameter twelve inches, and in circumference three feet. By a horizontal section about one-third of the tumour was removed, by which its internal structure was clearly brought to view. On careful examination, it was found that every tissue which entered into the structure of the thigh, had undergone an entire change in organization, and had assumed all the characters of the morbid growth, except the fascia lata, and this was greatly thickened. On the anterior part of the thigh a large cavity was found, containing about twenty-four ounces of fluid resembling olive oil, its walls thick and cartilaginous, with osseous depositions. On the posterior part of the thigh, corresponding with the cavity just described, was a hard tumour, several inches in diameter, apparently composed of condensed cellular substance, with cartilaginous structure and osseous matter. This, together with the cavity already mentioned, constituted about one-fourth of the tumour. The remaining three-fourths resembled in colour and consistence, the medullary substance of the brain, irregularly intermingled with cortical matter.

This mass was intersected by numerous membranous septa, formed probably originally of cellular substance. There were also numerous sinuses running in different directions, containing viscid sanies, and

their walls formed of a dark-coloured membrane, apparently the inter-muscular fascia, much thickened.

The shaft of the bone was also extensively diseased. It was enlarged, spongy, and flattened, and had many small spiculæ projecting from it. It was fractured about four inches from the head, which I was informed happened after death, in attempting to move the limb. The extremities of the bone were sound, and the structure of the hip and knee-joints not in the slightest degree changed by the disease, although the tumour enveloped both.—*Amer. Jour. Med. Sciences.*

3. *On Strychnine.*—These affections are often ascertained with difficulty, and, therefore, cases may be viewed as such, though arising from structural derangements of the interior of the organ of vision. In these, as in others arising from severe or long continued internal inflammation and other causes, strychnine, I apprehend, can be of no possible service. The same thing may be said of amaurosis depending on clots of blood, or tumors which press upon the optic nerves. Where again, as is frequently the case, the disease is owing to the absorption of the medullary portion of the nerve, it must be allowed that nothing can be expected from it or any other medicine. In fine, in my opinion, it is only in cases of paralysis of the optic nerve, and those arising from congestion, that strychnine can be advantageously employed; and I think the preceding examples, and those already published by Mr. Liston, Mr. Guthrie, and others, must decidedly prove its efficacy in them. It is not immaterial to observe that in such cases its beneficial operation is considerably aided by the previous use of mercury, possibly either by exciting the nervous system, by rousing the energy of the capillaries, or by increasing the powers of absorption, or by all three conjointly. Thus, in No. 5. strychnine failed until mercury had been employed; but on its application, and then only, vision was improved; and in cases Nos. 7 and 9, its decided effects followed the use of that medicine.

I cannot positively say whether the effects of strychnine are lasting, but I believe it in most cases to be so if properly used. I may safely assert also, that in no case in which I have tried it has vision been injured, where the disease existed in one eye only, or where sight was not entirely destroyed. In no case did any constitutional evils arise from its use. I am inclined also to believe, from one or two instances, that it was beneficial in removing opacities of the cornea, probably by its highly stimulating property occasioning rapid absorption.

In delicate persons, or where the system is affected by mercury, I ought to add, the strychnine should be commenced in small doses, *e. g.* not exceeding a quarter of a grain, and increased daily until it produces sensible effects on the constitution, such as headache, pricking pains over the body, or tremors, when it should be discontinued, and on resuming it, the dose should always be considerably reduced.

Where unpleasant symptoms arise, I can suppose that camphor in large doses, or an opiate enema, suited in strength to the violence of the symptoms and the constitution of the patient, or, as recommended

by M. Lembert, the application of morphine in small doses, sprinkled on the blistered surfaces, will be found to give relief; but in no instance have I judged it necessary to employ any of them.

Several of the cases here detailed were attacked with erysipelas, which strychnine seems prone to occasion; but they were invariably relieved by simply rubbing about a drachm of mild ointment or cold cream over the diseased surface every four hours.—*Edin. Jour.*

4. *Impaction of a Foreign Body in the Ear, producing Inflammation of the Brain, and terminating fatally, by Mr. Ingleby. of Birmingham.*—Master ———, four years and a half old, the son of a medical gentleman late of Birmingham, was observed by the nurse maid in the afternoon of Monday, 4th June, repeatedly thrusting his finger forcibly into his left ear, and on interrogating him, he replied that he had put something into his ear, but could not tell *when*, nor what it was. I saw him immediately upon this declaration, and attempted to extract the substance with various kinds of forceps, for about fifteen minutes, but without avail. I could distinctly feel a metallic body, lying, as I believed, upon the tympanum. Mr. Wood, on my failure, employed with very great care and gentleness, every expedient that he could devise, but ineffectually. The boy was then put to bed. Various local remedies were applied: fomentations, poultices, lint and warm oil, and the ear syringed with tepid water. A dose of calomel was also given, he was very restless during the night, and started frequently while asleep.

Tuesday, 10, A. M.—The boy appeared tolerably well and cheerful; the calomel had operated. The internal ear was somewhat swollen, and there was a considerable sero-sanguineous discharge from it. A mild aperient medicine was ordered, and the local applications continued. It was deemed expedient to make no farther attempt at extraction at this period.

6, P. M.—Same as in the morning.

Wednesday, 10, A. M.—The same as yesterday. At twelve o'clock he became sick, and vomited once; he refused food; he became thirsty, and general listlessness prevailed; the pulse remained good; his walk seemed unsteady. In the evening, his head dropped on his shoulders somewhat suddenly, and from that time he lost all command over progression. The right side of his body seemed to be more particularly affected.

Thursday morning.—Dr. Male and Mr. Jukes were called in. The state of the patient was now very alarming. During the night he had entirely lost the power over the right side, and become very comatose. He now lay in a state of partial stupor, with the eyes half closed, and a cadaverous countenance. Pulse irregular and about 80. Discharge from the ear continues as before. Mr. Jukes attempted the removal of the body without success.

At noon he was attacked with violent convulsions of both sides. Mr. Hodgson being called in consultation at this period, attempted to extract the body, but unsuccessfully. Opium by the mouth and per anum was prescribed, and in the evening, a hot bath and purgative injection. Pulse very intermitting and irregular.

Friday, 5, A. M.—General and intense spasmodic action. A considerable quantity of purulent matter has been discharged, both by the nose and mouth, which continued oozing till 7, A. M. when he died.

I examined the body in the presence of Mr. Hodgson, Mr. Jukes, Mr. Freer, and others. On removing the calvarium and dura mater, the vessels generally were much injected, and the substance of the brain was studded with vascular points. There was considerable effusion between the membranes, and a deposit of yellow lymph at the base of the brain, similar to what is observed in hydrocephalus acutus. The plexus choroides were peculiarly turgid with blood. The external ear and integuments being divided and dissected back, the internal ear was removed, by taking away a triangular portion of bone. A piece of metal, having a shining silvery appearance, now presented itself to view. It could not, however, be extracted, although it was very moveable; for being below the ridge to which the membrana tympani is attached, the projection (processus auditorius,) presented an insuperable barrier to its removal. It appeared difficult to account for the presence of this body in such a situation. When extracted by a section, it proved to be a piece of lead, weighing ℈ij. portions similar to which were in use at a workshop in his father's yard, and the child was seen in the shop a week prior to the detection of the accident. The ossicula auditus were missing, except one which was found loose in the cavity of the tympanum. The membrana tympani was also destroyed, with the exception of a small ragged margin.

Observations.—The peculiar situation of the foreign body, and the impossibility of extracting it until a section of the internal ear was accomplished, accounted for our abortive attempts to extract it during life—moveable as it not only appeared, but was actually found to be on dissection. I am quite of opinion that the lead had been an entire week in the ear, and was only detected when the body first began to feel uneasiness. The sufferings of this little patient appeared to be most intense. To the friends and attendants, the scene was truly distressing, one of the most heart-rending it has ever been my lot to witness.—*Mid. Rep.*

6. Mr. Syme continues his valuable reports of the Edinburgh Surgical Hospital in the October number of our northern contemporary. He commences his report by stating that the Royal College of Surgeons of Edinburgh recognize the hospital and his clinical lectures (indeed we should be greatly surprized if they did not do so), and that the sources from which he derived 800*l.* for the support of the hospital, were fees for his clinical lectures, 400*l.*—board of two house surgeons, 200*l.*—and cash paid out of his own pocket, 200*l.* What a contrast does his generous conduct present, when compared to that of the hospital surgeons of London and Dublin, who not only do not expend a shilling in support of the institutions to which they belong, but hoard up the immense sums which they derive from students. The report comprises a period of three months, during which 545 cases of surgical disease have been presented for relief, and of these 82 have been admitted into the house. The first case

detailed is that of a man, aged 30, bad constitution, whose elbow joint was excised; the operation was performed with that ability and dexterity which characterise the narrator. The patient sunk five weeks afterwards.

"On dissection the abscess of the hip was found to extend upwards among the muscles as high as the lumbar region. There was an extensive abscess between the ilium and iliacus internus descending into the groin. There were old adhesions between the pleura pulmonalis and costalis on both sides, but especially on the right. Upon the centre of the anterior surface of the left lung lymph had been recently effused to a considerable extent, and about eight ounces of sero-purulent turbid fluid lay in the pleura of the same side. The lungs in several parts were indurated or hepatised, and in some places suppuration had taken place so as to form depositsof the size of a walnut. On the surface of the brain the vessels were more turgid than usual, and in some places there were small ecchymoses. Great part of the wound was healed, but the extremities of both the humerus and ulna were exfoliating.

"This unfortunate man, whose thin emaciated care-worn appearance indicated an age not less than fifty, though it really was no more than thirty, was certainly, as the result showed, a most unfavourable subject for operation. At the same time this is the only one of ten cases of excision of the elbow-joint which has terminated fatally; and I sincerely believe, that any operation, however slight, which had the effect of at all disturbing the constitution, would have given rise to equally disastrous consequences. This extreme tendency to disordered action could of course be learned only when it was too late."

The following cases are highly interesting:—

"David Forret, æt 28, from Cupar-Fife, recommended by Dr. Scott of Cupar, on account of a diseased elbow-joint, of which he gave the following account: 'Nine months ago he began to be troubled with a gnawing pain at the back of his right elbow, as if between the ulna and humerus. There was then no swelling; the motion of the joint was somewhat impeded, but did not increase the pain. In January, he observed a small tumour, about the size of a bean, a little above the internal condyle, which broke two weeks afterwards, and has continued to discharge ever since. Up to this time he had not been incapacitated from working, the pain which he felt being only moderate, and ascribed to rheumatism. But four months ago, without sustaining any injury, the joint inflamed, becoming red, swelled, and excessively painful, so as to render the slightest motion intolerable. He was blooded and leeched repeatedly, by which means the activity of the disease was subdued, and shortly afterwards another opening made its appearance on the outside of the olecranon. The constant discharge, gnawing pain, stiffness of the joint, and general exhaustion consequent on this severe and protracted disease, have made him extremely anxious to obtain relief, and willing to submit to any measures necessary to afford it. He is thin, pale, and evidently much reduced by his sufferings.'

" This case evidently required either excision or amputation. My friend, Mr. Webster, Surgeon of the 4th Dragoon Guards, who saw the patient on his admission, and who had not at that time witnessed the operation of excision, declared that he would have no hesitation in amputating the arm. Though there was evidently very extensive disease of all the soft parts, I did not consider this any objection to excision, and, accordingly performed the operation in the usual manner, that is, by making a transverse incision from the ulnar nerve to the external tuberosity of the humerus, close to the olecranon, and then one upwards and downwards at both of its extremities. All the bones entering into the articulation were very much diseased, the cartilage being abraded and the surface carious. The synovial membrane, being very much thickened and gelatinous, was cut away as far as possible, one small artery of the integuments was tied, and the edges of the transverse incision were stitched together; but the extreme softness of the diseased integuments rendered it impossible to close the longitudinal ones in this way, as the threads instantly cut their way out. Caddis and a bandage were then applied.

" The patient has done extremely well; the swelling of the joint is now almost gone; the discharge has almost entirely ceased; and he has the prospect of being soon dismissed cured.

" Elizabeth Johnston, æt. 16, from Falkirk. In the first of these Reports, I mentioned the case of this girl, who entered the hospital last summer on account of a diseased elbow-joint, which exhibited the most formidable appearance of any that I have yet met with, but which, nevertheless, was completely cured by the operation of excision. She returned home, and remained perfectly well, using the arm for all ordinary purposes until December last, when, after exerting herself too much, her wrist swelled and became painful. Tartar emetic ointment was applied, and afterwards blisters; but an abscess soon formed, which opened, and has continued to discharge ever since. A probe introduced into the sinus, which is situated over the lower end of the radius, enters a large carious cavity of the bone, and can be pushed downwards into the wrist-joint.

" As amputation appeared the only resource, it was performed on the 24th June above the elbow, by the method of double flap. She recovered most favourably, and is now well.

" The elbow being dissected, afforded a specimen of the union which is established between the bones in such cases. When the integuments and muscles were dissected off, the appearance presented was wonderfully little different from that of a natural joint, owing to a great mass of fibrous ligamentous-looking substance which connected the bones together. This connecting medium, which was above an inch in length, and perfectly flexible, did not constitute any thing analogous to an ordinary articulation, and more resembled the structure that usually exists in the false joints that result from fracture of the bones. My friend and pupil, Mr. Charles Bell, made a sketch of the preparation, which gives a very good idea of its ap-

pearance, and which, therefore, I have caused to be engraved to illustrate this description."—p. 226.

Mr. Syme next describes hip disease, knee disease, ankle disease, elbow and shoulder disease, and employs these terms in preference to the more scientific nomenclature of the German school, as some matured contemporary has accused him of pedantry, for having used one of the German terms on a former occasion. We must observe that the accuser is one of those who delights in progress of moving backwards, and we are surprised at a surgeon of Mr Syme's eminence, to be influenced or deterred by such a silly piece of absurdity. Why should not British surgeons improve their nomenclature as well as others, or why should they allow others to advance in this particular, at least a century before them? The terms proposed by Rust of Berlin, for the diseasesin question, are as follow:—spondil-arthrocace, or vertebral disease, cox-arthrocace, or hip disease, son-arthrocace, or knee disease, om-arthrocace, or shoulder disease, olecran-arthrocace, or elbow disease. We too have been accused of pedantry, for proposing a more correct nomenclature for obstetricy, which is now adopted in France and Germany, and very generally in this country. What classical scholar would not prefer the word obstetrician, to accoucheur midwifer, or to the barbarism, physician *man* midwife, which, as yet is employed by some old fashioned obstetric lecturers, and practitioners in this metropolis, or gynæcology for midwifery, gynæcotomy for anatomy of the female organs of generation, gynæcophiosology for the functions of these organs, parthenosology, for the pathology of these organs in the unimpregnated state, genescology or anthropogensy for procreation, embrysology for the developement of the fœtus, encyonosology, for diseases of pregnancy, tocology, for parturition, eutocia, for natural parturition, dystocia, for preternatural parturition, chiragoticia for manual parturition, and organikotocia, for instrumental parturition; cochianosology for puerperal diseases, and paidonosology for diseases of infants and children. Dr. Blundell approved of the term obstetrician, while the Reuv. Medicale, Francaise et Etrangere noticed the whole classification in these words:—

"M. Ryan vient de faire en Angleterre, pour les accouchemens, ce que M. le professeur Duges et M. Tarvenier, avaient fait en France, pour le meme branche de l'art et pour la Chirurgie **** ce professeur pour supplier à quelques cunes qui existaient dans les ovrages du meme genre, publie avant le sien, s'est attache à faire connaitre les maladies des organes de la generation, celles qui se developpent pendant la grossesse, apres l'accouchement et enfinles affections prõpres a l'enfant nouveau né. Aux mots generalement, usites M. Ryan a cru devoir substituer des expressions nouv elles, telles que gynœcotomie, &c. &c. qui forment autant de chapitres dans lesquels il examine á fond toutes les questions quis'y rapportent. Le manuel d'accouchement de M. Ryan est un livre destine, a devenir classique, aussi croyons-nous devoir le recommander aux etudians de Paris et de Montpellier, qui veulent être au courant des progrés de cette partie

de la Chirurgie, chez nos confreres d'outre Mer." Such a testimony from foreigners must be gratifying to the author, and humiliating to the few, who have accused him of pedantry, not only on that occasion, but in introducing so many new terms of the foreign schools into this periodical. Why should not British medicine keep pace with science in other countries? Are we to stand still while all other nations are in rapid motion? Certainly not; and we trust the scientific part of our profession, will be no longer tramelled by antiquated usage, and miserably defective nomenclatures.

6. *Tumour on the Lumbar Vertebræ, by Mr. Waldron, Surgeon, Bath.*—About the middle of April, 1829, I was requested to see Master Peckover, a boy 12 years of age, whom I had attended two months before, in an attack of acute hepatitis; his complaint yielded to the usual means of general and local blood-letting, blisters, aperients, &c.; but the highly inflamed state of his blood, jaundiced hue of skin, morbid state of alvine evacuations, and tenderness in the region of the liver, bespoke the severity of his attack, and indicated, in a person at his early period of life, an unusual degree of disease in that viscus. I was now consulted in consequence of a swelling having made its appearance on the lower part of the spinal column, between the third and fourth lumbar vertebræ; it was about the size of a small hen's egg, but little sensible when examined by the touch, and accompanied with pain and uneasiness in the back and loins; it did not dilate upon coughing. At this period, the boy's general state of health was good: I at once suspected this to be a lumbar abscess, but not being decided in my opinion, I determined, at all events, to act with caution. I directed a calomel powder to be taken twice a week at bed time, and the following drops to be taken:—℞ Liq. calcis mur. ʒis. Tinct. ferri mur. ʒss. misce fiant guttæ. Capt. ♏ xxx. bis quotidie a calice vitreo aquæ. The following lotion to be applied to the swelling:—℞ Liq. ammon. acet. ʒiv. Liq. plumbi acet. ʒij. Aq. distillat. ʒxij. misce ft. lotio constanter applicanda. This plan was continued, but not with the utmost regularity, till the 1st of September, when the father of the boy having, a few days previous, learnt from me, that I considered the swelling in question to be capable of removal by the knife, viz. that it was an encysted tumour; unknown to me, he took the boy to Mr. Hicks, of this town; this gentleman having expressed a wish to meet me on the case, we met, and, in his own words, I will give his views of the case. "He defined the tumour to be an impulse of matter, and prescribed blisters to produce absorption, with exhibition of internal remedies to improve the constitutional defect. At the time Mr. Hicks saw the boy, the tumour was three inches and a half long, and in width about three inches; the integuments were perfectly healthy and free from all discolouration; he suffered no pain, and his general health was good. The tumour was firmly attached to the fascia of the tendon covering the latissimus dorsi muscle. Mr. Hicks continued his plan till the 7th of November, when ulceration having taken place in the integuments, he pursued the following plan; Mr. Hicks did not follow up

the efforts of nature, but selected the soundest part of the tumour, into which he thrust an abscess lancet, and evacuated its contents. He next directed thin tea-chest lead to be applied, with a view, as he stated, to obliterate the remaining cavity, and produce adhesion. After making trial of this plan for nearly three weeks, without success, the boy was brought back to me, to be placed entirely under my care, and in the presence of Mr. Soden, Mr. George Goldstone, and Mr. Ormond, I laid the tumour open to its full extent, and exposed a cyst, not merely of condensed cellular membrane, such as is found in chronic abscess, but thick and distinct, and capable of secreting its own fluid in very considerable quantity. It became necessary, after three weeks, to dilate a sinus which still remained, and kept up a discharge and prevented the granulating and healing of the wound. This being done, and the wound dressed with warm digestive dressings, the whole of the cyst sloughed away, the parts granulated, and are now, April 25, 1830, wholly healed.

Observations.—This case, which I have now briefly related, having caused some little conversation with regard to its treatment, I would observe that it is the opinion of the three respectable surgeons whom I consulted, when the boy was brought back to me, that the tumour in question was an encysted one, and ought to have been removed at an early period by the knife; any further comment on the nature and treatment of these swellings, would be quite superfluous, as the subject is fully treated of by surgical writers, and generally understood by every well informed surgeon, Mr. Hicks' plan of treatment is most assuredly novel, and as such I have stated it. To what extent it will be followed by my professional brethren, time will prove.

7. *Case of Ozena cured by the use of Chloride of Lime.* By W. E. Horner, M.D. Adjunct Professor of Anatomy in the University of Pennsylvania.—The acknowledged difficulty of curing ozena or chronic purulent discharge from the nostril, makes this disease in the estimation of experienced surgeons one of the most untractable that they are called upon to treat. Mr. Boyer, after most extensive opportunities, admits that it is absolutely incurable, and this opinion is sustained by other persons of equal celebrity, among whom I may mention Dr. Physick. Under these circumstances, even a partial observation of a remedy entirely successful, may be considered worthy of attention, and subsequent trials will tend to establish how far it may be relied upon in cases generally.

In October, 1828, Luke Johnson, a black man, aged about thirty, of good constitution, was brought from Virginia by his master to be placed under my care for ozena. At this period there was a large discharge of intolerable fœtid matter from both nostrils, most abundant in the morning after waking; his nostrils were then filled with it, and on blowing them, immense quantities would be discharged, part being in a fluid purulent state, and the remainder dried into tenacious yellow plugs; during the night much of this matter ran into his throat, and by its offensiveness produced severe sickness of the stomach, and sometimes a loss of appetite the next day. The

discharge also existed during the day, but as he could then keep his nostrils clear of an accumulation, he suffered less at that period. He occasionally had headaches, especially when the quantity of the discharge diminished.

The following statement in a letter dated Sep. 16, 1828, from his attending physician, the late Dr. Spence, marks the progress of his complaint, and the mode of treatment which had been resorted to :—" Luke Johnson has for a long time laboured under a distressing pain in the head, and particularly in the frontal sinuses, with a discharge of offensive matter from his nose. He has not long been a patient of mine ; all the remedies he has used have been unavailing. About three years since he first complained of pains in his head, which he ascribed to sleeping in a damp cellar. A short time before I took my last trip to your city, (August, 1828,) I was consulted on his case. He then complained of severe pains in the frontal sinuses, accompanied with a discharge of very offensive matter from both nostrils. He had taken a variety of medicines, chiefly, I believe, of a purgative nature, without benefit ; and he was a good deal reduced in flesh. As he had a thick mass of hair on his head, I directed it to be cut off, applied blisters to his forehead, and put him on an alterative course of mercury combined with a small portion of opium. When his gums became affected, I advised him to leave off the mercurial pills. This course he had commenced before I left Dumfries, and since my return he has informed me his mouth has been sore ; the blister has drawn well, but without affording him relief. He also used a weak solution of sulph. cupri as a detergent wash, which he thought beneficial, as it caused a free discharge of pus from his nose ; for when this discharge is checked he is almost distracted. He is a man of great veracity, and assured me he never had had any syphilitic affection."

Desparing in this case of the efficacy of the usual routine of practice, I determined to begin at once with the application of a solution of chloride of lime. Dr. Physick's advice being also taken, with his characteristic candour, he acknowledged the inefficacy of such remedies as he had been in the habit of using, and he readily acquiesced in the plan of treatment proposed. I accordingly began by putting about a tea-spoonful of the chloride of lime in a wine glassful of water, and I injected each nostril with the clear solution. This process was repeated twice a day for a week. During this time it produced no important diminution of the discharge, but it made the patient more comfortable by correcting the fœtor. At the expiration of the week, Luke went home with directions to persevere in the treatment. The sequel will be seen in the following communication to me from Dr. Thomas M. Boyle, dated Dumfries, Virginia, April 13, 1830.

" On my return home, in conformity to your request I called on your patient, negro Luke Johnson. He stated that by the use of the chloride of lime, as recommended by yourself, his nasal affec-

tion was entirely cured in December last. Since then his general health, which before did not suffer much, has been remarkably good."

I may further state, that since the occurrence of this case, the chloride of lime has been used with evident advantage, in another of a year's duration, where the affection is confined to one side; but the treatment has not progressed far enough for a positive and satisfactory result. In this case the application of the lime by snuffing is followed instantly by a discharge of several drops of serum; afterwards, pure transparent mucous is secreted abundantly for the day, attended with frequent sneezing and all the local symptoms of influenza, with a perfect arrest for the time of purulent discharge. The nostril is caused by the application to bleed frequently; this circumstance has made me hesitate in the regular application of the remedy. I have also prescribed it in a very severe case of three years duration, and on both sides, but of the result I am not yet informed.

As cases of ozena do not frequently occur in the practice of an individual, I trust that this suggestion of chloride of lime as a remedy will be candidly tried by others, and their experience communicated. We have some accounts of its being used successfully in caries of the bones of the nose, which will be an additional incentive to a fair experiment of its value, in chronic purulent discharge from the nostril.—*American Journ. of the Med. Sci. May*, 1830.

8. *Case in which a Foreign Body remained ten years in the Bronchia before causing death.*—As an instance how long foreign bodies sometimes remain in the bronchia before causing death, M. Dupuytren related the following case:—One of his friends, a robust young man, whilst playing with some children, amused them by throwing up a ten-sous piece, and catching it in his mouth; at last, during the moment of inspiration, the coin fell into the trachea. Violent painful cough, accompanied by a peculiar noise, immediately ensued, especially when the foreign body was, during expiration, thrown up towards the glottis; when it was not moved, as it sometimes happened, for several hours, respiration was but slightly affected. The patient being continually in hopes that the foreign body would be thrown up through the glottis, decidedly objected to an operation, and in this state continued for five years, during which time he was much inconvenienced by cough, suffocation, &c. After that period, however, the foreign body appeared to become fixed, and for some time the patient felt almost quite well. Symptoms of phthisis, however, gradually succeeded, and terminated his life ten years after the accident; the piece of money was found in a tuberculous excavation.—*Lancette Francois.*

9. *Strangulated Herniæ, new mode of reduction.*—Mr. Geoghegan, an experienced surgeon in Dublin, has addressed a letter to Mr. Abernethy, in which he makes some critical remarks on the modern practice, and endeavours to disprove its correctness. He

published a paper upon the subject in the Edinburgh Medical and Surgical Journal, in 1811, vol. vii., which was unfairly censured in the opinion of our author. The experience of later writers confirms his views. The principal feature in his treatment of strangulated herniæ, is the application of cold for an hour, which "evidently controuls inflammatory action, and abates sensibility, a very material preparation for manipulation, and for the ulterior operation.

"In the original publication, I have quoted verbatim the advice of Munro, Pott, Bell, Cooper, and Lawrence, on the taxis in strangulated hernia, a manipulation as described by them, in my judgment not adapted to the cure of the disease on principle—and calculated to aggravate it, to a dangerous extent, indeed so as to occasion the obliteration we have been discussing."

Our author enumerates several cases which required operation, according to the opinions of many highly talented surgeons, and were relieved by the application of cold. Sir Astley Cooper, in his lectures in The Lancet, offers a sharp comment upon the passage—"that cold applications are useful in removing strangulation, and gives instances of their success, but that it is an absurdity to attribute this to diminishing the volume of air, and that if cold had such a power, it would do no good, nothing could be gained by it, that the principle is erroneous, diminishing can do no good, whilst pressure is the same, it is of no use to empty the gut of its contents, &c. &c."

"The authorities, arguments, and facts stated, I hope will convince Sir A. Cooper, that the principle and practice he impugns, are better founded than he imagined, and that if, as he observed, he suffers such a calamity, which I hope may never happen, he will avoid the practice he proposes for himself, namely, in the first instance the taxis for about fifteen minutes, then bleeding, tobacco enema, and if they fail, operation speedily, and that he will reverse the order of proceeding, and defer the taxis until bleeding and the enema had been used, then danger from handling will be lessened, and we know that the taxis increases inflammation when it fails; he would be still safer, I am satisfied, were cold applied first for an hour, it evidently controuls inflammatory action, and abates sensibility, very material preparation for manipulation, and for the ulterior operation. When cold succeeds, the tumefaction disappears as per saltem with (a hissing noise caused by exit of the contents,) not paullatim as the fingers are erroneously employed to accomplish.

"The reasoning and facts advanced in this paper, and in my publication, and much observation, perfectly satisfy me, that the indication of cure, and the manner of fulfilling it, as universally taught, are at variance with all principle, not adapted to the cure, highly dangerous, and ought to be abandoned, and the indication substituted of abating inflammation, and removing tubular obstruction, which is often effected by local and general remedies, as I have already

detailed, without handling the part, and should they prove ineffectual, the sensibility will be lessened so as to admit of manual efforts with more safety. These efforts should be conducted differently from the usual manner, their object being different, namely, the return of the contents of the hernia, not the hernia itself. This is to be effected by embracing it with the hand or hands, according to its size, and gently squeezing, so as to act upon the contents without disturbing the hernia much, or removing it from its situation. If the contents obtain exit through the obstructed part of the intestine, the strangulation will yield; then the intestine being reduced to a smaller size than the aperture, can be replaced with ease: it is manifestly its bulk that constitutes the resistance; a point of incalculable importance on which to anchor. Should this practice fail, the hernia will still be within the reach of operation, and those fatal consequences arising from strangulation within the ring, after the replacement, can never occur."

MATERIA MEDICA.

10. A second edition of Dr. Reece's Essay on the effects of Lobelia Inflata has just appeared, in which he adduces the testimonies of eminent physicians of America, Glasgow, &c. He observes, "It may be proper to add, that of the cases in which the oxy-syrup or the ethereal tincture has been exhibited, neither of them failed to afford the most essential relief; in some, removing every symptom of the malady in a few minutes. In order to ensure its full or specific effects on the malady, the dose of either preparation should be gradually increased till it slightly nauseates the stomach.

"The author has added a concise account of the Chirayita herb, the celebrated Indian remedy for indigestion arising from morbid sensibility or nervousness of the stomach, attended with disorder of the liver, a predisposition to gout, &c. which has lately been administered in this country with great success in nervous or irritative affections of the digestive organs, after other stomachics and the blue pill had failed."

The profession is indebted to Dr. Reece, for the introduction of some valuable medicines into practice, and from the high testimonies in favour of these before us; we strongly recommend them to the notice of the medical practitioner.

11. *Ascites cured by the external application of Digitalis.*—M. Raisin has cured two cases of dropsy by friction with the tinctures of digitalis and squills. One of these patients was attacked at the same time with quartan fever and gastritis—in the other the dropsy had resulted from abdominal inflammation. The state of the gastric passages would not permit any of the stimulating remedies proper to excite the secretion of urine, to be taken. M. R. had recourse to the intraleptic method, which produced an abundant flow of urine, and the ascites disappeared after a treatment of from two to three months.

M. Dan de la Vanterie has obtained a similar effect from the long-continued application of the fresh leaves of digitalis bruised, to the thighs and lower part of the abdomen.—*Amer. Journ. of Med. Sci.*

12. *Ergot of Rye as a Febrifuge.*—Dr. Mehlhausen, of Deutsch-Eilaw, recommends, in the 29th Vol. of Rust's Magazine, the ergot as a remedy for intermittent fevers. In seven cases in which he employed this remedy, five were cured. It must be confessed with no great success. He gives the remedy in the dose of ten grains, repeated three times in the two hours, which immediately preceded each paroxysm.—*Op. cit.*

13. *Arsenic in large doses.*—We have received a communication from R. Dakin, M.D. of Columbus, N. J. in which he states, that he has employed, at the suggestion of Dr. Budd, of Mount Holly, N. J. arsenic in large doses, as a remedy for intermittent fever, and with great success. He gives it in the form of pill, in doses of one-fourth of a grain, four times a-day—in one case he says he gave as much as five grains in three days. He says that he has never seen any serious injury result from these large doses.—*American Journ. of Med. Sci.*

14. *Taste of Sulphate of Quinine.*—M. Schweinsberg states in Geige's Magazin für Pharmacie, for Oct. 1829, that the best mode of correcting the bitterness of the sulphate of quinine is not to mix it with syrup, but with an aromatic powder. The sulphate of quinine is so intensely bitter that a mixture of one part of this salt with one hundred and sixty parts of sugar is still sensibly bitter; but if one part of the salt be mixed with ten or fifteen parts of powdered valerian, fennel, aniseed, orange peel, &c. the mixture possesses scarcely any bitterness.

CHEMISTRY.

15. *Analysis of Copaiba.*—M. Gerber, of Hamburgh, has analysed the pale yellow copaiba, and obtained the following results:—Volatile oil, 41; a brown resin insoluble in cold petroleum, 2.18; a brittle yellow resin soluble in cold petroleum, 51.38; water, 5.44.

When the copaiba becomes old, it undergoes some changes, according to M. G.; a part of its volatile oil appears to be transformed into a brown resin: thus the analysis of old copaiba furnished with the following results:—Volatile oil, 31.7; soft brown resin, 11.15; brittle yellow resin, 53.68; water, and loss, 4.10.—*Apotheker, Archives des* tom. xxx.

16. *Purity of Balsam Copaiba.*—The best test of this, according to M. Gerber, is the caustic ammonia, which furnishes at once a clear solution, whilst the solution with potash does not become clear until after some time. The addition of a very small quantity of fatty oil, renders the ammoniacal solution immediately cloudy and thicker.—*Ibid.*

MEDICAL POLICE.

17. *Respect shewn by the French Government to the Medical Profession.*—An "ordonnance" has just appeared conferring the decoration of the Legion of Honour on MM. Rostan, Biett, Lallemand, Andral *fils*, Chomel, and Barruel. Not many months ago several medical men in Paris were created Barons. The document above-mentioned is followed by a report from the Minister of the Interior to the King, from which we subjoin an extract. "Medicine is at once the noblest of the sciences, and the most useful of professions—nevertheless it offers but few resources to those who practise, or to those who teach it. By the very nature of their pursuits physicians seem to be in some degree excluded from the ordinary paths of ambition. It is therefore just that the government should bestow upon them a large share of the honours awarded to merit."

ARMY MEDICAL DEPARTMENT.

18. Alterationsto the following effect have taken place in the Army Medical Department:—All former rules and regulations respecting the titles, rank, periods of service and pay of the medical officers of the army have ceased, and the following are to be in force;—The rank of Apothecary to the Forces, and that of Hospital Assistant have been abolished; the title of Physician to the Forces has also been discontinued, instead of which, that of Assistant Inspector has been established. The army medical officers are to be distinguished by the following ranks and titles; Inspector General of Hospitals, whose pay will be from 1*l.* 16s. to 2*l.* varying according to length of service; Deputy Inspector General of Hospitals, daily pay, varying under some conditions, from 1*l.* 4s. to 1*l.* 10s; Assistant Inspector of Hospitals, daily pay, from 19s. to 1*l.* 4s.; Staff Surgeon, daily pay, from 14s. to 1*l.* 3s.; Regimental Surgeon, daily pay from 13s. to 1*l.* 2s.; Assistant Surgeon, daily pay from 7s. 6d. to 10s. The amount of pay between the highest and lowest terms, is in proportion to length of service, which is fixed at the following gradation:—above 25 years actual service the highest pay, above 20 and under 25 years, above 10 and under 20 years, under the lowest pay.

MEDICAL JURISPRUDENCE.

19. Agreeably to our promise, we subjoin a correct and original report of the medical evidence at the trial of the notorious St. John Long, which will be found more comprehensive than that of any of our contemporaries. We think it unnecessary to insert the evidence of the other witnesses, which differed in no respect from that given at the inquest. There is much room for criticism upon the medical evidence, but we leave the reader to compare it with that given at the inquest. Had the witnesses been properly cross-examined by the prisoner's advocates, no small discrepancy would

have appeared, which, with the comments of Mr. Justice Park, would have turned to no trivial account for the benefit of the accused. A worse defence was never made; in fact, there was no defence at all. On referring to page 259, it will appear that the medical evidence was discrepant at the inquest, and, on perusing it below, it will be found perfectly accordant. Again, the treatment employed in Miss Cashin's case was the most inert, a fact that would have afforded some palliation of the prisoner's crime. The fact was, the prisoner had no fears upon the issue—he was intoxicated with the support and patronage he received from the aristocracy and gentry—an influence which had no small effect in a quarter in which it ought to have had none. It had no effect, however, on the honest and intelligent jury, who, to their eternal credit, contrary to the judge's charge, brought in a verdict of guilty. They could not have done otherwise, for it was as clear as the meridian sun that the deceased lost her life by the gross ignorance of the prisoner. On the announcement of the verdict, the surprise of Mr. Justice Park, and of the nobility and gentry who surrounded him, was extreme, it was confusion—worse, confounded. The sympathy for "the gentleman at the bar," a convicted felon, was great, and his sentence was delayed, which finally was decreed, a fine of £.250, and thus ended the farce of "killing no murder." In one short month the prisoner is found guilty of another manslaughter, and in consequence of the great public indignation, he evades justice, though appearing at large under the eyes of the civil authorities. Had he been a poor man, he would speedily find a place in Newgate. It is clear, however, that his iniquitous career is at an end, as it is beyond all doubt he can make no defence in the case of Mrs. Lloyd; and we are inclined to think that the *vox populi*, will not be lost on the next judge who will try his case.

Trial of St John Long, at the Old Bailey, Oct. 30.
Before Mr. Justice Park.

20. B. C. Brodie, Esq. I am a surgeon. I went on Monday, between five and six o'clock, to the house of Mrs. Roddis, and saw Miss Cashin—she was confined to her bed; I examined her person, and found her back very extensively inflamed—the whole of the inflamed surface must have been as large as the whole of a common plate, and in the centre of the inflamed part there was a spot as big as the palm of my hand, which was black, dead, in a state which we call slough or mortified—she was also suffering from incessant sickness; I was informed that nothing whatever would remain on her stomach—I prescribed some medicine for her, merely to allay the sickness—nothing further could be done at that time; I ordered a poultice to be applied to the back—I believe it had been poulticed before; I desired it to be continued—I thought her very ill indeed, though I did not at that time regard her to be in such very imminent danger as she was.

Q. Had you any means of judging how the place on the back had been produced? A. I should think some very powerful stimulating liniment had been applied to the back; I called at the house on the following afternoon, and found she had died in the morning—in her state I should think it quite absurd to administer a tumbler of port wine—it was impossible it could stay on her stomach.

Cross-examined by Mr. Gurney. Q. When you arrived at the house, and heard the young lady was dead, I believe you were perfectly astonished? A. I did not expect her to die that day; I do not know that I expressed great astonishment—I saw the body; mortification had extended in the course of the night very rapidly indeed—I did not examine the entire body.

Q. Is there a system among some of your profession of curing disease by counter-irritation? A. It is very common; a blister causes counter irritation.

Q. Will not the things which are made use of as counter irritation have different effects on different persons? A. Yes, they will; I have known cases where a blister will not disturb the system of one person, and produce very great disturbance in another; the bad appearance in this wound would not alter after death.

Mr. Phillips, Q. Are there many means which may be used by professional gentlemen to check counter-irritation, if it proceeds too rapidly? A. Yes, there are, and they require to be used with discretion,

Q. Would you think it right to apply to a person in perfect health, stimulating liniments, which would produce such a slough and sore as you saw on this lady's back? A. Certainly not, and I doubt very much whether any stimulating liniment, in common use among the profession, would produce the same effects—the same extensive mischief; I mean by that to include the constitutional and local effects; the sickness and vomiting were as much the effects of what had been done as the mischief—if the liniment had not been applied to the back, there would not have been the sickness nor the mortification.

Court. Q. Upen your judgment and experience, if a lotion of so powerful a stimulating nature as to produce the effect you observed on the person of the patient, was applied to a person of her sex and appearance, being then in perfect health, was such an application likely to produce a derangement in the system, and to produce disease and danger? A. I think it would, and it has fallen to my lot to see another case, exactly similar, since.

Q, Is there much difference in the constitution of persons, so as for the effect to be different, according to the constitution? A. There is—it depends on the constitution, the thickness of the skin, and other things; it is not uncommon to apply stimulants to the chest, blisters, for instance—I never knew stimulants applied where there were no symptoms of consumption; I did not know the young lady before—when I saw her there was a black spot of mortification in the centre of the wound, which extended during the

night: the black spot itself was as large as the palm of my hand; wine would have been proper to administer if the stomach would bear it.

Q. Why you say it was improper is on account of the stomach? A. The question put to me was whether a tumbler of wine would be proper; mulled port wine, administered in a proper quantity, would not be improper, if the stomach would bear it—I was not present at the post mortem examination; the appearances I saw on the back were quite sufficient to account for death—I can say nothing about what produced these appearances, except from what I was told by Mr. Sweetman, Mrs. Roddis, and others in the house; I did not examine the back after the body was opened—I saw a portion of the dead skin, which was taken from the back.

Dr. Alexander Thomson. I am a bachelor of medicine. I attended at Mrs. Roddis' house, and saw the body of the deceased there, stated to be Catherine Cashin, on the Sunday morning after her death; I examined the body, and the wound on her back—(producing a memorandum) this was not made by myself.

Q. Give us an account of the appearances of the body, as well as you can, without referring to that? A. I will endeavour to do so, but it is not usual for medical men to recollect these things—we commit them to writing. I have heard Mr. Brodie's evidence, and concur in every thing he has stated, most certainly; I went to the tomb where she was buried; I saw the same body there, as far as I could possibly ascertain—it had similar appearances to the body I had seen; I had sewn up part of it—it had the sewing up which I had made, and also the incisions I made.

Mr. Thomas King. I attended the examination of the body of the deceased, at the Roman Catholic Chapel, Moorfields, on the 24th of August; Dr. Thomson, and various other surgeons were present—there was a piece of dead or disorganized skin, which we call an eschar, (which Mr. Brodie calls slough) between the shoulders, nearly the size of a crown of my hat; the parts beneath the skin were gorged with serum.

Q. What did the appearances you saw on the back seem to you to have been produced by? A. If I was to hold a piece of hot iron about a quarter of an inch from the skin, it would produce such an eschar—we examined with a view to discern if there was any latent disease; we discovered none whatever—I examined the brain and spinal marrow; the muscles were in a tolerably healthy state—they were in a state I should expect after laying some time in the tomb.

James Johnson, M.D. I attended at the tomb, and was present at the examination of the body—the limbs and breasts were plump and fleshy, and so was the body generally; there was no appearance whatever of disease, except where the wound was inflicted—not of disease which could have preceded the infliction of the wound; I believe there was no disease existing previous to that—there was no evidence of it whatever; I examined the brain—it was perfectly sound, and the spinal marrow was perfectly sound.

Cross-examined by Mr. Sergeant Andrews. Q. Was this on the Sunday after her death? A. On the 24th, the Tuesday week.

Mr. John Hogg. I am a physician. I examined the body of Miss Cashin, with the other gentlemen, in the tomb at Moorfields Chapel—I observed the appearances on the back very particularly; I have heard the evidence of the other gentlemen—I differ a little with Dr. Johnson's description of the spine, but I agree in the description of the wound on the back; I should have supposed it was produced either by fire or gunpowder—it had that appearance.

Q. Can you conceive any state in which, in a healthy body, the application of any thing which could produce such a sore could be of service. A. Certainly not.

Court. Q. What do you not agree with Dr. Johnson about? A. It struck me the sheath of the spine was discoloured opposite the external wound—the inference I should draw from that was, that there must have been very great constitutional disturbance ensuing.

Q. Did you not state before the Coroner, that not having been present at the first examination, it was difficult for you to ascertain cause of death? A. I said so, and that violence done to the nervous system was sufficient to cause death, particularly to a nervous young lady.

Henry Goodeve, M. D. I attended at Moorfields Chapel, and assisted in the examination of the deceased—I observed the wound on the back; I could discover nothing but what must have arisen from that wound, that could have caused her death—I examined the brain and every thing; I looked at her breasts and limbs—they seemed, as far as I could judge, as if she had been a very healthy person; I would not have inflicted such a wound myself.

Prisoner's Defence (written.) My Lord and Gentlemen of the Jury,—I am perfectly sensible, that in the situation in which I stand, I should not benefit my case by the use of eloquence, even if I possessed it; I will, therefore, in few words, state simply and truly all the facts I know respecting the unfortunate young lady whose early death occasions the present inquiry. In August last, Miss Catherine Cashin came to me, with her mother and sister, the latter of whom was deeply affected with a pulmonary complaint, and had, as they informed me, been given over by her physicians; the deceased was supposed to be afflicted with the same disorder, and was, by her mother's desire, put under my care for examination and cure; the means I used, and the mode of treatment I adopted, were those, by which, in the course of the last four years I have been enabled, under God, to restore to perfect health a great number of persons of the first respectability and of high rank, after their cases had been declared hopeless, and they had been given over by some of the most eminent medical men of the present day; if the course of treatment by me in the case of the deceased happened to fail, it was a dispensation of Providence, which human

means could not avert—it was such a failure as frequently occurs to medical practitioners of the first repute; I utterly deny that I have in any way been accessory to the death of Catherine Cashin—had I no human feeling, no religious principle, my interest would prevent me from purposely doing or negligently hazarding any thing which could produce evil or even danger. In conclusion, Gentlemen, I will add one observation—I know that whilst this case was under discussion before the Coroner, and even since, the public press has been employed in endeavours to create a prejudice against me—even since the bill on which I am now being tried has been found, the substance of it, with comments, has been laid before the public; I am sure I need not entreat you not to judge or decide from such statements—I know you will be governed by your oath, and by that alone: but I intreat you, if possible, to dismiss from your memory any thing you may have read or heard on this most distressing subject. Gentlemen, I now leave the case in your hands, with hope and confidence; an intention to do evil no one will impute to me, and it will be for you to decide whether a medical practitioner, be his skill what it may, shall be criminally answerable for a fatal event, which he could neither foresee nor avert. I am to be tried, not by any fancied system of justice, but by the law of England, constitutionally administered—to that law I make my firm and solemn appeal; you, Gentlemen, will have it explained by the learned Judge, and on his wisdom and your conscience, I place my firm reliance.—Verdict—Guilty. Fine £250,

MISCELLANIES.

21. DISSENSIONS AT THE LONDON UNIVERSITY—LETTER FROM PROFESSOR CONOLLY TO THE EDITOR.

University of London, November 15th, 1830.

Sir,—I am sorry to be obliged to occupy any portion of your pages with what merely relates to myself; but I think it proper to inform you, that the account, given in a note at page 449, of your Number for the present month, of my reasons for withdrawing from, and subsequently resuming, my duties at the University Dispensary, is altogether incorrect.

I do not wish to revive the memory of the only personal difference with the Council in which I have ever been involved, and which has now for some time been entirely set at rest; but I am called upon to add, that the assertion, in the same page, that the Council of the University offered me the alternative of returning to my Dispensary duties, or of resigning my Professorship, is *utterly without foundation*.

I am, Sir, your very obedient servant,

J. CONOLLY.

NOTICES TO CORRESPONDENTS.

22. WE received a communication from Mr. Whitmore, in which he states he had not attended the female, whose case we published under the title of "Extraordinary instance of reproduction." We have made inquiry, and find Mr. W. is quite right; but he attended immediately prior to the period mentioned.

In reply to " A Reader of the Medical and Surgical Journal," we beg to state, that we have fearlessly exposed the intrigues against the medical attendants of His most gracious Majesty, while a Royal Duke, and further to add, that with the exception of " The Lancet," no other Journal has noticed the subject. It would serve no useful purpose to resume this topic, as the professional odium attached to it can never be wiped away. We in common with all independent members of the profession, deplore the existence of such conduct in this enlightened age, and more especially that splendid services to humanity, science and the fame of our country, should have been rewarded with neglect and apathy; but we can perceive no redress, no source from which condign punishment can reach those guilty of such unprofessional and base behaviour.

23. Mr. C. Bell has resigned his professorship in the London University This Institution is now placed on a firm basis, by the elevation of Mr. (now Lord Brougham,) to the office of Lord Chancellor. It will have a charter.

LITERARY INTELLIGENCE.

Dr. Epps will shortly publish an Account of the life of John Walker, M.D. late Director of the National Vaccine Establishment.

Mr. Curtis, Surgeon Aurist to His Majesty, has in the press a new edition of his Treatise on the Physiology and Diseases of the Ear.

Communications have been received from Drs. Montgomery and Cusack, of Dublin, Mr. Gregory and Mr. Swift, Dr. Tuthill, of Halifax, Nova Scotia, Mr. Whitmore, Mr. Foote, Mr. Mitchell, Dr. Stoker, Dr. Conolly, Dr. Alexander Thomson, Mr. Edward Browne, and a Constant Reader.

BOOKS RECEIVED DURING THE MONTH.

1. Dublin Medical Transactions; a Series of Papers by Members of the Association of Fellows and Licentiates of the King and Queen's College of Physicians in Ireland, 1830. p.p. 38. 8vo. Three plates. Dublin. J. M. Leckie.

2 Elements of Surgery. By Robert Liston, Fellow R. C. S. in London and Edinburgh, &c. &c. 1831. 8vo. pp. 318. London. Longman and Co. Adam Black, Edinburgh.

3. Medicine no Mystery; being a brief Outline of the Principles of Medical Science, designed as an Introduction to their general Study as a Branch of a liberal Education; 2d edit. By John Morrison, M.D. and A.B.T.C.D. 1834. pp. 165. London, Henry Washbourne; Millikin and Son, Dublin.

4. Cases, illustrative of the Efficacy of various Medicines administered by Inhalation, in Pulmonary Consumption, in certain morbid States of the Trachea and Bronchial Tubes, attended with distressing Cough, and in Asthma. By Sir Charles Scudamore, M.D. F.R.S, &c. &c. 1830. 12mo. pp. 113. London, Longman and Co.

5. Pathological Observations, Part Third, on Typhoid, Inflammatory and Symptomatic Fevers, with an Appendix, consisting of Cases to illustrate the Nature and Treatment of Diseases. By William Stoker, M.D. Hon. Fellow of the King and Queen's College of Physicians in Ireland, &c. &c 8vo. pp. 133. 1830. Dublin, Hodges and Smith, and Millikin and Son.

6. A Practical Treatise on General or Partial Debility, either original or hereditary, or from Age, Dissipation, Residence in a tropical Climate, &c. &c. or the most effectual Means of preventing and curing Organic Disease, &c. by Diet, Exercise, and the Round Leaf Cornel, where a Tonic Remedy is necessary. By S. H. Robinson, M.D. and others. Highley, London.

7. Disputatio Medica Inauguralis de Cynanche Tracheali, Samuel Malins, Anglus. Edinburgi. 1830.

*** A well written and able theses.

8. A Practical Treatise on the Anti-Asthmatic Properties of the Bladder-podded Lobelia; with Directions, &c. By Richard Reece, M.D. Fellow R.C.S. &c. &c.

9. Cases of Cancer Uteri; with Observations. By W. F. Montgomery, A.M. M.B. M.R.I.A. &c.

10. Report of the Wellesley Female Institution. By Samuel Cusack, A.B. M.B. &c.

11. Farther Remarks on Hernia, in Explanation of the Nature of Strangulation, and of Obliterated Intestine, and in Defence of Views and Suggestions towards Improvement in the Treatment. By E. Geoghagan, M.R.C.S. &c. in a Letter to John Abernethy, Esq. Hodges and Smith, Dublin.

12. Case of Ovarian Disease of a remarkable Character. By W. F. Montgomery, A.M. Two plates. Dublin, J. M. Leckie.

13. Description of a very remarkable Malformation in a Fœtus, in which nearly all the Abdominal Viscera and the intestinal Canal were external to the Body. By W. F. Mentgomery, A.M. &c. Dublin, J. M. Leckie.

14. Report of the Coombe Lying-in-Hospital. By Richard Reed Gregory, Member R.C.S. in Ireland, &c

15. An Address introductory to a Course of Lectures on the Principles and Practice of Physic, delivered before the Members of the City of London Medical and Chirurgical Society. By James Baker, Surgeon.

16. Lectures on Anatomy, interspersed with practical Remarks, Vol Second. By Bransby B. Cooper, F.R.S. &c. 1830. pp. 308. 8vo. S. Highley, London.

*** These Lectures are concise, minute, and excellently well written, and when complete, will be exceedingly popular with students.

17. Appendix to a second edition of a Series of Observations on Strictures, &c. By R. A Stafford. 8vo. pp. 156. London, 1830.

18. A Treatise on Pulmonary Consumption; its Prevention and Remedy. By John Murray. Small 8vo. pp. 156. London, 1830.

19. Practical Remarks on the Nature and Effects of the expressed Oil of the Croton Tiglium, &c. By Michael J. Short, M.D. 8vo. pp. 64, 1830.

20 Remarks on the Disease called Hydrophobia; Prophylactic and Curative. By John Murray, F.S.A. &c. &c. 8vo. pp. 96. Longman & Co., 1830

2. A Short Tract on the Formation of Tumours, and the Peculiarities that are met with in the Structure of those that have become Cancerous: with their Mode of Treatment By Sir Everard Home, Bart. 8vo. pp. 98. Longman, 1830.

The various Periodicals, domestic and foreign, have been duly received.

ERRATA IN VOL. V.

Page 135, for "morbid anatomy," read "average mortality;" "due charges," read "few charges;" "rubefacients," read "sorbefacients."
—— 148, for "Dr. Real," read "Dr. Reade."
—— 156, four lines from top, for "formerly," read "finally."
—— 164, twelve lines from bottom, for "quora," read "quinia."
—— 229, for "judicial anatomy," read "judiciary anatomy."
—— 250, six lines from bottom, for "do means," read "no means."
—— 356, for "Medical Logical," read "Medical Logic."

All Communications and Works for Review are to be addressed to the care of Messrs. Underwood, 32, Fleet Street; or to the Editor, at his Residence, 61, Hatton Garden.

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CRITICAL REVIEW.

I.—*Dublin Hospital Reports and Communications in Medicine and Surgery.* Vol. V. 1830.—(*continued.*)

In accordance with our promise, we resume our analysis of the truly valuable clinical report of Drs. Graves and Stokes, which from its great length, and still greater importance, deserves the fullest notice and the most serious consideration. The remaining part is divided into two sections; 1, on Diseases of the Respiratory Organs; 2, on Diseases of the Abdominal Viscera. It is difficult to speak of either in sufficient terms of praise, on account of the great ability evinced in the descriptions of disease, in the prognosis, diagnosis, treatment and comments. Suffice it to say, we have seldom perused a report so ably drawn up, and so exceedingly interesting, both in a theoretical and practical point of view. Every page of it is replete with important information. It is therefore obvious that our notice of it must necessarily be a lengthened one. Our authors commence their details of "Diseases of the Respiratory Organs" in the following words:—

"The most frequent diseases of the respiratory organs, which we have met with during the last year, were acute inflammations affecting either the pulmonary tissue, or the bronchial mucous membrane alone. Simple pleuritis, as far as our observations have gone, appears to be a very rare disease in Dublin. On this disease, however, we shall presently offer some observations.

"The plan of treatment which we have found of the greatest efficacy, in combating simple pneumonia, is the use of the lancet and the exhibition of the tartar emetic in full doses. As this latter forms a mode of treatment not yet extensively adopted in these countries, we shall put our experience of it on record.

"The following is the common formula we have adopted.

℞ Tart. antimon. gr. vi. Aq. cinnamomi. ʒiv. Syrupi, mucilaginis, a a ʒi. Tinctur. opii. acet. gs. xii. Of this half an ounce is given every hour, or oftener if necessary.

"The cases in which this treatment is most applicable, are those where the disease is in the early stages, where it occurs in strong constitutions, and lastly, where there is absence of gastric symptoms. This is a point of great importance, and we shall refer to it presently.

"It is during the existence of the first stage of the pneumonia, while the crepitating rale is heard most distinctly, and before the affected portion of the lung sounds dull on percussion, that we find the remedy to answer best: six grains are generally administered the first day, and the dose is increased by two or three grains daily, until fifteen grains are exhibited in the twenty-four hours. Beyond this dose we have never found it necessary to go; but we have been able to persist in the exhibition of the remedy at this rate for many days, and with the best effects.

"The cases in which we have found it necessary to continue this treatment longest, are those in which an acute pneumonia has supervened on a chronic catarrh. In one case of this kind in which the pneumonia was double, one hundred and eighty grains of the tartar emetic were exhibited at the rate of twelve grains daily. In this case the tolerance of the remedy was completely established after the second or third day. Indeed, towards the termination of the disease, the patient's appetite was excellent, although he was taking the rate mentioned. This we have often seen in other cases, a fact already observed by Lænnec.

"We have very seldom observed abdominal irritation to follow the exhibition of the remedy, even where large quantities have been taken. In a few cases after the subsidence of the pulmonary disease, colicky pains occurred, but these almost constantly yielded to stuping, mild laxatives, and opiates. In one case, however, they were so severe as to require blood-letting; the blood was cupped and buffed, and the patient recovered perfectly."—p. 52.

The testimony of two such able physicians as Drs. Graves and Stokes, in favour of a plan of treatment as yet scarcely tried in these countries, must convince the most timid practitioner of its perfect safety and great value. Our authors combine the old and new plan of treatment, and thus differ from the continental writers who exclude the former, and solely rely upon the latter. Many eminent physicians have attested the efficacy of tartarized antimony in large doses in pneumonia; among whom were Lænnec, Dumangin, Hellis, Rasori, who revived it, Martinet, Dance, &c. and in this country Drs. Smith and Tweedie, of the London Fever Hospital. In our 4th vol. p. 147, will be found a memoir on the use of large doses of tartarized antimony, in acute articular rheumatism, by M. Dance. In this report, we find the medicine was given in doses from four to eight grains, every hour or

every other hour, and continued from the period of eight days to two months. It produced great irritability of the digestive organs, cholera morbus, violent vomiting, tormina, colic, and upon the whole, was seldom borne in such large doses. We throw out these hints, lest some of our readers might be disposed to urge the remedy much further than the authors before us. The following interesting case, with its comments, shews the value of antimony, and also the difference of opinion between our authors and Lænnec:—

" *Hepatization of the lung. Absence of many of the symptoms of Pneumonia. Abdominal inflammation supervening during the use of tartar emetic in large doses. Cure.*

Steward Bowles, aged 17, of a strong habit. This patient was admitted on the 17th of March, 1829. His illness commenced three weeks previously with chilliness, followed by anorexia, pains in the shoulders, and a stitch in the left breast. He had a trifling cough in the morning and evening, followed by yellow mucous expectoration.

" On admission the pulse was full; he had a slight cough, but no lividity of the face, and scarcely any acceleration of breathing: indeed from his external symptoms it was impossible to conclude that he had any serious affection of the lung.

" On examination with the stethoscope, however, we detected a complete hepatization of the inferior lobe of the left lung. In the remaining portions of the chest, the respiration was puerile. He was bled generally and locally, and put on the use of six grains of the tartar emetic daily. The blood was not inflammatory, and next morning all external symptoms of disease had wholly disappeared. He had no pain; respirations sixteen in the minute; the cough had ceased, and the pulse had become small and regular. The patient expressed himself perfectly well: there was, however, no change in the stethoscopic phenomena.

" The tartar emetic was continued for four days in the doses of eight grains daily, which produced constant nausea. It was then omitted, on account of the supervention of violent vomiting, diarrhœa, and pain in the abdomen. These symptoms subsided under the use of a mixture of castor oil, mucilage, and opium; the side was blistered. The sound, on percussion, became clearer, and there was some return of the natural respiratory murmur, anterior and latterly, but the bronchial respiration posteriorly became much louder, and continued so for some time before its ultimate subsidence. No crepitus of resolution was observed. In two days the abdominal symptoms returned with violence. Bleeding was had recourse to with relief; the blood was now inflammatory. Resolution of the hepatization went on rapidly, and the patient speedily recovered. But in cases where from the commencement, symptoms of gastro-enteritis and pneumonia

co-exist, we withhold the tartar emetic, as we have found that its exhibition under these circumstances is always improper. In the few cases which have resisted the remedy, we have found disease of the alimentary canal, particularly ulcerations of the small intestines. Tolerance in these cases is with difficulty established, and the remedy does not appear to have nearly the same influence on the disease. We cannot then subscribe to the opinion of Lænnec, who believed, that the existence of gastro enteritis is not a contra-indication to the employment of the remedy. In such cases we rely upon general and local bleeding; and frequently we have, by means of a free application of leeches to the belly, removed the gastric symptoms, and then commenced the use of the tartar emetic with safety.

"With respect to blood-letting in pneumonia we rely more on it as a means of combating the inflammation than Lænnec appears to have done. Except in cases of pneumonia combined with hypertrophy of the heart, he considered bleeding more as a mode of preparing the patient for the exhibition of tartar emetic, than as calculated directly to remove the disease. We consider, on the contrary, general and local bleeding to be of primary importance, while the tartar emetic is a very useful adjuvant. Thus, on any sudden exacerbation of the disease, we do not trust to increasing the dose of the remedy, but have at once recourse to general or local bleeding, as the case may be; and we may here remark, that in the treatment of acute bronchitis and pneumonia, when occurring in the adult, local bleeding has been too little practised in this country.

"In some cases we find that the first dose of the remedy makes the patient vomit freely, yet after a few more doses, the medicine is borne well. But in the greatest number of cases a state of slight nausea, without vomiting, is kept up, and continues for several days, and indeed as long as the remedy is administered.

"Sometimes we have found both vomiting and purging to follow at first, but to subside after twenty-four hours. Diaphoresis is a rare effect, and we have often witnessed cases where the patient was taking from ten to twelve grains of the medicine daily, without vomiting, purging, or sweating; so that no effect could be observed, except a gradual reduction of the symptoms, and stethoscopic phenomena.

"We generally find, in cases of simple pneumonia, when the disease is confined to the lower portion of one lung, that when we commence with the exhibition of six grains in the day, and increase this at the rate of a grain daily, we are able either to omit the remedy, or begin to diminish it in the course of four or five days. We seldom omit it suddenly, as more than once, a severe relapse has followed this practice."—p. 56.

There are two other remedies of great value, in removing pneumonic inflammation in the opinion of our authors; tartar emetic and the combination of mercury with opium. In pure pneumonia with inflammatory fever in full robust habits, the first remedy is to be preferred. In cases complicated with abdominal disease, low fever and great prostration of the powers

of life, the active use of calomel and opium, so as to affect the gums, followed by the use of polygala and other stimulants have succeeded in the most remarkable manner.

" Where circumscribed hepatization of the lung has taken place previously to the patient's being admitted into hospital, we have found the mercurial plan assisted by local bleeding, and the use of blisters, to be the means best calculated to remove the disease. Under this treatment we have seen extensive solidifications of the lung resolve with great rapidity. Indeed it appears that after the disease has passed the first stage, the tartar emetic loses much of its efficacy."— p. 57.

" In many cases of pneumonia, with great dyspnœa and lividity of countenance, we have observed great improvement in the general symptoms to follow venesection and the exhibition of tartar emetic; but on the following day no improvement in the portion of lung, principally engaged, was discovered by the stethoscope. These were all cases of partial pneumonia, with general bronchitis, and the improvement was owing to the beneficial influence of the remedies on the latter disease, while the patient, although greatly relieved, was still in considerable danger, a fact of which it is necessary to be aware in the treatment of pulmonary inflammation.

" It is stated by Lænnec, that in all cases of pneumonia the bronchial mucous membrane is necessarily engaged in the affected portion of the lung. We believe that this is generally true, but we have met with one remarkable exception to this law. A woman, aged thirty, was admitted labouring under the usual symptoms of acute pneumonia. The stethoscope indicated commencing hepatization of the inferior portion of the right lung; notwithstanding very active treatment, she died on the seventh day of her illness. On dissection we found the lower lobe of the left lung nearly in a state of red hepatization, with effusion of lymph on the corresponding portion of the pleura. The bronchial mucous membrane in the whole of the left lung, and in the superior portion of the right, was inflamed, and the tubes filled with mucus, these parts of the lung being crepitating and free from engorgement, while in the hepatized portion the mucous membrane was perfectly white, and presented no mark whatever of disease."—p. 59.

In the case of Bowles it will be observed, that two interesting stethoscopic points appeared; 1, the disappearance of the phenomena of hepatization without the occurrence of the crepitus of resolution; and this our authors have frequently observed, especially when the solidification has been recent, but where it is chronic, they regard it as a rare phenomenon: 2, the increase of bronchial respiration is not an infallible sign of an extension of solidification. In this case it was a sign of diminution of disease.

The next disease noticed is pleuritis, two cases of which were admitted into the clinical wards of Sir P. Dun's hospitals, under the care of Dr. Osborne; all the symptoms of effusion into the chest were present, and seemed to warrant the operation of paracentesis of the chest, had not the operation been contra-indicated by bronchial respiration, from which it was inferred, that there was adhesion between the costal and pulmonary pleuræ. The appearances on dissection most satisfactorily bore out the diagnosis.

" A somewhat similar remark may be made with respect to the sonorous rale, as an indication of the existence of bronchial inflammation. In several cases of the worst catarrhal fevers, when the patient was in a semi-comatose state, the skin covered with petechiæ, the face livid, but the respiration not much hurried; nothing is often observable by the stethoscope when applied during ordinary respiration, except that the respiratory murmur is very feeble, or mixed with a very slight sonorous or mucous rale. On the patient, however, making a deep inspiration, an intensely loud sonorous râle becomes immediately audible, appearing to indicate that the smaller ramifications of the bronchial tubes were, in consequence of the inflammatory turgescence of their mucous lining, impermeable to air during ordinary respiration. Now we often observed, that when these patients began to convalesce, the sonorous rale was loudly audible during ordinary respiration, a circumstance obviously owing to a decrease in the intensity of the inflammation.

" A great number of cases of catarrhal fever, with and without typhoid symptoms, were admitted during this year. The cases which did best, were those where the fever was inflammatory, and in which blood-letting and tartar emetic were exhibited from the outset. Several of these patients recovered rapidly, without the disease passing into the second or more chronic stage in which the mucous rale becomes the pathognomonic sign. In others, after the use of these means for some time, they appeared to lose all efficacy; the expectoration became copious, and an extensive mucous rale was generally audible. At this period the change from the antiphlogistic to the stimulating plan of treatment was often followed by a rapid cure. The decoction of seneka, with the addition of carbonate of ammonia, camphorated tincture of opium, and some preparation of squill, was the remedy most commonly used, in addition to which the regimen of the patient was improved. But the mere fact of the disease having passed into the second stage does not appear in every case to warrant the propriety of the stimulating plan from the commencement of our treatment. We have observed some cases where bad effects followed this practice, and have come to a conclusion, which appears to us to be of practical importance, that to render the stimulating plan of treatment decidedly successful, it will be frequently advisable to precede

it by the antiphlogistic, to prepare the patient for the exhibition of stimulants. The disease then yields rapidly, and this is another example of the pathological analogy of the disease of mucous membranes and of the skin.

" The chloride of lime has been administered by us in a case of pectoral disease, with great fœtor of breath and expectoration, with remarkable benefit. The patient, in a fit of intoxication, lay naked on a stone floor for the whole of a night, and next morning had a severe pain in the side on which he lay, followed by other symptoms of an inflammatory affection of the lungs. In the course of two days his breath and expectoration became fœtid, and after some time he was admitted into our wards in a state of extreme debility, with hectic fever, cough, with fœtid expectoration, fœtor of the breath, and hippocratic countenance.

" It was determined to try the effect of the chloride of lime; a pill containing three grains of the salt and one of opium, was administered three times a day, and in the course of three days the quantity was increased to twelve grains daily; a small quantity of wine was also allowed.

" The most rapid and marked amendment followed this treatment: in a few days the fœtor of breath and expectoration had disappeared; no inconvenience whatever was experienced from the remedy; we also directed the covering of the bed to be sprinkled with a solution of the salt; the remedy was then omitted; in two days the fœtor returned, and fever began to appear: but these symptoms again subsided with rapidity, on our resuming the employment of the remedy. The patient was ultimately discharged, greatly improved in strength and flesh; he, however, sometime afterwards relapsed, and died in the country."—p. 64.

" A very strong and uninterrupted adhesion extended from about two inches below the clavicle of the affected side, in a line passing through the middle of the mammary region, nearly to the bottom of the anterior part of the lung.

" This adhesion, about two inches in breadth, was very firm and close, so as to form an intimate union between the pulmonary substance and the anterior parietes of the chest, and extending nearly from the apex of the lung to its base. Along this line the pulmonary tissue formed a plate of compressed lung, about two inches in thickness, which, like a verticle partition, divided the pleural cavity into two chambers, each filled with sero-purulent matter, and separated by the lung extending from its root to its anterior adhesions.

" It is to be observed that these two cavities communicated towards the clavicle, where the adhesion was wanting, and were still further divided by other adhesions posteriorly, extending upwards from the root of the lung to the superior lobe.

" The lung forming these different partitions was red, compressed, and totally destitute of crepitus. The air cells were rendered impermeable by the pressure of the pleuritic effusion, but the bronchial tubes were not obliterated, and could easily be traced to within a line or two of the parietes of the chest.

" We have stated that in no part of the affected side was there an absolute nullity of sound during respiration. This may be accounted for by the great extent and intimate connexion of the adhesion with the parietes of the chest, which not only made the bronchial respiration audible in the parts immediately over them, but by means of the ribs communicated the sound to parts even remote from the adhesion itself.

" In both patients there was severe cough and puriform expectoration; and the bronchial mucous membrane was accordingly found in an intense state of inflammation. In one of the patients, nature had attempted the evacuation of the fluid by means of ulcerations, which in several places had perforated the pleura and intercostal muscles, and formed sinuous passages into the sub-cutaneous cellular structure."—p. 68.

The diagnosis in this case proves the great value of auscultation, and ought to convince the most sceptical of its utility. A curious fact is attested in the next paragraph, that in pleurisy the superjacent integuments often become tender, swollen and œdematous at the very commencement of the disease, in consequence of the inflammation spreading to those parts; and a similar occurrence has been often remarked in cases of hepatic abscess. It is thus that a careful examination of the integuments, sometimes reveals the suppuration of organs in the subjacent cavities.

In the employment of percussion, our reporters confirm the observations of others, that the patient experiences much more pain on the diseased than on the affected side; this they observed in acute pleurisy and tubercular consumption. A curious fact, and one hitherto unobserved, is related, that in some cases in which percussion had been employed, after each stroke of the ends of the fingers, a number of little tumours appeared, answering exactly to the number and situation of the points of the fingers, where they had struck the integuments of the chest. These having continued visible for a few moments, subsided, but could be again made to appear on repeating the percussion. In such cases the percussion produced a good deal of pain, and the tumours were most apparent in the subclavian region and over the great pectoral muscle. This appearance is ascribed to the contraction of the muscular fibres in consequence of the irritation of the blow. The following remarks on percussion are worthy of recollection, as they afford evidence, which proves the received opinion of the operation is liable to exception.

" With reference to the value of percussion, we may remark, that the dulness of sound on percussion is by no means constantly proportioned to the extent of pulmonary disease. Thus in a patient

who died of pneumonia, a great portion of both lungs was found inflamed, and the inferior lobes approached to hepatization, yet during life the sound on percussion had appeared to us clear, a circumstance explained by the remarkable fact, that the greater portion of the surface of the lungs had escaped disease.

"We have also observed several cases of phthisis, in which, during life, the chest sounded every where well, and yet upon dissection the lungs were found almost solid from general tubercular developement."—p. 76.

The next disease described is one of a formidable nature, which has been very superficially noticed by writers in these countries, namely, laryngitis. A considerable number of cases in the chronic state were treated by our authors, some produced by cold, many occurred in persons tainted with syphilis, and these were the most obstinate and distressing. In some there was spasm of the glottis, in others disease of the lungs. In the latter the stethoscopic phenomena were singularly modified.

"Thus, where the obstruction is so great as to cause the respiration to be long and painful, the expansion of the air cells is often quite inaudible. We recollect once examining a patient, labouring under laryngitis, in the Meath Hospital, in whom the obstruction was so great as to require the operation of tracheotomy. Previously to the operation, the chest sounded clear, but the respiratory murmur was extremely feeble, so that the stethoscopic phenomena closely resembled those of emphysema of the lungs. When, however, a free opening had been made in the trachea, the respiratory murmur became at once puerile, and did not subside to the natural intensity for some hours.

"A knowledge of this fact is of great practical importance in investigating the state of the lungs in persons labouring under chronic laryngitis, an inquiry which ought never to be omitted, on account of the frequent occurrence of tubercles in persons afflicted with this disease; for it will appear presently that mercury, one of the most efficacious remedies in simple laryngitis, is inapplicable in these complicated cases. In fact, it is scarcely credible how far the existence of laryngeal obstruction tends to mask all the stethoscopic phenomena, even in cases of extensive pulmonary disease. Thus we have seen several cases of phthisis, in which extensive excavations and numerous tubercles were found in the lungs on dissection, and yet during life no unequivocal evidence of this state of the lungs had been derived from the use of the stethoscope. The extreme weakness, and altered tone of the voice in this disease, deprives us of the assistance which the discovery of bronchophony or pectoriloquism would give in forming our diagnosis, and the protracted and gradual inspiration either prevents or renders very indistinct

the valuable phenomena of crepitation, gargouillement, cavernous, bronchial, and peurile respiration; under these circumstances, the general symptoms and percussion are our only guides, and we have already seen how uncertain both these are."—p. 81.

We are informed that the chief diagnostic symptom in chronic laryngitis, is hoarseness increased by exertion of voice; but this symptom may continue for years as we have repeatedly witnessed in persons, and perfect health. The treatment recommended is of course extremely judicious.

" The most efficacious treatment consists in enjoining *silence*, a point that cannot be too strongly insisted on; next to this in value, is the frequent application of a few leeches to the region of the larynx; we have also seen much benefit follow the exhibition of mercury, so as to affect the gums slightly. When we wish to employ counter-irritation, we prefer the tartar emetic ointment to the employment of blisters. It should never be forgotten that this disease is extremely liable to recur, to prevent which we have, in addition to the usual means, recommended the habitual use of cold washing of the throat night and morning. In chronic laryngitis, the state of the fauces and pharynx should always be investigated, as in many cases, where no soreness of these parts is complained of, we have found, on inspection, that numerous small, irregular, and superficial excoriations, (if we may so term them) bounded by red lines, and of a greyish colour, occupied the upper portion of the pharynx; and we have strong reasons for thinking that the disease of the laryngeal membrane is of a similar nature, and has been propagated from the pharynx, in the same way that acute laryngitis not unfrequently originates in pharyngeal inflammation.

" The repeated application of a strong solution of the nitrate of silver, ten grains to the ounce, by means of a camel hair pencil, to the parts within our reach, proves very serviceable; after a slight alterative course of mercury, the use of the compound decoction of sarsaparilla, and the general tonic plan of treatment, will be found most useful in such cases.

" This complaint is much more obstinate and intractable, where it occurs in persons who have used large quantities of mercury for the cure of syphilis. In such broken down constitutions relapses are of frequent occurrence, and the disease very apt to terminate in ulceration of the cartilages. A nutritive diet, a seton in the neighbourhood of the affected part, the decoction of sarsaparilla, with the cautious use of corrosive sublimate or arsenic, the application of the nitrate of silver to the pharynx and rima glottidis, by means of lint moistened in the solution already recommended, and mercurial inhalations, have in some cases succeeded in removing the disease; although the inflammation may have subsisted for a considerable time, the occasional application of leeches should not be neglected, particularly on any exacerbation of the complaint.

" When a decided phthisical tendency accompanies chronic laryngitis, the case is generally hopeless.

" The application of belladonna plaster, or of one made of Scotch snuff, as recommended by an American professor, to the region of the larynx during the spasmodic exacerbations, has been found by us of great utility. In many of our cases these attacks of spasms frequently supervened, producing terrible difficulty of breathing, which we have often found to yield with rapidity to the pediluvium, and the exhibition of an antispasmodic draught, consisting of the ammoniated tincture of valerian, ether, and opium. We cannot help suspecting that in chronic laryngitis, the operation of tracheotomy is sometimes unnecessarily performed, and that the immediately distressing symptoms would frequently yield to this practice."—p. 84.

The last case mentioned is one of peculiar interest.

" A man about forty years of age died of tubercular phthisis.

" The œsophagus, after passing through the usual opening in the diaphragm, was found to re-enter the thorax by another very large opening in the tendinous portion towards the left side. The stomach occupied the inferior portion of the left thoracic cavity, its cardiac and pyloric extremities, both lying in the opening.

" A considerable portion of the transverse arch of the colon was also included in the left side of the chest; these viscera loosely, but permanently fixed by means of the serous membranes, all rested on the convex surface of the diaphragm, and pushed the heart and mediastinum towards the right side. The margin of the unnatural opening in the tendinous portion of the diaphragm was formed by a round tendinous cord about the thickness of a quill, which added greatly to its strength, and was evidently of very ancient formation. The lungs, small and tuberculated, did not exhibit any signs of compression, and was not adherent to the abdominal viscera. It may be easily conceived that the left pleural cavity was continuous with the cavity of the peritoneum, and both were lined by the one serous membrane.

" This case is pregnant with interest; we observe in the adult a new cause of displacement of the heart, and a new source of difficulty in stethoscopic examination; for it is quite evident that auscultation applied to the left side of the thorax would have furnished very fallacious information, and the sounds heard would have varied according as the stomach and colon were full or empty, &c. The same observation applies also to percussion; and the fact is, that during the life of this patient, those who examined his chest could not reconcile the phenomena afforded by auscultation or percussion with those of any known disease of the chest. The respiration was heard every where, except inferiorly and anteriorly on the left side, and here percussion gave a clearer sound than natural. No rale was audible in this part of the chest, but borborygmi and sounds resembling those produced by the motion of fluids in the intestines were observed.

" This man vomited frequently while under observation in the hospital; now as the stomach was placed entirely out of the reach of being compressed by the contractions of the diaphragm, and as this contraction completely defended it from the influence of the abdominal muscles, it is clear that in this case vomiting must have occurred independently of compression, either of the diaphragm or abdominal muscles. This fact, worth a thousand experiments, completely decides the question, that vomiting may be produced by the action of the stomach itself, unassisted by any external compressing force, notwithstanding what Le Gallois and late physiologists have said to the contrary."—p. 87.

The second part of this report on abdominal disease, we shall notice in our bibliographical department.

THOUGH it is our intention to notice all the papers in the valuable work before us, we are inclined to place two interesting and instructive reports of the different new obstetric institutions of the Irish metropolis before our readers. The first is entitled, " Report of the Wellesley Female Institution, by Samuel Cusack, M. B.;" the second, " Report of the Coombe Lying-in Hospital, by Richard Reed Gregory, M. R. C. S. Dublin." The pleasure and satisfaction which we have derived from the perusal of these documents, induce us to place them thus early before our readers. Another motive influences us to do so, and which is, that these are new and rival institutions, and though on a comparatively small scale, when compared to the extensive Lying-in Hospital of Dublin, their usefulness, and the excellence of the practice pursued in them, are candidly submitted to the profession, while the practice at present employed in the latter has not as yet been recorded. For the information of our readers in this section of the empire, on the European Continent, and in America, we deem it proper to make a few remarks on the support and management of the large obstetric hospital of Dublin. In doing so, we must premise, that we neither directly, nor indirectly, allude to its present medical officers. This institution is the largest in Europe, except that of Vienna; it is a magnificent building, partly supported by an annual parliamentary grant, and by voluntary subscriptions. It affords relief to more than two thousand women annually. Its medical officers are, a master and two assistants, all physicians; it has also its surgeons. The master is elected every seven years, and generally by interest; talent and merit are not recommendations. He goes out every seven years, and his income is

estimated at about £.2,000 a-year. The, assistants pay £.250 each for their appointment, though of late years they have evinced much more talent and scientific attainments than some of their principals. Nothing can be worse than the farsical mode of election. Physicians have been appointed masters, whose abilities were the most slender—whose names were unknown beyond the precints of the Irish capital; and who, in candid truth and justice, had no claim whatever to appointment. The consequence has been, that their lectures and principles were far below those of their contemporaries. If proof were required of the truth of this statement, we need only refer to the fact, that the perforator has been preferred to the forceps; nay, that the forceps was condemned as a useless instrument. This will appear by the able and valuable defence of the latter by Dr. Beatty, a gentleman of great eminence, and a former assistant to the institution, whose opinions we shall insert in a subsequent article. Indeed, we can give our personal testimony in support of our statement. Another serious defect in the institution was, the great fee demanded of students for attendance; namely, twenty guineas for extern, and thirty as intern pupils for six months. Without wishing to institute an invidious comparison between this and the new hospitals, which have given rise to these observations, we can fairly observe, that the defects of the former do not exist in the latter; and moreover that the principles and practice inculcated in the new institutions, more accord with the received views of the profession. In these remarks, we do not forget the valuable papers of Drs. Beatty, Johnston, Breen, M'Keever, Douglas, Fergusson, and Kenedy; but all these writers were assistants; and what, let us enquire, has been done by the masters, since the time of Dr. Clarke? Why is there not an annual report published? Why are not the vast opportunities of this great establishment rendered subservient to the promotion of science? The answer is sufficiently obvious; because the masters are appointed without any proof of their qualifications, and because they must retire at the expiration of seven years, when they have acquired experience, which, instead of being useful to the interests of the poor, or of the students, is henceforth to be valuable to the affluent. Such being a fair sketch of this magnificent institution, we need scarcely observe, that it affords us great pleasure to witness the establishment of others, with infinitely more claim upon the notice of the profession and the public. Of the present medical officers of any of these hospitals we know nothing, except by their contri-

butions to science, and to all we say, " amicus Socrates, amicus Plato, sèd magis amica scientia." Having premised thus much, we hasten to insert the details of the reports which led us into this exposition; and have to observe, that these papers are highly creditable to their authors. The principles and practice maintained in them, are those of the most eminent obstetric writers. Dr. Cusack's graphic and comprehensive report claims great attention, both from its extent, and the great variety of practical information with which it abounds. Mr. Gregory's report contains some points of great interest. It is impossible to abridge the former, so that we must give it in detail, as it attests very practical points of considerable importance. The only point in it which may be doubted, is the author's reluctance in admitting the efficacy of the ergot of rye. He has not condemned it without a trial, and justly observes that its failure ought to be ascribed to the careless and improper manner in which it is preserved by druggists. He should, however, have borne in mind, that as yet it has no place in the British pharmacopœias; and consequently that nine-tenths of medical practitioners, and nearly all its venders, are perfectly ignorant of its physical and chemical properties, and of the best mode of preserving it. We have tried in numerous cases, and have never known it to fail when properly preserved; we have no hesitation in declaring, from extensive personal observation, that we have never known it fail to produce its effects when properly preserved, when judiciously administered; it certainly cannot perform impossibilities, and hence the outcry raised against it by many recent writers, who were so simple as to expect that it ought to effect delivery in cases of deformed pelvis. Besides it, in common with all medicines—can never be procured in a genuine form from the ordinary venders, whose calling is a trade, and not a profession.

Dr. Cusack proceeds as follows:—

" The number of labour cases attended since the opening of the institution up to the 31st of December, 1828, amounts to 398: of those cases three required instrumental aid for their completion; one the forceps, two the perforator. Amongst the cases of preternatural labour, which amounted to twelve, there were four cases of presentation of the upper extremities, and eight of the breech and lower extremities.

" The cases of presentation of the upper extremities (in all of which turning was performed,) had uniformly favourable terminations, as far as related to the mother. In two cases, however, the child was

not born alive; in one the funis protruded with the arm; in the other the mother had alternately borne dead and living children, and for some days previous to the accession of labour, had not felt any motion of the child. In three of those cases turning was performed with facility; in the fourth, on introducing the hand, uterine action came on so violently, that it was considered expedient to withdraw the hand. On administering 120 drops of tincture of opium in divided doses, the operation was performed with facility.

"The cases in which the inferior parts of the body presented were also favourable in their issue as far as the mother was concerned. The only cases in which the children were not saved, were those in which the head had been jammed in the pelvis by ill directed attempts at extraction previous to application for assistance from the dispensary. These cases were almost entirely left to themselves, till the breech was expelled, when the usual attention was paid (when required) to insure that the face of the child should be turned towards the sacrum of the mother, and after the extraction of the arms the chin was depressed by placing the finger in the mouth of the child in the usual manner, so as to give the head the direction of the axis of the pelvis, and to cause the biparietal, instead of the occipito-mental, to be the moving diameter. In one case, in which the foot rested against the perinæum, and the thighs were forced down so as to be impacted to a certain degree in the vagina; the feet were extracted gently as far as the ankles, and the case was then left to the efforts of nature.

"Two face cases were not interfered with, and the labours, although tedious, terminated favourably both with mother and child.

"In five cases the funis was protruded. In some of these cases the pulsation had ceased previous to application for assistance; in the others none of the means recommended in such cases for the preservation of the child appeared admissible. Of six cases of puerperal convulsions, two occurred between the fifth and eighth month; in one the fits were always induced by constipation of the bowels, and after this cause was removed, did not re-appear. One case occurred after parturition; the cause was similar to that of the preceding case. The patient recovered under the employment of venesection, and purgatives; of the remaining cases of convulsions, all of which occurred during labour, one patient was delivered by turning, during which operation the fits were suspended, but recommenced after delivery, and carried the patient off. Another was delivered by the crotchet, who recovered from the convulsions, but subsequently died of peritonitis. In another case (a first pregnancy) the convulsions appeared at the commencement of labour, the membranes were ruptured by the finger, twenty ounces of blood taken from the temporal artery, cold applied to the head, and injections and purgatives administered. The fits however continuing, the forceps were applied when the head was sufficiently low, and mother and child were both saved.

"The convulsions appeared in one instance about twelve hours after the birth of the first twin, the woman having been improperly

allowed to remain undelivered of the second all that time. The forceps were promptly applied, and the second child extracted without difficulty, but dead. In this case, instead of the patient being comatose between the fits, she exhibited all the symptoms of delirium ferox, the birth of the second child not seeming to have any effect on her condition, but after the extraction of the placenta she became perfectly tranquil, and the fits did not again appear.

"The opinion generally entertained as to the ineligibility of turning for the relief of convulsions, might seem to be corroborated by the result of those cases; however, without at all entering into the discussion of the comparative value of these different modes of delivery under such circumstances, it should be observed that the case in which turning was employed had been allowed to proceed to such a length before assistance was sought for, that almost any kind of treatment appeared hopeless.

"The author recently attended a case of convulsions with Dr. Nicholson. The patient was a short necked, full, plethoric female, about eight months pregnant with her first child. She was attacked with convulsions while dressing for dinner, and in the course of twelve hours had eight fits of well marked violent convulsions: on examination per vaginam, the os uteri was found dilated to about the size of a half crown, the head presenting, and membranes ruptured. By means of copious venesections, shaving the head, and cold applications, with the exhibition of calomel and scammony by the mouth, and the use of enemata, first of soap and subsequently of turpentine, the convulsions were completely subdued, and the patient was delivered naturally of a dead child after an interval of thirty hours, during which she remained quite rational.

"This case contrasted with one already related, where the convulsions had ceased on the delivery of the patient by the perforator, but in which fatal peritonitis supervened, would lead us to conclude, that artificial delivery ought to be limited, except when the pelvis is deformed, to those cases where the forceps can be used, and that turning, or the perforator, should be employed only in those cases where, from the condition of the parts, there appears no risk of exciting inflammation: indeed unless there be strong proof of the death of the child, or we have to deal with a narrow pelvis, it does not seem that under any circumstances is the use of the perforator justifiable. There can be no doubt that convulsions will often cease on artificial delivery being performed, even though in a rude violent manner, but the result in such cases usually is the death of the patient by peritonitis.

"Though fully aware that bleeding in some cases is a most valuable and indispensable remedy, the author considers emptying the bowels of no less importance, and the use of applications to the head a powerful adjuvant: he is however of opinion, that there are cases in which the disease being the result of nervous irritability rather than of actual plethora, the too free abstraction of blood will only hurry the disease to a fatal termination.

"The author was requested to examine a female who had died.

during labour, of convulsions, whom however he had not seen during life. The labour had made so great progress that the head of the child was on the level with the external parts of generation; he examined the different cavities accurately, and found a tumour of a cartilaginous consistence as large as a hen's egg, occupying the optic thalamus and the adjoining part of the brain of one side.

" Hemorrhage occurred in six cases during labour, caused by the attachment of a small portion of the placenta over the os uteri, and in all it was arrested by the rupture of the membranes, either by the hand or by uterine action.

" The cases in which it was found necessary to remove the placenta by the introduction of the hand, amount to fifteen: a large number, but which may be acccounted for by the circumstances of several applications at the dispensary for assistances of several being made solely on account of the retention of the placenta, in consequence of previous mismanagement.

" Five of these cases of retention were caused by the irregular or hour-glass contraction; no difficulty was experienced in the removal of the placenta, except in one case, where, co-existent with the stricture of the uterus, there was violent uterine action, and high excitement, both vascular and nervous existed; previously to any attempt at extraction, venesection and the exhibition of opiates carried to the utmost extent, did not lessen in the slightest degree the difficulty of extraction, and the patient died in about ten days afterwards of venous inflammation.

" In five cases hemorrhage occurred previous to the delivery of the placenta. Two of these cases were of hour-glass retention: in one sudden death took place about six hours after delivery, although the placenta had been removed without difficulty, and the patient appeared to have completely recovered from the loss of blood, which had not been at all extensive; no hemorrhage occurred externally, nor on the post mortem examination did any appearance present itself sufficient to account for her death. The uterus had contracted well, and no coagula were found in its cavity.

" A few hemorrhages occurring after the delivery of the placenta, were arrested by means of pressure over the uterus, by the application of cold, by quietude, and the access of air, &c. &c.

" A considerable number of abdominal inflammations presented themselves; at particular periods they were exceedingly prevalent; at other times equally rare. The type of these inflammations varied with the periods of their appearance. In December and January, 1827, 1828, the peritoneum seemed to be the structure most deeply engaged, and the inflammation to be of a phlegmonous character. In March the disease assumed the low typhoid character. In May, 1828, several cases were met with in which the intestinal mucous membrane was the seat of disease: they were characterized by thirst,

redness of tongue, or white coating with florid papillæ interspersed, intolerance of light, headach, and obscure abdominal tenderness.

" Cases of abortion were exceedingly numerous. This accident is of frequent occurrence amongst the poor of the city, and one in general little minded ; the circumstances under which such cases applied for relief were various. In some instances hemorrhage, in others retention of part of the ovum ; in others derangement of the general health consequent on abortion were the reasons for application. The hemorrhages in those cases were arrested by means of cold applications, rest, cool air, avoidance of any thing stimulating, &c. &c. ; excepting after the sixth month manual extraction of the placenta was not attempted, enemata, purgatives, friction of the abdomen, and binding, being the means employed to promote its expulsion. In a few cases of abortion, at an early period, plugging the vagina was found advantageous in arresting the hemorrhage.

" The sequelæ of abortion consisted of vaginal discharges, occasional hemorrhages, and general constitutional derangement; these affections were treated by improving the condition of the system, by the occasional use of purgatives combined with bitters, by attention to diet, air, exercise, &c. &c.

Amongst the most frequent of the diseases of females, were those connected with the functions of menstruation. In the treatment of these cases more attention was paid (with some exceptions) to the constitutional, than to the local symptoms, and what are considered specific or directly emmenagogue medicines were but rarely exhibited, and never found effectual. The catamenial derangements consisted in total suppression, in diminution, in excess, in irregularities attendant on their final cessation, and in distressing accompanying symptoms.

" These states were accompanied by two very opposite conditions of the system, and plethora. In the former, the object principally held in view was to improve, as much as possible, the general condition of the system ; in the latter and less frequent condition, depletion, either topical or general, was employed.

" Cancer of the uterus was frequently met with. In every instance, the disease was so extensive as to engage all the soft parts in the neighbourhood of the os uteri, evidently shewing that extirpation of the uterus was, at that period of the disease, totally inapplicable. In the only instance in which a post mortem examination was permitted, the interior of the pelvis was so completely surrounded by scirrhous glands, that some difficulty was encountered in removing its contents.

" Some instances occurred in which the os uteri was tumefied, irregular, and tender to the touch, accompanied by a muco-sanguineous discharge, by pain about the back and thighs, anasacra of the lower extremities, loss of appetite, debility, and sallowness of the countenance. They were treated with alterative doses of the pil. hydrargyri, followed by mild saline purgatives combined with bitters;

strict attention was paid to their general and dietetic management, and in every instance a perfect, though in some a gradual, recovery ensued.

" The recovery of such patients should point out the necessity of sufficient investigation, before we condemn cases as malignant, that may be only obstinate or tedious, and thus submit patients to the hazard of a dangerous, and often an unsuccessful operation.

" Two cases of polypus uteri occurred, in which the patients were reduced to a state of the most extreme debility; the tumours were removed by the ligature, and the patients recovered perfectly. One polypus was of the hard, the other of the soft species; the latter was exquisitely tender to the touch, a circumstance worthy of remark, and already noticed by Dr. Johnson in the Dub. Hos. Reports, who points out the error of adopting a diagnosis between polypus and inversion of the uterus, founded upon the tenderness of the uterus in the case of inversion.

" In one case of polypus uteri, where the patient had been exceedingly debilitated, the pulsation of the large vessels about the neck was visible at a distance for some months, so that, on a superficial inspection, she might have been supposed to labour under disease of the heart.

" The uterine displacements were confined exclusively to prolapsus uteri. Some cases of prolapsus vesicæ aad vaginæ were also met with. In one instance, a contracted state of the urethra giving rise to all the symptoms of diseased bladder, was cured by frequent introduction of the bougie.

" In several instances, in which females applied early, with all the premonitory symptoms of mammary abscess, the progress of that affection was completely arrested, by submitting the patient to the influence of tartar emetic.

" The remaining cases consisted principally of the diseases of pregnancy, of puerperal diseases, derangements of health connected with lactation, mammary abscesses, vaginal discharges, inflammations, tumours and abscesses about the vagina and external parts of generation, abdominal tumours, &c. &c.

" From the end of December 28, to October 29, the number of registered cases amounted to 303. Of these, six were cases of presentation of the breech and lower extremities; one of the superior extremity; one case of face presentation was not interfered with, and the child was born alive. In two instances, the face was turned towards the pubis. In five cases twins were born. The perforator was employed three times, and three females were delivered by the forceps. In one of these cases, the fœtus was acephalous; the labour had been rendered tedious by the large size of the body of the child.

" The secale cornutum was employed in upwards of twelve cases, in six it produced no preceptible effect whatever; the author is, however, willing to believe that the ergot employed in those cases, though procured from respectable druggists, had lost its peculiar properties.

" In three instances, where it was employed in half drachm doses, substance as well as infusion being administered, symptoms of an apoplectic nature supervened, such as a diminution in frequency of the pulse amounting to from fifteen to thirty beats in a minute, stupor, epastaxis, &c. &c.

" In a case of breech presentation, in a female who had borne several children, ten grains of ergot, given in infusion, were administered; she had not had any pains for the entire of the preceding night. Pains, however, came on so immediately after the adminstration of the ergot, as to leave no doubt on the author's mind of its efficacy in that instance. Amongst other instances, a case was treated by Mr. Dashwood, an extremely intelligent pupil, where the placenta, after three hours' retention, was expelled by uterine action consequent on the administration of the ergot, though in the two preceding deliveries of the same patient the placenta was extracted by the hand.

" The author cannot forbear relating two cases, where, in consequence of the total absence of pains, he had determined on making trial of the ergot; in one instance, on returning to his patient after an hour's absence, he found, that on her taking an aperient draught, which he had prescribed, though no purgative or griping effect had been produced, uterine action had come on so violently as to finish the delivery of the child and placenta before his arrival; and in the other case, before he could procure the ergot, which he had to send for to some distance, such effective pains came on that he did not find it necessary to administer the remedy when it arrived.

" In seven cases, the placenta was extracted by the hand; in some of these the ergot had been previously tried, but ineffectually.

" In four of these there was hemorrhage connected with the retention of the placenta. One of these cases terminated fatally, notwithstanding the hemorrhage had been completely arrested.

" One case of polypus uteri was detected by examination per vaginam. The tumour, which was not larger than a walnut, was connected to the interior of the cervix uteri by a long cord-like pedicle. It was extracted by the fingers, and exhibited vessels running through its diminutive stalk. It was composed of a delicate membrane containing small vesicles, and a gelatinous substance, that could be drawn out by the finger to some distance.

" Notwithstanding the small size of the tumour in this case, the irritation produced thereby was greater than the author had witnessed in any other instance of this disease.

" One instance of severe puerperal inflammation of the joints occurred. In this case, in consequence of hemorrhage, the placenta was removed (without any violence) by the hand. The patient did not seem to suffer much from the loss of blood, and was in a favourable condition till the seventh day, when, apparently in consequence of some irregularity, she was attacked with febrile symptoms, and inflammation of the knee and ankle of one leg. The fever was of a mixed character, accompanied with much gastric derangement and acceleration of the pulse, without any increase of hardness. The

pain in the parts mentioned preceded the external symptoms of inflammation, but in a short time the joints affected became red and swollen. The calf of the affected leg participated in the tumefaction.

" The pain was of so violent a nature as to deprive the patient completely of rest, and to require the use of large opiates.

" The treatment consisted in the regulation of the patient's bowels, the administration of calomel, combined with opium and tartar emetic, till ptyalism was produced; frequent application of leeches, and in the intervals a saturnine lotion, was kept constantly applied, protected by a covering of oiled silk. In the progress of the disease a mixture of sulphate of quinine and the compound tincture of gentian was employed with apparently considerable benefit. The inflammation of the knee yielded rapidly to the treatment; that of the ankle was of a more obstinate nature; superficial abscesses formed over that joint. The patient, after some time, was sent to the country, and is now quite recovered. In no stage whatever of the disease were any symptoms of venous inflammation discernible.

" Two cases of hydatids of the uterus were treated; both of the the individuals were married, and one had previously children, and experienced, with the exception of feeling the movements of the child, the usual symptoms of pregnancy. One patient had a constant discharge of a yellowish colour: the other was free from any vaginal discharge till a few days before the expulsion of the hydatids, when there was a slight discharge of blood. In one instance the hydatids were expelled without much accompanying hemorrhage; in the other there was a considerable loss of blood, The patients were treated, after the expulsion of the hydatids, like puerperal patients; one of them had a considerable quantity of milk in the breasts for a few days, and has since borne a living child. The hydatids expelled in one case amounted to upwards of a gallon; they were of an elliptical elongated shape, connected together by delicate pedicles, and surrounded by a cyst, resembling the decidua.

" One patient, affected with a malignant tumor of the os uteri, applied for relief at the dispensary. She was thirty-five years of age, had borne five children within the last fifteen years, and enjoyed good health till four months previously, when she became troubled with constant shooting pains in the back and loins, and the ordinary symptoms of malignant disease in this situation. Her general health too, was proportionately affected.

" On examination per vaginam, a tumor, as large in circumference as a dollar, but much thicker, was found growing from the lower part of the cervix uteri. It was firm and elastic, and a portion of the cervix uteri could be felt above the tumor, apparently free from disease. After endeavouring as far as it was possible to improve the patient's general health, a ligature was applied as high up as the cervix uteri, by means of the common double canula.

" It may here be observed that the ligature employed on this, as well as on other occasions, was composed of catgut, or silk covered with silver wire, as sold at the music shops. Silk is conceived to be preferable to catgut, as the latter, when long exposed to moisture, sometimes becomes rotten.

" The degree of firmness and elasticity, which a ligature of this description possesses, even when exposed to moisture, will be found to facilitate its application materially; and even where there is an anticipation of difficulty in the application of the ligature from the size of the tumor, the author would suggest the trial of the common canula, before having recourse to a more complicated apparatus.

" In the progress of the case the ligature was tightened occasionally, but on the sixteenth day the cervix uteri, not being completely divided, was drawn down, and cut through with a blunt pointed bistoury.

" For upwards of a month the patient seemed to have recovered from the disease; recently, however, ulceration has commenced at the place where the tumor was separated, and all the former distressing symptoms have returned.

" Though the result of this case was unfortunate, yet the case itself is important, as shewing how far the uterus will bear with impunity the application of the ligature, there being no threatening of peritoneal inflammation or retention of urine during the entire time that the ligature remained on the uterus; and the case under consideration, as well as those cases in which the ligature has been applied on the inverted uterus, induces the author to question the soundness of the advice given by Doctor Gooch, regarding uterine tumors, in his recent work on diseases of females; for while he agrees with him that including any portion of the uterus in the ligature, in cases of polypus, is worse than useless, he conceives that the advice given at page 307, regarding what are there termed fungous excrescences, is calculated to lead to most dangerous results, as it is only by the complete removal of that part of the uterus from which the tumor originates, that any reasonable expectation can be formed of its not again returning.

" Should the author again meet with a similar case, he would prefer removing a portion of the uterus with the knife, to the application of the ligature.

" The number of cases treated since October last, up to the present time, have, in proportion, considerably increased; but, to avoid repetition, only a few of the more remarkable shall be here noticed. One instance of spontaneous evolution of the fœtus occurred at the seventh month; the child was situated in the manner usually met with, and born dead.

" In one case of complete presentation of the placenta, turning was performed, the mother was saved, the child born dead. The most remarkable feature in this case, was the great advantage found

to arise from plugging the vagina; the os uteri seeming, in the first instance, too rigid to allow of turning being performed with safety to the patient.

" Two cases of hemorrhage after delivery, of an interesting nature, occurred. In one case, application was made for assistance nine hours after the birth of a first twin, in consequence of the retention of a second.

" The patient, a healthy young woman, was much excited, apparently in consequence of having taken some spirits. Her face was much flushed, pulse 130, full and strong; enemata and aperient medicines had been administered without any effect, and no uterine action existed. As the vascular excitement seemed the result of a temporary cause, it was not deemed necessary to have recourse to venesection; and lest some untoward event should occur, it was deemed advisable to deliver the patient; accordingly turning was performed, not without some difficulty, in consequence of the height in the uterus at which the child was placed. It however was born alive, and what was remarkable, very soon became a fine child, while the infant that was born naturally died in a few days.

" Every means was taken to promote the safe expulsion of the placenta, which in about half an hour was expelled naturally, and the uterus became hard and well contracted. In a short time, however, most violent uterine hemorrhage came on; cold was promptly applied to the region of the uterus, and pressure made over that viscus, by which means the hemorrhage soon ceased.

" In this instance the patient did not become at all faint, nor was any internal stimulus employed except cold water, and the only effect produced by the loss of blood was the production of the pulse from 130 to 90, which also became proportionally soft; a very desirable result. This was evidently a case of hemorrhage resulting from vascular excitement, and shews the necessity of preventing, by attention to temperature, diet, drinks, &c. during labour, so unfavourable a condition of the circulation.

" The second case was one of quite an opposite nature, occurring in a weakly female who had borne several children, and each time had slight hemorrhage.

" Lest a similar occurrence should take place on the present occasion, the management of her labour was intrusted to a person of some experience; although however conducted most judiciously, the birth of the child was followed by immediate hemorrhage.

" This was arrested by means of cold applications, and pressure on the uterus in the first instance; as however it quickly recommenced, the hand was introduced into the uterus, and the placenta, which was found lying detached in that cavity, was withdrawn; the uterus contracted on the hand, and but a slight oozing of blood continued.

" The quantity of blood lost in this case was not great, nor did the patient suffer complete syncope, yet for nine hours she lay as if

on the point of death; the face bloodless, extremities cold, pulse not to be felt at the wrist, and but faintly in the larger arteries.

" The patient was watched through the day; opium, brandy, and ammonia administered in small quantities; she however rejected every thing, and the first thing which she retained was a raw egg beaten up with a cup of tea.

" It might here be asked, if this was not a case in which transfusion would not have been recommended by the advocates for that operation, and whether this operation might not have proved fatal in this, as it was in other similar instances.

" While on the subject of hemorrhage, the author wishes to allude briefly to the subject of cold applications.

" In the only instance of fatal hemorrhage which he witnessed, he found the patient's bed, when he arrived at the house, completely drenched with cold water, herself apparently as much sinking from the collapse produced by the slovenly application of cold, as from the loss of blood; so that he would caution his junior brethren from applying cold in such cases to any part, except the vicinity of the uterus, by arranging napkins so as to prevent the part of the bed on which the patient lies from being wetted; and when the heat of the extremities is below the natural standard, it is obvious that applying heat thereto, while cold is applied to the region of the uterus, will tend to equalize the general circulation. The author would wish to allude to the bad effects resulting from patients who are the subjects of hemorrhage, making any exertion in bed, especially if deviating from the horizontal position.

" It is unnecessary to enter into the details of the case just related, further than to state that the patients suffered for some months from a train of nervous symptoms, but is now quite recovered.

" One case of polypus uteri was treated by ligature; it came away the third day, and the patient is now quite well. At least a dozen cases of prolapsus uteri were relieved by the introduction of pessaries. The flat circular pessary was employed in preference to any other.

" Some of the cases of prolapsus uteri were of very long standing; in no instance however was there any difficulty in the reduction of the tumour, nor any unpleasant effects resulting from the restoration of the uterus to its natural situation.

" One old woman who had a large prolapsus of the uterus for forty years, on a pessary being introduced for the first time last winter, expressed herself as being more comfortable, and in better health than she had been for a number of years. The daughter of this woman, who had both prolapsus of the uterus and of the rectum, was also relieved by the flat pessary.

" At the time she applied at the dispensary she had a large tumour corresponding to the situation of the right kidney. Its formation, which took place two years before, was preceded by shiverings, pain in the abdomen, &c. She appeared as if quite run down by hectic

hectic. having profuse diarrhœa, night sweats, &c. She passed in her urine, which in other respects was natural, immense quantities of purulent matter. The uterus was supported by the pessary; light nutritious diet was administered, and medicines given calculated to check the diarrhœa, merely with the expectation of alleviating symptoms; coutrary however to expectation, (the purulent matter still passing with the urine,) the tumour gradually lessened, and at length totally disappeared, and she is now in the enjoyment of perfect health."—p. 521.

Mr. Gregory gives a report of six hundred and ninety-one cases, presenting the following varieties of labour:—

"Natural presentations, 645; Face, 2; Breech, 14; Feet, 7; Arm, 3; Shoulder, 1; Funis, 7; Twin cases, 12; Placenta, 0;—Total, 691.

III.—*Medico-Chirurgical Transactions.* Published by the Medico-Chirurgical Society of London. 8vo. pp. 235. Two Plates. Vol. XVI. Part 1, 1830.—*(continued.)*

THREE papers on aneurism are inserted in the work before us, and though they are not placed in succession, we shall notice them at the same time. They are as follow:—

I.—*Case of aneurism of the external iliac artery, in which the femoral artery and aorta were tied.* By J. James, Esq. Surgeon to the Devon County Hospital.

The patient was a man aged forty-four, of a spare habit, but not unhealthy, and was admitted into the hospital, May 7th, 1829. He had had disease of the hip joint, and at the time of his admission, a supposed glandular tumour, which was discovered to be aneurism. In June it enlarged, and occupied the lower part of the abdomen. On the 2d of June, a ligature was applied about half an inch below Poupart's ligament. In the evening the bulk of the tumour had decreased to about three quarters of an inch. On the 4th, some purulent matter was evacuated from the site of the ligature, and the tumour had decreased one inch. From this day the tumour began to increase, and on the 12th had equalled its original size, and pointed at its lower and outer part. On the 24th the integuments were tense, shining and painful, and the patient looked very ill. A consultation was held, at which it was determined to tie the aorta. The

operation was performed at half-past three, p. m. July 5th, in the presence of the medical officers of the hospital, and of many other medical gentlemen.

" The man was placed on the table with his shoulders slightly raised, the bowels having previously been thoroughly opened. I made the incision rather lower than in Sir A. Cooper's case, beginning it an inch above the umbilicus, and continuing it two inches below. I scratched through the linea alba below the umbilicus, and then proceeded to open the peritoneum nearly to the same extent as the external wound. This first part of the operation was somewhat impeded by very copious bleeding from the vessels of the integuments.

" As soon as the division of the parietes was effected, the viscera protruded, and the efforts of the poor fellow continuing strong, I soon found myself embarrassed with almost the whole of the bowels; nearly all the colon, and a great part of the small intestines being pushed out, and presently quite distended with flatus, a circumstance frequently remarkable in the operation for strangulated hernia. I found the aorta without difficulty, pulsating strongly, but it was surrounded with dense cellular membrane, and a strong peritoneal covering was likewise interposed between my nail and it.

I may remark that even in the dead subject, it is sometimes a difficult matter to force the nail and finger between the aorta and the spine; in this case, embarrassed as I was by the coils of intestine, in which my hand was buried, it was particularly so. I enlarged the wound, but it was of little service; to have obtained sufficient room to push aside those inflated intestines would have required an incision of enormous extent; and supposing this made, there would hardly have been a probability of retaining them completely within the abdomen by any mode of suture during the exertions which the patient might make, and which it would probably be impossible to prevent.

" I endeavoured cautiously to get the point of the aneurismal needle through, and succeeded; but when it reached the other side it broke at the handle, which in the one I had selected for its curve, was unfortunately of wood. I had little anticipated occasion for so much force. The broken part was so sharp that I was obliged to withdraw it, for fear of injuring the intestines. With some additional difficulty I got my finger, with Weiss's instrument upon it, under the artery; but even after this was effected, it was by no means easy, with the best assistance of my colleagues, to extricate the short needle bearing the ligature, so much did the intestines interfere with every kind of manipulation. When the ligature was underneath, I kept the intestines out of the way with the fingers of both my hands, and placed one of my thumbs on the vessel, whilst Mr. Luscombe drew it, first on my thumb, and then on the artery; by this I prevented any thing from being included, a caution which Sir A Cooper has particularly dwelt upon. The ligature was then drawn tight, and the tumour

became flaccid) at the same time the patient complained of deadness in the lower extremities. The ligature was cut close.

"From the tension of the muscles and the inflated state of the intestines, they were not easily returned, but when they had been replaced, five needles were passed through the integuments, and the wound having been secured perfectly by the quill suture, large straps and a bandage were added, and the man was put to bed."—p. 51.

Great prostration of the vital powers occurred during the operation, which was combatted with brandy and water, opium, &c. He experienced great pain in the lower extremities, especially on the aneurismal side; there was no reduction of temperature until seven, p. m. when he expired.

Autopsy. The tumour was considerably collapsed—there was no discoloration of its surface—the wound measured four inches. On opening the abdomen, a considerable quantity of blood was found amongst the intestines, which was ascribed to the incision through the abdominal parietes, and also to the division of a small vessel in the mesentery. The intestines were distended with gas, and were uninjured. The ligature was firmly applied round the aorta, an inch below the duodenum, five lines below the inferior mesenteric artery, and eleven above the bifurcation of the common iliacs. A small vein, which ran along the aorta to the inferior mesenteric, was included in the ligature. The vena cava was uninjured. No operation could have been more dexterously performed. The cause of the failure of the first operation was, the division of the external iliac artery above Poupart's ligament, so that a free outlet had remained from the lower part of the sac, by means of the profunda. The operation, though unsuccessful, reflects great credit on Mr. James, as a scientific and practical surgeon.

II.—*Case of Aneurism of the external iliac artery, in which a ligature was applied to the common iliac artery.* By PHILIP CRAMPTON, M.D. F.R.S. &c.

A SOLDIER, aged thirty, of good general health, was admitted into the Military Hospital, Phœnix Park, Dublin, July 8th, 1828, under the care of Mr. Crampton, surgeon-general. The patient complained of a pulsating tumour, which extended from about three inches below the umbilicus, to the same distance below the crural arch, and was divided into two parts, in the line of Poupart's ligament.

The upper portion presented the aneurismal thrill; the lower had no such character. There was a pulsating tumour, about the size of a small egg, in the right ham. There was great pain in the thigh and leg, loss of appetite, pulse 100, full and throbbing. He ascribed the complaint to a fall received in wrestling, nine months previously, but continued at his duty until the 20th of May. He was treated antiphlogistically, and was ordered digitalis. On the 18th of July, he was considered in a fit state for the operation, which was performed in the presence of Professors Colles, Macartney, and Wilmot, Mr. Stringer, the surgeon of the hospital, Dr. Ramsay, of Dundee, and other gentlemen. The details of the operation are thus given by the distinguished operator:—

"The first incision commenced at the anterior extremity of the last false rib, proceeding directly downwards to the os ilium, it followed the line of the crista ilii, keeping a very little within its inner margin, until it terminated at the superior anterior spinous process of that bone, the incision was therefore chiefly curvilinear, the concavity looking towards the navel. The abdominal muscles were then divided to the extent of about an inch, close to the superior anterior spinous process, down to the peritoneum: into this wound, the fore finger of the left hand was introduced, and passed slowly and cautiously along the line of the crista ilii, separating the peritoneum touching the fore-part, and the fascia iliaca the back part of the finger. A probe-pointed bistoury was now passed along the finger to its extremity, and by raising the heel of the knife, while its point rested firmly on the end of the finger as on a fulcrum, the abdominal muscles were separated from their attachments to the crista ilii by a single stroke. By repeating this manœuvre, the wound was prolonged until sufficient room was obtained to pass down the hand between the peritoneum and the fasia iliaca. Detaching the very slight connections which these parts have with each other, I was able to raise up the peritoneal sac with its contained intestines on the palm of my hand, from the psoas magnus and iliacus internus muscles, and thus obtain a distinct view of all the important parts beneath; and assuredly a more striking view has seldom been presented to the eye of the surgeon; the parts were unobscured by a single drop of blood; there lay the great iliac artery, nearly as large as my finger, beating awfully at the rate of 120 in a minute, its yellowish white coat contrasting strongly with the dark blue of the iliac vein which lay beside it, and seemed nearly double its size: the ureter in its course to the bladder lay like a white tape across the artery, but in the process of separating the peritoneum, it was raised from it with that membrane to which it remained attached. The fulness of the Iliac Vein seemed to vary from time to time, now appearing to rise above the level of the artery, and now to subside below it. Nothing could be more easy

than to pass a ligature round an artery so situated. The fore finger of the left hand was passed under the artery, which with a little management was easily separated from the vein; and on the finger, (which served as a guide,) a common eyed probe furnished with a ligature of moistened catgut was passed under the vessel. A surgeon's knot was made in the ligature, and the noose gradually closed, until Mr. Colles, who held his hand pressed upon the tumour, announced that 'all pulsation had ceased!' A second knot was then made, and one end of the ligature cut off short. On examining the vessel after it had been tied, it was found to be full, and throbbing above the ligature, but empty and motionless below it. The external wound was united by three or four points of suture, and supported by long straps of adhesive plaster. The operation was completed in twenty-two minutes; the patient, who was a firm minded man, made no complaint during the operation, not even when the ligature was closed upon the artery. The tumour, immediately after the operation, was diminished nearly one-third, the diminution being confined to the abdominal portion; ten minutes after the operation, the pulse was 96; at 7 p. m. Mr. Stringer, finding the pulse full and bounding, took 20 ounces of blood from the arm; at 10 p. m. I found him tranquil, no pain, pulse 88, the limb, with the exception of the toes, warm: Saphena Vein full; additional flannel was wrapped round the foot." —p. 56.

The following day the toes were not so warm as those of the other foot; castor oil, with an enema, was given, which produced no effect; the former was repeated, with calomel and the enema terebinth, which opened the bowels. On the 21st, there was evident pulsation of the tumour, but no thrill. There was no pulsation in the femoral or popliteal arteries. The temperature of the affected groin was 98°, of the hams 97°, of the ankles 94°, of the right great toe 87°, of the left and unaffected 87—pulse 88. On the 22d, pulsation, accompanied by a slight thrill, and on the 24th, it was more distinct in the abdominal portion of the tumour. He was bled to syncope, had fever diet, and 20 m. of tinc. digitalis every third hour. 25th. Pulsation more distinct, thrill very perceptible, no pulsation of the femoral artery, the ligature came away—blood cupped and buffed, v. s. ad. ʒxij. 26th. On turning in bed, felt a severe pain in the thigh and knee, as if the latter was tearing off; the anterior part of the thigh was numb; but in ten minutes the pain subsided. From the recurrence and strength of the pulsation, it was thought that an ordinary anastamosis could not produce it, and it was feared that the catgut ligature had been macerated and given away, a supposition too well founded. 28th. Much better—wound nearly healed. At six, p. m. while sitting in bed, violent hæmorrhage

issued from the wound, when he immediately expired. The body was examined next day, in the presence of the distinguished professors who had witnessed the operation, and the following appearances were observed:—

"The intestines being removed, the peritoneum raised, and the great abdominal vessels laid bare, the common iliac artery, at about three-fourths of an inch from the bifurcation of the aorta, was lost in an oblong tumour, about three fourths of an inch in diameter, and one and a half in length; the tumour terminated upon, but did not communicate with the, aneurismal sac. On cutting into the tumour, about half an ounce of greenish pus flowed from the wound and discovered the artery, which appeared somewhat contracted at one part, and its coats deeply indented, but not cut through, marking the place where the ligature had been applied. On blowing into the iliac artery from above, bubbles of air escaped freely from the external wound from whence the blood had issued; water injected by a syringe escaped by the same passage; clearly establishing the important fact, that the ligature which was of cat-gut, had been dissolved by the heat and moisture of the wound, and thrown off, before the obstruction of the artery, or the coagulation of the blood in the aneurismal sac, had been completed. It further appeared that the dissolution of the ligature had caused a small abscess to form in the place which it occupied. On slitting up the artery, the internal and middle coats were found to be completely divided in the whole circumference of the vessel, and small portions of lymph adhered to its internal surface. The popliteal aneurism was far advanced towards a cure; the contents of the sac were quite solid, and the tumour was reduced to about the size of about a walnut; the artery, for six inches above the sac, was filled with a firm coagulum,"—p. 57.

The most important inferences to be drawn from this case, are, in the opinion of Mr. Crampton,—

"1st. That the operation of tying the common iliac artery is not only feasible (when performed in the manner described in this paper) but is an exceedingly easy operation. The difficulties which Mr. Mott encountered, and which prolonged the operation "to nearly an hour," are clearly referable to the circumstance of his incision having been made *too low*. This, in the first place, brought him in contact with the aneurismal tumour, from which he was obliged, with great labour and considerable risk, to detach the peritoneum; then he had the whole mass of the tumour between him and the artery, which he was to tie; and lastly, he had the intestines pressing down upon him, and producing such a complication of difficulties, as I believe, few men but himself could have encountered with success. All these

difficulties, however, might have been avoided, by getting at the artery from behind and above the tumour ; in a word, by an incision which should begin where Mr. Mott's terminated.

2d. The question has often been proposed, " whether, under any possible circumstances, a surgeon could be justifiable in passing a ligature round the abdominal aorta ?" Without venturing to give a decided opinion upon this subject, it may not be amiss to observe, that in several instances, aneurisms of the abdominal aorta have undergone a spontaneous cure, in consequence of the obliteration of the artery above and below the tumour.

I have given, in the second volume of the Dublin Hospital Reports, the history of a case of this kind, and the preparation illustrative of it is now in the museum of Guy's Hospital, deposited by Sir Astley Cooper, to whom I transmitted it in 1819. If such an operation should be determined upon, I have no doubt that by a proceeding similar to that which I have described in this paper, a ligature could with great ease be passed round the abdominal aorta, without interfering with the cavity of the abdomen."

It is greatly to be regretted that Mr. Crampton had not applied a silk ligature in the case before us, by which he might have succeeded in effecting a cure, or at all events, a mitigation of the patient's sufferings.

III.—*An account of the dissection of the parts concerned in the aneurism, for the cure of which Dr. Stevens tied the internal iliac artery, at Santa Cruz, in* 1812. By Mr. Richard Owen, Surgeon.

Much scepticism existed as to the fact that Dr. Stevens had really tied the internal iliac artery in the case above alluded to, and on his arrival in this country, in the spring of last year, he submitted the preparation to the inspection of Sir Astley Cooper, Mr. Lawrence, and other eminent surgeons, who were all convinced upon the subject. He deposited the preparation in the museum of the Royal College of Surgeons, the dissection of which was intrusted to Mr. Owen, and the details of that gentleman remove all doubt from the original statement of Dr. Stevens. It will be recollected, that Dr. Stevens considered the gluteal artery was aneurismal, but it appears from the account before us, the ischiatic was the artery affected. The woman

was cured of her disease, lived for ten years, and died of a pulmonary complaint.

We shall now pursue our analysis, in the order in which the papers appear in the volume under notice. The first paper is by Mr. James, and has been already described.

The second is by Mr. Barlow, of Blackburn, on the successful removal of a medallary sarcoma of nine years duration, which occupied nearly the whole cheek, extended anteriorly from the inferior edge of the right orbit, hanging over the contour of the lower jaw, and laterally from the angle of the mouth to near the tragus of the ear, being remarkably prominent exteriorly. The integuments of the cheek presented a pale glossy aspect, and the surface of the tumour was covered with a net work of various veins. The vicinal glands did not sympathize with the disease. The operation consisted of an elliptical incision, which was followed by such profuse hæmorrhage and profound syncope, that the patient (who was a female, aged 66), seemed in the greatest danger. Several arteries were secured, and the patient was finally restored to health. Mr. Barlow adverts to a most important point in operative surgery, namely, the danger which arises in excision of tumours about the neck, from air passing into the divided veins, and destroying the patient. He details a case of this kind, which happened to himself thirty years ago, and refers to the cases narrated by Dupuytren, and Dr. Mott of New York. He shudders at the risk he has run in such operations, and inquires whether compression or ligatures ought not be employed on the veins in the cases before us. No one can peruse this paper, without a conviction that the author is a truly scientific and a cautious surgeon. The operation is highly creditable to his skill and dexterity, and proves him possessed of a degree of boldness which few practical surgeons of the present day possess. If our position were disputed, we need only refer to his successful case of Cæsarean operation, which has a high place in the annals of British surgery. His candour in acknowledging a fatal operation, which happened to him so far back as thirty years, reflects the greatest credit upon him as an ardent lover of science, for few among our modern surgeons could be found who would volunteer a similar declaration. In fact, we seldom find our great operators of this capital refer to their cases of failure; but their fortunate operations are as seldom left unrecorded.

IV.—*Cases illustrative of the efficacy of various medicines, administered by inhalation in Pulmonary Consumption, in certain morbid states of the trachea, and bronchial tubes, attended with distressing cough, and in asthma.* By Sir C. Scudamore, M.D. F.R.S. &c. &c. London, 1830.

We opened this volume with a confident anticipation, that St. John Long had resolved to appeal to the ancient ordeal, of trial by battle, to be decided, however, by the pen, instead of the sword; but that, not caring to enter the lists in person (lest he should be flayed by the critics, with as little mercy as he has been accustomed to shew to his victims), he had selected for his champion the doughty knight, whose name and appendages make so gorgeous an appearance in the title page; and that he had him equipped for the encounter with the defensive in armour of his illustrative cases.

But, alas! we were doomed to be disappointed. The age of chivalry is past; or, as Lord Byron would have said, "there is no sprit now-a-days, unless it be the spirit of quackery and fanaticism."

The Doctor *hibernicé*, Sir Charles, seems to have made up his mind, that St. John, after receiving the crown of martyrdom at the Old Bailey, to which he is justly entitled, will be duly canonized by his votaries as a matter of course, and therefore that it would be well to secure him for his patron saint, and forthwith to erect a shrine in his own domicile, at which his disciples might celebrate his mysteries in their genuine spirit, when the law shall compel him to be absent in the body. And doubtless a very pretty trade it will prove, to collect St. John's ,instead of St. Peter's pence, in Wimpole-street, so conveniently near to the Temple in Harley street, where the saint's own miracles were performed, indeed so fixed does the worthy knight's resolution to assume the office of high priest appear to be, that we would strenously advise St. John Long, should he yet again be spared to his *agonized* friends, explicitly to disclaim all connection with any other house, except in consideration of value received.

To be serious, however, it is deeply to be deplored that a man like Sir C. Scudamore, whose former publications have shewn that he might at least have assumed a station of respectable mediocrity in medical literature, should have compromised his character by the production of the pamphlet before us; the very highest air of which is but *ad captandum vulgus;* literally to entrap the herd of titled and untitled proselytes of a detected impostor.

As to the shallow pretence of performing a service to medical science and humanity, we would simply demand in what degree will science be benefited by the information, that Sir C. Scudamore is in possession of certain means of curing disease, which he declines to impart to the profesion? The plain fact is, that the work is of no use whatever to medical men, and was never intended for their perusal. We will cite some of the internal evidence which is afforded, in proof of this assertion.

In the first place, Sir Charles in his preface declines entering on the debatable question of originality, and in the very next sentence declares, "When I commenced my investigation of the powers of iodine used in the way of inhalation, I had never heard a suggestion on the subject, and in regard to most of the other medicines, except chlorine, I am not aware that they have, up to the present moment, been employed in this way by any other individuals." We would ask whether the name of Dr. Sanders, of Edinburgh, and his suggestion of the inhalation of the vapour of æther, in combination with muriatic acid, has never reached his ears.

The author subsequently alludes to the work of Dr. Murray, of Belfast, on the inhalation of iodine, and also to the memoirs presented to the Royal Academy of medicine in Paris by M. Gannal on the use of chlorine, but as if for the express purpose of attracting attention to the mode in which he has attempted to conceal his disingenousness under the mask of candour, he speaks of them only as recently published, whereas the memoirs were read in 1827, and Dr. Murray's work issued rom the press in the following year.

The first case with which Sir Charles has favoured us came under his care in March, 1829, whence we infer that the employment of iodine has been borrowed from Dr. Murray, and the glass apparatus from M. Gannal. Indeed, we expect if a second edition of Dr. Murray's work should appear, that its author will repay the strictures on his practice of diffusing the vapour of iodine through the atmosphere of the apartments of the sick, by including Sir C. Scudamore and his glass bottle in the sarcasm, which he has already levelled against Dr. Mudge and his tin tea pot.

The last and most convincing proof which we shall adduce that these cases are intended for the public, and not for the profession, is furnished by the author's refusal to give a formula for his inhalation, lest those into whose hands it may fall should be tempted to employ it themselves to the manifest

risk of their own injury, and the certain diminution of the profits of the inventor.

We repeat, therefore, that it is imposible to suppose that this work is published for any other purpose than that of supplanting Long, if he should be suffered to remain, or of succeeding him if his career should be brought to a close; and this in a certain degree it will certainly answer, in spite of all the commentaries that criticism may offer. But we cannot help thinking that the ungracious task which the author has imposed upon us might have been spared, together with the cost of publication to himself, and the annoyance of his readers, by the waste of valuable time consumed in perusing his cases, by the simple expedient of inserting an advertisement in the newspapers announcing, that Sir C. Scudamore, Knt. Doctor of Medicine, &c. &c. residing at 6, Wimpole Street, Cavendish Square, can cure consumption with the greatest safety, and in half the time that Mr St. John Long can. Sir C. will not longer enjoy his new calling, as Mr. John Smith, Lecturer on Anatomy and Surgery, has announced a similar work. *O tempora, o mores.*

V.—*Lectures on Anatomy, interspersed with practical remarks.* By BRANSBY B. COOPER, F.R.S. Surgeon of Guy's Hospital, Lecturer on Anatomy, &c. &c: London, 1830. Two Plates, Royal 8vo. Vol. II. pp. 308. Highley.

A WORK of this description, comprising general and descriptive anatomy, physiology, and surgical remarks, has long been a desideratum in the medical literature of these countries. General anatomy is in its infancy in our schools; indeed, it forms no part of education in the greater number of them. Hence it is that the greater portion of students are perfectly unacquainted with this very important branch of science, without the knowledge of which they can never form a correct opinion on the lesions produced by disease. It affords us much satisfaction to observe, that examiners of the Royal College of Surgeons are now accustomed to test their candidates' skill in this division of anatomical science, a plan long since adopted by their contemporaries in Dublin. It is really astonishing to think that the numerous class of medical practitioners in this section of the empire, should have been allowed for so long a period to enter on their professional duties without a knowledge of the intimate structure or tissue of the various parts of the body. It is a matter of no small surprize that this defect

still exists in some of the large schools in this metropolis; but we cannot wonder much at this, when we consider how lectureships are filled up in these establishments. The time has arrived when the appointment of lecturers must depend on merit, and not on interest.

But to return to the work under notice.

The subject of this volume is the muscular system, which very properly follows that of the former, which was the osseous; the next will contain, "the anatomy, with physiological and surgical remarks of the interior parts of the body;" the fourth and last will be devoted to "the brain, nerves, and organs of the senses."

This production is not of a kind which we can illustrate by extracts; but we can state with perfect confidence, it is evidently compiled by a gentleman of sound sense, practical experience, and a perfect knowledge of the subject, and who, besides his high professional acquirements, possesses, in no ordinary degree, the invaluable art of communicating the truths of science in a clear, simple, precise and popular manner. Another prominent recommendation to which we shall advert is, that the information it contains is of the newest kind, and that every part of the work has been carefully adapted to the present improved state of medical science. It is dicidedly one of the most useful works which has yet been offered to the public, and when finished will be extremely popular with the profession. The plates are very clearly and beautifully executed. There is one defect which we hope to see obviated in a future edition, and that is, the exclusion of pathological anatomy. Had the talented author appended this very important branch of science, his work would be much more valuable, and be one of standard authority and reference with all classes of the profession. It differs from the productions of Dr. Cragie, Mr. Grainger, Bayle and Hollard's, by comprising descriptive anatomy. Neither does it contain such reference to the authorities as these which we have just named; but there is a good excuse for this, when we recollect that the work consists of the author's lectures, and every one knows how confusing it is to the minds of those commencing their studies in medicine, to have their memories loaded with the names of writers, whose opinions only are worthy of a place in their remembrance. Every opinion of standard authority is given, but the experienced and practical physician or surgeon would wish to have more ample references.

VI—*Elements of Surgery.* By ROBERT LISTON, Fellow of the Royal Colleges of Surgeons in London and Edinburgh, Surgeon to the Royal Infirmary, Lecturer on Surgery, &c.: London, 1831. Part I. 8vo. pp. 318: Longman and Co. and Adam Black, Edinburgh.

VII.—*A System of Operative Surgery, containing a description of the most approved plans of performing the different Operations in Surgery on the dead body, with remarks on their anatomy, and accompanied with practical observations, being principally designed for the use of students in surgery.* By WILLIAM HARGRAVE, A. M. M. B. T. C. D., Member of the Royal College of Surgeons in Ireland, Lecturer on Anatomy, Physiology, and Operative Surgery, &c.: Dublin, 1831. 12mo. pp. 533. Hodges and Smith.

FEW really scientific members of our profession of the present day are satisfied, until they have contributed their share to the records of medicine; and, in fact, there is none of the natural sciences which affords a greater scope for improvement. After all that has been accomplished, the domain of medical science is as yet unexplored, and all that is known about it can be easily compressed into a narrow compass. So rapid has been the progress of our science, that our systematic and elementary works need constant revision. It appears from the prefaratory remarks of Mr. Liston, that the systems of Latta, B. Bell, and Allan, which were the text books of North Britain, are far behind the present state of surgical science, and therefore he has ventured to supply the deficiency, by reducing the heads of his lectures into a compendium or guide for those students who resort to Edinburgh. Mr. Liston is well known to the profession, as one of the best operative surgeons in these countries, and is eminently well qualified to arrange a compendium of his favorite science. He has executed his task, as might be expected, in a very able manner. His descriptions are simple, plain, concise, yet sufficiently copious, and his principles and practice such as every man of science has sanctioned.

The subjects of which he treats in the volume before us, are inflammation of the various tissues and its consequences, suppuration, mortification, erysipelas, furunculus, anthrax, inflammation of mucous, serous and synovial membranes, inflammation of bone, caries necrosis, fragilitas, and molli-

ties ossium, rickets; inflammation of arteries and veins, and other diseases of vessels; tumours, wounds, ulcers, hospital gangrene, malignant pustule, ulcers of the genital organs, scalds and burns. It is evident that a work of this kind does not admit of analysis, of nothing more than an opinion of its merits. The grounds upon which this work founds its claims to approbation are, brevity, accuracy, perspicuity, and the practical details with which it abounds. It reflects great credit on the talents and industry of the author, and will add much to his well-earned reputation.

Mr. HARGRAVE's object is to place before the student, the most approved plans of performing surgical operations, and to present to his view the relative anatomy of parts interested in operations, which has been almost excluded from elementary works of this description. All the principal operations that can be performed upon the dead subject are described, such as the tying of arteries, amputations, excision of joints, extirpation of different organs, laryngotomy, tracheotomy, œsophagotomy, lithotomy, catheterism, hernia, trephining, &c. The operations on the eye are omitted, as our author considers they ought to be studied in conjunction with ophthalmic surgery, or on the eyes of inferior animals in the closet. The anatomy of the different tissues implicated in each operation, is described with the most exact fidelity. The operations are graphically described, and the various standard works referred to, and the latest improvements quoted. There is not a single work of authority which our author has not laid under contribution, and illustrated the tenets of each writer upon the dead body. The minute descriptions of general and relative anatomy, render this work the best companion to the surgical student.

In this very important point it is unrivalled, and surpasses every production of the kind hitherto published. In this it far excels Averill's and the other manuals of operative surgery. It is a work well adapted to the dissecting room, and the best possible companion for the Dublin Dissector. It ought to be in the hands of every anatomical student and young surgeon, as it is an excellent guide to the dexterous performance of every surgical operation of importance. It is an accurate, well digested, well written work, evincing great research, discrimination, deliberation, extensive observation, judgment and fidelity. It is a work of great utility, and cannot fail to be encouraged.

VIII.—*First Principles of Medicine.*—By ARCHIBALD BILLING, M. D. Fellow of the Royal College of Physicans, Lecturer on the Theory and Practice of Medicine, and on Clinical Medicine in, and Physician to, the London Hospital, &c. &c. London 1831. 8vo. pp. 131. T. and G. Underwood.

THE work of Dr. Billing is a lucid commentary upon the first principles of medicine, and comprises an interesting account of the received doctrines of physiology and pathology. It seems to us to consist of introductory lectures on the subjects of which it treats, in which the author evinces a perfect knowledge of these branches of medical science. It has often struck us as with surprise, to notice some of our lecturers on the theory and practice of medicine in this metropolis, content themselves with delivering an introductory lecture to the study of medicine, and then commence the practical part of their course with inflammation or fever. This perhaps arises from the super-excellence of the London teachers, who deem the study of the institutions of medicine a matter of no importance. This branch of medicine is taught however in all universities; and is assigned to a distinct professor, and we may observe, embraces physiology, pathology, and therapeutics. Its first division is on life and health, its second, on the general doctrine of diseases, its third on the prevention and treatment of diseases. These subjects are scarcely touched on by any other professor, but the candidate for the surgical diploma, or licence from the Apothecaries' company, is to be ushered into his career without the knowledge of the pulse and of those other important principles, without which he can never be a safe or successful practitioner. We speak advisedly when we declare, that not one in a hundred of those who qualify in London, for surgery and pharmacy understand the characters of the pulse, or ever heard a word about them during the course of their education. The truth is, the police of the medical profession in this section of the empire is in a most anomalous and absurd condition; when a company of druggists and a society of mere anatomists and surgeons usurp the rights of the Universities and College of Physicians, in granting licences to practise medicine, and not pharmacy or surgery. There are no apothecaries or surgeons in this country, all pseudo-physicians, men who are not examined as physicians, men who confine themselves to the study of descriptive anatomy, materia medica and surgery; as

to pathology, therapeutics, practice of medicine, clinical medicine or surgery, midwifery and diseases of women and children, chemistry or forensic medicine, they are seldom attended, forsooth as there is no examination upon such subjects, or only partially attended, to procure the certificates. As to the college of physicians which ought, and is in duty bound to take cognizance of medical education and the conservation of the public health, it is too dignified, too important, to notice such subordinate matters. The lethargy which the narrow laws of this body throw over the whole profession, has extended to the public, and exercises its baneful influence to the fullest extent at the present period. If proof were required of the truth of this position, we need only refer to the career of Mr. St. John Long, and the myriads of his tribe who infest the metropolis. Against complying with the claims of moral justice, the college alleges a thousand apologies; all former arguments however unsuited to the present state of opinion will be renewed, musty, fusty precedents, the products of three centuries back, produced; but all will not do, the interested veil of sophistry and monopoly is seen through, and those that run may read. It would be superfluous to offer serious arguments in proof of the expediency of reform in the medical profession. The time has arrived when another hydra, the law, will be suited to the wishes of the public; and medical abuses and defects will and must be speedily removed. It is monstrous strange that a society, whose meetings are attended by Dukes, Marquises, Earls, Archbishops, Judges, Legislators of both Houses of Parliament, all members of the Government, cannot procure the power of protecting and regulating the rights and interests of its members, and the interests of science and humanity. If the members, the elect, of this corporation, be silly enough to suppose, through their inordinate vanity, that they can precede and excel the members of rival, and in their opinion, subordinate institutions, and that the public will sanction them, they suppose one of the most erroneous and absurd ideas that can be imagined. They have woven a web of delusion, which is exposed by daily observation and common sense, and which they inanely labour to prove correct. We shall not prosecute this subject further at present, but dismiss it by observing, that the silence evinced by most of our contemporaries, on the absolute necessity of reform, is really inexcusable.

To return, however, to the work which has given rise

to these observations, it affords us much pleasure to state, that Dr. Billing has rendered the student of medicine an essential service, by this interesting and instructive volume. We strongly recommend, not only the perusal, but the study of it, to the student and young practitioner, and even to the ablest and most experienced, who will gain both information and knowledge from reading it. As a Compendium of the First Principles or Institutions of Medicine, it is well worthy of the attention of the profession. Should another edition of the work appear, of which we entertain no doubt, we would suggest to the author the propriety of giving a table of contents, and dividing the pages into paragraphs, as at present their is no break or resting place from one cover to the other.

ORIGINAL COMMUNICATIONS.

I.—*Case of Fractures of the Cranium, removal of depressed bones—recovery.—By* RICHARD TUTHILL, M.D. Assistant Surgeon to the 52d Regiment, Halifax, Nova Scotia.

DANIEL CALLAGHAN, æt 23, a labourer, of a stout muscular habit, and sanguineous temperament, on the 9th of September last, received a severe injury on the left side of the head, from a stone weighing 12lbs. which was driven into the air by gunpowder, and fell from a considerable height. He was knocked down by the force of the blow, and was rendered senseless, in which state he lay for some time. Two distinct fractures were produced, one of the centre of the parietal bone close to the sagital suture, the other occupied a portion of the anterior part of the parietal, and the adjoining part of the frontal bone; the former was attended with considerable laceration of the scalp, that exposed the depressed portion of bone, which was partially buried under the inferior part of the parietal bone in such a manner, that it could not be removed without applying the trephine; the latter fracture was unaccompanied with any laceration of the integument. Two portions of depressed bone were removed at about the dis-

tance of half an inch from one another, and immediately afterwards he was restored to his senses, and did not suffer the least deficiency of them afterwards. The hemiplegia of the opposite side became evident after the sensibility was restored, and gradually subsided in the course of ten days; the upper extremity first recovered its functions, and then the lower one. Two bleedings, of 32 ounces each, were performed before and a few hours after the operation. As no symptoms afterwards presented themselves, which required a repetition of the bleeding, the medical treatment consisted of purgatives, diaphoretics and a low diet. The pulsation of the brain was very evident in this case. The wound healed by the first intention, the pulsation gradually decreased, he was perfectly restored to health and to his work, 21 days after the accident had happened.

II.—*Fracture of the Cranium, fungus cerebri.*

Jacob Faden, æt 22, a native of Halifax, Nova Scotia, of a pretty stout muscular form and sanguineous temperament, on the evening of the 22nd July, received a blow upon the superior part of the left parietal bone, which produced laceration of the scalp, and such fracture and depression of the bone and laceration of the dura mater, as to occasion a small protrusion of brain. Stupor or coma came on immediately after the accident had happened, and continued until 24 hours after the operation was performed; it then ceased, and did not return until a short time before his death. The operation was had recourse to as soon as possible after the wound was inflicted. When the circular portion of bone was taken away, one or two small depressed portions were elevated, and several small pieces that were driven into the substance of the brain were removed, the lacerated portions of the scalp were brought together by suture and adhesive plaster, and the patient was left quiet in bed. But soon after active cerebral inflammation came on, and was in a short time attended with such violent delirium, as to require the use of a straight jacket; he was immediately bled to 24 ounces, the day after to 16, the third day to 12, and the fourth day to 12. Active purgatives were administered, followed up by diaphoretics and opiates, and by these means the inflammatory action was subdued, and his natural senses were restored. A short time after the operation had been performed, the brain put on a

morbid action, and portions protruded, varying in size, which were removed by the scalpel and ligature; between four to six ounces of the brain from first to last were removed, and notwithstanding so large a portion of so vital an organ having been cut away, it is singular to observe, that his senses and faculties were perfect to within a few hours of his death. He was doing so well as to sit up and walk about the last three weeks of his illness, without experiencing any inconvenience; his appetite improved, bowels were regular, and the strongest hopes were entertained of his recovery. But that unfavourable symptom, the protusion of brain, increased and was removed every day for a week, besides at other periods, without occasioning the least pain or any other bad symptom; pressure was made by pledgets of lint, wetted in lime water, with a view of keeping down the morbid growth; this gave rise to hemiplegia of the opposite side without the least impairment of the intellectual faculties, which continued three weeks, the period that the pressure was employed; the moment the pledgets were taken off, the functions of the opposite side were perfectly restored. On the 14th September, rigors took place, and became constant until the day of his death. On the 16th, the largest portion of brain, the size of a large hen's egg, protruded, muttering delirium began in the evening, the day after the eyes were turned outwards and a little upwards, the pupils were irregularly dilated, he became insensible, incapable of even muttering or of making any exertion, and on the 19th September, 56 days after the accident had happened, he died without making any struggle. The day after the upper part of the cranium was removed, the dura mater was found firmly attached to the circumference of the circular opening made by the trephine, and so united to the pericranium by vessels passing from one membrane to the other, that the edge of this opening presented a smooth hardened edge, of a cartilaginous nature, but of a preternatural red colour. The brain about the wound was in a perfectly decomposed state, mixed with a portion of purulent matter. A lage abscess, filled with matter, was found in the left middle lobe under the wound, which communicated with the ventricles and filled them with matter. The upper surface of the tentorium, on the left side, was covered by a layer of purulent matter, which was found at the base of the cerebellum. No other morbid appearances were discovered.

III.—*Case of Cæsarean operation.*—By JOHN STIRLING, Esq. Halifax, Nova Scotia, communicated by Dr. Tuthill.

SARAH MUNN, aged 42 years, of the height of four feet only, although the head, neck, and trunk, as low down as the os ilium, are of the size of those of a person of ordinary stature; the lower part of the pelvis, upper and lower extremities, being so diminutive as to appear like those of a child of six or seven years, was married in the year 1822; in the month of July, 1823, she was taken in labour, and my assistance was requested.—On examination I found the pelvis distorted, and very much contracted; the upper part of the sacrum projected forward, so far as to overlap the symphysis pubis, the labour pains at this time were slight, and I could not find the os uteri. Under these circumstances I requested a consultation, at which Messrs. Head, Hume, and Keegan, medical practitioners in this place, attended, and after due examination, it was agreed that as the shortest diameter of the pelvis seemed about two inches, an attempt to extract the fœtus by embryulcia might succeed. The labour pains increased, the os uteri was gradually dilated, the membranes gave way, and the breech presented; with great difficulty the feet were brought down, and at last the body was brought through; but now finding it impossible to get the head into the pelvis, and also impracticable to pass the fingers through the vagina along the body, I was obliged to dislocate the upper cervical vertebræ and elongate the neck, so as to make room for my hand. I now introduced the perforator, and made two or three perforations into the skull, and after incessant efforts for six or seven hours, the head was at last extracted piece meal. In the progress of this effort, it was necessary to loose and remove separately each bone of the cranium, by means of the fingers in utero, and I was even obliged to separate the lower jaw and the spheniod bone from the bones of the face, before these last could be removed. The consequences of such violent and long continued efforts were severe inflammatory fever, with sloughing of the soft parts in the pelvis, in which the bladder participated, and an opening about an inch in diameter remained, through which the urine continued afterwards to pass into the vagina. She finally recovered, and again becoming pregnant, miscarried in the second month, in the year 1826.

In the month of May, 1828, she informed me that she was again pregnant, and I endeavoured to persuade her to permit

me to use mechanical means to produce abortion, which she declined.

About three months afterwards, she had an attack of pneumonia, which yielded to the usual mode of treatment, since which time she has enjoyed pretty good health, with the exception of some febrile attacks occasioned by the pain and irritation produced by the urine passing into the vagina. On Saturday evening, the 20th December, 1828, labour pains came on, at first slight, but they gradually increased. On Sunday afternoon, in consultation with Mr. Grigor, surgeon, found, on examination that the os uteri was loose and soft, high up above the brim of the pelvis, and about one and half inches in diameter, the belly was pendulous, being projected wholly before the os pubis, pulse 90. On Monday, at two, p. m. the os uteri was nearly dilated, the membranes gave way, and the head was felt to present high above the brim of the pelvis; after the rupture of the membranes, the pains diminished, and she became restless and thirsty, pulse about 104. The soft parts within the pelvis were highly irritable, and felt hot, and very much thickened, every attempt at examination, even by a single finger, occasioning excessive pain.—Under these circumstances a full consultation of medical practitioners was called at seven o'clock, p. m. when it was the general opinion, that an attempt to extract the child by embryulcia would, from the thickened and irritable state of the soft parts, probably be fruitless, and if successful, must end in the destruction of the mother, and as the patient herself expressed a resolution to submit to any risk rather than undergo the sufferings she formerly experienced, it was revolved (after explaining to her the great danger of the operation) to extract the child by the Cæsarian section.

At nine o'clock the same evening, the pains having nearly ceased, the operation was performed; the bowels had been opened in the morning by a dose of castor oil, and at four, p. m. an enema was thrown up, which emptied the large intestines. The room was heated to about 90°, the patient placed on her back near the foot of the bed, and a broad swathe fixed loosely under her. The operation was commenced by an incision, beginning a little below and to the left of the umbilicus, and extending in a line with the linea alba, about seven inches towards the pubis, this laid bare the tendinous sheath of the rectus; a second incision exposed the peritoneum, which was also divided and the uterus appeared closely embracing the child. A small opening was now made into the uterus at the pubic end of the incision, and two fingers being introduced, the uterus was laid open by a blunt pointed bis-

toury, the membranes ruptured, and a living female child with placenta removed without difficulty. Previous to the removal of the placenta, not more than half an ounce of blood was lost, and not more than six ounces in the whole. The uterus contracted strongly, and the wound in its substance was now only about two inches in length. The small quantity of blood in the abdomen was removed by a soft sponge, a fold of the ilium, which protruded was carefully replaced, and the wound closed by five interrupted sutures through the skin and muscles, with long slips of adhesive plaster and a compress of lint, and the whole supported by the swathe pinned moderately firm around her.

She did not appear exhausted by the operation; her pulse half an hour afterwards was 96, the child was strong and healthy, and still survives.

On being placed in bed, an anodyne draught was administered, and she remained quiet for half an hour, when she was seized with nausea, and vomited a part of the draught; another was given, which she also rejected, after which she fell asleep, and remained in that state, with two or three short intervals, during the night. After the vomiting, her pulse was suddenly increased in frequency to 120, and during the night there was a discharge of a bloody appearance, from the lower part of the wound; the discharge from the vagina in the ordinary quantity.

Dec. 23.—10, a. m. Abdomen soft, not tender on pressure, pulse 130, rather sharp, slight thirst, bled her to 10 oz. which produced some faintness, at 12, gave her a purgative enema. At 5, p. m. the enema not having produced any effect, gave her 1 oz. of ol ricini, which unfortunately again induced vomiting and it was rejected. At 10, p. m. slight nausea, pulse 136, gave another enema, which produced one scanty evacuation.

Dec. 24—10, a. m. Has passed a restless night, and vomited frequently, there is some tumefaction of the abdomen, no increase of pain, pulse 140, tongue clean and moist, has some thirst, no evacuation from the bowels; during the night there has been a considerable discharge of bloody sanies from the lower part of the wound, chiefly during the vomiting: ordered her calomel gr. iv. opii gr. i. to be repeated in four hours, with an enema—At 5, p. m. had slept about an hour, pulse 140, no evacuation from bowels, thirsty, belly tumid, discharge from the vagina has ceased, repeated the calomel and opium, with the enemata, the vagina to be frequently washed with warm water by means of a syringe; at 8, p. m. has not vomited since noon, pulse 140, thirsty, feels inclined

to sleep, removed the swathe and compress, and applied fresh straps, found the integuments close and adherent, except a small space at the lower part, where there was a small coagulum lying, which was removed. Belly tumid, without pain; the uterus feels large, hard and painful on pressure; repeated the calomel and opium, and ordered a purging enema to be repeated several times during the night, should no purging effect be produced.

Dec. 25—8, a. m. Was restless and vomited several times during the night, abdomen tumid, but soft and without pain, uterus can be felt hard and swelled through the integuments. Enemata produced two or three fæcal evacuations, no lochial discharge, pulse 150, small and weak. She gradually sunk, and expired at three o'clock, p. m. being about 66 hours after the operation.

Examined the body next day. On removing the stitches and opening the wound, found three or four small coagula adhering firmly to various parts of the ilium, at which spots there were slight marks of inflammation. The peritoneum had also two very small specks slightly inflamed; the uterus was large and hard, and from the wound in it, which was open, there oozed a dark thin sanies, its colour, particularly for some distance round the wound, was darker than natural, the bladder was small, but healthy, in it was a small circular opening about an inch and half from the sphincter, through which the urine had passed into the vagina.

Dimensions of the Pelvis.

	Soft Parts removed.	Soft Parts not removed.
	In.	In.
Short diameter from projection of sacrum to the symph. pubis .	2. 1-12th	$1\frac{7}{8}$
Long diameter of ditto	$3\frac{7}{8}$	3 6-8ths.
Projection of sacrum to the point of the os coccyx	$2\frac{1}{8}$	$1\frac{7}{8}$
From ischium to ischium	$4\frac{3}{4}$	
From arch of the pubis to the remotest part of the sacrum in the hollow	$2\frac{3}{8}$	$2\frac{1}{8}$
From superior spinous process of the ilium to the other	$8\frac{1}{2}$	
Whole height of the body . . .	4ft. $\frac{1}{2}$inch.	

6th Oct. 1830, Halifax.

IV.—*Clinic Reports—Richmond Hospital, Dublin.*—By JOHN SWIFT, Esq.—M.R. C.S.—*Cubito-digital Neuralgia —Excision of the ulnar nerve.—(continued.)*

JOHN KEARNEY, aged 70, of active habits, and enjoying good health, was admitted on the fourth of September, with neuralgic symptoms, principally affecting the ulnar nerve. He stated, that the pain commenced in a circumscribed spot, on the palm situated immediately above the metacarpo-phalangeal articulations of the little and ring fingers, and runs along the ulnar nerve as high as the brachial plexus. Sometimes, but much less frequently, the pain runs in the course of superficial nervous arch of the palm, towards that branch of the median nerve, which supplies the outer side of the thumb, and then proceeds up the fore arm; pain periodical, and brought on by trifling causes; soreness felt on pressing the spines of the second and third cervical vertebræ, and over the roots of the brachial plexus, The principal uneasiness referred to the limited spot on the palm before mentioned.

These symptoms first appeared about seventeen years ago, after amputation of the fore finger of the affected hand. Moxa had been frequently applied to the palm without effect.

Sept. 6th.—Dr. M'Dowel excised about an inch of the ulnar nerve, an incision two inches in length, was made through the integuments in the lower third of the fore arm, over the nerve, not parallel to its direction, but commencing above, close to its radial side, and terminating below, at the same distance from its ulnar, the aponeurotis was then divided; the flexor carpi ulnaris drawn inwards with a bent probe, and the nerve seen lying at the inner side of the artery, was raised with a tenaculum, and divided. The operator then, to satisfy himself, pricked the little finger on both sides, and the ulnar side of the ring finger, without being felt by the patient, but on touching the radial side of the latter, he complained of pain. The operation did not occupy two minutes, and there was no difficulty experienced in finding the nerve.

7th.—Has had no remission of pain since the operation; it shoots from the affected spot on the palm, and from the thumb, in the course of the median nerve. Ordered, opii gr. iss. 8 vis. horis.

8th.—Pain continues undiminished; a blister to be applied over the cervical vertebræ, which are tender on pressure. Habt. ext. cicutæ, gr. ij. opii granum in pil. 6 tis. horis.

9th.—Slept better last night, and feels less pain.

11th.—Attacked on the preceding night with severe paroxysms of coughing, attended with difficult expectoration, perspiration, and tendency to syncope. Emplast. vesicat. thoraci. R. mist camph. ℥vi, spirit. æther. oleosi ℥i. sumt. ℥j ter die.

12th.—Passed the night badly; cough and weakness, as on the last night; the blister had fallen off his chest. Hab. empl. vesicat inter scapulas—enema terebinth—fovr. pedes.

14th.—Pulmonary affection relieved: bowels confined; to have opening medicine.

15th.—Complains of being still teased with cough; less weakness; neuralgic pains diminished; feels much better. R. G. ammoniac. assafœtide, ℈j; ā ā pulv. ipecacuanhæ, gr. x in pill x ij divid: sumat, j. ter die.

17th.—Left hospital without permission. Neuralgic affection continues, but is a little better.

V.—*Enlargement of the Spleen, successfully treated by Iodine.*

James Laurent, aged thirty-eight, admitted on the 4th of August, with considerable enlargement of the spleen, extensive disease of the cervical and axillary glands, acute inflammation of both knees, and severe pains affecting the larger joints, inflammation of the periosteum, covering the middle part of the spine of the left tibia, a similar swelling situated on the right tibia, a little above the internal ankle, œdema of the lower extremities, general wasting, and adynamia. About nine years ago, he had some disease of the liver, for which he took mercury, under the care of a physician, at Mullingar; three years ago he was attacked again, with symptoms of enlargement of the liver, and used calomel and mercurial plasters, by the advice of Mr. Kirby, with considerable benefit. While under the influence of the mercury, he had gone abroad constantly. He was soon after attacked with pains in the knees and larger joints, and sometime afterwards was admitted as a patient into Sir P. Dunn's hospital, with jaundice, and pain in the right hypochondrium. Here he was treated with leeches to the side, calomel again, to salivation and warm baths, by which the hepatic affection was relieved. About a year since, he was treated by a surgeon for the pains in the joints, with calomel, and mercurial friction to salivation, without any benefit.

At the time of his admission, the spleen was much enlarged, but not painful; one of the lymphatic glands below the clavicle on the left side, and four in the cervical region of the right side suppurating, knees swollen and painful, particularly the right. He also complained of considerable tenderness of the ossa nasi. Hab. mist. colchici ℥vij, magnesiæ usto ℈j; sumat ℥j ter die. ℈j of the ung. hydrarg. fort. to be rubbed in every night over the region of the spleen.

9th.—Pains in the joints still continue; right knee hot, tumid and painful; complains of great soreness of the nose, and offensive discharge. Ordered to continue his medicines, to syringe the nostril with one part of supernitrate of mercury, and four of olive oil; to be cupped on the knee.

11th.—Right knee relieved by the cupping; complains now of the left, and of severe pains in the ankles; gets no sleep at night. ℥iss

of tinct. opii to be added to his colchicum mixture. haust. anodyn. h. s.

15th.—No diminution of the spleen; diarrhœa, with griping; severe pains in the knees and ankles; great prostration of strength. Haust olei ricini tinct. opii m. x. x—omit ung. hydrarg.

23d.—Pains as before; diarrhœa still continues. Haust. rhei C. magnesia—repeat his medicines.

Sept. 2d.—Pain in the left knee increasing; diarrhœa unchecked; a blister to the abdomen, which succeeded in checking the diarrhœa almost immediately.

11th.—Has been placed under Dr. M'Dowel's care, who ordered to have the left knee, which was swelled and very painful, cupped to ℥x, and his colchicum and anodyne repeated.

15th.—A portion of the ossa nasi exfoliated; pains still severe; glands of the neck still suppurating; spleen undiminished; slight return of diarrhœa; diffused inflammation of the integuments and cellular substance, extending from the inflamed axillary glands to those above the clavicle. Cucurbit. cruent. genu sinistro.

17th.—Pain in the knee relieved by cupping; other symptoms as before; ordered to have a blister over the inflammatory tumour, near the clavicle, which is extending in the cellular substance; lbj of the decoct. sarsaparilla daily—Extract cicutæ, gr. ij. o. n. et m—to omit his other medicines.

20th.—Diarrhœa checked; pains in the knees better; sleeps badly; to repeat his medicines as on the seventeenth, and to have an anodyne at night.

25th.—Feels stronger; less pain in the joints; discharge from the glands lessened; to continue the decoct. sarsaparilla, and have ten drops of the tinct. iodinii, three times a day, half a drachm of the ung. hydriod. potassæ, to be rubbed over the enlarged spleen every night. Haust. anodyn, h. s.

29th.—Improving; less pain, but considerable stiffness in the knees and ankles; a warm bath.

Oct. 7th.—Strength rapidly increasing; cervical glands nearly cicatrized; spleen considerably diminished; continue his medicines as on the twenty-fifth.

12th.—Continued improvement; no pains in the joints; stiffness nearly gone; moxa to be applied over the inflamed tumour, near the clavicle.

18th.—Going on well; inflammation arrested by the moxa, tumour in the splenic region "much lessened."

VI.—*Vesico-vaginal Fistula, successfully treated by actual Cautery.*

The patient, a young married woman, was delivered of her first child, about eighteen months ago, after a labour of eight days duration. The consequence was, sloughing of the posterior part of the

urethra and neck of the bladder, (the opening readily admitting the introduction of two fingers) with incontinence of urine in every position of the body. The ulcerated opening being considered too far back to admit of the application of a suture, the actual cautery was applied to it six times, by the aid of a speculum vaginæ. From eight to twelve days were allowed to intervene between each application, and the pain which followed it, was speedily relieved by the warm bath. From this treatment she has derived considerable benefit. The incontinence of urine does not affect her while sitting, standing, or in the recumbent position, and she can retain it for a few minutes while walking about.

X.—*Syphloid Gonorrhœa, a Papular eruption, Cure.*—Peter Gaffney, aged twenty, was admitted on the seventeenth of September, with papular eruption, disease of the lymphatic glands of the neck, and an indolent tumour situated at the upper and inner part of the thigh. He stated, that he had a gonorrhœa about two years ago. The disease appeared five or six days after connexion, with discharge of a greenish yellow colour, and viscid consistence, accompanied by considerable ardor urinæ. Nearly at the same time, a bubo appeared in each groin, as was noticed by the gentleman to whom he applied for advice, in a few days after he first observed these symptoms. The discharge was removed in a fortnight by purgatives and balsam copaiba, and the buboes, by the application of a refrigerant lotion. He then returned again to drinking, from which he had observed a temporary abstinence, and in two months afterwards, one of the glands of the neck suppurated. Similar inflammatory affections took place last Christmas, and a papular eruption came out, preceded by severe pains in the joints and head, which were relieved as soon as the eruption was fully established. He had also, about the same time, a sore throat, which got well in a fortnight, by the use of a gargle. Three months before admission, he had been under the care of a surgeon, who gave him twenty-four mercurial pills, which slightly affected his mouth, with benefit to the eruption, but was obliged to discontinue the medicine, in consequence of its injurious effect on the cervical glands. The eruption occupies at present the trunk and upper extremities. Successive crops of papulæ have appeared, which become filled with a small quantity of viscid purulent fluid; this concretes, and forms scabs, which scale off, leaving behind blotches of a dark red colour; after the disease has existed for some time, the papula, which, in the beginning, are distinct, have a tendency to become confluent; several of them clustering together on the same inflamed base. He states, that he never had chancre, nor is there any trace of it discoverable, by the most careful examination.

He was ordered to take an ounce of the tartar emetic solution three times a day, an anodyne at night, and a warm bath every second night. Local applications to the affected glands, under this treatment, the pains were relieved, and the eruption quickly faded away, and the state of the lymphatic glands improved; he left hospital on the 20th of October.

VII.—*Case of fatal Peritonitis in the last month of Utero-gestation.* By SAMUEL MALINS, M.D. M.R.C.S.

AT 5, p. m. on Wednesday, Nov. 24th, at the request of a messenger from Dr. Ryan, who had been hastily summoned in another direction, I visited Mrs. C., who was represented to be in labour, and otherwise seriously ill. I found on arriving, that Dr. R. had bled her from the arm, and directed the application of leeches, to be followed up by warm fomentations to the abdomen, and a dose of castor oil; and on further inquiry it appeared, that she had been bled the preceding day by a general practitioner who had been in attendance, who had likewise applied leeches to the abdomen, and a blister to the chest, and from whom she had received some aperient powders. The commencement of her illness was dated from cold shiverings, with which she was seized on Saturday morning last, since when she had complained of pain in the abdomen and feverishness; at present there was unceasing pain in the abdomen, and exquisite tenderness over the whole surface; pulse very rapid and weak; respiration hurried, anxious, and short; constant thirst; brown furred tongue, and frequent vomiting. (No evacuation from the rectum having taken place since Monday, a common aperient and emollient enema was ordered to be administered.) The expulsatory pains of labour had commenced this morning, according to the patient's report, and had continued at progressively decreasing intervals ever since. Now they were of frequent recurrence, though of brief duration, and as she expressed herself, were stopped, and suspended by the greater violence of the intestinal pain. It is right to mention that she was not at the full period of gestation, two or three weeks being wanting according to her computation. On examination per vaginam, the os uteri was felt dilated to the size of about half a crown, and through it the child's head was distinguishable in its natural position at the brim of the pelvis. The expulsatory pain regularly continuing, though checked each time, and abbreviated by the overpowering intensity of the general abdominal pain; I continued with her several hours, and found that the dilatation of the mouth of the uterus was gradually though slowly increasing. About eight o'clock these expulsatory pains began to diminish in frequency, and in the course of an hour had entirely ceased. Shortly after nine, p. m. Dr. Ryan was able to repeat his visit, and then it was that a more circumstantial inquiry was made into the symptoms which had been present previous to our attendance having been desired. The vomited matter was now for the first time observed to assume a coffee coloured appearance, the frequency and feebleness of the pulse were increased, the anxiety and hurry of respiration (a prominent symptom during the whole progress of the disease, as far as we could learn) were more conspicuous; cold and partial sweats supervened, the extremities began to lose their vital warmth, hiccup manifested itself, and the countenance began to present a hippocratic appearance. The bowels had been acted upon through

enema, without any mitigation of the pain. The patient when strictly interrogated (for she retained the most active use of her senses) confessed, that at the moment of commencement of her labour pains in the morning, she had felt "something crack within her," and at the same time experienced a severe shivering fit, an occurrence which the report of her nurse and attendants confirmed. The idea of rupture of the uterus having taken place, now suggested itself as a probability; though it must be admitted there was little direct evidence, excepting the sensation of something having given way, the circumstance of the motions of the fœtus not having been felt since the preceding day, the coffee coloured vomiting, and an anomalous vibratory jerking motion very manifest to the hand placed over the epigastrium in support of the opinion, for the abdominal tumour preserved its equable shape and tenseness, the head of the infant had not perceptibly receded from its position at the superior aperture of the pelvis, and there was no discharge of blood per vaginam. Still it was evident that the patient was sinking, and the grand question for consideration was, whether delivery should or should not be attempted. On the one hand, it was the moral duty of the attendants to preserve the life of the infant, if it could be done without risk to the mother; while on the other, there was the great probability that the child was dead; and that even were it living, the employment of manual or instrumental means of delivery, would prove a shock which the decreasing energies, and exhausted condition of her system would be inadequate to sustain. It was therefore decided not to interfere. At this time hot turpentine was directed to be applied to the abdomen, and cordial stimulant drinks to be given in such quantities, and at such intervals, as the almost incessant vomiting would permit. At one, a.m. on Thursday, we visited her again. The application of the turpentine had thrown the patient into a delirious state, by the immense irritation that it excited, from which however, she was now recovered, and had resumed her former composure.

All the indications of the approach of a fatal termination were become more decided; the pulse was tremulous and intermitting, the countenance perfectly hippocratic, the mouth encrusted with dark and fœtid sordes, the tongue loaded with a thick brown fur, singultus was loud and frequent, the extremities were cold, the surface bedewed with a clammy sweat, &c. She lingered for several hours in this condition, till the supervention of low muttering delirium and convulsions ushered in the presence of death, which did not take place before 6, p. m.) In this state she remained the greater part of the day, her mind fully conscious and collected, but towards evening delirium and convulsions supervened, and put an end to the scene at 6, p. m. Permission to open the body was obtained on the following morning; the inspection was confined to the abdomen, the parietes of which had already assumed a mottled discoloured appearance, denoting the tendency to speedy decomposition, the uterus was found entire. The peritoneum as well where it lines the abdominal muscles, or where it is expanded over the uterus and

reflected, around the large and small intestines, presented a dusky opaque appearance, with a congeries of injected vessels scattered in various parts of its surface, so that scarcely a square inch of its extent had a healthy colour or transparency; these marks of inflammation were more intense on the anterior surface of the womb, and the broad ligaments and ovaries were disorganized and in a state of gangrene, being hard and lacerable with the greatest facility. A vast quantity of a muddy fluid was effused into the cavity of the abdomen, in which floated some flakes of coagulable lymph. The parietes of the uterus had a thickness of three quarters of an inch, and it is remarked en passant, that their structure bore no kind of resemblance to that of muscle. The liquor amnii was abundant, of a brown colour, but transparent; the fœtus, whose head had made some advance into the parieties of the pelvis cavity, was a fully developed male. Its cuticle presented a bluish aspect, and was readily separable from the subjacent surface; the placenta was large, and of a soft spungy texture. The decidua, when stripped from the surface of the cavity, showed this to be dark-coloured, turgid and highly vascular; the cause of death was sufficiently evident—universal serous abdominal inflammation. The points of interest and doubt in this case are the occurrence of the sensation of disruption on Wednesday morning, the almost sudden cessation of the expulsatory pains on the same evening, and the peculiar oscillatory motion of the epigastrium. It may be conjectured fairly enough, that the fancied and apparent "cracking or giving way," depended on the last convulsive struggle of the fœtus, but for the cessation of labour pains, and the sudden occasional movement of retraction felt in epigastrio, I am unable to assign any efficient reason, or to discern any determining cause.

With respect to the exciting cause of this most unusual and extensive inflammation, it did not appear, from the account we could obtain from the friends, that she had received any external injury, or been subjected to the action of any individual unnatural force. But her occupation as washer-woman and laundress, continually demanded much mascular exertion, and frequent long-continued constrained positions of the body; after which she was accustomed to complain of irregular shooting pains in the abdominal region. Moreover, she had suffered about the third month of gestation from what was described as an attack of peritonitis, since which the abdominal uneasiness and soreness had been calm, when not induced by her forced and unnatural exertion, pretty constant. The age of this woman, it should have been noticed, was 33, and she had three children living. Her habit of body was delicate and weak; and the digestive functions so decayed, that every solid meal taken throughout her gestation was rejected, in a greater or less period of time after its reception into the stomach, by the action of vomiting; this was totally independent of the sympathetic effects of pregnancy in the stomach, which were present in a distinct but slight form, during the first two or three months. Are we to suppose in this case, that the inflammatory process was proceeding during the whole

interval between the first attack of peritonitis at the third month, and the sudden accession of the fatal attack on the Saturday preceding her death, that it was originally set up at the first mentioned period, and was afterwards maintained by the series of rude disturbing motions, and the irregular violent pressure to which the uterus was obnoxious during the period of its progressive enlargement.

What other supposition will explain so readily the occasional pains and constant uneasiness, under which she indisputably laboured throughout? Is there any thing in the nature of inflammation, any well ascertained and certainly defined phenomena belonging to its march and consequences, which forbid our entertaining the belief that it was present during this period, of from five to six months, working its latent and insiduous course, and accumulating its force and intensity for the terrible display which it at last so suddenly manifested itself?

Admitting the possibility of a latent or sub-acute inflammatory state of such duration, how was it that it did not display itself till the period we knew that it did? Or rather why did it display itself then in preference to any other period? for the knowledge of neither the patient herself, nor of her friends could supply us with any unusual circumstance to be adopted for, or tortured into an exciting cause.

Rejecting the possibility of inflammation existing so long without evidences of its presence, by more than transitory abdominal pains, how, it may be asked, can they be better or differently explained? We had inflammation at the third month, pains and tenderness are never absent up to the ninth month, we had then (without any evident or unusual exciting cause) other inflammation proving fatal in a short time. Here certainly was an inseparable claim, a linked continuity of morbid action.

38, Kirby Street, Hatton Garden.
December, 1830.

Note by the Editor.—Dr. Ryan was of opinion, on seeing this patient, that her disease was peritonitis, which he stated in the presence of the midwife, and several other persons, before his friend arrived.

There was intense pain on the slightest pressure, on every part of the abdominal parietes, and also increased heat of surface. The patient was bled from a large orifice to syncope, and the blood was neither cupped nor buffed; on the preceding day it possessed both characters, when it was abstracted by a gentleman whom the husband had dismissed, though nothing could have been more judicious than his practice. He had blistered the chest, as there was a hard cough, and difficult respiration.

Rupture of the uterus was suspected, for the reasons already stated; and more especially, as every scientific obestetrician is aware that it might happen in any of the last months of pregnancy, from mental emotion, (Percival, Underwood) from external injury, or preternatural labour, and without any evident cause. The usual appearance of

the abdomen, and the natural presentation at the brim of the pelvis, in this case, disproved the possibility of its occurrence,

The grand question was, ought delivery to be effected or not? To determine this important question, it was necessary to consider every symptom of the case.

It will be recollected, that the peritonitis had preceded the supposed laceration, and must have been aggravated by the occurrence, had it actually taken place. The motion of the infant had ceased for some hours; and under existing circumstances, there was the greatest probability that it was dead. As the uterine action had ceased, delivery could have been effected only by one or two operations, both of which were unjustifiable, by forcible dilatation of the os uteri (in peritonitis) or by gastrotomy. The first operation is unsanctioned in all cases, until the womb is somewhat dilated; an axiom held by obstetric writers, in all countries; and still more objectionable for the extraction of a dead infant. Again, was not gastrotomy as objectionable, when the vital power was so prostrate, where abdominal inflammation existed; and where the patient might have died under the knife, though there was no positive evidence of uterine rupture, or of the life of the infant? But suppose the infant was extracted, living or dead, setting aside the risk of the mother, of what benefit in her disease could delivery have been?

Besides, it was reasonable and just to suppose, that the peritoneal coat of the uterus, and perhaps the organ itself were implicated in the disease?—a supposition confirmed by the necrotomic appearances—had delivery been effected by turning, which in the humble but firm opinion of the writer, was unwarrantable in such a case, the patient's disease could not have been benefitted in the slightest degree. First, the os uteri must be forcibly dilated, an unwarrantable proceeding in all cases; 2d. the infant was to be extracted; 3d. the placenta, a fatal proceeding, unless the uterus contracted, to stay hæmorrhage; 4thly, the decidua should inevitably be left behind, as there was no uterine action to effect its separation—a most undesirable circumstance, in such a case as an additional source of irritation. Those acquainted with obstetric practice, will unanimously agree with this statement; such being the views of Dr. Ryan, and of his talented and erudite friend, Dr. Malins, no operation was attempted; and though few practitioners could have been more anxious for the preservation of parent and offspring, or either the unfavourable results afford a melancholy consolation in the positive proof of the validity of their opinions and practice.

The dissection proves that human endeavours were all useless.

It is right to explain, when the warm turpentine was applied; it was for this reason, that it is highly valuable as a rubifacient—in cases so urgent as not to allow time for the effect of epispastics. It may be said, that the stethescope ought to have been applied to discover whether or not the infant was living; it was suggested by Dr. Malins: but the symptoms left little doubt of the death of the infant; a conclusion also fully justified by the evidence afforded by

the dissection. It is important to state, that besides the morbid appearances already detailed, the peritoneal covering of the small intestines was inflamed, and all that portion of the uterus which was in contact with the brim of the pelvis, The substance of the organ was much redder than natural, and in many parts were of a dark brown colour, through which the finger passed with great facility. Both ovaries were much enlarged, brown, and softened, and readily lacerable. On making several incisions in the uterus, there was no evidence of phlebitis. The propriety and safety of incising the abdomen in peritonitis, are as yet undetermined.

The reasoning of Dr. Malins against the possibility of chronic peritonitis for so long a period as already mentioned, is exceedingly powerful, and apparently conclusive. But according to the French pathology, it may be questioned. Our Gallic contemporaries maintain that "sometimes the pain and alarming symptoms (of peritonitis) may cease on the third day, the disease continues and becomes chronic, or the disease may establish itself to continue indefinitely." (Dict. Abrègè Des. Sc. Med. 1825, T. X—p. 465.)

"The more the subject is lymphatic, feeble, the more chronic peritonitis is obscure, less intense, especially at first, **** but it almost always ends by dropsy, after having continued one or many years;" Op. Cit. 468. It may become acute, and affect the brain, pleura, pericardium, stomach, intestinal canal, &c. and is most common to women, in whom it is especially observed after parturition. Op. cit. It generally follows acute peritonitis, and its symptoms are as follow:—The abdomen is sensible on pressure, but not pained; it is most so at night, or at irregular intervals, and without apparent cause. The patient complains of flying pains in the abdomen, on any slight exertion, on laughing, coughing, or riding in a carriage; the digestion is capricious, or there is nausea, thirst, constipation or diarrhœa; there is often cough, dyspnœa, especially on assuming the recumbent position. Op. Cit. 466. M. Andral has published cases, in which he thinks peritonitis has continued for forty days; and these opinions induced Dr. Ryan to reply in the affirmative to a question put to him on a late occasion, at one of the Medical Societies—could peritonitis continue for a few days or weeks? The great similarity between the symptoms of chronic peritonitis and these detailed in the case before us, is exceedingly remarkable; and the great exertion made by the patient in the pregnant state, would favour this pathology. The reader will form his own opinion on the practice in the above case, and the critic will display his prowess; to both the words of the poet are applicable;

> "si quid novisti rectius istis
> candidus imperti, si non, his utere mecum."

VIII.—*Hydatid of Liver and Gall Bladder.*

London Hospital.—Enlargement of the liver extending into the pelvis, hydatids, fistulous opening from the gall bladder into the bronchia.

Sarah Manning, æt 35, widow, had never borne children, was lately admitted into the London Hospital under the care of Dr. Billing; had complained for three years of dry cough and pains in the right hypochondrium, without much disturbance of general health, until within two months, when the cough increased with pain extending up into the chest; at that time a tumour pointed and broke, half-way between the umbilicus and cartilages of the ribs in the right hypochondrium, and there is still a fistulous opening, from which a yellowish serous fluid escapes; she is jaundiced, and expectorates a large quantity of a frothy, thin, purulent looking matter; she is perpetually harassed by cough producing retching, and constant rejection of her food; there is mucous rale, and bronchial respiration in the inferior part of the right side; she feels less oppression of the chest, when the opening in the side discharges freely; pulse moderate, tongue clean, skin soft, much emaciation; there is a solid tumour in the situation of the liver extending down towards the pelvis.

The treatment consisted chiefly of mild tonics, and nourishment to support strength.

In a few days two or three membranous shreds (hydatids) the size of large grape skins, were discharged from the opening in the side, and she now mentioned that she had expectorated the same kind of substances. She gradually sunk from emaciation and exhaustion, without any urgent symptom.

Sectio cadaveris.—Upon opening the abdomen the liver occupied all the cavity down to the pelvis, into which it had thrust the intestines, (this appearance was increased in consequence of the waist of the woman having been unnaturally compressed by the tightness of her dress;) it was not much increased in bulk, but elongated; the lower part of it presented a hard tumour, very elastic, the size of a man's fist, containing one hydatid about three inches in diameter, which had no young ones within it, but several granulations attached to the inner surface. The gall bladder formed another tumour stuffed with skins of dead hydatids, such as had been discharged through the opening in the abdomen, and a director was then passed upwards from the gall bladder in a fistulous channel, through the diaphragm, and through the lung into one of the larger bronchial tubes, which was wider than natural, thus forming a passage from the gall bladder to the trachea wide enough to admit the point of the little finger; the gall duct into the duodenum was not obstructed. The other viscera were healthy.

Dec. 18th, 1830.

IX.—*Medico-legal questions, relating to Infanticide.*

By M. Ryan, M.D.

Death of the fœtus from voluntary causes.—The new-born infant may be the victim of external violence wilfully inflicted upon it, and it may also perish by the voluntary omission of that succour which is necessary to it in the first moments of its existence; hence we distinguish infanticide by *commission*, and infanticide by *omission*.

Infanticide by omission may occur from exposure of the new-born infant to a temperature too cold or too warm, if it be deprived of nourishment or respirable air, and from umbilical hæmorrhage, caused by disruption of the cord. It is difficult to determine what thermometrical degree of heat or cold would destroy life in these cases, but if we find the body of an infant naked, or nearly so, stretched on the ground, discoloured, the great internal vessels congested, and the external or superficial contracted, and almost empty, and with evidence that respiration has taken place, and at the same time there exists no trace of external injury, there is every probability that death has been caused by cold.

The defect of nutriment is generally combined with abandonment of the infant; and to this cause we should attribute death, when atmospheric temperature is not sufficiently cold to be destructive, and when we find the alimentary canal dry and contracted.

The neglect of tying the umbilical cord will expose the infant to fatal hæmorrhage; but this is not always the case, and does not afford sufficient evidence of mortal hæmorrhage, as the large vessels should be empty, there should be paleness of the body, viscera and muscles, to prove that death has been caused by loss of blood from the cord. Again, death may take place from this cause, where it was impossible for the mother to afford the necessary aid to the new-born infant.

Thus in cases of placental presentation, the infant may be destroyed by hæmorrhage, but there will be manifest signs in the woman under such circumstances; she may be in a state of syncope from this occurrence, and be unable to save the infant from perishing. The fœtus is often destroyed from separation of the placenta during protracted labours; in both of these cases the placenta will be attached to the umbilical cord. It has been said that the mother, during convulsions, may possibly rupture the

cord, or that this may happen from the motion of the infant, or when the woman is delivered in the erect position, the fœtus having fallen on the floor. In the last case, disruption may happen, but it appears very doubtful in either of the former.

It will be recollected that M. Klein has recorded one hundred and eighty-three cases of sudden labours, in many of which the cord was ruptured near the abdomen, and in twenty-one cases within the abdomen, yet there was no fatal umbilical hæmorrhage.

It is also to be remembered that the infant's head, in its passage through the external genitals, is so situated, that its face may be in contact with the liquor amnii or blood, and in this way may be deprived of air, or asphyxiated by impure air; or the head may be expelled, respiration established, the labour cease, and strangulation be effected before delivery. This case is by no means unfrequent, every practical obstetrician has met with it, and should it happen in the first labour, it is evident, that from the ignorance, pain, or syncope of the woman, the infant may be destroyed. It therefore appears evident that we must duly consider all these circumstances before we can safely conclude there was criminal intention on the part of the mother.

Infanticide by commission, is indicated by contusions, wounds, luxations of the cervical vertebræ, fractures of the extremities, torrefaction or burning, and asphyxia.

Contusions and wounds.—The ordinary effect of contusions is ecchymosis, which will be more extensive, according to the situation in which it may be placed; but great care must be taken not to confound this appearance with the cadaverous lividity. We should also be cautious to distinguish ecchymoses of the scalp, produced by parturition, from those that result from violence. The former are generally superficial, and situated most commonly upon the vertex, occiput or parietal bones; while those produced by violence are deep and brown, and in various situations, often on the temples. When caused by labour, the infant cannot have respired, and this will be discerned in the manner formerly mentioned. If considerable ecchymoses, contusions, or tumours exist upon an infant that has respired, there is just ground for the suspicion of criminal violence.

In some cases ecchymosis of the neck may be ascribed to pressure of the orifice of the womb, or of the vulva, or by twining of the umbilical cord round the neck, and present the appearance of strangulation; under such circumstances, the

respiration may be impeded or prevented, the infant destroyed, the lungs evince the signs of respiration, and the case will be involved in great obscurity and difficulty. Other facts must exist to warrant a correct conclusion.

Luxations of the cervical vertebræ.—When death is produced by luxation of the cervical vertebræ, the ligaments of the vertebræ will be torn, the spinal marrow will be bruised or torn; ecchymosis, and sanguineous infiltrations, will indicate that the injury has been inflicted during life, as these phenomena cannot exist after death. It is to be recollected, however, that such luxation may be the effect of injudicious attempts to extract the infant during labour; and it is therefore necessary to ascertain if the parturition has been difficult, and whether any traction has been applied to the infant.

Fractures of the bones or wounds often depend upon parturition, or upon the violence offered by ignorant and bad practitioners; it is therefore necessary to keep these facts in mind, in determining questions of infanticide from such injuries.

Torrefaction, or burning, is a horrible method resorted to for the destruction of infants, a case which I grieve to indite, has occurred in this city within a few days. Here it will be necessary to examine all injured parts, and to apply the ordinary proofs, to ascertain if respiration had existed. In the case to which I have alluded, the coroner (an attorney) was of opinion that a verdict of manslaughter could not be received. The prisoner, a nursery maid, was acquitted!

Asphyxia.—A new born infant may be asphyxiated by privation of respirable air, by mechanical obliteration of the air passages, by strangulation, by submersion, or by the action of the deleterious gas. The infant will be deprived of air by being placed in a chest, or under the pallet, &c. but as some minutes must elapse between its birth and death, the usual tests will decide that it has respired. Infants have been destroyed, whose nostrils and mouth were filled with linen, hay, earth, &c. to the prevention of respiration; the presence of these substances will enable us to form a proper opinion. Infants have also been destroyed by pressure upon the mouth and nostrils, trachea and thorax, and by forcing the tongue into the fauces; in all of which cases a few inspirations take place, and the pulmonary proof will be decisive.

In all these cases the rupture of the frœnum linguæ, the

ecchymoses of the neck, the marks of injuries upon the chest, and in the interior of the mouth, with the signs of cerebral congestion, afford very strong evidence against the accused.

The introduction of fluids into the trachea or lungs, is another cause of suffocation; the discovery of the nature of the fluid by chemical analysis, enables us to arrive at a positive decision against the accused. Submersion or drowning is a frequent mode of infanticide. The pulmonary evidence of respiration, and the similarity of the fluid found to that which surrounds the dead body, enable us to decide that death was caused by submersion. In such cases there is usually more or less fluid in the stomach. When death is produced by strangulation, there will be ecchymoses on the neck and face, with cerebral congestion. The most frequent mode of infanticide, is the precipitation of the infant into the water closet or privy, which may be the effect of accident; but the pulmonary docimacy will decide if the infant has respired. In the cases recorded by Klein, the majority of the women were primiparous. I have known a woman of low stature delivered of her first child by a single pain, and I have recorded similar instances in my work on obstetrics.

In all cases of infanticide, we must be certain that the woman has been recently delivered, and that this event coincides with the age of the infant. The signs of recent delivery have been already enumerated. It is right to mention that infanticide has been effected by the introduction of needles into the brain (Gui-Patin, Brendel, Belloc), and into the temples, internal canthus of the eye (Brendel), the neck, region of the heart (Fodéré), and the abdomen. Infants have been destroyed by poisons, which have been applied by inhalation into the lungs, by commixture with food, absorption through the skin, and by enema. Those are to be discovered by the usual tests, which will be mentioned hereafter.

Before concluding this subject, it is necessary to prove the validity of the statement, that the hydrostatic test is no longer considered conclusive. Some of our best jurists cling to it with a degree of tenacity, which, to speak in the mildest terms, is exceedingly remarkable. Drs. Beck and Gordon Smith think it decisive, with due precautions, and a reviewer in the Edinburgh Medical and Surgical Journal, in 1826, perhaps Dr. Duncan, thinks it affords *presumptive* evidence. The opinions of these talented and distinguished professors are of course entitled to respect and much con-

fidence; but it is to be recollected, that the judges of the land will not receive the evidence afforded by this test. This is not the place to discuss the propriety of this conclusion. Whether the recent modification of the law on the subject is a sufficient reason, lawyers only can determine. As the law now stands in this country, the questions to be decided in cases of infanticide are, has death been caused by violence, neglect, or ill-treatment? The same evidence is required as in cases of homicide. The question of child murder is still, however, interesting; for if the infant has been born alive, there is presumptive evidence against the accused; and, secondly, the decision of the question will affect the disposition of property in cases of tenant by courtesy, as already mentioned. The law in this United Kingdom, Scotland excepted, and in almost all nations in Europe, is, that a child is born alive, when it evinces the slightest voluntary motion. A curious decision, made on this point by the court of Exchequer at Westminster, has been already recorded. According to the law of Scotland, the infant must cry to prove its vitality. This is manifestly absurd, as asphyxiated infants have been resuscitated after an hour and a half, as I have often witnessed; and infants have been declared dead—the undertaker sent for, and every preparation in progress for burial, though resuscitation was established after some hours.

In cases of still-born infants, I have more than once succeeded in establishing the action of the heart, and one or more inspirations, though complete respiration could not be established; and in such cases, no physiologist can doubt the vitality of the infant.

Dr. Blundell and others have succeeded in resuscitating infants, extracted by gastro-hysterotomy, a quarter of an hour after the death of the mother; and a case was recorded in the Lancet, where the infant was pronounced by the medical attendant to be dead, it was placed as if dead, and on his visit next day, it was alive.

The unanswerable objection to the hydrostatic and other tests, is this, that when the infant breathes before delivery, which every practical obstetrician can attest, not one of them can prove it out-lived birth. Again, if we credit the records of medicine, we can have no doubt but that there may be intra uterine, vaginal and extra-uterine respiration before complete delivery. Dr. Beck and other jurists seem to doubt the reality of respiration in the first and second case; but is it fair and reasonable to inquire what object could influence those who

have narrated such cases? Europeans and Americans are among the number.

Dr. Beck, who stands an ornament to his profession, and an honour to his country, employed all his argumentative powers against the probability of an infant, whose head was expelled, and who had respired, losing its life during delivery. His countryman, Dr. Hossack, has recorded a case in point. But suppose the accused do not allege uterine, vaginal, or extra-uterine, respiration, before a complete birth, are not the judges warranted to temper justice with mercy, and to give the prisoner the benefit of the reasonable doubt in such a case? Most decidedly.

To return to the hydrostatic test, from which I have so far digressed; I have to state in conclusion, that Drs. Duncan, Beck, and Gordon Smith, maintain it may afford presumptive evidence in infanticide.

But the following facts must be kept in recollection:— 1. the lungs of a still-born infant will sink in water, but float on the sixth, seventh, or eighth day, when putrefaction has commenced (Muyer in Schlegel), and so early as the third day in warm weather (Beck.)

It is universally known, that the body of a drowned person sinks at first, floats when putrefaction has generated air, and rendered it lighter than water; and sinks again, after the extrication of the air so generated. When the lungs of an infant are putrid, the air is near the surface, (W. Hunter, Jaeger), and can be readily squeezed out by pressure, when the lung will sink; whereas, when respiration has taken place, no pressure will cause the lung to sink. (Marc, Beclard.) The lungs are the last organs in the body which undergo putrefaction (Camper, Mahon, Beck.) Marc is of opinion that the lungs which have respired, and are afterwards in a state of putrefaction, will always crepitate on incision, which never happens unless respiration has occurred; secondly, on squeezing the putird lungs of a still-born infant, they will sink, whereas those of a child born alive, will float.

2. Squeezing the lungs after artificial respiration, will not cause them to sink; in such cases, the lungs swam even with the heart attached, and also when cut into pieces, and carefully compressed (Mendel, in Hufeland's Journal der Practischen Heilkunde, Aug. 1812; Bernt, Experimentorum Docematiam Pulmonum Hydrostaticam illustrantium centuria, Vienna, 1823; Merzdorff in Horn's Archiv fur Medezinische, Erfahrung, 1823.)

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1. *The Introductory Lecture to a Course of Natural Philosophy delivered in the Theatre of the Medical School, Brewer's-street, Golden-square, Nov.* 3, 1830, by EDWARD BROWNE, F.L.S. Surgeon to the Farringdon Dispensary.

IN the distribution of the several subjects, which enter into the course of medical and scientific instruction delivered in this place, it has devolved upon me, Gentlemen, to explain to you the principles of natural philosophy, to point out the necessity of a knowledge of those, for the successful cultivation of some other departments of science; and more especially to demonstrate the primary importance of this knowledge to the student of medicine and surgery.

It is not however to the youthful aspirant for the honours of the medical profession alone, that this science presents attractions, or offers more solid advantages; indeed, while I regret that it should be so, I fear we must admit that the members of our profession generally are less familiar with this branch of philosophy, than many who possess only that general knowledge of the sciences which constitutes in the present day, an essential part of the education of a gentleman.

The progress of intellectual improvement is marked at present, by a new and most important peculiarity—the diffusion of existing knowledge amongst the mass of mankind. Can it be necessary that I should adduce any proof of this? Need I remind you of the numerous Literary and Scientific Institutions with which this metropolis abounds? Institutions for the most part yet in their infancy, some in their adolescence, but all promising a vigorous and perpetual manhood, of which the fabled existences of the heathen mythology, afford the only, but imaginary parallel. All intellectual prototypes of Hercules in the cradle. The attacks of the serpent, error and of prejudice, are all which they have to repel, and these are fast expiring in their infant grasp, and unfolding those coils at their feet, which have so long encircled the human intellect and enfeebled its exertions.

I feel that I cannot impress this fact too forcibly on the minds of the junior portion of my medical hearers. They are no longer entering a profession whose mysteries are sacred. They are no longer shielded from the criticism of their employers, by the magical influence of a license from Apothecaries' Hall, of a diploma from the College of Surgeons, or even by the more dignified distinction of an University degree. Several cases have come to my knowledge, in which patients amongst the educated classes of society have detected, the want of physical and even of chemical knowledge in their medical

attendants. You will perceive therefore that ignorance of the sciences collateral to medicine is no longer safe. The hour is fast approaching, if indeed it has not already arrived, when the half educated man, will be unable to obtain even a subsistence amongst us.

The veil of the temple of knowledge is rent in twain! The arcana of nature are no longer communicated through the dark and doubtful medium of an oracle, but are accessible to all who will patiently and diligently investigate them. The source of the waters of knowledge is discovered, and you are invited to drink at the fountain-head. The path which leads to it is that of experimental inquiry.

To point out this path to your footsteps, and to accompany you a short distance on your journey, is the task which I have undertaken to perform. To find you zealous and diligent in the pursuit of it, is the highest reward I can enjoy. You will have an opportunity in this place of becoming acquainted with the general principles of science, and with so much of its details as are already generally known; but I charge you, my young friends, to reflect that the spirit of philosophy requires that you should repay the pains bestowed upon your education by eliciting future discoveries. You are not to rest satisfied with the information which you may obtain from others, but on the contrary you are bound to contribute, though it be but your mite, to the treasury of useful knowledge. This the world will expect, this your profession has a right to demand from you; for it affords you facilities for the cultivation of every branch of knowledge, which can be derived from no other source. A few words of explanation will suffice to convince you of this.

All the subjects on which the human mind can be employed, independantly of revelation, may be referred to two general heads. —Science or Philosophy and Natural History.

The first of these two fundamental divisions includes physics or natural phylosophy, chemistry, which is sometimes called experimental philosophy, physiology, or the science which explains to us the laws of life, and metaphysics, or ontology, which embraces the consideration of the active and intellectual powers of the human mind.

Gentlemen, the course of your studies must include all these, or your medical education will be incomplete. Natural philosophy, chemistry, and physiology, are separately taught in all the schools of medicine, except those established in this metropolis, where the omission of the first imposes on the teacher of chemistry, the necessity of making a brief exposition of its principles, introductory to the proper subject of his course, and this omission is the more extraordinary, as Great Britain is the only country in which the possession of natural knowledge is implied in the very name of the physician. Such, however, is the fact.

In the cultivation of these branches of science, reference is necessarily made to measures of number and dimensions, and hence has arisen a secondary science, called mathematics of the science of quantity.

I am not aware that the philosophy of the human mind has yet

been made a separate article of medical education, but the reference which must be made to the subject in the lectures on the practice of medicine under the head of insanity, and the influence of the mind upon the body, will convince you that it must not be altogether neglected.

There is one subject which is considered as belonging to the science of mind, to which I would call your attention more particularly, because the evidence on which it is supported is derived from every department of science and natural history—it is natural theology. The cells of the honey-comb are constructed upon strictly mathematical principles, and who we may inquire instructed the bee to solve problems of maxima and minima. The proofs derived from the four fundamental departments of science are innumerable, and so clear that he who runs may read, hence the medical man has no excuse for being ignorant of them, and if, as I can scarcely conceive, there should be one who can resist the conviction they are calculated to bring home to the mind, it would be charitable to say of him "quem Deus vult perdere, prius dementat."

We come now to the consideration of natural history, this division of the objects of our study, refers to what have been termed the three kingdoms of nature, the animal, the vegetable, and the mineral; perhaps a more philosophical division would be into the earth, of which minerals may be considered as detached portions, and its inhabitants endowed with animal or vegetable life.

To convince you of the necessity for making the study of natural history a branch of medical education, I need only remind you, that your therapeutical agents, the weapons with which you must encounter disease, are supplied alike by each of its subdivisions.

It is not, however, as the members of a particular profession, exclusively, that you are interested in this subject, but as votaries of science in general; natural history provides us with the individual examples by which the laws of natural philosophy, chemistry and life are severally illustrated; and on the other hand, what will be the extent of your knowledge of natural history without the aid of science? How can you cultivate an acquaintance with mineralogy, without reference to the physical properties, and chemical relations of minerals?—how will you prosecute the study of botany or zoology, without some knowledge of the laws of vegetable and animal life? You may indeed accumulate a long list of the names of stones, and plants, and animals, but this is all. The torch of science alone can guide you to the "ultima thula" of your search.

It is manifest then that the two great departments of human knowledge—natural history and science, are intimately connected and mutually dependent on each other. They are twin sisters, and like the interesting strangers, who have recently visited this country from the banks of the Ganges, they may not be separated without serious, perhaps fatal injury to both.

This mutual dependence of the several departments of knowledge on each other, gives to him who has taken a comprehensive view of

the whole peculiar facilities for the cultivation of any particular branch; and hence the medical philosopher derives the vantage ground on which he ought to stand. It is his privilege to exert the highest faculties of the mind, for the noblest of all sublimary purposes—the relief of disease—the mitigation of the pangs of death, while the very exercise of these privileges opens to him sources of the most sublime gratification in the indulgence of the best and kindliest feelings of his nature. To restore to his family and to his friends, one who has been the subject of a painful operation, or of a dangerous disease, is a pleasure peculiarly our own; and even when this is denied us, to smooth the descent to the grave, by pointing to the brighter prospects beyond it, to soften the pillow of death, and to console the widow and the fatherless survivors in their affliction, are duties, which, however melancholy in their performance, we may be grateful that we are permitted to share with the ministers of Him who made us—of Him whose only earthly occupation it was to heal the sick—to cleanse the leper—to give sight to the blind—and to say to the helpless cripple, Arise, take up thy bed and walk!

This hasty glance at the intimate connexion of the several departments of knowledge, is all that we can be permitted to take at present.

I must now proceed to point out the sources from which the study of natural philosophy derives its interest, and the practical application of its principles to purposes of utility, which invest it with importance.

To those who are desirous of cultivating an acquaintance with the sciences for their own sake, or as branches of general education, it will be sufficient to shew that the laws of physics govern every phenomenon of nature and art in which there is any sensible motion. Over the majority of natural phenomena, they preside alone. Thus they regulate the motion of the earth, the ebbing and flowing of the tides, and the elevation of the waters of the ocean, by the action of the sun's rays, to form clouds, that impelled by the winds, in obedience to the same laws, are scattered over the face of the earth, again to descend upon it in refreshing showers, clothing it with verdure and invigorating it with life—or in the form of more violent rain of hail or snow, to take part in the warfare of the elements, and to mingle with the horrors of the storm. It is here that the principles of natural philosophy are developed in their most sublime supremacy—here, where the uneducated man sees nothing but confusion, the mental vision of the philosopher penetrates the obscurity at once, and perceives established order riding on the wings of the tempest, controuling its course, and wielding the lightning of heaven.

If we turn to contemplate the products of human ingenuity, we shall find that the civil and military engineer, the naval and terrestrial architect, the machinist and the manufacturer, the maker of wheel carriages, and of the implements of husbandry, and those

who are employed in the use of them, are all guided in the pursuit of their several occupations by the laws of natural philosophy. Lord Bacon has justly denominated it the root of the sciences, and of the arts, for it is by the study of its abstract principles in the closet, and the subsequent application of them to purposes of practical utility that the arts have been brought to their present state of perfection. Sound theory is always in advance of practice, not only because it is necessary that men should first perceive the possibility of improvement before it can be carried into effect, but also because their first efforts have been too often attended with disappointment, even in those cases where the most brilliant success has ultimately crowned their exertions. In proof of this, we may select as examples, the repeated unsuccessful applications of the power of steam, and the application of the Catenarian curve, once only a pleasing mathematical exercise to the construction of suspension bridges, connecting the summits of mountains with each other, or thrown across a broad and rapid river, as we see at Hammersmith, or projecting into the bosom of the ocean, as in the chain pier at Brighton. I may mention these structures, because they will be familiar to most of my hearers; and the last is celebrated for the disasters which attended its construction; but it is now complete, and promises to be as durable as it is elegant.

Surely such examples should prevent us from sinking into despondency with regard to any undertaking, whose progress is guided by the principles of science; and hence we may indulge a reasonable hope, that the most magnificent project of our nation and of our age, the design of conveying an arched road way beneath the bed of a deep and rapid river, which has already proceeded to a considerable extent, in the case of the Thames Tunnel at Rotherhithe, will yet, at no distant period, be carried to a triumphant termination, in despite of the untoward circumstances which have hitherto retarded its completion. For it is inconceivable that the people of England will allow it to be said, that a work of this national character, is capable of exciting more interest among foreigners, than among themselves, or that they will sit down tamely under the imputation that they want the hand or the heart to execute the achievements which their genius can conceive.

It is not only in modern times that the principles of physical science have conferred benefits on mankind, or immortality on those who have devoted their lives to the cultivation of them. The stupendous aqueducts of ancient Rome, have transmitted to us the memory of their founders, embalmed in the gratitude of their countrymen. Their very ruins excite our admiration, and forcibly recalling to the imagination the labours of the Titans, diminish our surprize that the fables which described them should have gained belief. Would you inquire how the want of these superb and costly structures is supplied in our own cities? It is by the unobtrusive and economical, but far more effective arrangement of iron conduits, the material of which was known to the Roman architects only as an useless stone

or earth—if, indeed, it was known to them at all; for it is now well ascertained that the building of the aqueducts was not resorted to by them from ignorance of the law, in obedience to which water seeks the level of its source at whatever distance it may be led from it, as some have supposed, but merely from the want of more simple means of conducting it.

Over military affairs, too, this science held sway. Archimedes, the master mind of antiquity, defended his native town against the assaults of the Romans, entirely by the force of his mechanical genius. Such was the terror inspired by his engines, that the appearance of a beam with a rope attached to it, on the walls, was at all times sufficient to drive the assailants from their posts, until at length so strong a sense of security pervaded the minds of the beseiged, that on the celebration of a public festival, the ramparts were left undefended, the Romans entered the city, surprized and subdued the inhabitants, and slew the philosopher in his study, in opposition to the express commands of their general.

To this patriarch of science we are also indebted for the means of ascertaining the specific gravities of bodies, by weighing them when immersed in water, and comparing the weight of the water displaced with the absolute weight of the body given, when weighed in air. The idea appears to have struck him as he reclined on the liquid support of the bath, and it is reported that he was so transported with the feelings excited by his discovery, that he instantly sprung from the water, and rushed home unmindful of his nakedness, exclaiming, Ευρηκα, Ευρηκα, I have found it, I have found it. His mind was intent upon the numerous and important uses to which he foresaw it might be applied. Among more immediate, but minor circumstances, it enabled him to detect the fraud committed by a goldsmith, who, having been furnished by Hiero, king of Syracuse, with a quantity of gold, for the purpose of making a crown, purloined a part of it, and replaced it with an equal quantity of silver.

The subject of specific gravities leads us directly to consider the connection of natural philosophy with chemistry. Chemical manipulation consists entirely of a series of physical operations. Such are the various processes by which masses are reduced to powder, and the mode of separating the coarser parts from those which are finer, by diffusing the whole through some fluid in which they are insoluble; the coarse parts presently subside, and the supernatant liquid, in which the finer portion is still suspended, may be removed by the action of the syphon. The phenomena of evaporation, and the extent to which it may be modified, by the diminution or removal of the atmospheric pressure, which has been applied to a considerable extent in some manufacturing processes, as in the boiling of sugar, and in the preparation of the vegetable extracts employed in pharmacy, are also examples of the fact. The chemical agencies of light, heat and electricity are not less numerous and important. In the first the genius of Wollaston has provided the

pharmaceutical chemist, with the ready means of testing the purity of his essential oils by ascertaining their power of refracting the rays of light. The influence of the second is all but universal, and the last, in the hands of Davy, has almost erected chemistry into a new science.

I have already had occasion to mention, that in this metropolis the medical student derives the scanty knowledge of natural philosophy, which is accessible to him, for the preliminary explanations which the teacher of chemistry is obliged to enter upon, before the proper subject of his course can be made intelligible to his hearers. This circumstance is a source of some inconvenience and obscurity. Students frequently confound physical with chemical phenomena, and few of them have a distinct idea of the mode in which a physical change contributes to the production of a chemical combination; for example, if alcohol be distilled with sulphuric acid, a compound called æther is produced, and the student having prepared this substance, is content to say, that he has performed a chemical experiment, without once referring to the fact that the chemical combination of these bodies has been merely favoured by the state of minute subdivision on which they were presented to each other, while their elevation in the form of vapour, and their subsequent condensation in the receiver being mere changes of state, are strictly physical phenomena; for if the resulting compound be distilled again, the same physical changes take place without at all affecting its chemical composition. I have selected this example on account of its simplicity, but there is scarcely an instance in which any chemical union or decomposition takes place without some concomitant physical phenomena; and as such I conceive it to be essential to your perfect comprehension of any complicated operation of this kind, that you should have clear ideas of the nature of the phenomena which they present, and be able to trace distinctly the several stages of their progress, I propose to direct your attention in a particular manner to the distinction between physical and chemical action in those processes which involve them both.

You will perceive that a knowledge of natural philosophy, is requisite to enable you to understand the phenomena of chemistry. An acquaintance with both these sciences is necessary for the investigation of the principles of physiology. Vital phenomena are the most complicated which science can present to us; take the function of respiration for example, you will find that it embraces the phenomena of physics, chemistry and life. But although some of the vital functions require the aid of chemistry for their illustration, there are others in which physical and vital action only is concerned, as in the performance of muscular motion, and some of which are referrible to natural philosophy alone. I would recommend the study of these to you, in the eloquent language of Dr. Arnott, as far more effective than any persuasion which I could employ. He describes the medical man as the engineer pre-eminently, and demands "where shall we find to illustrate mechanics a system of levers and hinges, and moving parts, like the limbs of an animal body, where such an hydraulic apparatus as the heart and blood vessels, such a pneumatic apparatus as the

breathing chest, such acoustic instruments as the ear and larynx, such an optical instrument as the eye, in a word such mechanical variety and perfection as in the whole of the visible anatomy." We shall also have occasion to shew that the philosophy of imponderable substance is illustrated by the phenomena of animal heat, and by the functions of the brain and nerves. You will most of you be aware thet many physiologists have laboured to establish the identity of the electrical and nervous fluids, and that on the other hand it has been urged that we have not yet obtained sufficient evidence in support of this position, to enable us to decide on its validity. I am not disposed to go so far as those who have asserted that electricity and life are modifications of the same principle, but I do believe it to be the medium through which the unknown principle of life acts upon the material structures of the body, and I hope to be able to lay before you satisfactory evidence, derived from experiment, in support of the opinion.

If then the sciense of chemistry be based upon natural philosophy, it is equally evident that the superstructure of physiology is raised upon both. From this it follows that a previous knowledge of physical principles affords great assistance to the student in the investigation of the more complicated sciences; with it indeed he seems to learn by intuition—the facts which are presented to his mind seem to arrange themselves in their natural order under the several heads to which they belong; whereas he who would study chemistry or physiology without such preparation, either fail to obtain clear ideas of the subject at all, or loses more time in attempting to unravel the confusion they are involved in than would have served to obtain a knowledge of the whole body of physics, which it may be observed offers by far the greatest sum of knowledge, which a given amount of labour will suffice to accumulate.

It is obvious that the principles of natural philosophy can have no direct relation to the science of mind, but inasmuch as we are indebted to them for the instruments of our intellectual arts, such as writing, printing, drawing, painting, music and sculpture; and for our mathematical and philosophical instruments, it cannot be denied, that it is at least indirectly connected with this, as well as the other departments of science.

Hitherto we have considered the study of natural philosophy in its relations to the other departments of science, as part of an extended scheme of liberal education, such as a man of rank and fortune would wish to confer on his son, that his acquirements might be equal to his station in society. It only remains that I should point out the importance of its applications to the practice of medicine and surgery; and here I may observe that it is by no means the least of the advantages which we derive from our profession, that it places us (in an intellectual point of view) on a level with the wealthy and the great. It has been asserted, however, that this study is not of primary importance to a medical man; but after what has been said of its connection with physiology, it can hardly be necessary, I imagine, to enter upon

a formal refutation of so palpable an error, as far as regards the scientific information which is required of us. But I must remind you, that our profession is an art as well as a science, and that in the common routine of private practice you will have daily occasion to avail yourself of the aid of physics. Are not all the instruments in the hands of the surgeon, or of the obstetrician, really mechanical tools? If so, a certain degree of dexterity must be required for the manipulation of them, the acquisition of which should form part of a course of medical instruction; to place this point fairly before you, let us compare it with some other mechanical occupation. If a carpenter takes an apprentice, the first lesson he teaches him is to handle the tools of his trade, whereas with us, I regret to say, that few of our instruments are ever removed from their cases, except when they are to be employed for the performance of an operation on the living body. And what is the consequence of this neglect? Those that can be performed with the scalpel, with which we become familar by dissection, are well and dexterously performed, but when any other instrument is required, alas! what a falling off is there. Let us take amputation, for instance. How often do we see the bone splintered just as its division is completed, and the blame attributed to the awkward and inefficient manner in which the assistant supported the limb, when it would be much more justly bestowed upon the surgeon for the awkward manner in which he held the saw. Mechanical manipulation is indeed of the utmost importance to the surgeon, and may be so easily acquired by some amusing work of carpentry, that it is folly or idleness to omit it. Again, I presume that no one will venture to deny that we should understand the construction of the instruments we are constantly using; and we shall find upon inquiry, that they comprise all the simple machines or mechanical powers. These are the lever, the wheel and axle, the inclined plane, the wedge, the screw and the pulley. The punch for extracting the stumps of teeth, is as complete and simple a lever as a common crow bar; and the tooth forceps, consist in fact of two levers, of which the rivet that connects them is the common fulcrum; this instrument well illustrates the advantage of mechanical tools. In the first place, the tooth is seized by the iron jaws of the forceps, instead of between fingers, then it is grasped with the force of the whole hand, and lastly, this force is multiplied many times by the difference between the length of the claws and handles of the forceps. Wheel and axle find their representative in the tooth-key, for it matters not whether the wheel be entire or reduced to a single spoke, its action is the same. The inclined plane supports our fractures, our cutting instruments are wedges, the tourniquet owes its power to the screw, and the pulley is employed by us for the reduction of dislocations. Can it be said then, that a knowledge of the principles upon which the usefulness of these various instruments is founded, is at best but of secondary importance to you; or is there one amongst you who would be content to use them without inquiry, merely because others have done so before you? If there be such a person, I have yet another argument in reserve for him. The improvement of our instruments must be

effected by ourselves, and we cannot expect to improve what we do not understand. Would you learn the extent of the benefits which may be conferred upon suffering humanity by this means? I refer you to my esteemed colleague Mr. Costello, who has had the honour of introducing to the notice of the profession in this country, the mode of destroying calculi in the urinary bladder, which has long been adopted in France, and thus saving the patient from the horrors of lithotomy, avowedly the most formidable operation in domestic surgery, which even Cheselden, whose mode of operating is yet unequalled, never undertook without reluctance, approaching, according to his own admission, to fear.

There is yet another point to which I would call the attention of my medical hearers; it has been asserted by some persons desirous of underrating the value of scientific attainments, that they have a direct tendency to contract the feelings, and impair the affections of the heart. An anonymous satirist even goes so far as to suppose that if he were to fall into a river, the uneducated savage would instantly plunge in to his rescue, but that the scientific civilized man, viewing him merely in the light of a projectile, and calculating the depth of the water, the force and direction with which he impinged upon its surface, and the resistance of the fluid medium, would probably point out the precise spot in the mud at the bottom where his body might be found.

To the medical philosopher it is entrusted to refute this calumny, philanthropy is an essential part of his profession, and although I have dwelt upon this topic already, I cannot forbear to remind you that it is your business to console no less than to cure, and that the highest satisfaction your pursuits can afford, is derived from the extent to which your feelings are interested in them.

In conclusion, I have only to allude to the arrangement which I propose to adopt in the ensuing lectures. The course will be divided into three parts. In the first part, we shall consider those subjects which are comprehended by the term mechanical philosophy; in the second, we shall explain the philosophy of imponderable substance; and in the third, we shall direct your attention to the sublime phenomena of physical astronomy. Each of these principal parts will be again subdivided into sections, at the end of each of which we shall enumerate all the applications of the subject to the practice of medicine and surgery of which it will admit, and then institute an examination, for the purpose of ascertaining that the explanations which have been given have been perfectly understood by the student.

SURGERY.

HOSPICE DE LA PITIE.

2. *Cancer of the Nose—Extirpation.*—G——, ætat. 32, was admitted in May last, with a carcinomatous affection of the nose; the disease was of about two years' standing, and seemed to extend over the cartilages of the nostrils and the septum, which had degenerated into a large ulcerated tumour. After having watched the case for some time, M. Lisfranc, who was of opinion that it was a

case of superficial cancer, performed the following operation:—Two semi-elliptic incisions were made, by which the diseased part was circumscribed; the skin, with the subjacent cellular tissue, which was found to be the principal seat of disease, was dissected off the surface of the cartilages, scraped with a bistoury, and then touched with the nitrate of silver, especially at those parts where the disease did not seem to have been entirely removed by the knife. After a few days, the eschar having come away, healthy granulation began to take place, and cicatrization was completed within a short time.

HOPITAL BEAUJON.

3. *Fracture of the Neck of the Thigh-bone and of the Os Pubis.*—A young girl of robust constitution, but who had of late presented symptoms of mental derangement, threw herself, on the 7th of October, from a window on the second floor. On being taken up, she was found to have a slight wound in the neck, and a violent contusion over the right hip. Twenty-five leeches were immediately applied, and on the next morning she was brought into the hospital. There was much swelling and ecchymosis at the upper and external part of the hip; the patient could not move the thigh, and complained of violent pain whenever it was raised; the limb was not shortened or distorted in any direction, nor could any crepitation be heard on motion. The limb was placed on a double-inclined plane, and the patient ordered to be bled. During the following days delirium acceded, with tenderness of the abdomen and tympanitis, and suppression of the urine and fæces, and she died on the 14th of October. On examination, the muscles which cover the joint were found much contused and infiltrated with blood; the articular cavity was filled with a thin reddish turbid fluid, and the neck of the thigh-bone, at about three lines from the shaft, was obliquely fractured. The fragments being in close contact with one another, accounts for the absence of distortion after the accident. The cellular tissue of the pelvic cavity round the bladder and rectum was infiltrated with a brownish matter, particularly at the right side, where the horizontal branch of the os pubis was found fractured at the distance of about a line from the spina pubis. The fragments were about three lines distant from each other; the external fragment being drawn upwards and outwards.—*Lanc. Franc.*

HOPITAL DE LA PITIE.

4. *Lithotomy.*—C——, ætat. 60, of a feeble constitution, had, during the last nine years, been labouring under symptoms of stone in the bladder. Being admitted at the hospital under the care of M. Velpeau, lithotrity had been tried, but without success; the stone being very large, M. Velpeau was rather disposed to perform the high operation. M. Lisfranc, however, declared himself against it, and the lateral operation was accordingly decided upon, and performed on the 21st of October. After the incision in the bladder, the stone was easily grasped, but proved to be so large, that all attempts at

extraction failed, and M. Velpeau was obliged to enlarge the wound, first in a lateral direction, and then by dividing the prostate. The forceps being now re-introduced, the stone was again seized, and at last, though not without violent efforts, extracted: it was of an oval form, two inches and a half in its large, and two inches in its small diameter. Contrary to what had been supposed from the previous examination with the sound, no other calculous was felt in the bladder, which was large, but healthy, On the 28th of October the patient was going on favourably; the hypogastric region was neither tense nor tender; the urine still passed through the wound.—*Ibid.*

Midwifery.

Hotel Dieu.

5. *Obliteration of the Vagina.*—Angel. Andre, ætat. 22, was admitted on the 12th of August with violent colic pain, which she attributed to a stone in the bladder, but which, on examining the genitals, was found to be caused by the accumulation of menstrual blood in the uterus, in consequence of the vagina being obliterated. She had been quite well until about three months ago, when, in consequence of great excesses in drinking and debauchery, she was seized with violent inflammation of the genitals, which terminated in gangrene; the extremity of the clitoris, the nymphæ, and part of the large labia, went into mortification; the vagina ulcerated, and, after the inflammation had subsided, was found to be completely obliterated. In other respects the girl was quite well, but at the time of the menses the blood accumulated, and caused a sensation of weight and sharp colic pain in the hypogastric region. At the next menstrual period, these symptoms returned with increased violence; the colic pain, the attacks of which curiously enough always began at noon and ceased at about six o'clock in the evening, was very intense, and the patient experienced great difficulty in making water, and passing the stools. It was then only that she applied to a medical practitioner, who advised her to go into the Hotel-Dieu, where the genitals were found to be in the following state: The large and small labia, as well as the extremity of the clitoris, were entirely wanting; the orifice of the vagina was very small, and terminated at about half an inch in a "cul de sac;" at the left iliac region there was a large tumour, which could also be felt by the finger in the rectum; it was of a globular form, moveable, and exhibited distinct fluctuation, and no doubt was entertained that it was the upper portion of the vagina distended with blood. On the 10th of August the following operation was performed by M. Duputryen:—a long trocar was passed into the contracted orifice of the vagina and plunged into the tumour, and the opening thus made was enlarged in several directions with a bistouri, carried along the canula of the trocar. A large quantity of dark, viscid, inodorous blood was thus evacuated, and the cavity having been washed out by the injection of warm water, a further examination of the parts was made. The parietes of the vagina were found to be adherent to one another for the space of about two inches, beyond which was a very considerable dilatation which had contained the menstrual fluid; the os

uteri appeared to be closed. A tube of gum elastic was introduced into the vagina, and the patient went on well for a fortnight, when she was attacked with pneumonia, which proved fatal in about nine weeks. It is remarkable that the pain in the chest appeared to be relieved by the removal of the canula and increased by its re-introduction. A similar case is related in a late number of the *Lancette Francaise* by M. Patrix; the patient had, after delivery, been affected with peritonitis and inflammation of the genitals, which terminated in gangrene: a great portion of the external genitals sloughed away, and the vagina became completely obliterated, although every thing was done to prevent it. By the continued use of lint tents, however, M. Patrix succeeded in reproducing the former canal; the woman subsequently became pregnant and was safely delivered.

In a case of congenital obliteration of the vagina, which was admitted in 1829, M. Dupuytren evacuated, by the operation, more than three pints of viscous dark-coloured, but inodorous, blood; the patient was twenty-two years of age, and had, according to her statement, felt the first symptoms of menstrual congestion in her fourteenth year. She got perfectly well after the operation. The blood was submitted to chemical analysis by M. Thenard, who convinced himself that it did not contain the least particle of fibrine or serum.—*Lanc. Franc.*

MISCELLANIES.

6. MEETINGS OF THE MEDICO—BOTANICAL SOCIETY.

To the Medico Botanical Society.

On the effects of the severe cold of the last winter, upon two indigenous medicinal plants, viz. Hyoscyamus Niger, and Leontodon Taraxacum, communicated by, Joseph Houlton, Esq. Read December 14th, 1830.

The severe and protracted cold of the last winter was very injurious to many of our more tender indigenous, biennial and perennial plants. The effect of the season upon two very important medicinal plants, the Hyosciamus Niger, and the Leontodon Taraxacum deserves notice; the plants of Hyosciamus in my garden, were all cut off by the frost, and but a very small quantity of the Mature herb was brought into the market; forty-two shillings per hundred weight, was given by the wholesale trade in Covent Garden Market; I understood from different persons connected with the trade, that it was not to be procured in sufficient quantity, to meet the demand of the profession at any price. The consequence has been, the substitution of the immature plant; this I can state with confidence from my personal observation. When I had the honour to bring this plant before the notice of this Scientific Society, during the last session, I mentioned some facts which I considered important, and which I now beg leave to recapitulate, because they are not all, as far as my reading extends, to be found in books. Contrary to what is stated in most modern

works on Botany and Materia Medica, Hyoscianus Niger I assert is a biennial plant, and is in a fit state for medical purposes in the second year only of its duration, when in flower, or according to the excellent general rule of the Royal College of Physicians "*postquam flores expansi fuerint; et antequam semina maturescant.*"— The leaves at this period differ very much from those of the first year, their season is generally from the beginning to the end of June, they are cauline, sessile, very clammy, and fœtid, containing a large proportion of extractive matter. The leaves of the first year are plentifully brought to market in August and September; they are radical, petiolated, having very little clamminess, or fœtor, and containing considerably less extractive matter than those of the second year. The tincture from the mature leaves is a deep greenish brown and not clear; the tincture from the first year's leaf is much paler and clearer; the difference in their relative strength is great.

The above observations may be very easily verified, their importance must be obvious, when the value of the article of Materia Medica is considered, and the fact declared, that large quantities of the improper leaves are employed in this metropolis every year.

Leontodon Taraxacum suffered from the peculiarity of the season in a curious manner. I have already stated to this Society and to the public, that the bruised roots of this plant in the month of August, yield by pressure, nearly a third of their weight of thick cream coloured fluid, and that early in they spring the afford a less proportion of their brown liquid. This year in the month of August, some roots which I had fresh dug up for me, contained but a very small quantity of juice, and that destitute of the more important sensible properties usually found in it at that season; therefore the extract of the dandelion, prepared after my plan, cannot be obtained of this year's manufacture. It may be proper to state, we must not depend too much upon the herb venders for these roots, as respects their proper season: for they are kept in sand with their herbaceous part removed; if they remain long in this state, they will not answer to the description I have given of them to this Society.

Grove Place,
December, 1830.

LITERARY INTELLIGENCE.

6, *The Medical Annual*, containing a practical estimate of the therapeutic value of all the remedies, which have been introduced into the practice of medicine, within the last two years, an account of the proposed arrangements for a priced catalogue of drugs, &c., list of diseases, with references to the remedies that have been found most beneficial in their use or palliation, by Reece, & Co.

On the 1st of January, 1831, No. 1, of the Monthly Gazette, of Practical Medicine, containing a popular account of all the new discoveries in the art of preserving health, in curing diseases, and in promoting economy, an exposure of quackery, and every species of fraud.

BOOKS RECEIVED DURING THE MONTH.

1. The Works of William Cullen, M.D. Professor of the Practice of Physic in the University of Edinburgh: containing his Physiology, Nosology, and First Lines of the Practice of Physic: with numerous Extracts from his manuscript papers, and from his treatise of the Materia Medica Edited by John Thomson, M.D. F.R.S. L. and E. Lecturer on the Practice of Physic, consulting Physician to the New Town Dispensary, and late Regius Professor of Military Surgery in the University of Edinburgh. In 2 vols. 8vo. pp. 1420. T. and G. Underwood.

*** This is the most complete edition of Dr. Cullen's works extant. It ought to have a place in the library of every medical man in the kingdom. His pathology of many disorders, which cannot be explained by morbid anatomy, has not yet been surpassed, nor even equalled.

2. A Supplement to the Pharmacopœia, and Treatise on Pharmacology in general, including not only the drugs and preparations used by practitioners of medicine, but also most of those employed in the chemical arts; together with a Collection of the most useful Medical Formulæ, Veterinary Drugs, Patent Medicines, and other Compounds; an Explanation of the Contractions used by Physicians and Druggists; and also a very copious Index, English and Latin, of the various Names by which the articles have been known at different periods; being a complete Dispensatory and Book of Formulæ for constant reference in medical and veterinary Practice, and Manual for retail Druggists. Fifth edition, considerably enlarged, including the new French Medicines, and Selections from Foreign Pharmacopœias, and from the Formulæ of British and Foreign Hospitals. By Samuel Frederick Gray, Lecturer on the Materia Medica, pharmaceutical Chemistry, and Botany. London. 1831. 8vo. pp. 576. Thomas and George Underwood.

*** Gray's Supplement to the Pharmacopœia has long kept its ground in despite of the many abortive attempts made to imitate and supersede it. This present edition is greatly improved and brought down to the present state of science. Its value is much enhanced by the introduction of numerous formulæ and of the new medicines. It excels any Supplement to the Pharmacopœias in our language; and is a work we confidently recommend to all classes of our profession.

3. First Principles of Medicine. By Archibald Billing, M.D. Fellow of the Royal College of Physicians; Lecturer on the Theory and Practice of Medicine; and on Clinical Medicine; and Physician to the London Hospital, &c. &c. London. 1831. pp. 131. Thomas and George Underwood.

*** This is an excellent commentary on the present state of science, and will be perused with advantage by students and junior practitioners.

4. Observations, Chemical and Practical, on the Dublin Pharmacopœia, with a Translation annexed. By F. Barker, M D. Professor of Chemistry in Trinity College, Dublin; Honorary Fellow of King's and Queen's Colleges of Physicians, &c.; and William F. Montgomery, A.M. M.B. Professor of Midwifery in the King's and Queen's Colleges of Physicians in Ireland, and Member of the Royal Irish Academy, &c. Dublin. 1830. 8vo. pp. 721. Hodges and Smith, 21, College Green. 1830.

*** The work of Doctors Barker and Montgomery is one of the best Treatises on Pharmacology of modern times. It evinces great research, discrimination, observation, and talent.

5. A System of Operative Surgery; containing a description of the most approved plans of performing the different operations in Surgery on the Dead Body; with remarks on their Anatomy, and accompanied with practical observations: being principally designed for the use of Students in Surgery. By Wm. Hargrave, A.M. M.B. T.C.D., Member of the Royal College of Surgeons in Ireland; Lecturer on Anatomy, Physiology, and Operative Surgery, &c. &c. Dublin. 1831. 12mo. pp. 533. Hodges and Smith.

*** This work is executed in a masterly style, and supplies the place of Averill's production, which in consequence of the premature death of the revered author, must have a new editor. Mr. Hargrave's production is inestimable to the Student, and is the best companion we know of for the Dublin Dissector.

6. A new mode of ventilating Hospitals, Ships, Prisons, &c. &c.; being an efficient method of destroying Contagion, and of preventing the spreading of infectious Diseases. By George Hawthorn, M.D. London. 1830. 12mo. pp. 84. Longman and Co.

7. The Dublin Hospital Reports and Communications in Medicine and Surgery. Vol. V. Dublin. 1830. 8vo. pp. 631. Eight Plates. Hodges and Smith. Reviewed in our former Numbers.

8. Observations on the Use of Instruments in cases of difficult and protracted Labour. By John Beatty, M.D., Licentiate of the King's and Queen's Colleges of Physicians in Ireland. Dublin. 1831. 8vo. pp. 23. J. M. Leckie.

*** Doctor Beatty's object is to advocate the use of the forceps in all cases in preference to the perforator. He cites numerous eminent obstetricians in support of his opinion, with which no scientific man can dissent. This essay reflects great credit on the eminent author as a man of sense, judgment, and science. We shall notice it more fully hereafter.

9. Reflections on the present state of the Profession of Pharmacy in Ireland. By M. Donovan, M.R.I A. Dublin. 1829. 8vo. pp. 35.

*** Mr. Donovan is Governor of the Apothecaries' Company in Dublin, and a gentleman well known to the votaries of science. In accordance with the universal spirit of improvement he advocates reform, which none but the monopolist will oppose. This little essay does him great credit. We shall notice it more fully hereafter.

10. Two Lectures on the Study of Anatomy and Physiology, delivered at the opening of the Medical Session, 1830, in the Medical School, Aldersgate Street. By James Quain, M.B., Lecturer on Anatomy and Physiology. London. 1830. 8vo. pp. 44. Simpkin and Marshall.

*** These Lectures abound with important information.

11. The London University Calendar for the Year 1831. London. 1831. 12mo. pp. 264. John Taylor.

*** The London University Calendar was much wanted, as there was no medium of acquiring information on the rules and courses of education pursued in that unequalled Institution but through pamphlets and detached statements, which were so eagerly sought for as to deprive the greatest part of the public of an opportunity of seeing them. We are happy to state, that this work is a complete history of the University, and contains the fullest account of every point relative to it, and will be perused with infinite pleasure by every lover of science, and by every friend of civil and religious liberty. It is impossible to speak in too high terms of the execution and typography of this volume—it is more like one of our beautiful Annuals than an ordinary book. In fine, it is a work that neither library nor respectable family should be without.

12. Illustrations of Mr. S. Cooper's Surgical Dictionary, published monthly; containing four Lithographic Plates, with Letter-press descriptions and References to the Text. London. 1830. Part IV.

A Third Edition of Sir Astley Cooper's Lectures, by Mr. Castle, has just appeared, but has reached us too late for further notice.

ERRATA IN VOL. V.

Page 529, for "embrysology," read "embryology;" "cochianosology," read "lochianosology;" "cunes," read "lacunes;" "ovrager," read "ouvrages." In article "On Signs of Utero-gestation," in our last, page 498, fourth line from bottom, ending "affected with," read on to twenty-two lines from the top of page 499, beginning "this disease."

All Communications and Works for Review are to be addressed to the care of Messrs. Underwood, 32, Fleet Street; or to the Editor, at his Residence, 61, Hatton Garden.

THE LONDON

MEDICAL AND SURGICAL JOURNAL.

No. 32. FEBRUARY 1, 1831. VOL. VI.

CRITICAL REVIEW.

I.—*A Supplement to the Pharmacopœia, and Treatise on Pharmacology in general, including not only the drugs and preparations used by practitioners of medicine, but also most of those employed in the chemical arts; together with a Collection of the most useful Medical Formulæ, Veterinary Drugs, Patent Medicines, and other Compounds; an Explanation of the Contractions used by Physicians and druggists; and also a very copious Index, English and Latin, of the various Names by which the articles have been known at different periods; being a complete Dispensatory and Book of Formulæ for constant reference in medical and veterinary Practice, and Manual for retail Druggists. Fifth edition, considerably enlarged, including the new French Medicines, and Selections from Foreign Pharmacopœias, and from the Formulæ of British and Foreign Hospitals.* By SAMUEL FREDERICK GRAY, Lecturer on the Materia Medica, Pharmaceutical Chemistry, and Botany. London, 1831, 8vo. pp. 576. Thomas and George Underwood.

II.—*A new Supplement to the Pharmacopœias of London, Edinburgh, Dublin, and Paris; forming a complete Dispensatory and Conspectus; including the new French Medicines and Poisons, with symptoms, treatment and tests, as well as herbs, drugs, compounds, veterinary drugs, with the Pharmacopœia of the Veterinary College, patent medicines, perfumery, paints, varnishes and similar articles, kept in shops, with their compositions, imitations, adulterations, and medicinal uses, being a general book of formulæ and recipes, for daily reference*

in the laboratory and at the counter. By J. RENNIE, A.M.A.L.S. Lecturer on Chemistry, Natural History, and Philosophy, &c. &c. London, 1829, 8vo. pp. 488. Baldwin and Craddock.

III.—*Observations, Chemical and Practical, on the Dublin Pharmacopœia, with a translation annexed.* By F. BARKER, M.D. Professor of Chemistry in Trinity College, Dublin; Honorary Fellow of King's and Queen's Colleges of Physicians, &c.; and WILLIAM F. MONTGOMERY, A.M.M.B. Professor of Midwifery, in the King's and Queen's Colleges of Physicians in Ireland, and Member of the Royal Irish Academy, &c. Dublin, 1830, 8vo. pp. 721. Hodges and Smith.

THE subject of pharmacology has rapidly advanced within a few years, and principally through the admirable work of Dr. Paris; but it is as yet in its infancy, and has much need of further cultivation and improvement. The dispensatories of professors Duncan and Thomson, the pharmacologia of Dr. Paris, and the work of Drs. Barker and Montgomery, with the supplement to the pharmacopœias, by Dr. Spillan, and Gray's Supplement, are our best works upon pharmacology.

Pure coincidence has placed the works, whose titles are inserted at the head of these remarks, in juxta position, for though apparently synonymous, they are as dissimilar as possible. The first on our list has long retained its popularity with the profession; and this we believe induced the publication of the second. These works, however, are widely different in arrangement, and in extent of information. Gray's Supplement contains an immense mass of useful matter unnoticed by its rival; it comprises an account of all productions of the vegetable, mineral and animal kingdoms employed in the practice of medicine, a large variety of extemporaneous prescriptions, which have been long approved of in practice, and which have been selected from the pharmacopœias of foreign countries, and from formulæ used in British and foreign hospitals. The present edition is considerably emended and improved, and is creditable to the industry, research and practical knowledge of its editor. The doses of medicines are accurately and faithfully given, which we regret to state is not the case in the other production. Though Gray's Supplement is a very heterogeneous production, a list of drugs, simples, nostrums, many of which

are useless, and long since banished from the pharmacopœias, yet the trade of newspaper puffing is so very profitable at the present period, and the gullibility of the public being ample as ever, it behoves those engaged in the practice of medicine to have some work of reference, for informing themselves of the composition of the innumerable nostrums, so ardently employed by their patients. The best work for such reference is Gray's Supplement. It contains the scientific names of all medicinal substances in our pharmacopœias, and in use; the English and officinal Latin names of all medicines, chemicals, &c. are given. The vegetable medicines are arranged according to Jussieu. In a word, it embraces every topic mentioned in its title page. A very copious English and Latin index is added, which affords a ready reference. It contains nearly 200 pages more than Mr. Rennie's production. It is a work that ought to find a place in every medical library, and affords a fund of interesting information to the general reader. We can state with perfect confidence, that the effects of medicines are accurately described, and the doses correctly given, and, as a system of pharmacology, it will be worthy of attention. It has been revised and adapted to the present state of science, by a physician of great talent and extensive experience.

Mr Rennie, though not a medical practitioner, has undertaken the task of publishing a supplement to the pharmacopœias, and has spoken upon the effects of medicines, with as much confidence as if he was the president of the College of Physicians. He has even dissented from Dr. Paris on the effects of the superacetate of lead, and happens to be as wrong as he possibly could be. However well-informed he may be on the science of chemistry, we must candidly observe he knows nothing of medicine. In proof of this assertion, we call the reader's attention to the following statement, as to the doses of tartarized antimony, "given from grs. ij. to ʒj. as an ordinary drink, or even ℈i. diffused in oij. of water, p.28. This dangerous blundering will of course be put to the account of the printer, but such an excuse cannot be received; a mistake so serious is unpardonable. We need scarcely observe that Rasori, Borda, and Lænnec, recommended the medicine very differently in inflammation of the lungs, as appears by our analysis of the report of Drs. Graves and Stokes in our last. Our anthor has made the following discoveries:—"Prussic acid is a tonic and antispasmodic," oxalic acid is refreshing and slightly diuretic, in doses of ♏x. to ♏xx. diluted with water, in which form I have myself often used it as a common drink." This we believe is the first time that a solid has

been measured by the minim glass, and also the first time oxalic acid has been used internally as a common drink. Again, "Agrimony is subaromatic."

Chlorine (aqua oxymariatica) is used in syphilis, typhus and scarletina;" not a word concerning its disinfecting properties, or of its effects in hydrophobia, for which it is considered a specific in Italy, (Brugnatelli, Valetta,) or in phthisis. "Argenti nitras, is used from gr. ij. or ʒj. into ʒij. of water, in fistulas, venereal sores, scrofulous, ulcers, &c." Liquor opii. sedativus, is composed of tartaric acid and dregs of tinc. opii. is a mild narcotic" (sedative.) It is generally supposed that this preparation is an acetous solution of opium, deprived of narcotine. It is far inferior to the old black drop, and must be given in a much larger dose than advised by its proprietor. We have found it so uncertain that we have ceased to employ it, and we know a gentleman who has exhibited 120 m. of it, to produce a sedative effect. Unusual effects of lytta, "when it is used to vesicate, it sometimes produces strangury, hæmaturia, and inflammation of the bladder and urethra, which ought to be treated with warm bathing, fomentations, and emollient drinks." Those engaged in medical practice, scarcely ever observe effects requiring warm bathing or fomentations. Among the many good qualities of digitalis, it is prescribed "in gonorrhœa." Here is a discovery with a vengeance. Hydrargyri oxymurias is acrid, styptic, corrosive, stimulant alterative and *antisiphilitic*, and is used as a powerful remedy in *siphilis* and cutaneous disorders." The dose of hydriodate of potas is stated, but no disease is mentioned. "Liquor opii sedativus is imitated by mixing ʒiss. of opium with ʒvx. of pure water, and ʒj. of pyroligneous acid; dose, six to ten drops or more. (Dr. Epps.)" Here we have the testimony of Dr. Epps, lecturer on chemistry and materia medica, in favour of the opinion which we expressed above, and in opposition to the assertion that tartaric acid is the menstruum of the sedative liquor.

Our author has given the following directions as to the employment of superacetate of lead:—

"*Internally* it is a powerful, but unquestionably a hazardous astringent in protracted diarrhœa, and obstinate hæmoptysis, and internal hæmorrhage of the lungs, uterus, stomach, &c. In desperate cases it ought not to be omitted; but notwithstanding the authority of Dr. Paris, I must enter a strong protest against its exhibition till every safer means has been unsuccessfully tried. When it is resolved to give

it, opium must be conjoined with it, (say gr. ss each of acetate of lead and opium in form of pill) to prevent spasm and paralysis. Care must also be taken not to give with it, nor after it, any acids, astringent infusions, sulphates, none in short of the incompatible substances, unless it have been incautiously given in an overdose."—p. 330.

Every practical physician can bear testimony in favour of the efficacy and safety of superacetate of lead in hæmorrhages from the lungs, stomach, bowels, (dysentery) and uterus; and thus Dr. Paris is amply supported by the profession. Besides, Professor Thomson, of the London University, has recently published the results of experiments on the medicine; and states, that the danger consequent to its use, is to be ascribed to the conversion of the superacetate into a carbonate. He therefore advises the use of dilute acetic acid, either in combination with the remedy, or immediately after it, and affirms that no bad effects can supervene. We have already recorded our opinion in favor of the extraordinary effects of superacetate of lead in the diseases already named, but more especially in dysentery and menorrhagia. We have commenced with small doses combined with opium, and urged them until ten grains of lead were administered. In obstinate cases of hæmoptysis, we have used the remedy in combination with distilled water, acetic acid, and tincture of opium, and urging it to a scruple daily without any injurious effects. Its value and safety, as an astringent, have been too often and so recently attested, that it is unnecessary to notice them further. But we cannot help thinking, that Mr. Rennie might have been less strenuous in his protest against Dr. Paris's opinion. Our author, however, thinks otherwise, as he repeats his dissent from the same eminent pharmacologist, in describing potassæ nitras. "Dr. Paris surely mistakes, when he says it is an inconsiderable diuretic." Indeed, Mr. Rennie is truly mistaken, as the remedy is seldom, if ever, used as a diuretic, from its well-known inefficiency. "Dr. Paris is mistaken, in mentioning lime amongst the incompatibles," (with potas. sulphas.) "at least, it is not so in its aqueous solution, though barytes is so."

A few of the characters of the secale cornutum are detailed, and, it is said, on good authority—it promotes tardy parturition. The mode of exhibition is not mentioned; but we are informed that ℥j. boiled in a quart of water, to one pint, the half of which is given in divided doses during one day, as an emmenagogue. This dose is much too large,

and might be productive of serious results; the maximum dose being two drachms, even during parturition. In speaking of strychnine, there is no mention made of the favorable report of Dr. Bardsley, of Manchester. Had the author been a medical man, he would not have omitted the very valuable and highly important observations of that talented physician. We shall not proceed further, and dismiss the work by stating, that it contains many formidable errors. Whether these be typographical or not, we cannot determine; but certain it is, that they may be productive of great injury, should the work fall into the hands of the uninitiated in our profession. The author must, or ought to be aware, that he who is not a medical practitioner, should be cautious in quoting Mr. Brande, the chemist, as a supporter of his own views on the operation of medicines, against such eminent and experienced physicians as Professor Thomson and Dr. Paris. He cannot seriously suppose that the well-informed medical practitioner will agree with him in such a preposterous idea. We would remind him of the old adage, "ne sutor ultra crepidam." We must also take leave to inform him, that his conspectus of prescriptions in medicine, surgery, and midwifery, to which he so often alludes in the work before us, is replete with errors; in some parts we have observed the ʒ for the ȝ, and in many parts the Latin quite barbarous. As the advocates of humanity and science we make these remarks, for we are ready to acknowledge both works contain much information, disfigured by gross errors.

We now come to a work of sterling value, and have to apologize to its authors for placing it in such bad company. We have already stated our reason for doing so. Drs. Barker and Montgomery are very favourably known to the profession by their valuable publications, and both eminently qualified to execute the task they have undertaken. The present conjoint production consists of two parts. The first, by Dr. Barker, consists of observations, chemically and practically, on that part of the last Dublin pharmacopœia, 1826, devoted to the acids, alkalies, earths, alkaline, and earthy salts, sulphurous and metallic preparations. The second part, on the preparations, expressed oils, essential oils, distilled waters, preparations of ether, spirits, tinctures, medicated vinegars, wines and honies, confections and conserves, syrups, inspissated juices, extracts, powders, pills, electuaries, ointments, plasters, extemporaneous prepara-

tions, and miscellaneous preparations, is consigned to Dr. Montgomery. Dr. Barker, as an experienced physician, and Professor of Chemistry, in Trinity College, Dublin, is well qualified to perform the duty of commentator on the chemical part of the pharmacopœia; while Dr. Montgomery, also an experienced physician, and Professor of Midwifery, in the King's and Queen's College of Physicians in Dublin, is too favourably known to the profession to require an introduction from us. These are the men to write on pharmacology, and not mere chemists. But thanks to the London College of Physicians—all who please may assume the title and character of physician, and instruct the faculty, in this city of cities, in the science of therapeutics, while they deride the framers of the College pharmacopœia, notwithstanding the order of the king and council in its favour made and obtained. Such is the respect shewn collegiate dignity and royal authority in this age of intellect. It is said "the Schoolmaster is abroad," and it is ardently hoped, and "a consummation devoutly to be wished," he may, in the course of his perambulations, stumble upon our tottering medical corporations, and crumble them to the dust, for their outrageous insolence, and utter disregard to the wishes and wants of the great body of their ill-treated and indignant members. Viewing with heartfelt pleasure, the career of this potent personage in every other direction, and the mighty changes he is about to effect in all antiquated and defective institutions, we are confident that those in question will very speedily be carried along with the universal progression of improvement. The hour has not yet expired, which is favourable for the exertion of liberal views, by those who ought to feel an interest and a pride in promoting good feeling in the profession; but the ignoble spirit of monopoly and of abuse, renders them insensible to the loud calls of moral justice. They hesitate to lose their tawdery and puerile ascendancy; but surely they cannot suppose their members are insensible to the superior position in which the faculty is placed in other nations. If we look to the history of the London College of Physicians, and especially to that part which relates to their pharmacopœia, we find (and we indite it with sorrow, but with truth) they have ever been in the rear of the march of science. If our contemporaries had only spirit to speak the truth, and that openly, the medical rulers in England would cease to be behind all their contemporaries in other nations, and would occupy that superior position, which

their country has proudly and honorably maintained for ages, in science, literature, and the arts. Enough; we are grieved to be obliged to make these remarks, but they have been elicited by the lamentable fact, that the profession of medicine amongst us stands still, while in most other countries it has been allowed to precede us.

The Dublin Pharmacopœia is the latest which has been published in these countries, and, unlike those of London and Edinburgh, it has kept pace with science, and embraces many potent remedies omitted in the London code of 1824. It is still further enhanced by the very valuable observations of the commentators before us. They have added the most recent opinions of British and foreign writers, and also attested many facts by their personal testimony. We hasten to insert some extracts, to afford the reader strong evidence of the value of this publication, and of the able manner in which it has been executed.

"*Distilled Vinegar.*—Take of wine-vinegar *by measure*, ten parts.—Distil with a slow fire, *by measure* eight parts. In the distillation glass vessels should be employed, and the first portion which comes over, in quantity amounting to one part, rejected.

"The specific gravity of this acid is to that of distilled water as 1005 to 1000.

"*Remarks.*—The preparation here directed is that of acetic acid largely diluted with water.

"Vinegar, a product of acetous fermentation in a vinous liquor, is an impure compound, containing, with acetic acid and water, also vegetable mucilage, gluten, sugar, extractive matter, often some malic and tartaric acids, and a minute portion of tartar, with a small quantity of alcohol and pyroacetic spirit. Microscopic insects are generally present in wine-vinegar.

"To obtain the diluted acetic acid, detached from impurities, and to obviate the decomposition which vinegar when long kept, undergoes, is the object of the present process. Of the different ingredients of vinegar, some are volatile, and rise when the fluid is heated to near 212°. The volatile ingredients are alcohol, pyroacetic spirit, acetic acid, and water. Of these the alcohol and pyroacetic spirit are the most volatile, and when vinegar is distilled, rise with the first portions of vaporized compound. For this reason we are directed to reject the first portion, or of the whole fluid employed one tenth part, as this contains the alcohol and pyroacetic spirit. By proceeding with the distillation, and distilling seven parts more, we obtain a large proportion of the pure acetic acid united to water. The process is then to be stopped, lest the impurities should pass over and contaminate the distilled vinegar; this will happen if the heat rises to the degree which occasions decomposition, in which case an empyreumatic flavour will be given to the product.

" A stronger vinegar is obtained from wine than from liquors merely saccharine, or produced by fermented malt; for which reason the vinegar of wine is directed in this process. White wines are found to afford the strongest vinegar.

" In the pharmacopœia of 1807, six-tenth parts of the vinegar employed were distilled over, the first tenth part being rejected; but experiment proved that on continuing the distillation, the diluted acetic acid which then came over was as strong as that which had preceded it, and equally free from empyreuma: it was therefore thought advisable to increase the proportional quantity to be distilled over, leaving a smaller residue in the retort, and rendering the process more productive.

" In this process the use of glass vessels is directed, as the vinegar would dissolve a portion of a metallic vessel if composed of the metals usually employed, lead, iron, or copper. Lead dissolved in the vinegar may be detected by the addition of water impregnated with sulphuretted hydrogen, and by a solution of sulphate of soda: the first of these re-agents producing a brownish coloured precipitate of sulphuret of lead; the second a white precipitate of sulphate of lead. Iron is ascertained to be present by a solution of prussiate of potash, which gives a blue tinge to the acid, or affords a blue precipitate. The presence of copper is indicated by a clean plate of iron immersed in the acid, a rose-coloured coating of copper appearing on the surface of the iron. Copper is also discovered by adding water of ammonia till the alkali predominates in the mixture, in which case an azure blue colour appears.

" *Properties and tests of its purity.*—Distilled vinegar should have an agreeable acid smell and taste. It should form soluble salts with the alkalies and alkaline earths and with the oxide of lead; but with protoxide of mercury, a salt of sparing solubility.

" Vinegar is often adulterated by means of sulphuric acid. This may be detected by the addition of a barytic salt, which will afford a precipitate insoluble in nitric or muriatic acid. This impurity is often present, as the preparer is allowed to mix one thousandth part of sulphuric acid with the vinegar. Whether the sulphuric acid detected by the barytic salt exists in the vinegar in a disengaged state, or in combination with a fixed alkaline base, may be ascertained by evaporating the vinegar to one-seventh or one-eighth of its original volume: dividing the residue into two portions, neutralizing one of these with pure carbonate of lime, separating the liquor from the undissolved part of the mixture, and having ascertained whether the base of the salt contained in the dissolved part is potash or soda, decompounding the solution by addition of a dissolved barytic salt, the precipitated sulphate when collected, dried, and weighed, making allowance for the sulphate of lime which is present, indicates the quantity of sulphate of potash or soda. The quantity of free sulphuric acid in the other portion, may be determined, by adding an aqueous solution of a salt of baryta sufficient to throw down the

whole of the sulphuric acid; the difference between the weight of this and of the former precipitate when dried, will give the quantity of *disengaged* sulphuric acid.

" Muriatic acid is detected by adding nitrate of silver, which produces a white precipitate assuming a pearl colour on exposure to light and dissolving in water of ammonia.

" The presence of nitric acid may be ascertained by addition of a mixture of diluted sulphuric and muriatic acids, through which gold leaf has been diffused; for if nitric acid is present, on applying heat the gold will be dissolved, the liquor will acquire an orange yellow tinge, and afford a purple precipitate with fresh prepared muriate of tin.

" Sulphureous acid is sometimes present in distilled vinegar.

" An impure vinegar of a brown colour and strong empyreumatic smell, is prepared by exposing wood to heat in large iron cylinders; it is commonly named pyrolignous acid. From this a pure acetic acid, exceeding in strength the vinegar of commerce, is obtained. Different means are employed for this purpose. The following was practised with advantage. An acetate of lead was prepared with the impure acetic or pyrolignous acid, and the salt, purified by crystallization and dissolved in water, was decompounded by a solution of sulphate of soda. The acetate of soda thus obtained in aqueous solution, and separated from the sulphate of lead was mixed with sulphuric acid, and the diluted acetic acid obtained by distillation of the mixture in glass vessels.

" Specific gravity is an insufficient test of the strength of common vinegar, which varies in its specific gravity from 1010 to 1025. A part of this increased specific gravity, in common vinegar, is derived from mucilage and saline matter; on the other hand, the specific gravity of distilled vinegar is not unfrequently diminished by the presence of that peculiar fluid named pyroacetic spirit, into which acetic acid, when united to a base, and exposed to heat is convertible. Pyroacetic spirit is known by these characters: it is of specific gravity 786, when rectified from dry muriate of lime; it boils at 138° of Far.; it is combustible, burning with a blue flame and a peculiar smell, and it unites in every proportion with water, alcohol, the fixed and volatile oils.

" The specific gravity of both common and distilled vinegar may also be diminished by the presence of alcohol. Hence it is evident that specific gravity is not a rigidly accurate test of the strength of these acids. It has been ascertained that neither pyroacetic spirit nor alcohol are present in any sensible quantity in the distilled vinegar as obtained by the process of this pharmacopœia. The most certain test of the strength of distilled vinegar is the quantity of carbonate of lime or dry carbonate of soda required to neutralize a known weight of the acid, it being premised that 50 parts of real acetic acid neutralize 50 parts of carbonate of lime, and 54 parts of dry carbonate of soda.

" 100 parts of distilled vinegar, of specific gravity 1005, require 5.2 parts of dry carbonate of soda for neutralization, and therefore contain 4.81 parts of real acetic acid.

"*Uses.—Pharmaceutical.* Distilled vinegar is employed in the preparation of several of the acetates; of potassæ acetas, sodæ acetas, hydrargyri acetas, plumbi subacetatis liquor, and in the preparation of the compounds included in the class of aceta medicata; viz. acidum aceticum camphoratum, acetum colchici, acetum opii, acetum scillæ.

"—*Medicinal.* It is sometimes given internally as a refrigerant, and mixed with water may be used as a diluent drink in cases of inflammatory fever; but for this purpose common vinegar is preferable, its flavour being more grateful than that of distilled vinegar. Acetic acid, either as distilled vinegar or in the more concentrated form, increases the solubility of acetate of lead in water, and may be added to solutions of this salt, to prevent the decomposition which arises in neutral acetate of lead from exposure to carbonic acid. Either distilled or common vinegar is supposed to produce some anti-narcotic effect; on the contrary, Orfila found it to increase the activity of opium taken into the stomach: this might be expected from the nature of those principles on which the powers of opium depend; their solubility and action being increased by union with the acetous acid.

"In cases of diseased digestive and urinary organs, attended by a deposition of the phosphate of lime or of the ammoniaco-magnesian pyhosphate in the urine, diluted acetic acid is beneficial. In obstinate constipation, vinegar is administered with advantage as a glyster. It is also a useful fomentation in cases of burns or sprains. Its vapour is inhaled with benefit in putrid sore throat, and it has been proposed on obvious principles for removal of the dust of lime from the eyes.

"*Dose.*—Of distilled vinegar, from one drachm to half an ounce."—p. 26.

All the acids are treated with the accuracy and fidelity apparent in this extract. After a description of the rationale of the formula, and changes effected in the formation of nitric acid, its medicinal properties are thus detailed:—

"It is given internally as a tonic, and is supposed to have considerable efficacy in restraining the progress of syphilis. With this intention it was first given by Dr. Scott of Bombay, who found that its action on the human system resembled that of mercury, in producing soreness of the gums and salivation. That it is useful in restraining the progress of venereal ulceration, and restoring the strength, when broken down by the use of mercury, is certain, although it will not effect a radical cure of syphilis. In some liver diseases, as these appear in India, it is deemed benefical, and given much diluted with water, so as to form an acidulous drink, it was found useful by Dr. Duncan in the low typhous fevers that occasionally prevail in the suburbs of Edinburgh.

"Its fumes disengaged from nitre by strong sulphuric acid, are supposed efficacious in destroying the contagious effluvia of typhus or

other febrile diseases. Dr. Carmichael Smith received from the British Parliament £.5000 for the introduction of this mode of disinfection. It may be put in practice by passing into a flat earthen vessel, placed in hot sand, half an ounce of nitre reduced to powder, and pouring on this about half its weight of strong sulphuric acid or oil of vitriol; the nitrous fumes are immediately disengaged, and are not so offensive to the inmates of the dwelling as other vapours are, more especially those of chlorine. Dr. Duncan asserts, in his last valuable edition of the Edinburgh Dispensatory, that the above mentioned quantities of nitre and sulphuric acid will fill with vapour a cube of ten feet; therefore by increasing, in proportion to the size of the room, the number of vessels containing the fumigating materials, the acid vapours may be completely diffused through every part of the open space of an apartment, but unless with particular care, the fumes can scarcely be brought into contact with clothes shut up in drawers or boxes, or with the interior of bedding, and to such articles contagion is supposed, and with a high degree of probability to adhere. That the vapours of nitric acid, as some physicians have supposed, are altogether inefficacious, can scarcely be admitted when we bring to mind that infectious effluvia are probably, in composition, similar to other animal substances, and on these nitric acid has a powerful action, and completely alters their chemical qualities. But although we should concede to nitrous fumigation the power of diminishing contagion, its superiority over ventilation and cleansing is by no means established, and it should not supersede the use of these preventives when practicable. Nitric acid has been used as an escharotic, and proposed as a good application to the part bitten by a rabid animal, with the intention of destroying the animal texture and altering the poison; whether this practice should be preferred to excision, experience alone can decide, for on its first application it may accelerate the absorption of the poison, and in this respect prove rather injurious than serviceable."—p. 52.

The following remarks on prussic acid are highly important:—

"*Prussic acid.*—Take of cyanuret of mercury, an ounce, muriatic acid, *by measure*, seven drachms, water, *by measure*, eight ounces.

"Distil into a refrigerated receiver, eight ounces *by measure*, to be kept in a well corked bottle, in a cool and dark place.

"The specific gravity of this acid is to the specific gravity of distilled water, as 998 to 1000.

"*Remarks.*—In this process the cyanuret (or cyanide) of mercury is decompounded by the muriatic acid; the hydrogen uniting with the cyanogen, and changing it into prussic acid which rises and passes over into the receiver; the corrosive muriate or chloride of mercury remains in the retort, and as the residual liquor cools, deposits its usual spicular crystals. The changes which take place in

this instance, and the atomic quantities transferred, are represented in the following scheme:—

Materials.

1 Mercury	= 200		2 Chlorine	=	72
2 Cyanogen	= 52		2 Hydrogen	=	2
1 Bicyanide of Mercury	= 252		2 Muriatic Acid	=	74

Products.

2 Cyanogen	= 52		1 Mercury	=	200
2 Hydrogen	= 2		2 Chlorine	=	72
2 Prussic Acid Vapour	= 54		1 Bichloride of Mercury	=	272

"On reference to the tables of muriatic acid, it will be found that 74 parts of muriatic acid gas are contained in 229.8 parts of liquid muriatic acid, of specific gravity 1160; consequently 480 grs. or one ounce of cyarunet (bicyanide) of mercury, will require 437 grs. of the same liquid acid for complete decompoeition, which is but a little less than the quantity directed in the pharmaceutical process; the weight of 7 drs. by measure, of muriatic acid of specific gravity 1160, being 462.8 grs.

"An experiment was made in which equal weights of cyanuret (bicyanide) of mercury and muriatic acid were employed. The prussic acid yielded by this process reddened litmus paper, and gave a precipitate with solution of nitrate of silver. The quantity of muriatic acid used in the latter case, is more than sufficient for the decomposition of the bicyanide of mercury. The quantity of liquid prussic acid, formed by the process of the pharmacopœia as above given, amounted to about 7 oz. 5 drs. It had the specific gravity of 998 and was consequently much diluted with water, which, with an agent of such great activity, is an advantage, as its dose can be apportioned with more exactness than if the acid were stronger. By several other processes it may be obtained of much greater strength, but no advantage is thereby gained, as it cannot be administered in the concentrated state, but must in every case be diluted. The main object is to obtain the whole of the hydrocyanic acid from the materials, and of a certain fixed strength, whilst the dilution with water assists the exact regulation of the dose.

"*Tests of its purity.*—The pure liquid acid is limpid and colourless. It has a strong smell, which causes much irritation in the nostrils, with a peculiar sensation extending downwards into the trachea; and if inhaled incautiously, and in large quantity, producing giddiness or faintness. The latter effect is, however, more likely to arise from a strong acid than from the dilute acid of this pharmacopœia. Its taste is peculiar, resembling that of bitter almonds or laurel leaves.

The attempt to taste it should be made with great caution, as it is a most active poison.

" The specific gravity of water is diminished by absorbing prussic acid vapour, in which respect this acid resembles ammonia. Therefore specific gravity affords an estimate of its strength; the less the specific gravity the stronger the liquid acid. But according to the experiments of Dr. Ure, specific gravity is not a rigorously exact criterion of the strength of liquid prussic acid. He states that liquid acid at specific gravity 996, contains about double the quantity of real acid which it does at specific gravity 998. Dr. Ure proposes as a more accurate mode than specific gravity, for determining the quantity of real prussic acid in water, the use of the red oxide of mercury prepared by nitric acid; the *nitric oxide of mercury* of this pharmacopœia. To apply this test, some of the oxide should be reduced to fine powder, dried with a moderate heat, and about forty or fifty grains of this powder carefully weighed: one hundred grains *by measure*, of this acid, of specific gravity previously determined, passed into a glass tube, and the pulverized red oxide gradually added, which on agitation readily dissolves so long as any disengaged prussic acid is present; the difference in the weights of the residual red oxide and of that originally taken gives the weight of the portion dissolved by the prussic acid.

" The real prussic acid, corresponding in quantity to the red oxide of mercury dissolved, is found by viewing the changes thus; a bicyanide of mercury is formed, as given in the preceding scheme; two atoms of the oxygen contained in the peroxide of mercury, uniting with two atoms of hydrogen in the prussic acid to form water, and two atoms of cyanogen with one of mercury, to form bycianide of mercury. Hence it follows, that every 216 parts of peroxide of mercury indicate 54 parts of prussic acid vapour, or that the prussic acid is exactly 1-4th of the weight of the peroxide of mercury, and therefore for every four parts of red oxide of mercury dissolved, one part of prussic acid existed in the liquor.

" Dr. Ure observes that specific gravity is a criterion of greater nicety than can be conveniently used by the majority of practitioners, and he proposes to substitute for it the above application of peroxide of mercury. He has constructed a table, in which, as may be inferred, the quantity of real prussic acid contained in the strong liquid acid of specific gravity 9570, was ascertained by means of the peroxide of mercury; and with which strong acid, by addition of successive portions of water, mixtures of decreasing specific gravities, each containing the known quantity of real prussic acid, were prepared.

" The prussic acid of this pharmacopœia should have the sensible qualities above described, and 100 parts of it by weight, should dissolve a little less than 6.4 parts of red oxide of mercury, reduced to a fine powder; and therefore contain 1.6 of real prussic acid.

" An exact mode of detecting small quantities of prussic acid is of great importance, more especially when the acid has acted as a poison. In water it may be detected, according to Dr. Ure's expe-

riments, by making the liquid containing the prussic acid slightly alkaline by potash, adding a few drops of a solution of the sulphate of copper, and then sufficient muriatic acid to re-dissolve the excess of oxide of copper. The liquid will appear more or less milky, according to the quantity of hydrocyanic (prussic) acid present. A quantity of this acid in water, not exceeding a 1-20000th of the mixture, may be discovered by this test.

" Should the prussic acid be contaminated by muriatic acid, which will happen if too much of the latter acid was used in the process of preparing the prussic acid; this can be ascertained by neutralizing the liquor with ammonia, and evaporating with a heat, at the end of the process not exceeding 212°. If muriatic acid was present, muriate of ammonia will remain.

" Prussic acid may be purified from muriatic acid, by adding a small quantity of bicyanide of mercury, and re-distilling the mixture.

" *Uses.—Pharmaceutical.* It is not applied to any pharmaceutical use, according to this pharmacopœia. In the Parisian codex medicamentarius, a syrup is directed to be prepared with prussic acid; but it seems injudicious to multipply preparations of a medicine so active as prussic acid.

" *—Medicinal.*—In the dilute state it is recommended as a remedy in phthisis pulmonalis, and is reported to allay irritation and diminish the frequency of cough, but its curative efficacy in this disease is very doubtful. In simple dry cough, apparently connected with spasm, it is said to be beneficial, and accordingly it is found occasionally useful in spasmodic asthma. In hooping cough it also affords some relief. It has been reported to calm the irritability of the uterus even in cases of cancer, and to moderate the morbid activity of the heart; and it appears to have some specific action on mucous surfaces.

" It may be useful here to advert to its poisonous qualities, for the purpose of reminding the prescriber of the great caution to be observed in the use of this remedy. When applied in its concentrated form to the tongue, fauces, eye, or even to the external surface, by spreading it over the skin, it acts as a most virulent poison; and in the quantity of one or more drops, varying with the strength of the acid, vigour of the individual, and his previous habits in respect to its use, it causes immediate death. A single drop of a very strong acid passed into the throat of a strong dog has caused it to drop dead, and an animal is instantly killed by drawing a feather dipped in the strong liquid acid across the eye ball. Scarcely any irritability can be detected in the muscles of animals poisoned by prussic acid. A sufficient dose of the more diluted acid of this pharmacopœia would also be destructive of human life; the prescriber should immediately desist from its use when giddiness, vomiting, pain and sense of tightness at stomach, faintness, stupor, or sensations of weight at the top of the head comes on.

"As remedies for the effects of this poison, when the quantity swallowed is small, Orfila recommends that full vomiting should be excited by twelve grains of sulphate of zinc, dissolved in a glass of water, or by three or four grains of sulphate of copper; then strong coffee, prepared by infusion for ten minutes, a quart of boiling water on eight ounces of coffee, and then straining: three or four table spoonsful of oil of turpentine mixed with the coffee, to be given at intervals of half an hour. If stupor and insensibility have come on, the immediate application of the stomach pump should be had recourse to.

"*Dose.*—From two or three drops to half a drachm, by measure. The smaller dose to be commenced with, and gradually increased, a sufficient time being suffered to elapse between each dose."—p. 63.

Dr. Barker gives an elaborate review of all the formulæ for the preparation of tartarized antimony, and proves satisfactorily that the Dublin method is preferable to every other. His comments on this article occupy six pages, and are concluded by an account of its medical properties. He observes,

"In a moderate dose it acts as a diaphoretic or sudorific; in larger dose as an emetic and sometimes as a purgative. The first effect is produced by this remedy, when given in doses below one-fourth of a grain; the second when the dose amounts to one, two, and three grains. It has latterly been given, particularly in Italy and France, in very large doses, amounting to from thirty or sixty grains or more, dissolved in the merely sufficient quantity of water, restricting the patient from the use of all drink whilst under its operation. In these doses it is said to exert a sedative action, and to be a useful remedy in inflammatory cases. It is much to be wished that those who have given it in this manner, had stated the purity of the salt, determined by experiments similar to those above described as tests of its purity; for if the salt employed was impure or adulterated, serious consequences might arise from the same application of a pure salt. The effects seem to vary much, according to the constitution of the patient. Twenty grains, or a little more, in some instances acted as a poison, according to the testimony of Orfila. Dr. A. Duncan, of Edinburgh, has found it to act as a sedative, and with good effect, when given in doses of five grains where the powers of life were too feeble to admit of blood-letting. When taken in large quantity, and acting as a poison, it produces much vomiting and cramps in the stomach; Orfila recommends copious draughts of water sweetened with sugar: and if the pain should continue, a grain of opium repeated two or three times, at intervals of a quarter of an hour. It is decompounded by infusion or decoction of bark; and Orfila recommends this also as an antidote to its effects. Dr. Duncan tried with

advantage a solution of sulphuret of potash for the same purpose.—Thus it appears, that in very small doses not exceeding one-fourth part of a grain, it acts as a diaphoretic, in doses of from one to four grains as an emetic, and in doses not exceeding five grains, but in general much below this quantity, its action is sedative; but in these large doses it should be used with caution. To cause vomiting, the most effectual mode is to give it in half grain doses, repeated at intervals of ten minutes until vomiting is produced. As an emetic, it is frequently given with advantage at the commencement of febrile attacks; as a diaphoretic also, it is given, oftentimes beneficially in such cases: as a sedative, it is considered useful in cases of pneumonia or bronchitis. It is also sometimes used as an external application, and then it has the effect of producing a pustular eruption."—p. 218.

The last extract which our space will allow us to make, is the following:—

"Taken internally, acetate of lead acts as a sedative astringent; it is sometimes given in cases of hemorrhage from the lungs, and is much used in France for this purpose. In dysentery also it has been frequently prescribed, but the writer has often tried it in the advanced stages of this disease, with but little benefit; in these cases it is generally given combined with opium. It is said to have been employed successfully in the treatment of epilepsy.

"Although acetate of lead is poisonous when its use has been long continued, yet some peculiarity of constitution or unknown external circumstance is required to give it activity, for, large quantities have been accidentally swallowed without any bad effect. That it is poisonous, the production of saturnine colic from the use of wines containing salts of lead abundantly proves. Its poisonous nature is also established by experiments on lower animals. Orfila asserts, that dogs on whom its action in the solid form was tried, die in consequence of the corrosion it produces in the digestive canal, and that when taken in the liquid form, having remained in the stomach a time sufficient for absorption, its fatal effects depend more upon its action on the nervous system than on the inflammation it occasions.

"Acetate of lead is a useful external application; made into a poultice with crumb of bread, its aqueous solution is often applied to moderate inflammatory action. It is also frequently used as a collyrium. The decomposition which takes place in its solution in consequence of the absorption of carbonic acid from the atmosphere, may be prevented by the addition of a quantity of distilled vinegar sufficient to produce a slight excess of acid in the liquor.

"*Dose.*—From half a grain to two grains."—p. 304.

We have now enabled the reader to form his opinion upon the manner in which Dr. Barker has executed his task; in our estimation he has done much credit to himself, as well as to the university to which he belongs. Like a true

votary of science, he has avoided all personality, and merely contented himself by defending the principles maintained in the pharmacopœia, which he assisted in preparing.

He has displayed no special pleading, but a truly scientific view of every subject he has discussed. We part with him on terms of high respect, and congratulate him on the candour, research and ability he has evinced in treating of subjects so much disputed. He has contributed his portion to an exceedingly interesting work, and afforded ample proof of his sound practical knowledge as a physician, and his very great acquirements as a scientific and practical chemist. He is intimately acquainted with the most difficult chemical manipulations, and is quite conversant with the recent opinions on this branch of medical science. His frequent citations of the opinions of his venerable predecessor, Dr. Percival, will be exceedingly agreeable to his professional brethren in Ireland, as paying a just tribute to the profound knowledge, indefatigable industry, and genuine talents of that eminent individual. Dr. Good has also done him justice in his imperishable work; and never was there a physician who had fairly arrived at the summit of his profession, in a large city, more entitled to the esteem and veneration of his profession. He has long since retired from the practice of medicine, and is no longer sensible to praise or censure. We are not much in the habit of lauding the faculty, but we are ever ready to pay a just and well merited tribute of respect to the few who deserve it. We give to Cæsar what belongs to Cæsar. We have not the honour of Dr. Percival's acquaintance—we speak of him as his estimable merits deserve. He was the Baillie of Dublin. We therefore return our best thanks to Dr. Barker, whose benevolence needs no eulogy from us, for his allusion to that universally respected individual.

We shall now exhibit specimens of the manner in which Dr. Montgomery has executed his part of the work, and, we think, convince our experienced readers that the production before us is well worthy of place among our best treatises on pharmacology. The latest improvements have been added, so that in fact this is the most recent work upon the subject. Had the commentators included the London and Edinburgh pharmacopœias, then Dublin might boast of as good a dispensatory as any extant. The work, however, in its present shape, is one of great utility to the pharmaceutists in Ireland, and will be referred to with advantage by every man engaged in the practice of medicine

in these countries. We strongly recommend it to every class of our readers. The following extracts will afford evidence in corroboration of our opinion :—

" As the croton tiglium is now for the first time admitted into the list of the materia medica of this pharmacopœia, it appears proper to notice here the expressed oil obtained from that plant, now much used, and known by the name of Croton oil.

" *Remarks.*—The plant yielding the seed from which croton oil is obtained, is a native of the Molucca Islands,

" The seeds which are contained in trilocular capsules, are about the size of a large coffee bean, and very much resemble in form the castor oil nut, and the plants belong to the same natural family. The seeds were formerly much used in medicine under various names; they are the nucula cathartica of Geoffroy, by others they were called pinei nuclei Moluccani purgatorii, and still more frequently grana Molucca, or grana tiglia ; but they fell into disrepute, owing to their violently drastic effects, and were almost forgotten until attention was again directed to them by Dr. Ainslie, in his Materia Medica of Hindoostan. 100 parts of the kernels of the seeds, when bruised, yield 60 parts of acrid oil, and 40 of farinaceous matter.

" *Qualities.*—Croton oil is of a pale reddish brown colour. Its taste is hot and acrid; it is soluble in ether and oil of turpentine. Alcohol takes up two parts out of three, and the solution possesses the active properties of the oil ; much of what is taken up by the alcohol is fixed oil. From the experiments of Dr. Nimmo, croton oil is composed of 45 parts, of an acrid purgative principle, and 55 of fixed oil resembling the oil of olives, and not possessed of any cathartic property.

" Dr. Nimmo has also shewn that this acrid principle is resinous, and soluble in alcohol, sulphuric ether, volatile and fixed oils, and that ether and purified oil of turpentine dissolve the whole of the oil ; from the knowledge of which fact we are enabled, by digesting the kernels of the seeds in these menstrua, to obtain the oil in as genuine and apparently in a more uniform condition, than by the processes of torrefaction and expression practised in India.

" M. Caventou obtained this oil by means of the action of alcohol, at 100° Fahr. upon the kernels of the seeds reduced to a paste. He allowed it to macerate for 48 hours, and then filtered; he then poured a second and a third quantity of alcohol upon the paste, which he afterwards submitted to strong pressure; the alcoholic macerations were then placed in an alembic, and the alcohol drawn off by distillation. The oil which remained in the alembic was filtered through paper, and preserved in a stopper bottle.

" MM. Vauquelin and Pelletier have made some experiments for the purpose of isolating the active principle of this oil, but without success. Dr. Paris thinks, that it bears a strong analogy to elatin

and from the experiments of Caventou, it appears that it is not identical with the jatrophic acid, as was supposed.

" ***Adulterations, and test of its purity.***—From the high price at which croton oil is sold, it is frequently adulterated with the cheaper fixed oils. Dr. Nimmo has suggested the following means of detecting these adulterations.

" Pour into a phial, the weight of which is known, 50 grains of the oil; add alcohol which has been digested on olive oil; agitate well, and having poured off the solution, add more alcohol of the same kind, until the dissolved portion is diffused in such a proportion of the alcohol, that each half drachm measure shall contain equal to one dose of the croton oil for an adult; by placing the phial near a fire to evaporate what remains of the alcohol in the bottle, if the remainder be to that abstracted by the alcohol as 55 to 45, the oil is genuine. If it be adulterated with olive oil or any other, little soluble in alcohol, the residuum will be larger; if with castor oil, it will be smaller than in the genuine oil, but it is evident, as remarked by Dr. Duncan, that this test will fail if it be adulterated with a mixture of olive and castor oils.

" ***Medical properties and uses.***—It is a powerful hydragogue purgative, and from the smallness of its dose, it can be given in circumstances where other effectual medicines cannot be swallowed. As in cases of coma, apoplexy, mania, or convulsions. It has been found useful in delirium tremens, dropsy, and intestinal tympanites. It is usually given made into pills, with crumb of bread; but the tinctura tiglii as proposed by Dr. Nimmo, seems a decidedly preferable form for its administration; every half drachm of which contains somewhat more than a drop of the oil; the following is the formula which he recommends:

Tinct. tigilii ʒss.
Syrupi simplicis.
Mucilag. gum. Arab. a a ʒii.
Aquæ distillatæ ʒss. M—ft. haustus.

And in order to obviate the uneasy feelings likely to be produced in the mouth and throat, he advises, " after swallowing a little milk to take the draught very quickly, and wash it down with repeated quantities of the same diluent." A drop may be given on a lump of sugar: but where there is no dislike to oil, one drop of croton oil with half an ounce of castor oil is a most effectual purge. Besides the effect produced on the alvine evacuations by this oil, the secretion of urine appears to be considerably increased.

" In India it is used as an emmenagogue, and it is said with excellent effects, and as an external application in rheumatism.

" Rubbed on the skin it sometimes produces its effects actively, and nurses who have been employed to rub it on the abdomen of patients, have been in several instances severely purged. Mr. Conwell states, that the odour of this oil, several times respired over a

bottle containing sixteen ounces of it, was sufficient to purge a young girl; while an adult having made the same experiment, suffered only from nausea.

"The solution of this oil in oil of turpentine, is said by Dr. Thomson to produce a pustulous eruption when applied to the skin. Dr. Copland gave a combination of these two oils with great advantage in a case of tetanus.

"Great care should be taken in the administration of this medicine, as an over dose will produce most dangerous hypercatharsis. Mr. Houlton mentions a case, in which three drops were given to a strong young man labouring under obstinate constipation; it produced evacuations in the course of fifteen minutes, and soon afterwards his sight failed him, and he became quite blind; in four or five days he recovered the sight of one eye, the other was not restored for a fortnight from the time of taking the oil.

"In order to obviate the inconvenience arising from the variation in the size of drops, M. Caventou has proposed the use of a soap, prepared by triturating together two parts of the oil, and one part of liquid caustic soda of the French pharmacopœia, without heat; when the compound has acquired a sufficient consistency, it is poured into paste board moulds, after a few days, the soap is to be taken out in slices, and placed in a stopper bottle with a large mouth. This soap given in doses of two or three grains, diffused in water or in the form of pills, produced the same effect as the oil.

"*Dose.*—From half a drop to two drops."—p. 332.

Since the above was written, Dr. Short, of Ratcliffe Highway, has published an interesting essay on this remedy, which he found of great value in hepatitis, gastro-enteritis, tetanus, constipation, and hydrocephalus. For a review of his work, we refer to our last vol. (V.) p. 252.

"*Oil of turpentine.*—Take of common turpentine, by weight, five pounds—water four pints.

"Distil the oil from a copper alembic; yellow resin will remain after the distillation.

"*Remarks.*—In the list of materia medica prefixed to this pharmacopœia, the pinus sylvestris is the species named as the source from which to obtain turpentine. In France, at Bordeaux, in the Landes, it is from the resin of the pinus maritima, that the volatile oil of turpentine is extracted, 250 parts of turpentine yielding from 50 to 60 of oil.

"Oil of turpentine differs from the other essential oils in being very sparingly soluble in alcohol, for although it dissolves in hot alcohol, it separates again in drops as the spirit cools. Whereas the turpentine whence it is obtained, dissolves with facility in that menstruum. It is limpid and colourless; very light, volatile, and inflammable, and soluble in six parts of sulphuric ether. Its specific gravity is stated by Mr. Brande to be 8700, and by Dr. Paris to be only

792°. If a stream of muriatic gas be passed through it, a resinous deposit is produced, resembling camphor in some of its qualities, but differing from it in not being soluble in weak nitric acid; nor is it precipitated by water from its solution in strong nitric acid.

" Oil of turpentine has a peculiarly strong and nauseous flavour, which renders it intolerable to many as an internal medicine; for the correction of this, either of these two methods may be practised; agitate eight parts of the oil with one part of the strongest alcohol; let them settle, and when a separation takes place, pour off the alcohol, repeat this three or four times, and the oil will become almost tasteless and without smell, and if evaporated will leave no residuum; but it speedily returns to its original condition. The same effect may be more speedily produced by distilling it over quick lime, but it is to be doubted whether its medicinal efficacy is not thereby impaired.

" The stimulating application known by the name of Whitehead's Essence of Mustard, is composed of camphor and spirit, or oil of rosemary dissolved in oil of turpentine, with a little flour of mustard added to it.

" *Medical properties and uses.*—It is stimulant, cathartic, diuretic, and anthelmintic; externally it is an efficacious rubefacient. In doses of from half an ounce to two ounces it has been found to act almost as a specific in causing the expulsion of the tape worm. As a purgative it frequently succeeds when all others fail; and is particularly efficacious in the form of glyster. Its utility in epilepsy has been established upon numerous authorities. It is a popular remedy in rheumatism, and Dr. Cheyne, in his essay on gout, recommends it as a specific in sciatica; a commendation which, unfortunately, experience has shewn it does not merit.

" In gout in the stomach Dr. Mason Good speaks of it in very high terms, as being " the best aperient, and at the same time stimulant medicine in such a case, for which the dose should be about six drachms swallowed unmixed," vol. ii. 687-8.

" In puerperal fever its administration internally, and its application externally to the abdomen, has been found in many instances productive of the happiest results. From its effects in this disease, and in some others, oil of turpentine appears to have a specific influence in arresting inflammatory action, when administered in repeated doses; a very happy application of this power has been lately made by Mr. Hugh Carmichael of this city, in the treatment of iritis, by oil of turpentine, given in drachm doses three times a day.

" In America, oil of turpentine in doses of a drachm every hour or two, has been successfully administered in cases of yellow fever, in which, says Dr. Chapman, it appears to be soothing in its effects, removing the sense of heat and irritation in the stomach, subduing the force of vascular action and general excitement, and inducing at once a state of more comfort and security.

" It has been recommended by Mr. Colles, as an useful application to wounds received at the dissecting table.

" Oil of turpentine is a valuable application to scalds or burns in their recent state, and particularly in the form of liniment composed of it and linseed oil, or with ointment of yellow resin, which latter combination constitutes the linimentum terebinthinæ, which see.

" Oil of turpentine has been used with success in the treatment of purpura hæmorrhagica. *See Edinburgh Medical Journal*, vol. xviii. p. 540.

" It has the singular property of communicating the odour of violets to the urine of those who take it, or who even expose themselves for a short time to its effluvia.

" Dr. Copland recommends the addition of tincture of capsicum to correct the nauseating effects which the oil frequently produces on the stomach. The ancients administered turpentine freely in coughs and various pulmonary affections.

" *Dose.*—As a diuretic, ten drops to a drachm; as a purgative two drachms to an ounce, with the addition of an equal quantity of castor oil."—p. 353.

" *Tincture digitalis. Medicinal properties and uses.*—It is diuretic and sedative; as a diuretic, digitalis acts by diminishing arterial action, and so increasing that of the absorbents, by which means diuresis is promoted; with this intention digitalis is given in ascites and other kinds of dropsy, particularly in hydrothorax, some of the most distressing symptoms of which it palliates independently of its diuretic effects. It is best administered in conjunction with other diuretics, as squill or nitrous spirit of ether, see page 373. If it purge or vomit, its diuretic effects are greatly impaired.

" As a sedative it acts more directly than any remedy we are acquainted with, possessing great power in controlling the action of the heart and diminishing the impetus of the blood, on which account it is beneficially administered in aneurism and hæmorrhages, particularly those from the lungs or uterus. Its effects in phthisis were much vaunted, but experience has not confirmed its utility in this complaint. The change made in the pulse by its use is very remarkable. Dr. Baildon informs us, that he reduced his own pulse from 110 to 40 by the use of digitalis, taken by gradually increased doses to the extent of six grains in the day. The late Dr. Halloran, of Cork, speaks very highly of its effects on persons afflicted with mania, for which he gave the tincture in doses of 60 to 120 drops three times a day; and the correctness of his observations have since been confirmed by the experience of others. In cases where there appears to be some organic affection of the heart or large vessels, the most decided benefit has resulted from its use.

" The effects produced in some constitutions by the use of digitalis are so remarkably violent, that its administration demands our utmost circumspection and attention to the state of the patient; and should there occur intermission of the pulse, vertigo, indistinct vision or nausea, with vomiting or purging, we should immediately discontinue the medicine, as its further administration under such circum-

stances, will almost certainly give rise to a train of the most alarming symptoms, terminating in death.

"The effects of an overdose are best counteracted by the administration of cordials, as brandy and water with tincture of opium, or aromatic confection, mint tea, &c., and the application of a blister to the pit of the stomach.

"*Dose.*—Ten drops *cautiously* increased to forty."—p. 409.

"*Tinctur opii. Medical properties and uses.*—Similar to those of crude opium. In small doses stimulant, in large ones powerfully narcotic and sedative, and anodyne both internally and externally. This tincture is a most convenient and eligible form for the administration of opium, as it affords a means of apportioning the dose with great facility and certainty. It was long known and prescribed under the name of *Thebaic tincture*, because the ancients considered the opium brought from Thebes in Egypt as superior to any other. It was so named in the last edition of this pharmacopœia.

"Under certain forms of combination, opium becomes a most valuable auxiliary to many important medicines, by acting as a *corrigent* of some of their qualities or effects; and so rendering their action more complete. Thus, it will prevent mercurial alterative remedies from running off by the bowels, before they can produce their effect; in combination with certain sudorifics, as antimonials and ipecacuan, it increases the sudorific effects, and will at the same time act as an anodyne. Combined with diuretics, as digitalis and squill, it corrects their tendency to cause vomiting and purging, which would in a great degree defeat their diuretic operation; but it would far exceed the limits proposed in this work, to enter at length into a detailed account of the numerous effects ascribed to opium, or of the diseases in which it is administered or recommended; for as Dr. Paris observes, "in combination, the medical powers of opium are wonderfully extended, so that there is scarcely a disease in which it may not, during some of its stages, be rendered useful."

"I shall therefore confine myself to a few observations on its most important effects and forms of administration; and with respect to the latter subject, it appears as before stated, that the sedative power of opium depends on a peculiar substance contained in it called *morphia*, while the excitement and other disagreeable effects are caused by the principle which has been named *narcotine*; hence it follows, that these preparations which contain the greatest quantity of the former with the smallest proportion of the latter, are to be preferred where the sedative effect is the object aimed at.

"Thus, the acetum opii and vinum opii, which contain an acetic solution of morphia, its most active form, and the extractum opii aquosum, which contains only a very small proportion of narcotine and very little resin, produce their beneficial effects with comparatively little of the general disturbance of the system, which so generally follows the use of crude opium or common laudanum. The medicine known by the name of *black drop*, is also for the same reason

an eligible form for administering opium. See acetum opii. Rousseau's drops are somewhat similar to the black drop.

" With respect to its effects, and the proper circumstances under which it ought to be administered, it has been long regarded as a general rule, that " its use is contra-indicated in all cases where inflammatory action prevails," and this to a certain extent is true; but the exceptions are very numerous, as it is found to produce the most beneficial effects in several highly acute and inflammatory disorders. Practitioners in the hotter regions of the earth, and especially in India, have long been in the habit of giving opium freely in acute diseases, and even in tropical inflammation, after, or in company with venesection, and generally in combination with calomel. " The utility of this practice," adds Dr. Johnson, " has been long established in those climates, and is now making its way in this country, with some little variety in the modus."—See *Med. Chir. Review*, June, 1824.

" Dr. Armstrong, of London, enjoins this practice very strongly; and in a paper which he published on the subject, he recommends the exhibition of opium in some most acute inflammatory affections, as acute inflammation of the peritoneal covering of the stomach, intestines, and uterus; in such cases, after a copious venesection, he administers three, four, or even five grains of good opium in the form of a soft pill. " The effects," he says, " of opium thus administered, are to prevent a subsequent increase in the force or frequency of the heart's action, and a return of the abdominal pain, while it induces a tendency to quiet sleep and a copious perspiration over the whole surface." To the correctness of this statement, I can bear testimony from the decidedly beneficial result of such a mode of treatment, in some cases of puerperal peritonitis, which came under my observation; and no remedy so effectually relieves the excruciating pain of acute rheumatism, which generally makes its attack at night, as a pill containing gr. iss. of opium, combined with gr. iss. of calomel, and gr. $\frac{1}{4}$ of tartarized antimony. In swelled testicle, accompanied by a high degree of inflammation, the administration of a full dose of opium, after the application of leeches, is productive of the best effects.

" In intermittent fever, opium, combined with brandy, and given during the cold stage, will often put an end to it; or if given before its accession, will prevent it. The value of opium in the treatment of tetanus, is almost universally acknowledged, and in diabetes it is very generally regarded at present, as the most effectual remedy for alleviating the symptoms of that distressed and almost incurable disease. In the case related by Mr. Mooney, in the 5th vol of the Med. Chir. Trans. it reduced the quantity of urine passed in the day from twenty-five pints to seven; but in both this disorder and tetanus, in order to produce the good effects of opium, it must be given in quantities much exceeding the ordinary, even to the extent of twenty to thirty grains in the course of the twenty-four hours. Dr. Currie

gave five ounces of the tincture in the course of the day in a case of tetanus.

" After surgical operations a full opiate is generally given, and with good effect; it soothes the pain, calms the patient's feelings, induces sleep, and so tends to prevent the fever which so often comes on under such circumstances.

" In dysentery and diarrhœa, after the exhibition of purgatives, opiates give great relief; in the former disease by relieving the tormina and tenesmus, and in both restraining the excessive discharge.

" The vomitings which sometimes so distress nervous persons or pregnant women, are often quieted by opiates better than by any other remedy: and cases have occurred where it produced this effect, applied by rags wet with laudanum over the region of the stomach.

" In cholera and in pyrosis opium is a valuable remedy. It is also frequently introduced into the rectum, either in form of a suppository or as an enema.

" As an external application in the form of liniment or otherwise, opium possesses considerable anodyne effects, particularly if combined with acetic acid. The following liniment is recommended as useful in convulsive or spasmodic affections :—

℞. Tincturæ Opii ℥ ss.
Olei Olivarum ℥ i.
Vitelli Ovi. q. s. ut fiat linimentum.

" The quarter of this to be rubbed on the thighs or legs twice or thrice a day.

" Opium is often applied with good effect to the surface of sores, from which it is readily absorbed into the system; Sir Astley Cooper mentions " a case, in which a tetanic affection was produced in a child, whose leg had been amputated, and where the application of opium to the stump gave more immediate relief than I ever remember to have witnessed. It relieved the spasms, and, as I believe, saved the child;" and he adds, " if opium, applied to the surface of sores, be absorbed into the system, it produces excessive costiveness, extreme pain in the head and torpor of the system, which is only to be removed by the frequent administration of active purgatives."

" The torpor of the intestines caused by opiates, in consequence of their paralyzing for a time their muscular fibres, may be best counteracted by aloetic purgatives, which have a directly contrary effect, that of increasing the peristatlic motions.

" The administration of opium is frequently followed by clay coloured stools, shewing that the biliary secretion into the intestines has been interrupted; this may be best obviated by combining mercurials, particularly calomel, with the opium, or giving them shortly afterwards, either alone or in combination with aloetics.

" It is often productive of considerable benefit in threatened abortion, and in tedious labour where delivery is impeded by rigidity of the os uteri or other soft parts. Opium should never be given to infants if possible to avoid it, as it is apt to produce very untoward

effects in them. Nor should it be given to mothers who are giving suck, at least without cautioning them not to suckle their child for some hours after. A case came to my knowledge a short time since, in which a woman, who was nursing her child, took twenty drops of laudanum to procure sleep, which had been disturbed for some nights by the pain of a sore breast; the infant sucked a great deal during the night, and was so affected in consequence, that it remained for nearly twenty-four hours in a state of complete torpor almost resembling death, from which no effort could rouse it, though every means were used for the purpose. It however ultimately recovered.

Some of the oriental nations use opium habitually as a cordial stimulant, and as such, take it frequently in the day, to an amount which would appear almost incredible. Dr. Smith mentions, in the philosophical transactions, that being at Smyrna, he saw a man who took every day *three drachms* of opium, half in the morning and half after dinner, to prevent him from falling asleep; this habit he continued for twenty-four years, and had begun with a grain; but Dr. Smith says, that the consequence was premature old age. The Turks eat opium when going into battle, to excite them and rouse their courage, but this habitual use of opium completely blunts both the mental and corporeal faculties. I knew a person who every day took from thirty to sixty drops of laudanum to cheer him and prevent low spirits, which it did effectually; but whenever accident prevented the habit from being indulged in, the consequence was a state of the most pitiable depression and misery of mind and body. Russel observes, that the effects of opium on those addicted to its use, are at first obstinate costiveness, succeeded by diarrhœa and flatulence, with loss of appetite and a sottish appearance; the teeth decay, the memory fails, and the unhappy sufferer prematurely sinks into the grave.

" Of crude opium, from half a grain, to a grain and a half, and from ten drops to sixty or more of the common tincture, are the quantities which may be considered as constituting a general dose for an adult; for children, particularly infants, the dose should be very small, not exceeding a drop or two; but under particular circumstances these doses may be greatly exceeded, as in some spasmodic affections, particularly tetanus, and in diabetes; in cases attended by great bodily suffering, very large doses may be taken without any very sensible effect being experienced, but it sometimes happens that one-fourth of a grain will produce an effect in one person which ten times the quantity will not produce in another. I know a lady whom so small a dose as five drops of laudanum would throw into a state of delirium.

" In case of an overdose being taken, a full emetic of the sulphate of zinc or copper, dissolved in a very small quantity of water, should be immediately given, and the stomach well evacuated by vomiting; after this is accomplished, vinegar diluted, and other acidulous drinks, should be given; drowsiness should be prevented by keeping the patient in motion, giving ammonia, brandy, or strong coffee; or, by immersion in a tepid bath. Bleeding is sometimes necessary to

relieve the vessels of the brain, and may be best performed in the jugular vein. When the overdose taken is a fluid preparation, the stomach pump affords an expeditious and certain means of withdrawing from the stomach its poisonous contents.

" *Dose.*—Ten drops to sixty or more."—p. 434.

" *Belladonna. Medical properties and uses.*—Belladonna is powerfully narcotic, diaphoretic, and diuretic. It excites all the excretions, and has been found serviceable in neuralgia, used internally, and applied externally in the form of a plaster.—See *belladonna plaster*.

" MM. Schaeffer, Hufeland, and Wetzler, have declared it almost a specific in hooping cough, and to its efficacy in this complaint Dr. A. T. Thomson also bears testimony. Wetzler succeeded in curing all his cases within twenty days from the time the patients began to use the belladonna; the greater number were cured, from the eighth to the fifteenth day. In two cases in which I administered it for this complaint, it appeared to succeed completely, and removed the complaint from one child in a fortnight, and from the other in about three weeks. I used the extract dissolved in cinnamon water, and sweetened with syrup.

" On the continent, belladonna was for a time much extolled as a preventive of hydrophobia; but recent failures, in cases where it was fairly tried, have invalidated, if not annulled its claim to such a power.

" It is also upheld by many, particularly of the continental physicians, as a preventive against the infection of scarlatina, during epidemics of that disorder; and its pretensions in this respect are supported by so many respectable authorities, that we can hardly doubt of their being well grounded.

" Dr. Berndt, of Custrin, who was the first to make a connected series of experiments on the subject, says that in the epidemics of scarlatina which prevailed throughout that city in 1818 and 1819, he used the belladonna as a preservative in children under fifteen years of age, who were freely and continually exposed to the contagion; that out of 195 cases, only *fourteen* were infected; and that when he afterwards used a stronger preparation of the drug, every one escaped the disease. Koreff, professor at Berlin, affirms, from a very extensive experience and observation of sixteen years, that the most intimate intercourse may be kept up with patients affected with scarlatina, provided the belladonna be taken in the proper doses for eight or nine days before exposure, and be continued till the period of desquamation; on this subject he has lately addressed to M. Laennec, in which, he says, " it was not till I had received the authority of the celebrated Söemmering, who informed me, that he obtained the most satisfactory results with it when the disease raged epidemically, that I determined to employ it; and he adds, " up to the present time, April 1824, neither season, nor locality, nor any other circumstance, has appeared to diminish the preservative effect of this plant." In addition to these testimonies, may be added that of Hufeland, who says in the Journal de Practischen Heilkunde, Nov. 1825, that " it gives

him great joy to be able to confirm, by the results of fresh experience, the efficacy of belladonna as a preventive against scarlet fever; and he adds, that having repeatedly used the medicine in his own practice, be has never seen it fail in a case where it had been properly tried." To these might be added, if necessary, the opinions of several others to the same effect.

" The preparation employed was a solution of two or three grains of the extract in an ounce of cinnamon water; of this two or three drops were given twice a day to children under a year old; one drop more was added for every year above that. The principle on which it is given is, that diseases are to be combated by the exhibition of remedies which produce symptoms similar to those of the disease for which they are given, and on this principle belladonna was first suggested as a preventive of scarlatina in 1807, by Dr. Hahneman, of Leipsic.

" Belladonna has been long used as an application to the eye previous to performing the operation of cataract; the extract is rubbed freely over the eye-lids and eye-brow, and in about an hour afterwards, if there be no adhesions of the iris to other parts, a full dilatation of the pupil takes place, bringing the whole of the cataract distinctly into view, and thereby materially facilitating the operation. Belladonna was also applied by the late Mr. John Cunningham Saunders, after the operation, with a view of preventing the iris from becoming adherent to the edges of the torn capsule. This practice is also adopted by Dupuytren under similar circumstances. Mr. Saunders also strongly recommends a similar application to prevent obliteration of the pupil occurring as a consequence of inflammation of the iris. " Happily," says he, " we are furnished in the extract of belladonna, with a perfect specific for this purpose."—See his Treatise, page 63.

" The action of this substance in such cases, appears to be limited to the radiated fibres of the iris. M. Segalas read a paper before the Royal Academy of Medicine in Paris, on the manner in which belladonna acts when applied to the eye. Having placed on the eye of a young cat, a grain of the extract of belladonna, he saw the dilatation of the pupil begin *fourteen* minutes afterwards. Having in a second experiment placed a grain on the pleura of a cat, of the same age and the same height, the dilatation commenced in *eight* minutes. Lastly, in a third experiment, having injected a grain into the bronchial vessels, the dilatation appeared in *two* minutes after, that is to say, seven times quicker than after the direct application of the substance to the eye.

" It would seem then, says M. Segalas, that the dilatation of the pupil is quick in proportion as the belladonna is applied to a surface, possessing a greater or less degree of absorbing power; from which it would result, that the belladonna only acts on the eye after being absorbed and carried by the blood to this organ. It is to be regretted however, that his experiments were deficient in such a degree of accuracy as would warrant a very precise inference.

" Dupuytren, after a continued use of belladonna internally for the space of ten years, is perfectly convinced of its efficacy in long standing cases of scrofulous ophthalmia.

" In parturition, rendered lingering by rigidity of the os uteri, Chaussier recommends the application of the extract to the part, as tending to produce relaxation; and in a small pamphlet on the subject, he has published some cases in which it was successfully used. His formula is the following:—

℞ Extracti Belladonnæ drachmas duas
Cerati Simplicis unciam.—Commisce.

" Dr. Conquest, of London, says he has seen decided benefit result from such a practice. I have never seen it tried for such a purpose. I was lately informed of a case of impaction of a calculus in the gall duct, in which instantaneous and complete relief was given by rubbing belladonna over the seat of the pain; it induced spasms in the face, which soon subsided; the preparation used, was an infusion of a drachm of the powdered leaves diffused through an ounce of water. Dr. Paris informs us, that an ointment composed of equal parts of the powdered leaves and of lard " rubbed over the penis prevents priapism, and relieves chordee more effectually than any application which has been proposed."

" Great caution is required in the administration of belladonna, as it is likely to bring on most distressing and alarming symptoms if injudiciously or incautiously given, or when it is taken for a considerable time, even in small doses, it is apt to induce a dryness and stricture of the fauces, pharynx, and œsophagus; vertigo, dimness of vision and dilated pupil; upon the occurrence of any of which symptoms its use should be discontinued for the time. The root of the plant produces somewhat similar effects, but of a milder character, and resembling intoxication; this is alluded to by Shakspeare in his Macbeth;

" Or have we eaten of the *insane root*
That takes the reason prisoner."

" When an overdose has been taken an active emetic of sulphate of zinc or copper, should be given, purgatives administered, and afterwards vinegar; the influence of belladonna on the stomach is so paralyzing that it is often impossible to excite vomiting; in such cases, vinegar is recommended in the first instance, after which emetics are said to be more likely to produce their effect.

" *Dose.*—One-fourth of a grain gradually increased to five grains."
—p. 484.

Time nor space will not permit us to make more extracts, but enough has been given to shew the value of the work.

IV.—*A Treatise on Pathological Anatomy.*—By G. Andral, Professor to the Faculty of Medicine of Paris, &c. Translated from the French by Richard Townsend, A.B. M.D. M.R.I.A. and William West, A.M. M.D. M.R.I.A. Vol. II. 8vo. pp. 808: Dublin, 1831. Hodges and Smith.

It affords us much pleasure to inform our readers that M. Andral's Pathology is now to be had in the English language, and on terms almost as reasonable as the French edition. This work is the best extant, and is of course a standard authority. Its justly celebrated author has been placed with unanimity at the head of the pathologists of the French school, and may be considered the chosen organ of that body. His qualifications cannot be better described than in the language of Dr. Townsend.

"He has himself made, perhaps, a greater number of post mortem examinations than any other pathologist in Europe; accordingly, his work is unrivalled in the number of original observations it contains, and I can assert from experience, having myself made within the last few years a very considerable number of dissections, that nothing can exceed the accuracy of his descriptions. But, M. Andral has not confined himself to the irksome task of enumerating the various physical alterations that take place in our organs; he has likewise endeavoured to investigate the origin of these alterations, to explain the mechanism of their formation, and to trace their mutual relation and order of succession. In his investigation of these important points, he has laboured to restrict the influence of inflammation within rational limits, and successfully combats the absurd doctrine, that every alteration of the living structure depends on an exaltation of its vital powers. He also examines the influence of these local alterations in the production of disease, and endeavours to point out how far the knowledge of these lesions may serve to aid us in determining its seat and nature, and to afford us certain data for the rational treatment of it. In short, he has attempted to combine pathology with morbid anatomy, and to deduce from their combination such conclusions as may serve to furnish us with more correct ideas of the nature of disease, and more fixed and rational principles for its treatment. In pursuing this investigation, he does not allow his judgment to be warped by any favourite theory. He admits the influence of the solids in producing the phenomena of disease; but he likewise accords considerable importance to the alterations of the fluids: he admits that local disease is capable of producing general or constitutional disturbance; but he likewise maintains that those general agents, the blood and nervous influence, may be primarily affected, and that

in this way general disease may precede the existence of any local affection. These few instances may serve to shew that the work is written in the purest spirit of eclecticism; indeed it appears a constant object of M. Andral's solicitude to reconcile the jarring interests of adverse doctrines, to select what is of real value from every theory, and thus to profit by them all, without wedding himself to any. The value of a treatise on morbid anatomy written on these principles, by an author so eminently qualified for the task, is too evident to require demonstration."—Preface, p. ix.

He has evinced indefatigable industry in his investigations, his research has been the most extensive, and his arrangement of the facts described by preceding writers, has been effected with fidelity. A standard work on morbid anatomy has long been a desideratum in the medical literature of this country. During the last thirty years we have had the works of Baillie, Farre, Hooper, Abercrombie, Armstrong, Hodson, Hodgkin, Bright, Sir A. Cooper, Hooper, Craigie, and the Vademecum of Morbid Anatomy, with a host of essays in our periodicals, but no systematic treatise adapted to the present state of the science. This want is now supplied by the perfect production before us. It embraces every part of the subject, and is a work of infinite value to every class of medical practitioners. It is a source from which every medical man, when called to elucidate questions of judiciary medicine, can obtain certain data on which they can form a correct opinion, in discriminating between the natural appearances of disease, and those produced by criminal means. Had it contained no other information, it would be a work of infinite value. But it is not confined to this alone, it embraces the principles of pathology, and the indications of treatment. We are happy to state that the translation is faithfully executed, and is highly creditable to Drs. Townsend and West. There is no scientific member of the profession in these countries who will not possess himself of this work, as the very best extant.

This volume is devoted to special pathological anatomy, and is arranged as follows:—digestive, circulatory, respiratoty, secretory apparatuses, apparatuses of generation and innervation. There is no morbid appearance observable in any of the tissues which constitute the organs in this catalogue that is not minutely described. Many of the lesions enumerated have been discovered, though no symptoms indicated their existence during life. The accuracy of this statement is well attested by the following observations:—

" *Of the alimentary canal in the healthy state.*—There has been hitherto so little agreement on the subject of the natural appearance of the stomach and intestines, that I consider it indispensable to determine accurately what is the anatomical condition of the alimentary canal in the healthy state. Perhaps one circumstance which has long been an obstacle to the ascertainment of this point, is the great frequency of gastro-intestinal alterations. As there are very few subjects in which some of these are not met with, anatomists had become accustomed to consider them as belonging to the natural state of the parts; and they seemed the more warranted in doing so, as, until very lately, the symptoms produced by these alterations were either totally unknown or ill understood.

" If we examine the internal surface of the stomach or intestines in a living animal, that is not struggling, and whose circulation is not disturbed, we find it of a red tint, somewhat deeper than that of the mucous membrane of the cheek in a healthy man. If we examine the same animal after death, we find that this red tint has disappeared, and that the surface is now uniformly pale, or, at most, very slightly rose coloured. In order that the experiment should afford these results, the animal must be deprived of life in such a manner as not to lose too much blood, on the one hand, as the natural paleness of the intestines would then be increased; or to die in a state of asphyxia, on the other, as the mucous membrane would then be mechanically injected; which, though not a morbid, would yet not be the natural state.

" I think we may conclude from this experiment that after death, the mucous membrane of the stomach and intestines, tends to lose its colour like the skin.

" There have been frequent opportunities of examining bodies in cases of accidental death, where the individual was apparently in the enjoyment of perfect health a few minutes previously. In most of these cases, also, the alimentary canal has been found free from any red tint.

" Sometimes, however, different degrees of injection have been observed on the internal surface of the stomach or intestines, as well in animals supposed to be sound, that were sacrificed to physiological experiments, as in men in cases of accidental death. To this it may be answered in the first place, that if the alimentary canal has been found oftener without any redness, under the same circumstances, it is very probable that in the cases where the redness was observed, it arose from disease. But, besides the appearance of the parts that were found injected should have been described with more care and precision; and a detailed account should have been given of the kind of death the animals suffered, and of the space of time that had elapsed between the accident and death in the other cases.

" There are, in fact, certain circumstances under the influence of which the alimentary canal, though free from disease, may yet

present various degrees of red coloration in the dead body. Of these circumstances, some may have operated a certain period before death, others only during the last moments, and lastly, others either soon or at some length of time after the cessation of life.

" Of the causes which operate before death, some are physiological and others pathological. Thus, it is an undoubted fact, that, during the process of chymification, the internal surface of the stomach acquires a considerable degree of redness; as well as that the small intestine does the same while the separation of the chyle is taking place in it: any one may convince himself of the truth of these assertions by examining living animals. But, besides, it has been ascertained by observation, that this redness that is produced by digestion continues after death; so that on opening the body of any individual that has died while chymification or chylification was going on within him, we shall find those portions of the alimentary canal in which the process had been taking place of an unusually high colour.

" The pathological causes are all such as act by presenting some obstacle to the free return of the venous blood from the gastro-intestinal parietes to the right cavities of the heart. There happens then to the mucous membrane of the alimentary canal what happens to the skin in persons who die of asphyxia; in such cases we observe the cutaneous surface long before death acquiring a constantly increasing colour from the venous blood; now, what takes place in the skin must also take place in the intestine. We may assure ourselves directly of this by examining a coil of intestine in an animal who is slowly suffocating, when we shall find that, as the respiration becomes more difficult, the coil assumes a more intense and uniform red hue. Lastly, if, as Bœrhaave did long ago, we prevent by a ligature the circulation of the blood in the trunk of the vena portæ, we shall observe the whole of the internal surface of the intestines assuming a fine red tinge, which is compared by Morgagni to the colour of cochineal; and sometimes, even blood transudes through the parieties of the distended vessels, and fills the intestine. These facts being known, it is only drawing the conclusion from them to establish that, every time the blood cannot return freely from the capillaries of the intestinal mucous membrane to the venous trunks, that membrane will continue coloured after death. Hence arise the various shades it presents in cases of strangulated herniæ, for instance, or of obstructions of the liver, of tumours situated on the course of the principal divisions of the vena portæ, of obliteration of the vein itself by old coagula, and lastly, of organic affections of the heart. If, however, there was but little blood in the body, whether through defect of sanguification, or in consequence of recent copious bleedings, a considerable obstacle to the venous circulation would produce a less intense coloration of the alimentary canal, than that which would arise from a slighter obstacle existing in a person whose vessels contained a great deal of blood a short time before death.

" The red coloration of the gastro-intestinal parieties in conse-

quence of some mechanical obstacle to the venous circulation, presents various degrees of intensity. In the lowest of these, the submucous cellular tissue alone is coloured, but not in its capillary network; it is traversed in various directions by bluish veins of pretty large calibre, which cease to be injected on arriving at the mucous membrane, while their other extremities are continuous with the mesenteric veins, which are themselves equally gorged with blood. In a higher degree of injection, depending quite as much on mechanical causes as the preceding, the mucous membrane itself begins to assume a tinge, and, according to the size, number, and relative situation of the injected vessels perceptible to the naked eye, it exhibits either simple branches separated by large colourless intervals, or ramifications of greater or less extent, produced by the injection of the smaller vessels, or, lastly, a redness considerable enough to produce a complete opacity of the parietes wherever it exists. According as these various shades of colouring are extended or circumscribed, the result will be either a diffused redness of the intestine without any precise limits, or else streaks, stripes, patches or mere points. In fact, there is not one of these appearances that may not be produced by a simple injection from a hyperæmia either mechanical or passive; and he would be strangely mistaken who should imagine that the dotted redness, for instance, more necessarily announces an active hyperæmia, than does the simple congestion of some of the submucous veins. In these different cases, on attentively examining the injected parts, we may perceive that the injected vessels are directly continuous with the great veins subjacent to the mucous membrane, just as these latter are continuous with the mesenteric.

"If the obstacle to the return of the blood from the intestines to the heart is still more considerable, or if, what comes to the same thing, the obstacle not being increased, there is an increase of blood in the vessels, that fluid escapes from them, and becomes effused either into the submucous cellular tissue, where it forms ecchymoses, or into the cavity of the intestine itself, where it communicates a reddish tint to the bile, mucus or other matters, that happen to be contained in it. The facility with which a liquid or gaseous injection may be made to penetrate into the intestinal cavity when driven into the mesenteric veins from the trunks towards their branches, explains how, under the influence of a considerable congestion of the same veins, a part of the blood contained must have a tendency to escape into the interior of the alimentary canal.

"Thus, on summing up all that we have learned both from simple physiological reasoning, experiments on animals, and the examination of dead bodies, we are led to conclude that the gastro-intestinal mucous membrane may be indifferently white or red, without either of these colours necessarily indicating that the membrane had been in a morbid state; it is either white or red, of various shades, according as there has existed before death some one of the conditions, mechanical, organic, or vital, which we have endeavoured to explain.

Now, as those which produce the red coloration exist the most frequently, it follows that, in the dead body, we should more frequently find the alimentary canal injected than colourless. But that is not all; after life has ceased, new causes arise which tend to produce new modifications in the colour of the intestines, and to inject some parts of it much more strongly than they were at the moment of death. The causes of redness produced after death, may be reduced to two principal ones: one, the weight of the blood, and the other, its transudation through the parietes of its vessels."—p. 14.

M. Andral adduces proofs from the experiments of MM. Trousseau and Rigot, that parts will be reddened in various positions, in which the law of gravitation will exert its greatest influence. This fact has been much dwelt on by medical jurists, in forming a diagnosis between cadaverous lividity and ecchymosis. Thus "the coils of the small intestines, which are more dependent than the rest—those, for instance, which are sometimes found sunk in the hollow of the pelvis, are also more strongly injected." Our author further remarks—

"It becomes a question whether this coloration from hypostasis can occur in the small intestine only; it certainly can occur with more facility there than elsewhere, by reason of its disposition, and of that of the vessels distributed to it. I am, however, strongly inclined to think that, in certain cases, the redness observed on the great extremity of the stomach, and on its whole posterior surface in general, that being inferior in the subject,) results in like manner from this accumulation of blood by hypostasis. I am the more disposed to this opinion, from finding it mentioned in my notes that, in a case where a body had been laid upon the abdomen a short time after death, preparatorily to opening the spinal canal, and remained several hours in that position, the anterior part of the stomach was injected, and dotted with red, while the posterior part was pale. At the time, I imagined it to have been caused by gastritis; but I should not be apt to think so now.

The redness of the intestinal parietes that is produced, wholly after death, by injection from hypostasis, the reality of which I have just now proved, presents various degrees or shades, like the redness from conjestion, either mechanical or passive, that had been previously under consideration. Thus, we may find the villi highly coloured, and even blood effused into the interior of the intestinal canal. This, however, very seldom happens, except in experiments on animals that are strangled, and kept in the vertical position for several hours after death. In such cases, in fact, every thing is most favourably disposed, for the blood's being drawn in the greatest possible quantity to where it is attracted by the law of gravitation. Nothing similar has ever been observed in the horses killed by pithing, or by knocking on the head; and, in the human subject, the determination of the

blood towards the most dependent parts of the alimentary canal, most commonly produces in it only an injection more or less strong of the mucous membrane, or of the subjacent cellular tissue; which may produce either a diffused tint, with an appearance of ramifications or circumscribed blushes in form of points, spots, streaks, &c.

"Injection from hypostasis begins to take place immediately after death acquires its highest degree at the end of some hours, and ceases to be continued as soon as the blood having cooled, begins to coagulate. Hence it follows, that in subjects whose temperature is long kept up, either naturally or artificially, and in which the blood continues fluid, the injection of the intestines from hypostasis will be much more decided than under the opposite circumstances. It will also be more considerable, when after acute diseases, a great deal of blood still remains in the system; and when, in consequence of a slow death, or of obstacles to the circulation, the intestinal veins were gorged with blood at the moment of the cessation of life.

"As soon as a certain space of time has elapsed after death, a new cause of coloration begins to act; as soon as putrefaction begins to seize upon the body, the blood contained in the vessels, both large and small, of the gastro-intestinal parietes, exudes through the membranes of those vessels, and is effused in variable quantities into the surrounding tissues, especially into the submucous cellular tissue. On this extravasation of the blood depend, for instance, the red spots almost always observed in the stomach along the veins of its great extremity, when the body is opened more than six and thirty or forty hours after death. These spots, thus assembled along the course of the vessels, are sometimes isolated, and sometimes grouped together and running into one another; and in this manner mark the surface of the stomach with streaks and bands of various figures. If after having observed the stomach in this condition, we leave it, and examine it again at a later period, we find that the redness has increased, and that, moreover, it appears in a new form: it no longer exists solely along the vessels, but the whole surface of the stomach presents a tinge which has a constantly increasing tendency to become uniform; and a period at last arrives, when all the membranes, having become soaked with blood, are equally red; they may then have a tint almost similar to that which we observe on the internal surface of the arteries when stained by the contained blood. This kind of redness formed after death, cannot, however, proceed to such a high degree, unless in cases where a certain quantity of blood existed in the vessels of the stomach at the moment of death; and as, from the effects of gravitation, that fluid accumulates towards the great extremity of the stomach in particular, it follows that it is there we should see the redness from transudation most strongly marked. It would be useless to attempt to fix precisely the period at which this transudation should commence: for, in order to do that, we should fix precisely the period at which putrefaction commences. Now, that period is very variable, as it depends, 1, on certain conditions relative to the body itself; such as the kind of death, the

nature of the disease that produced it, &c.; and, 2. on certain external circumstances, especially on the thermometrical and hygrometrical states of the place in which the body is. Accordingly, when, in summer time, we open bodies that have been kept, since death, in warm beds, and in rooms of a temperature at least as high as the external air, it is usual to find, so soon as after four and twenty hours, very evident marks of transudation in the alimentary canal; in such cases, for instance, I have often found all the membranes of the great extremity of the stomach of a uniform red tinge. Under similar circumstances, the colouring matter of the blood may likewise transude, spread over the internal surface of the canal, and mix with the fluids contained. I have ascertained this to be the case in most of the bodies I had occasion to examine in the very warm summers of 1825 and 1826."—p. 21.

The stomach may have its parietes discoloured by transudation of blood from the spleen, which, upon the whole, is a rare occurrence. If we plunge a bladder filled with blood into different gases, the blood becomes singularly altered in its colour. It follows, that whenever similar gases are developed in the intestines, they must affect the blood similarly through the parietes of its vessels. It also appears that scraping the mucous membrane with the back of a scalpel, a redness sometimes follows, and extravasation may even be produced. The effusion of bile into the stomach may be followed by imbibition, and a yellow tinge produced, which cannot be removed by ablution. Our author deduces the following inferences from this part of his investigations:—

"To sum up; the gastro-intestinal mucous membrane is not of one constant and invariable colour in the healthy state. It is perfectly white only in a very small number of cases, which I have mentioned. Besides these it offers, without ceasing to be sound, different degrees of colouring depending; 1, on the passive hyperæmia which has always a tendency to take place in the last moments of life in the parts abounding in capillaries; 2, on mechanical obstacles to the venous circulation formed at a longer or shorter period before death; 3, on the hypostatic accumulation of blood towards the dependent parts; 4, on the transudation of the blood through its vessels; 5, on another kind of transudation which may take place, in some cases at least, through the capsule of the spleen; 6, on the presence of different gases in the alimentary canal at the moment of death; 7, on the developement of other gases, at a longer or shorter period after death; when putrefaction takes place; 8, on the combination of the yellow matter of the bile with different parts of the gastro-intestinal mucous membrane; 9, and lastly, on the accidental introduction into the alimentary canal of

different colouring principles that may stain its internal surface, and thus produce a colour more or less perfectly resembling the result of a morbid state.

" Of the colours produced by these different causes, some cannot be in any way confounded with that resulting from inflammation; others differ from it only by characters which are often but feebly marked; and, lastly, others, especially those mentioned under the heads 1 and 3, as also some varieties of those under the heads 2 and 4, exactly resemble the colour that would result in the alimentary canal from the irritation artificially produced in it by the introduction of a mineral acid sufficiently diluted with water to inject, without disorganizing, those portions of the tissues with which it comes in contact.

" It is, besides, important to observe, that cæteris paribus, the colour of the gastro-intestinal mucous membrane presents some shades, according to, 1, the part examined; 2, the age; and, 3, whether the process of digestion was going on or not in the stomach or in the duodenum and jejunum at the moment of death. Thus, in those cases in which the mucous membrane is found colourless in the adult, we may observe, as M. Billard has shewn us, that it is whitish in the stomach, of an ashy white in the duodenum and jejunum, that the ashy shade diminishes towards the end of the ileum, and that, finally, in the great intestine, the mucous membrane resumes its dead white colour. With respect to age, we learn from the valuable researches of M. Billard, that the gastro-intestinal mucous membrane is rose coloured in the fœtus and in the infant, and of a milky and satiny whiteness in young persons; that, in the adult, it assumes a slight ashy shade, especially in the duodenum and commencement of the small intestine; and lastly, that in old age this ashy shade becomes more decided and general, whilst the submucous veins, being dilated and filled with blood, lift up and impart a colour to the membrane covering them. At other times, however, in old persons who die in a decrepit and bloodless state, the mucous membrane is remarkable for its extreme paleness. I am even persuaded, that it is in old persons, and in very young children that had died of merasmus, that I have observed the internal surface of the alimentary canal in the most perfectly colourless state."—p. 26.

A curious attempt is made to measure exactly the relative thickness of the different portions of the mucous membrane of the stomach and intestinal canal. This will vary according as the patient dies of acute disease, or of marasmus.

" The consistence of the gastro-intestinal mucous membrane is in general directly in proportion to its thickness. It is much more considerable in the pyloric portion of the stomach than in its splenic portion; in the colon, where the thickness of the mucous membrane is at its minimum, its consistence is also very slight. In the stomach, we may allow the mucous membrane to be of the natural

thickness, when, on making an incision in it, taking care not to cut the subjacent tissues, especially the nervous, or more properly, the membranous coat, we can easily detach pretty considerable shreds of it with a forceps; the shreds should be larger in the pyloric than in the splenic portion. In the duodenum its nature is such as not to admit of such considerable shreds being detached as in the stomach. In the rest of the intestines, the rectum excepted, the mucous membrane, even in its natural state, breaks and tears whenever we attempt to detach any portion of it. In these various parts, however, the same physiological conditions which produce a variation in the thickness of the membrane, such as the quantity of blood supplying it, and the general state of the nutritive powers, produce a variation in its consistence. Thus, at the same time that this membrane becomes thinner, it tends also to grow softer, without the previous or present existence of any process of irritation.

"The mucous membrane of the alimentary canal may, after death, be modified in its consistence, as we have already seen it to be in its colour. This kind of softening has been observed principally in two cases; 1, long after death, when there were already signs of putrefaction in the body; in 2, a very short period after death.

"In the first of these cases the membrane loses its consistence but slowly. I have more than once found it not in the slightest degree softened in bodies of persons that had been from eight to ten days dead, in which the intestines were green and distended with gases, while there was exudation of blood into them, together with ecchymoses in the substance of their parietes, and in many parts, emphysema under the membrane. After the tenth day its consistence diminishes, and it then softens gradually; from the fifteenth to the eighteenth day it becomes like pap, and from the twenty-fifth to the thirtieth it becomes quite undistinguishable.

"This membrane, when exposed to the air, softens much more rapidly. M. Billard, after opening an intestinal canal, left it extended on a table for twelve days; the temperature of the room was ten degrees above zero, and the son shone into it every day. The mucous membrane did not begin to soften until the sixth day, at which period putrefaction was already advanced; on the tenth day it was of a pultaceous consistence; and, on the eleventh, it was reduced to a very fetid greenish pulp.

On the contrary, this membrane, when removed from the influence of the atmosphere by being placed under water, softens but very slowly. M. Billard, after leaving a portion of intestine for two months in the same water, and not till then, found its mucous membrane perceptibly softened, though it still retained a certain degree of consistence. It was not till three months had elapsed, that it was found to be so softened as to resemble merely a kind of very fetid purulent layer.

It follows from these facts, that the *post mortem* softening of the gastro-intestinal mucous membrane does not occur until the putre-

faction is pretty far advanced, and after the usual period of opening bodies in most cases. It would appear, then, that we should not consider the very evident softening of the mucous membrane of the stomach, that is sometimes observed at from twenty to four and twenty hours after death, to have taken place after that event. However the solution of this question is embarrassed, if I may say so, by some cases in which the mucous membrane of the stomach has been found completely softened, in dogs killed in very good health, and opened shortly after death. Similar facts have been observed by M. Bretonneau. M. Trousseau, who gives an account of them in the *Archives de Medecine*, (tom. xii. p. 345) adopts an opinion of Hunter's, who has numerous followers in England at the present day, and attributes this kind of softening to the solvent action of the juices secreted by the stomach. According to several English physicians, the softening might even extend to all the coats of the stomach, and produce a perforation of that viscus after death.—p. 22."

Our author next adduces all the facts in favour of Mr. Hunter's theory, "but he thinks they are neither sufficiently numerous nor circumstantially detailed, for us not to wait for new observations on the subject, to confirm or contradict the conclusion drawn from them."—p. 35.

Much interesting information is given on the follicles of the alimentary canal. These are most manifest round the cardiac orifice of the stomach, and in the duodenum they are more developed in children. Thus in them we often find without any indication of intestinal affection, on the internal surface of the small and large intestines, small round bodies, of a white or greyish colour, and with a central orifice, the circumference of which is very often of a deep grey, which are nothing but follicles. Again, they are often congregated, often occupy an extent from one to three feet of small intestine. In the centre of each follicle, is often found a point of a blueish grey or black. As these exist without any indication of intestinal disease, our author is of opinion they do not constitute a morbid state in a child. They are often observed in persons labouring under diarrhœa and adynamic (typhus) fever, especially near the end of the ileum; but they are also found in bodies where there was intestinal disease. These follicles are also found in the bodies of dogs, sheep, and horses.

A great deal of stress has been laid on these enlarged follicles, by some writers on fever in this country; and it appears, from the preceding testimony, without much reason. We have now afforded the reader an opportunity of forming his own opinion, on the value of Professor Andral's

Pathological Anatomy, and we think he will agree with us, in considering it a most valuable contribution to medical science. It is a work which stands a splended monument of learning, industry, and talent, and has no equal in our annals of medical literature. This translation renders a valuable work accessible to every man engaged in the practice of the healing art, and is executed with much ability and judgment. It is one of the most able and satisfactory works which modern times have produced.

V.—*Medico-Chirurgical Transactions,* Vol. XVI. Part I. London, 1830. Longman and Co.—*(continued.)*

In accordance with our promise we resume our analysis of the work before us. The third paper is entitled, "A case of ununited fracture of the thigh-bone, cured by the application of a silver wire between the fractured extremities." By Dr. Sommé, of Antwerp; communicated by J. H. Green, Esq. F.R.S. &c.

The patient was a healthy subject, between thirty and thirty-five years of age, and the fracture had remained ununited for five months. The operation was as follows:—

"The patient being placed on his back and supported, I passed a long trocar and canula at first downwards on the inside of the upper fragment, and made it pierce the skin behind, and a little to the outside; the trocar was then withdrawn, and a silver wire passed through the canula, and out at the posterior opening. The canula was then withdrawn, and being replaced on the trocar, they were introduced again above on the outside of the lower fragment, and made to pass out the same opening behind. The trocar having been removed, the other end of the wire was passed through the canula, so that both ends were in contact behind, leaving a loop in front. I then made an incision in front, from one orifice to the other made by the trocar, and drawing the extremities of the wire through the wound, brought the loop between the fractured ends of the bone, and approximated the edges of the skin with sticking-plaster."

The wire was drawn tighter at each dressing, so as to depress the loop more and more in the flesh. It was withdrawn in six weeks before it had divided the flesh, as the bone had completely united. The limb was kept in the fracture box six weeks longer.

The fourth paper is, "An account of a concrete oil, existing as a constituent principle in healthy blood." By Dr. B. G. Babington. Many physiologists have noticed oil in the blood, but generally it was considered a morbid production. Hewson, Traill, Christison, and Pretty, at the London Medical Society, last year, are those who have noticed it in this country. Dr. B. asserts that it is found in the healthy blood of man and animals, and may be separated in the manner following :—

"It may be procured by very gently agitating a quantity of serum with a third part of ether, and separating and evaporating the latter after four or five days, and when it has become of a yellow colour. The oil thus obtained (which forms about $\frac{3}{1000}$ of the serum of the blood), "is of a deep yellow hue, is semi-solid, and melts at a temperature of 90° Fahr. The specific gravity is .918 From its solution in ether it crystallizes, by very slow evaporation, at a low temperature, in radiated tufts. It burns with a brilliant light, has a faint and peculiar odour, resembling that of a wet bladder, and in its general characters resembles other animal oils. It is uniform in colour, in general appearance, and in all its properties, from whatever kind of serum obtained."

The fifth paper is on "Phlegmasia Dolens." By William Lawrence, Esq. F.R.S. &c. It was a case consequent to cancer uteri, in which the lower extremity was swollen, painful, the lower part of the leg and foot pitting on pressure. The pain was principally along the course of the iliac and femoral vessels; the saphena presented a hardened and knotty feel, and great relief was afforded by the application of leeches along the course of the vessel.

The woman died suddenly from uterine hæmorrhage, and the limb presented the following appearances :—

"The cellular and adipose tissue round the lower part of the uterus and neighbouring portion of the vagina were thickened and indurated, particularly on the right side. The hypogastric vein involved in this diseased mass, was closed in consequence of previous inflammation of its coats; and the same change had occurred in the internal iliac, the common iliac, the external iliac, the femoral and profunda veins, as well as in the internal saphena, all of which were completely impervious. The affection terminated above at the injunction of the common illiac vein with that of the opposite side, the latter vessel and the inferior cava being quite natural. The saphena was closed for a length of about four or five inches, beyond which it was natural. The profounda was cut through near the femoral vein, and the latter was divided as it passes the tendon of the triceps. The

disease extended in both these vessels beyond the situations where they had been divided, but its inferior limits were not ascertained; the right spermatic vein was closed in its lower half. The coats of the affected vessels and the surrounding cellular substance, were a little thickened, and their cavities were plugged by a closely adherent and tolerably firm substance of a light-brown colour. At some parts the vessels and their contents were of a dark livid hue."

This was clearly a case of cruritis, but not of phlegmasia dolens. The most eminent obstetric writers of this and other countries, affirm that the true phlegmasia dolens of puerperal women is scarcely ever fatal. We have cited a host of authorities in proof of this opinion, in an original article, on the real disease, in the fourth volume of this Journal, 1830.

The sixth paper is on "Swelling of the lower extremity, in a lad, aged seventeen, who died of this phthisis." By Mr. Holberton. A second case is narrated of a woman, aged thirty-five, who died of phthisis. Here the swelling was much less, the limb was occasionally cold, and upon the whole, it bore not the slightest similitude to phlegmasia dolens. The author did not designate it such. The left common iliac contained lymph, the same was observed at the union of the left internal iliac, with the former vein; the remainder of the vessels was healthy. The left external iliac was healthy, except at its lower portion, where it was completely blocked up by coagulum, adherent at one part only. The coagulum was found to extend along the two upper thirds of the femoral vein."

The seventh case is one of Stammering, successfully treated by the long continued use of cathartics. By Dr. Bostock. The defect of articulation came on suddenly, when the boy was three years old, and was much relieved by purgatives, which were indicated by his plethoric habit. Whenever the remedy was omitted, the defect increased, and again diminished by the use of medicine. A vegetable diet was also recommended. The complaint recurred at the twelfth year, when the boy was sent to a public school, and again removed by purgatives. He is now in his fifteenth year, and may now be said to be free from the complaint.

The eighth paper is on the pathology of Hooping Cough. By Dr. Alderson. The author states that the cause of death in hooping cough is hepatization of the lung, and that he has found great benefit from cupping glasses to the chest, which are preferable to leeches, which are too slow in their operation. Calomel and James's powder are also useful.

He throws no new light on the subject, and even omits many recent opinions upon the pathology and treatment of the disease. Thus the continental writers consider that there is great danger of cerebral congestion in the disease, and pay close attention to the head, lest convulsions should supervene. Hence leeching the temples or nape of the neck is frequently resorted to, and also the application of counter-irritants to the chest.

The ninth paper is on the infrequency of Calculous Diseases in seafaring persons. By Mr. Hutchinson, and confirms the author's former statement on the subject. He adds a second paper, on the frequency of Calculous Diseases in Scotland, and clearly shews that these are more frequent than in England. He says the proportion there is one in 80,000, and he only includes cases from the principal towns; while in England, according to Dr. Yelloly's account, it is one in 108,000. Mr. H. thinks this frequency of the disease may be ascribed to the more sedentary habits of the Scottish people, and in some measure to the nature of the lower orders.

The tenth paper is entitled, "Practical observations on the healthy and morbid conditions of Stumps." By George Lanstaff, Esq. The author gives a graphic account of the healthy and morbid action in stumps, and illustrates his remarks by describing preparations in his own museum, There is nothing novel in his paper—nothing unknown to any scientific surgeon.

The eleventh paper is by Mr. Crampton, of Dublin, which, with the tenth, by Mr. Owen, we noticed in our last.

The twelfth paper is on Glanders in the human subject. By Dr. Elliotson. Two cases were admitted into St. Thomas's Hospital, of typhoid fever, purulent discharge from the nostrils, abscess in different parts of the extremities, pustules on the alæ nasi, which terminated in gangrene. Both patients died. Our talented author was at a loss to account for the cause of the disease, but suspected the absorption of some morbid poison.

In a few days after the death of his patient, he saw an account of "a fatal case of glanders in the human subject," on the cover of the Medical Gazette, which at once led him to think he had discovered the cause of the disease for which he had been unable to account.

With that zeal for the interest for science which characterize that physician, he repaired to the residence of the father of

one of his patients at Lambeth, and learned that the unfortunate youth had patted a glandered horse on the head, and was in the habit of wiping his eyes with the back of his hand, and for some time had been troubled with pimples upon the forehead and nose.

He also ascertained that his other patient had been infected by glanders. On speaking to Mr. Parrott, of Clapham, he learned the history of another case; and, on applying to Mr. Coleman, at the Veterinary College, who did not believe in the possibility of contagion in such a case, he was referred to Mr. Traver's Work on Constitutional Irritation, by Mr. Jewel. Dr. Elliotson, also obtained from Dr. Kind, of Finsbury Square, who is a native of Germany, an account of two similar cases, translated from Rust's Magazine, of the Healing Art, and which are published.

The profession are deeply indebted to Dr. Elliotson, for elucidating this important subject, and this paper will add much to his well earned reputation.

ORIGINAL COMMUNICATIONS.

I.—*Medico-legal questions, relating to Infanticide.*

By M. Ryan, M. D.

All authors are now agreed, that there is not any difference between natural and artificial respiration in the cases under notice, (Edinb. Med. and Surg. Journ. 1826. v. 26—" and the hydrostatic test can never prove positively that the child was still-born, but only that it had not breathed." Op. Cit. p. 389, " at the same time, it will yield strong presumptive evidence." " On the whole, then, it follows, from the preceding statements, that when due precautions are observed, and when certain exceptions and corrections are made, the floating of the lungs afford at least strong *presumptive* evidence that the child out-lived delivery."—p. 374.

Dr. Beck arrives at the following conclusions on this point:

1.—That when the lungs float in water, it must be from one of these causes; natural respiration, putrefaction, the artificial introduction of air.

2.—As the lungs may float from other causes beside respiration, their mere floating is no proof that the child was born alive.

3.—As whenever it is possible to discriminate between the floating of natural respiration and of that which is the result of other causes, it follows,

4.—That with due precautions, the floating of the lungs may be depended upon as a safe and certain test that the child has been born alive. The same distinguished jurist arrives at the following conclusions, on sinking of the lungs in water:—

1.—That when the lungs sink in water, it must be from one or other of the following causes: the total want of respiration, feeble and imperfect respiration, some disease of the lungs, rendering them specifically heavier than water.

2.—As the lungs may sink from other causes than the absence of respiration, their mere sinking is no decisive proof of the child's having been born dead.

3.—As, however, the sinking from the want of respiration, may easily be distinguished from that which is the result of other causes, it follows,

4.—That with due precautions, the sinking of the lungs is a safe test that the child was not born alive.

It is very evident, from the preceding statements, that a great degree of caution is necessary in every case, before a decision can be given with confidence; and from the difficulties of the subject, a few practical rules may be laid down for the guidance of physicians and surgeons, when called on to give evidence in cases of infanticide.

The general appearance and condition of the body, should be carefully noted, as also the situation in which it had been found, all instruments which might be used criminally; the size, weight, and length of the infant, the proportion of different parts; the degree of developement, the signs of putrefaction, desquamation of the cuticle, the appearance of the navel, and of every part of the body. We should examine whether there be contusions, ecchymoses, excoriations, and be careful not to confound them with cadaverous lividity: if any lesion is found, its precise situation and extent must be described. If wounds exist, their form, length, breadth, depth, must be accurately noted. The appearances of the head must be observed, and care taken not to confound those which are produced by parturition with those produced by external injury. We should ascertain, whether or not there be foreign bodies in the ears, nose, eyes and mouth, or marks of injury upon the neck, dislocation of the cervical vertebræ, whether the chest be arched or flattened, and when compressed, if a fluid escapes from the mouth or nose; whether the abdomen be soft or tense, if the umbilical cord be flaccid, dry, moist, detached, cut or lacerated, and its exact length, or if the navel be red, in a state of suppuration or cicatrization; if the testicles have descended, and finally, whether there

are dislocations or fractures of the superior or inferior extremities.

Such are the principal points to be attended to, in the inspection of the external condition of the body; all appearances should be taken down in writing, and the document carefully preserved, as the witness may produce it at a trial, or refresh his memory from it; whereas he cannot use a copy in either case, especially in this country. The next part of our duty is to examine the external parts of the body, and here also the appearances are to be recorded.

Autopsy-Dissection.—Medical jurists are not agreed upon the method of dissection, in cases of infanticide. Drs. Beck and Smith think it most convenient to commence the dissection with the mouth and cavities leading to the chest. MM. Chaussier, Renard, Briand and others, commence with the spinal canal, then proceed to open the head, thorax, mouth, pharynx, and passages to the chest and abdomen, and the abdomen. The former mode is more convenient, and I think the better. It is briefly as follows:—

The neck is to be placed on a block of wood, so as to render its anterior surface prominent. It is right to observe, whether the mouth be open or closed, if the tongue be protruded, or turned back into the fauces. An incision is then to be made from the lower lip to the upper extremity of the sternum; and another along the lower edge of the inferior maxillary bone, the integuments are to be dissected back, and all marks of violence, ecchymoses, &c. noted. The lower jaw is now to be divided at its symphisis, the parts attached to its internal surface divided, the tongue should be depressed, when there will be a complete view of the mouth and pharynx. We should carefully observe whether there be any foreign body or sanguinolent appearance, and if the glottis and epiglottis be natural, and if there be fluid in the larynx or trachea;—the abdomen is next to be examined, an incision is to be made from the sternum to the spine of the ilium on each side, the flaps turned back, and the umbilical vessels observed and tied. We are next to observe the appearances of the abdominal viscera, and to note every thing unusual. We should ascertain if the umbilical vessels be empty, or contain coagulated blood, if cut or lacerated, if the ductus venosus be permeable or obliterated. The size of the liver should be noticed, its large vessels tied, and the organ be removed and weighed; but previous to its removal, the gall bladder is to be inspected, the colour of its bile noted, or whether it be entirely empty. The stomach should be removed, after its apertures having been tied, and its contents, if any, care-

fully examined. We should further observe whether the interstinal canal contains meconium, fæces or other matter, or present any sign of disease; and lastly, if the bladder be empty, or full of urine.

The cavity of the thorax may be opened in the ordinary manner, but on dissecting the integuments, every appearance of lesion is to be noted, and a minute examination instituted, in order to discover if the chest have been punctured. The cartilages of the ribs are to be divided with a scissors, in preference to a scalpel. We should next examine the size and colour of the lungs; if of a dull red or rosaceous, if these organs fill the thoracic cavities, and if the tendinous centre of the diaphragm be depressed. We are to take into account the size of the heart, the dimensions of its cavities, if they contain blood, the colour of its tissue, the degree of opening or closure of the foramen ovale and ductus arteriosus, the presence of fluid or coagulated blood; always recollecting that the most dependent portion of the lungs, is engorged with blood and brownish, and that the site of this engorgement will vary according to the position in which the body had lain while becoming cold, and that this appearance will be greatest in proportion as the patient has not lost blood. After having examined the œsophagus and trachea, and noted their appearances, the large vessels are to be tied, the lungs and heart removed, and the former subjected to the hydrostatic and other tests, in the manner hereafter mentioned. In examining the vertebral column or spine, an incision is to be made from the occiput to the sacrum, the integuments and muscles carefully removed, and the annular portion of the vertebræ divided with a strong scissors, which may be introduced under the fifth lumbar vertebræ. During this examination, we must observe all lesions, ecchymoses, dislocations, fractures, wounds and punctures; but we must not consider the congestion of the spinal veins or the presence of limpid, yellow or viscous serosity, the effect of violence; as these are ordinary occurrences, and will be found in such situations as the posture of the body favours.

The best mode of opening the head, is to make an incision from root of the nose to the third or fourth cervical vertibra, and another from ear to ear, the integuments are to be dissected back, and all lesions carefully examined and noted, wounds, punctures, fractures, &c. A small opening is to be made with a scalpel, through the anterior fontanelle, and the sutures divided by a scissors, great care being taken not to wound the sinuses or larger vessels: the bones of the cranium

can be easily separated in this manner. We are now to ascertain if there be blood in the ventricles, or on the base of the brain, to remove the cerebrum and cerebellum, and carefully dissect both.

The examination of all the organs having been completed, the inferences to be drawn will be evident, after a careful perusal of the statements made in the course of this work. But to render the information as complete as possible, it is necessary to describe the method of instituting the hydrostatic test.

The water in which the lungs are to be placed, must not be too hot nor too cold, but of the temperature of the atmosphere; it should contain no salt. If these precautions are observed, the lungs, with the heart, will float or sink in water; if they float, it is proper to notice, whether upon or under the water; if they sink, whether gradually or rapidly.

The lungs are to be taken out of the water, the large vessels tied, the heart separated, and the organs then weighed to ascertain the proportion they bear to the weight of the body. They are to be immersed again, then the lobes separately, and lastly, each to be cut in small pieces; on incising it, we should note if there be crepitus, the tissue compact, or in a morbid condition. Should the fragments float, they are to be firmly squeezed in the hand, and again placed in the water. The inferences to be drawn from these experiments are the following, according to Dr. Beck. When there is nothing on the body of the infant to account for its death during delivery, the lungs untouched by putrefaction or artificial respiration, affording a crepitus on incision, floating entire or in segments on the surface of the water, and if the segments float after firm pressure, then the evidence is irresistible that the infant was born alive, and enjoyed perfect respiration. If only the right lung, or its pieces float, the respiration has been less perfect. If some pieces only float, while the greater number sink, respiration has been still less complete. If neither the entire lungs nor any section of them float in water, the evidence is decisive that the child never respired.

It is right to mention, that Professor Bernt is of opinion that Ploucquet's test affords decisive evidence in a few cases, and no more than presumptive evidence in the rest. It is scarcely necessary to remind the medical jurist, that he should ascertain if the woman has been recently delivered, and learn the whole history of her case. The signs of recent delivery have been already enumerated. He should inquire whether

the labour was *sudden*, in what position it took place, if the infant was born immediately after the rupture of the membranes, or how soon after; if delivery took place without assistance, or what assistance was afforded; if there was hæmorrhage before, during, or after delivery; on what day and hour did labour commence, and did the birth take place; if the woman was insensible before, during, or after delivery; if the infant respired, if not, what attempts were made to resuscitate it. All these questions should be put in a mild manner; the solemn duty of the medical jurist being to ascertain fact, and to take no interest in the prosecution or acquittal of the accused; he should confine himself solely to the duties of his profession, and strenuously avoid putting, what lawyers call "leading questions," or intimidating the accused, or violating one of the best principles of our humane laws, by extorting a confession, or inducing a suspected female to criminate herself. His sole duty is to give the received opinion of his profession, regardless of consequences, but on all doubtful cases, leaning to the side of mercy.

In the foregoing dissertation I have only discussed the principal points which claim attention, in cases of infanticide; as many more particulars will be found in the course of this work, more especially in the article on homicide, where the danger and mortality of wounds, contusions, and fractures, will be duly considered. Enough, however, has been said to warn the practitioner against committing errors, which have but too often led to the execution of innocent women: I might illustrate this assertion from the authority of Dr. W. Hunter, but his opinions are too well known to require expression in this place.

Medico-legal questions, relating to violation of Women.

In a preceding article I have stated the law upon this subject, and it now remains to consider the questions which may be submitted to medical jurists for their decision. These are as follow:—1, Are there certain signs of defloration? 2, Can we distinguish between forcible violence against the consent of the accuser, and whether the signs of violence be not attributable to the introduction of other extraneous bodies into the external sexual organs? 3, And whether a woman can be violated without her knowledge? And 4, whether pregnancy can follow violation?

1, Are there certain signs of defloration? To determine this question, we must decide whether there be certain signs of virginity. We have to refer to anatomical and obstetric works, for a description of the external genitals in a virginal state, to enable us to form a correct decision upon this question. The external genital organs are those connected with the subject, and these I have minutely described in my work on Midwifery: a brief description, however, is necessary in this place.

In virgins, the external labia are thick, firm, elastic, and internally of a vermillion or rosaceous colour, their edges in apposition, so as to close completely the orifice of the vulva. They are soft, pale, and separated in women accustomed to venereal enjoyment. But these characters are not to be depended on, as women of strong constitutions may have the signs of virginity; and virgins the latter signs from leucorrhœa, or fluor albus. In fact, no positive conclusion can be deduced from the state of external or internal labia. The same must be said of the frœnum labiorum; it may or may not be ruptured during coition, and every obstetrician of ordinary experience, can attest its perfect condition during parturition. Besides, it may be ruptured by falls, external injuries, or by the passage of solid morbid growths. The orifice of the vagina is usually narrow, but it may be relaxed by leucorrhœa, or may be larger in a virgin, than in a woman who has been violated. In some women it is particularly closed by the hymen, a membrane long held as the surest sign of virginity.

It is now universally known, that a great variety of causes, besides coition, may destroy this membrane, as sudden exertion of the lower extremities, leucorrhœa, masturbation, excoriation, confined menstrual fluid, and various morbid growths, both solid and fluid. It does not always exist even in infants, and does not entirely close the vagina at puberty, so that the introduction of the penis may be effected, if not disproportionate, (Teichmeyer, Brendel, Severin, Pineau, &c.) Indeed women have been in labour, and the hymen perfect. (Mauriceau, Ruysch, Pare, Meckel, Walter, Baudelocque, Smellie, Capuron, Nægele, &c.) It is therefore no infallible sign of virginity, nor is its absence alone a positive proof of defloration. The carunculæ myrtiformes were long considered as the remains of the hymen, but this is denied by Hamilton, Conquest, and Velpeau. They have been seen in infants and virgins, and are no proof of defloration, because, like the rugæ of the vagina, they are only effaced by repeated

coition. Dr. Beck admits, that many of the above signs are equivocal, but if taken in connexion with one and other, he thinks it cannot be possible that all mentioned in the chaste state, can be absent without a strong suspicion against the female. I cannot assent to this conclusion, as I think experience has proved that all the physical signs of virginity are equivocal, and all may be absent from causes already enumerated, without room for a full grounded suspicion against the female. From my own experience and the result of my researches, I can arrive but at one conclusion, that there are no positive signs of virginity, and consequently these of defloration are extremely uncertain; this, I find, is the opinion of the faculty of Lepsig, Metzer, and of Morgagni. The presence of the reputed signs of virginity afford no decisive proof of chastity, nor their absence no decisive proof of incontinence. If all the reputed signs described above exist, the female feels offended at the examination, or rather displays evidence of shame; if her morals, age, and education have been good, then there are strong grounds for supposing her in possession of her chastity; and if all the contrary signs exist with a suspected reputation, and an equivocal virtue, then there is reason to pronounce a contrary opinion.

It is necessary to recollect the habit of body and age of the patient, as signs of virginity are most perfect between puberty and the twenty-fifth year, after which period they become more equivocal.

When defloration of any young female has recently taken place, the signs are very evident. The laceration of the hymen (if it exist), the presence of its remains covered with clotted blood, the contusions of the labia, majora, and minora, of the clitoris, and carunculæ myrtiformes, the redness and tumefaction, or laceration of all the external genitals, leave no room to doubt. But almost all these marks will generally disappear in three or four days. They disappear almost instantaneously in chlorotic and leucorrheic females. (Briand, Manuel de Medicine Legale.)

Second question—Can we distinguish between defloration, the result of voluntary carnal commerce, or that which has been effected by violence, or by the introduction of a foreign body into the vagina?

It is extremely difficult to determine this question in a positive manner. Many medical jurists are of opinion, that contusions, lacerations, inflammation of the vulva, thighs, arms, breasts, and other parts of the body, prove that vio-

lence had been used, and that the female did not consent. But it is to be recollected that many women will not consent without some force, and also that injuries of the genital organs may follow a first congress, when the sexual organs are disproportionate.

Every person knows, says a French jurist, that at the epoch of puberty, young girls of an erotic temperament, employ foreign bodies for the gratification of their desires, and may cause laceration or contusion of the external genitals; and who does not know that these excesses have brought on delirium, and who is ignorant of the deplorable effects of onanism. (Briand.) Again, women have injured the organs for the purpose of accusing an innocent man of rape. (Fodéré.)

In all cases of defloration we must consider the age, strength, and state of mind of both parties. When this crime is perpetrated on children of a tender age, the disproportion of the organs will be followed by the marks of injury already enumerated. On the other hand, a strong woman may accuse a delicate man, or boy, or one who is impotent. It is held by most jurists, that it is almost impossible; at all events exceedingly doubtful that one man can violate an adult female. (Mahon, Farr, Fodéré, Capuron, Beck, Briand, &c.) The exceptions to this rule are, when the female labours under insensibility from violence, syncope, or fainting, narcotics, intoxication, and, according to the faculty of Leipsic, when she is asleep.

It is indispensably necessary to examine the sexual organs of both parties. The man may be impotent from the causes already described; the penis may have been destroyed by sloughing or cancer, &c., or the organ may be so small as to cause no pain on its introduction into the vagina. Zacchias mentions a singular case of this last kind. The woman may labour under a variety of malformations which preclude the generative act. A speedy examination should be made in all cases, for the reasons stated in a preceding paragraph.

The state of mind of the woman must be kept in view, as an idiot at twenty or upwards can make less resistance than a girl of fourteen.

Venereal infection is a proof of violation, when it coincides with the time at which the crime is alledged to have been perpetrated, that is, if it appears from the third to the eighth day, and, above all, if the accused is affected with the disease. Every well-informed practitioner is aware that gonorrhœa or syphilis cannot manifest itself immediately after

congress, and therefore, if found on the female, it is a strong proof against her.

Every well-informed physician and surgeon is conversant with the purulent discharge of female children of scrofulous and delicate habits, from the period of dentition to the age of puberty; such discharge is seen almost every day in dispensary and hospital practice among the poor. It is described by John Hunter, Hamilton, Astley Cooper, Dewees, Jewel, and the author himself, and is often mistaken by ignorant practitioners for gonorrhœa.

There is no fact better attested than this, that purulent discharge from the genital organs of both sexes, from the period of infancy upwards, may arise from causes purely physical, chemical, or specific. Venereal excess between two persons whose organs are healthy, may cause a discharge more or less intense in one or both; but still the symptoms are not so violent as in gonorrhœa. Even children of both sexes are subject to genital discharge before and during dentition, from worms, or from local injury of the sexual organs, as in cases of defloration of female children. The last fact is one of great importance to those who are called on to give evidence before magistrates, or in courts of justice, in charges of rape. The accused may be free from gonorrhœa, and declare that if the child is infected it is not by him. The medical man should ascertain the lesions, and discriminate between purulent discharge the consequence of violence and inflammation, and that arising from infection. The history of the case will enable him to form a correct opinion in the majority of instances, and he ought to ascertain whether the child has not been subject to discharge previously to the supposed offence. In a case in which I was consulted, and which is recorded in the Lond. Med. and Surg. Jour. 1830, vol. v, the girl had laboured under purulent discharge five years before, and was then ten years old, and exceedingly delicate. On that occasion I afforded abundant evidence of the liability of female infants, and of girls to the age of puberty, to purulent discharge from the vagina. We know that equitation, injury on the perineum, calculus in the bladder, stricture of the urethra, hæmorrhoids, gout, rheumatism, certain cutaneous diseases, as herpes, impetigo, serpigo, lepra, &c., the terebinthinate medicines, lytta, spices, diuretics, sexual intercourse during the catamenial or lochial evacuations, the introduction and long retention of a bougie in the urethra, irritation in different parts of the alimentary canal, constipation, certain aliments

and medicines, as new beer, asparagus, &c.—in a word, diseases of organs which strongly sympathize with the genito-urinary system may cause simple gonorrhœa. Cases are recorded in which gastro-enteritis, diseases of the respiratory system, coryza, cynanche, pneumonia, and asthma, had terminated by a copious discharge from the urethra. It is admitted that there is a reciprocity of action between the mucous, serous, fibrous tissues, the digestive, respiratory systems, the urinary apparatus, and the urethra, and uterine system, and that none of these systems can be irritated or inflamed without affecting the urethra or uterine apparatus. So also the latter organs cannot be affected without implicating the former tissues in various degrees. Dr. Titley relates a case in which he supposed venereal gonorrhœa existed for a period of three days, and for which he prescribed the usual remedies, but before the patient had taken the medicine, he was seized with a smart attack of gout, and in a few hours the urethral discharge had vanished.

Capuron was consulted in a supposed case of defloration, in which a purulent discharge escaped from the vagina; the external genitals were ulcerated; but that able physician ascribed it to the cause under notice, and the girl was soon restored to health. M. Biessy, of Lyons, relates a case in which all the surgeons of that town certified a child had been violated in consequence of the presence of a discharge. He denied it, which induced the Mayor to request five physicians to examine the child separately, without knowing the application to each other, and they all agreed that she only laboured under a simple mucous discharge. (Manuel Medico-Legal, &c.)

The following case is related by the revered Dr. Percival, in his admirable Ethics:—

"Jane Hampson, aged four, was admitted an out-patient of the Manchester Infirmary, Feb. 11, 1791. The female organs were highly inflamed, sore, and painful; and it was stated by the mother, that the child had been as well as usual, till the preceding day, when she complained of pain in making water. This induced the mother to examine the parts affected, when she was surprised to find the appearances above described. The child had slept two or three nights in the same bed with a boy fourteen years old, and had complained of being very much hurt by him during the night. Leeches and other external applications, together with appropriate internal remedies, were prescribed; but the debility increased, and on the 20th of February the child

died. The coroner's inquest was taken; previous to which, the body was inspected, and the abdominal and thoracic viscera found free of disease. From these circumstances, Mr. Ward, the surgeon attending this case, was induced to give it as his opinion, that the child's death was caused by external violence; and a verdict of murder was accordingly returned against the boy with whom she had slept. Not many weeks elapsed, however, before several similar cases occurred, in which there was no reason to suspect that external violence had been offered, and some in which it was absolutely certain that no such injury could have taken place. A few of these patients died. Mr. Ward was now convinced that he was under a mistake in attributing the death of Jane Hampson to external violence, and informed the coroner of the reasons which induced this change of opinion. Accordingly, when the boy was called to the bar at Lancaster, the judge informed the jury, that the evidence adduced was not sufficient to convict; and that it would give rise to much indelicate discussion, if they proceeded to the trial; and that he hoped, therefore, they would acquit him, without calling witnesses. With this request the jury immediately complied. The disorder in these cases, says Dr. Percival, had been a typhus fever, accompanied with a mortification of the pudenda."

Mr. Kinder Wood relates cases of a disease somewhat similar, in which there is fever for three days, inflammation of both labia, clitoris, nymphæ and hymen, followed by sloughing and death. The mortality was ten in twelve, and the disease considered a peculiar kind of eruptive fever. (Med. Chir. Trans. vol. vii.)

I have already recorded a case of a delicate scrofulous girl, aged eleven years, who had purulent, or rather mucous discharge from the external genitals, and accused a young man of eighteen, whose genitals were developed in an extraordinary degree, of having violated her person. Two apothecaries swore the girl had been violated, a rape committed, and gonorrhœa communicated. Dr. Gordon Smith, Mr. Whitmore, and myself, were of a different opinion. The frœnum labiorum was perfect, the hymen absent, a discharge without any sign of inflammation the day after the alledged intercourse, and a small dark spot, observed by Dr. Smith only on the thigh. The examinations of the medical men were made at different times. The case was grievously mismanaged for the prisoner; the only evidence in his favour was Dr. Smith's, which was contrasted with that

of the two medical witnesses for the prosecution. The man was found guilty, and sentenced to six months imprisonment, and lectured by the chairman of the Middlesex sessions (Mr. Const) on his good fortune—that he was not hanged. The mother had informed Dr. Smith that her daughter had had the discharge since she was five years old. The medical witnesses for the prosecution declined examining the person of the prisoner, though those on his side had assured them he had no discharge from the urethra, nor had not had any for six months previously. The case was tried in November sessions, 1829. When the girl was examined at the trial, and asked why she did not tell the domestic who disturbed the parties during the alleged intercourse, she replied, "she forgot it." A girl of eleven years old, violated by an adult, forget it! Cases like the present are unfortunately of too frequent occurrence, and are attested by Sir A. Cooper in the following impressive language:—

"There is a circumstance which I am exceedingly anxious to dwell on,—I allude to a discharge from young females; and I hope that there is not one here this evening but will be strongly impressed with the importance of the subject. Children from one year old, and even under, up to puberty, are frequently the subjects of a purulent discharge from the pudendum, chiefly originating beneath the preputium clitoridis, the nymphæ, orifice of the vagina, and the meatus urinarius, are in an inflamed state, and pour out a discharge. The bed linen and rest of the clothes are marked by it. It now and then happens, to a nervous woman, to be alarmed at such an appearance, and she suspects her child of having acted in an improper manner; and perhaps, not quite clear herself, she is more ready to suspect others, and says dear me, (if she confesses,) it is something like what I have had myself. She goes to a medical man, who may unfortunately not be aware of the nature of the complaint I am speaking of, and he says, 'Good God! your child has got a clap.' (A laugh.) A mistake of this kind, gentlemen, is no laughing matter; and, though I am glad to make you smile sometimes, and like to join you in your smiles, I cannot do it on the present occasion, for it is too serious a matter. I can assure you a multitude of persons have been hanged by such a mistake. I will tell you exactly what takes place in such cases; the mother goes home, and says to the child, 'Who is it that has been playing with you? who has taken you on his knee lately?' The child innocently replies, 'No one, mother; nobody has, I declare to you.' The mother then

says, 'Oh, don't tell me such stories; I will flog you, if you do.' And thus the child is driven to confess what never happened, in order to save herself from being chastised: at last she says, 'Such a one has taken me on his lap.' The person is questioned, and firmly denies it; but the child, owing to the mother's threats, persists in what she has said. The man is brought into a court of justice; a surgeon, who is ignorant of the nature of the discharge I am now speaking about, gives his evidence; and the man suffers for that which he never committed. The mother is persuaded, if there be a slight ulceration on the parts, that violence has been used, and a rape committed: she immediately says, 'What a horrid villain must he be for forcing a child to such an unnatural crime, and communicating to her such a horrible disease! I should be glad to see him hanged.'

"If I were to tell you how often I have met with such cases, I should say that I have met with thirty in the course of my life. The last case I saw was in the city: a gentleman came to me, and asked me to see a child with him, who had a gonorrhœa on her. I went, and found that she had a free discharge from the preputium clitoridis. I said that there was nothing so common as this. There was considerable inflammation, and it had even proceeded to ulceration, which I told him would soon give way to the use of the liquor calcis with calomel. 'Do you tell me so?' (he replied;) why, suspicion has fallen on one of the servants; but he will not confess. If he had appeared at the Old Bailey, I should have given my evidence against him; for I was not aware of what you have just told me.' I told him that, if the man had been hanged by his evidence, he would have deserved to be hanged too.

"I am anxious that this complaint should be known by every one present, and that the remarks which I have made should be circulated throughout the kingdom. When a child has this discharge, there is a heat of the parts, slight inflammation, and this sometimes increases, and goes on to ulceration. This disease sometimes occurs in children at the time of cutting their teeth."—*Lectures on Surgery.*

Dr. Dewees, the eminent professor of midwifery, in the University of Philadelphia, has also given an excellent account of the morbid discharge under notice, in his Treatise on the Physical and Medical Treatment of Children, pp. 326, 435. He says, "We occasionally find that very young children have a discharge from within the labia of a thin acrid kind, or of a purulent appearance. When this occurs in very

young subjects, it almost always proceeds from a neglect of cleanly attention to these parts, either by withholding a frequent use of lukewarm water, or permitting the child to remain too long wet. * * * * Children, however, of a more advanced age, have also discharges of a purulent character, that seem to arise from a morbid action of the mucous membrane of the vagina or labia. This frequently shews itself about the *fifth* year, and may continue, if neglected, to almost any period. Parents, therefore, cannot be too much on the alert when this discharge is discovered on their children; nor too early in the application of suitable remedies for its removal. It is in a great measure owing to this neglect, that fluor albus or whites become so common, and of such difficult management in adult age. If not interrupted in the beginning of its career, it is apt to continue until the period of puberty over the phenomena, of which it but too often creates an unfriendly influence."

Orfila gives a table to enable medical jurists to discriminate in all cases of stains on linen, whether by spermatic, leucorrhœal, gonorrhœal, lochial, mucous and salival fluids. The evidence afforded by this table, is far from being positive, and I therefore omit it.

Third question.—Can a woman be violated without her knowledge? Decidedly she can, if under the influence of insensibility from violence, fainting, asphyxia, narcotics, or intoxication. I have recorded a case in which a female was impregnated during inebriation, and was of course unconscious of it during the first seven months of uterogestation. She felt much offended, when I hinted my suspicions as to her being pregnant, but soon afterwards her paramour revealed the secret to me. Though it is difficult to suppose a woman can be violated during sleep, yet under some circumstances it seems to me very possible. A married woman who has had children, whose sexual organs are dilated, may be violated during sleep; but a virgin could not be deflowered without her being awoke. Drs. Beck, Gordon Smith, Bartley, Fodéré, and Capuron, doubt the possibility of a married woman being violated during sleep.

Fourth question.—Can violation be followed by conception? It has been long decided in the negative, as it was supposed that women who were influenced by the depressing passions could not conceive, (Bartley and Farr.) Capuron, Fodéré, Beck, Good, &c. agree with the majority of the profession, that conception may happen, and is not accelerated or prevented by the volition of the sexes. This is the received

and only rational opinion. How many women anxiously wish for children and have none, and vice versa. I have discussed this question very fully in my work on Midwifery. From the foregoing observations, it is evident that medical science does not furnish positive proof of any of the questions discussed in this article, but merely probable and presumptive evidence. I may observe in conclusion, that the probabilities are greatest when a child of 5, 7, 9, or 10, is the accuser, after due consideration, of the sexual diseases of this period of life. Her age excludes all appearance of consent, as she cannot have desire, her organs being undeveloped, as stated in the section on disqualifications for marriage, nor is it likely any foreign body will be introduced. The case will be stronger attested by any other marks of violence. However, great caution is required in these cases, as depraved mothers have induced their children to make accusations against innocent persons.

The only other medico-legal question connected with morals is sodomy. In these horrible cases it is said, there will be inflammation, excoriation, or syphilitic ulceration, dilatation of the sphincter, scirrhus of the rectum, hæmorrhoids. It is to be recollected that syphilitic excrescences are often seen on the perineum and about the anus, caused by disease from the genitals, where no suspicion can be entertained; "no man," says Dr. Beck, "ought to be condemned on medical proofs solely." The physician should only deliver his opinion in favour or against an accusation already preferred—Zacchias. The law on this subject has been already stated.

Medico-Legal Questions relating to attempts against Health or Life.—Homicide by Contusions and Wounds.

Under this head we have to consider, 1, contusions, wounds, and homicide by them; 2, homicide by asphyxia, strangulation, suffocation, submersion or drowning, asphyxia by non-respirable gases, or by deleterious gases; 3, homicide by poisoning.

Of homicide by contusions and wounds.

In a former article I stated the law on this subject, and need only remind the reader, that by Lord Lansdowne's Act, 9 Geo. 4, c. 31, contusions are classed with wounds, and under this statute we have to comprehend, ecchymoses, con-

cussion or loss of power of organs, distortions, dislocations, fractures, burns, wounds of fire arms, and wounds in general.

Contusion is an injury, and sometimes a wound, inflicted by a hard, blunt instrument, without loss of substance, or wound of the skin, but with laceration of the cellular tissue and extravasation of blood, either diffused or congested, to a cellular extent: if the skin be divided, it is designated a contused wound.

Ecchymosis, or blackness, is an extravasation of blood by rupture of capillary vessels; and hence it follows contusion, but it may exist as in cases of purpura haemorrhagica, scurvy, and other morbid conditions without the latter; and we often see persons arise from sleep with numerous ecchymoses, which are sugillations, and called by the vulgar, "dead men's pinches."

When ecchymosis is caused by injury, it generally appears in a short time, or in a few hours, but sometimes not for days. The part appears red and bluish, then black or lead colour, violet and yellow, and is marked most in the centre. Its progress and duration will be modified by age and constitution.

It may be produced in deep-seated organs, as in the muscles of the thigh, &c. in the aponeuroses of the hands and feet, on the spinal marrow, whose membranes may be lacerated, without any blackness of the skin, or it may not appear before ten or fifteen days. Again, the viscera in the chest, abdomen and pelvis, may be ecchymosed from external injury, though the integuments are discoloured. It is easy to distinguish ecchymosis from lividity, consequent to acute or chronic exanthematous diseases, vesication, inflammation or gangrene, by recollecting the successive changes of colour, and the absence of all symptoms characteristic of these maladies. It sometimes occurs, that intense vomiting causes rupture of minute vessels in the stomach, intestines, diaphragm and lungs; and, on dissection, we find black spots of various sizes, which are often mistaken for gangrene. In such cases these spots are soft, and easily detached, while the membranes that enclose the blood in a recent ecchymosis are firm. If we make a free incision through an ecchymosed part, we can readily wash out the effused blood, but ablution will not remove the changes effected by gangrene.

It too often happens that ecchymoses are confounded with cadaverous lividities, which are more or less extensive,

of a brown, black, red or violet colour, forming rapidly after death, particularly on the back, thighs, sides, anterior surface of the body, upon those parts upon which the body has lain while it has been becoming cold. These also appear where pressure is made by the cloths, and from their resemblance to the injuries caused by flagellation with rods, are called by the French *vergetures*. A more appropriate term is, cadaverous lividity or sugillation. These are frequently observed in the most dependent parts of the lungs and abdominal viscera. Professor Andral's remarks upon this subject are deeply interesting, and may be seen in the second volume of his Pathological Anatomy, translated by Drs. Townsend and West. These sugillations will be modified by age, constitution, state of the weather, progress to putrefaction, &c. They cannot be confounded with ecchymoses, as there is no effusion or infiltration of blood in the cellular tissue.

The term *commotion* or *concussion*, is the shaking of an organ by a blow or fall, more or less remote, which causes inaction of an organ. Thus a blow or fall on the head, feet, knees, or body, causes concussion of the brain, which may be followed by slight stunning, by hæmorrhage from the ears, nose, or eyes, or by immediate death. Concussion of the spine may or may not affect the brain, and if violent, will be followed by paralysis of all the parts, whose nerves arise below the site of the injury. Hence there may be paralysis of the lower extremities of the rectum, bladder and generative organs. The organ likely to be affected next to the brain and spinal medulla is the liver, which may be followed by hepatitis, icterus, rupture, hæmorrhage, and death. Every scientific practitioner is aware that a violent blow upon the stomach, will suddenly extinguish life, by injury of the nerves and paralysis of the whole nervous system, and yet no mark of injury can be observed on dissection. I have known a want of knowledge of this fact to be the cause of acquitting a man who killed his victim by a blow of a mason's hammer on the epigastrium. The medical witness was ignorant of the danger of contusion on this part, and the judge reprimanded him very severely for not having opened the body. The practitioner was satisfied the blow was the cause of death, as the sufferer died almost immediately, but he was unable to account for the result to the court. Sir Astley Cooper mentioned a case in his lectures, where a man received a blow on the stomach from a friend, which caused instant death.

Distortion is a serious injury followed by engorgement, which will not be dissipated for weeks or months, according to the habit and constitution of the sufferer. Sometimes there is stiffness of the joints; sometimes relaxation of the ligaments, which is to be ascribed to a scrofulous or ricketty disposition.

Luxations are generally free from danger, though they may be followed by paralysis and atrophy from the injury of a nerve.

Fractures, if simple, are not dangerous, but if compound or comminuted, especially in or near joints, they are serious and often fatal. I am greatly surprised at the French jurists who give a table to shew the period at which fractures will be consolidated, as every man of science must be convinced of the inaccuracy of any fixed period for consolidation will be completed sooner or later according to the age, constitution and state of health of the patient.

For example, the same kind of fracture will be united in twenty days in an infant, in thirty or forty in an adult, and in fifty or sixty in an aged person, or perhaps not at all. Every well-informed practitioner must agree with me in opinion, that a gouty, scrofulous, cancerous, or venereal habit, mollities or frigilitas ossium, will modify the period of ossification in fractures, and pove the fallacy of all fixed periods. The valuable remarks of the distinguished and erudite author of the Surgical Dictionary upon these points, amply attest the truth of this position.

Burns, present three degrees of intensity; 1, where there is irritation or slight inflammation of the skin; 2, where there is vesication; 3, where there is disorganization of the skin, cellular membrane or more deep-seated parts.

In the first and second case there is little danger, unless the injury is extensive, or occupies parts endowed with great sensibility; in general both are cured in a few days. In the third case there is great danger, as the degree of constitutional irritation is considerable and often proves fatal to young and middle aged persons, and to those advanced in life by profuse suppuration or gangrene. Even these cases may terminate favourably, but with great deformity.

Gunshot wounds, are generally dangerous, but here also we must be guided in our prognosis by the habit and constitution of the patient. In the works of Hennen, S. Cooper, Guthrie, Larrey Thomson, Ballingall and all others—we learn that the bravest men have lost their lives on the field of battle, by prostration of the vital powers,

who were only grazed by cannon and musket balls. In other cases, the bravest have lost their lives by hæmorrhage, inflammation or gangrene, or have been disabled by atrophy of the injured limbs, or have recovered while a foreign body has been lodged for months and years in the brain and other parts of the body. Sometimes stiff joints are formed, or interminable fistulæ, which may extend to remote parts. The judicious and scientific surgeon will be cautious in forming a prognosis in these cases.

From the preceding remarks, it must be obvious that an attempt to classify wounds into mortal and non-mortal, is useless, and indeed impossible. I cannot therefore assent to the classification of Marc, Biessy and others, as I believe the constitution and habit of the sufferer will modify all external injuries to an illimitable extent. I am inclined to think that every well-informed surgeon will assent to my position, that wounds and external injuries will be more or less fatal according to the part or organ they occupy, and according to the constitution of the patient.

The majority of medical jurists agree, that penetrating wounds of the great cavities, or in other words, of the brain, heart, lungs, and digestive organs, are generally fatal.

Wounds of the head. In all these cases we should consider the degree of concussion, the site of the wound and the tissues which are injured. Wounds of the head are inflicted with cutting or blunt instruments. If there is contusion of the occipito-frontal aponeurosis, there is danger of erysipelatous inflammation of the scalp and meninges of the brain, and of course the prognosis is very doubtful. The most unfavourable appearances have terminated favourably, as attested by Sir A. Cooper, and by myself in my work on Midwifery. If a cutting instrument penetrates obliquely to the cranium, union may take place (Boyer,) but there is much more probability of erysipelatous inflammation or of exfoliation of the cranium. Many of these penetrating wounds terminate favourably. If the wound penetrates the brain, there may be immediate death, or it may happen in a few days; and in such cases the danger is exceedingly great.

Incised wounds of the scalp, if judiciously treated, usually terminate favourably. Perpendicular wounds of the scalp may terminate favourably and speedily by proper management, but penetrating oblique wounds are tedious, and often followed by exfoliation. If a wound penetrates the brain, there is danger of hæmorrhage and inflammation; and these

wounds are highly dangerous when a blunt instrument strikes the head perpendicularly; a soft puffy tumour is produced, which is resolved in five or six days by proper treatment, or concussion may cause death.

When the blow is inflicted obliquely, blood is extravasated in a sort of cavity, caused by the laceration of the cellular tissue, which is more tedious, and sometimes requires to be opened. In cases where the pericranium is detached, exfoliation of the bone generally follows. I have known a case in which the integuments of the forehead were torn by a gunshot wound; they hung over the face, and were excised by an apothecary's apprentice, who was amazed when I explained to him the error he had committed, and the certainty of exfoliation taking place sooner or later, as the bone was denuded, and the lips of the wound so far distant, that it was impossible to approximate them. A piece of bone, the size of a crown, was thrown off by exfoliation three months afterwards. The countenance of the patient, an interesting young woman, was greatly deformed, and she became subject to epilepsy. The old surgeons considered wounds of the scalp and fractures of the skull highly dangerous for three weeks, and never declared the patient out of danger until after the lapse of that period. The rule is not a bad one, but the period of danger may be later and undefinable.

Fractures of the cranium must be produced by injury, capable of causing concussion of the brain, and hence they are properly considered highly dangerous. A blow upon the crown of the head will cause fracture at the base of the cranium; a blow upon the superior lateral part will cause fracture on the orbitar vault, and a blow upon the occiput may fracture the frontal bone. The danger of fractures and other injuries of the skull are so ably described in all recent works on surgery, that I need not dwell further upon them in this place.

Wounds of the Face.—Contusions and wounds of the eyebrows and lids are generally free from danger, though they may cause blindness. Penetrating wounds of the globe of the eye, of the optic nerve, and causing fracture of the orbitar plate, are dangerous, as the brain may become affected. In some habits all or any of these injuries may be followed by erysipelas of the scalp, and consequently be highly dangerous. Contusions of the globe of the eye may induce various disorganization of the complicated and delicate tissues of that organ, which, though indestructive to life, are generally destructive to vision, and therefore pro-

ductive of great personal injury. Contusions and fractures of the nose are attended with little danger, and total ablation of the organ is no longer an irremediable deformity, as appears by Mr. Liston's two successful operations for supplying its place from the integuments of the upper lip. (Edinburgh Medical and Surgical Journal, Jan. 1831.)

Fracture of the anterior wall of the *frontal sinus* is not dangerous; but not so of the posterior, from its contiguity to the brain. Slight fracture of the anterior wall of the maxillary sinus is not dangerous; but, if produced by a violent contusion, as a gunshot, fistulous openings are apt to be produced, as also considerable deformity.

Fracture of the *superior maxillary bone or zygomatic arch* is not dangerous, unless in syphilitic or scrofulous habits, when caries may occur. Luxations and fractures of the *inferior maxillary bone* are speedily cured, as also wounds of the cheeks and lips. Wounds of the *tongue* are easily remedied by suture; but total ablation of the organ renders mastication, deglutition, taste and pronunciation, defective.

Wounds of the neck are highly dangerous, from the number and importance of the vessels, nerves, and other organs situated in this part. Too many young surgeons are unmindful of the danger of injuries and wounds of the neck, as they consider these very slightly, when the carotids are undivided. It is to be recollected, however, that a blow of a blunt instrument on the posterior surface of the neck will cause concussion of the spinal cord, fracture of the vertebræ, or dislocation of the odontoid process; while a deep wound on the anterior surface of the neck may divide the phrenic nerve, and in an instant paralyse the diaphragm and muscles of inspiration, or divide the pneumo-gastric or par vagum, and paralyse the stomach, impede respiration and the action of the heart. It seldom happens that the nerves on both sides on the neck are divided, and hence the wonderful escape from immediate death. If the trachea or œsophagus is fairly divided, the wound is considered mortal by medical jurists, as recovery seldom happens in such cases. When the internal jugular vein or carotid artery is divided, death is inevitable in a few minutes, unless ligatures are applied; and it appears, from the testimony of Briand, that in nineteen such cases nine were saved by ligatures. The section of the principal nervous trunks, such as the great sympathetic and tenth pair, are mortal, by depriving organs essential to life of a proper supply of nervous influence: the division of the recurrent nerve will cause aphonia, and punctured wounds of any

of the principal nerves will be followed by inflammation in all parts which they supply, and often by death. Lastly, the cutting instrument may pass between the cervical vertebræ and wound, or completely divide the spinal marrow.

Wounds of the chest.—Contusions and wounds of the chest may be followed by pleuritis, pneumonia, and various disorganizations of the lungs, pericardium and heart, and are therefore considered very serious injuries. Contusions on the female breast may induce cancer; on the ribs, caries or necrosis. When a penetrating cutting instrument divides the mammary or intercostal arteries, there will be effusion of blood into the chest (hæmathorax), which will produce death. Section of the axillary or subclavian arteries will be generally fatal, unless a ligature is speedily applied.

Luxation of the sternal extremity of the clavicle requires the immobility of the limb for twenty or thirty days, while that of the humoral extremity is followed by deformity.

Fractures of *the ribs* are generally unattended with danger, but by wounding the pleura or lungs, may, of course, induce serious diseases of these parts. Fractures of the sternum, though very rare, may injure the subjacent organs; those of the acromion, and coracoid process and neck of the scapula, are not dangerous, but may produce defective motion of the arm or shoulder joint, or atrophy, or paralysis of the limb.

Fractures of *the vertebræ*, are usually complicated with concussion, or other injury of the spinal marrow, and consequently of paralysis of the inferior extremities, and of some parts of the abdominal viscera; and these affections may occur after the lapse of months, when no trace of the former injury remains.

The *prognosis* of penetrating wounds of the thorax is uncertain, as there will be hæmorrhage into the chest, and likewise the introduction of air, both of which will compress the lung, induce inflammation, suppuration or induration of some part of the organ. In general, wounds of the lungs, pericardium, heart, aorta, pulmonary vessels, venæ cavæ, vena azygos, and thoracic duct, are to be considered mortal.

Wounds of the abdomen.—Contusions on the abdomen will cause concussion or commotion of the subjacent viscera, or rupture, hæmorrhage or death, though there may be no appearance of injury on the abdominal surface. The muscles may lose their contractility, and hernia be pro-

duced. Wounds of the abdominal parietes are highly dangerous, as they almost generally cause peritonitis; and should any of the large vessels, aorta, cava, &c. be divided, immediate death must follow. Wounds of the nervous centres (solar plexus), which supply the abdominal viscera, will be followed by a mortal paralysis. Effusion of bile, blood, urine, food or fæces, is fatal, in consequence of inducing peritonitis, which cannot be cured. Hence wounds of the stomach, liver, intestines, spleen, kidneys, uterus, bladder, when distended, and thoracic duct, are generally fatal.

Wounds of the Organs of Generation.—Contusions and fractures of the pelvis are not dangerous, unless the latter are considerable, or unless some vessel of importance is wounded. Wounds of the spermatic arteries and veins of the male are necessarily fatal, as beyond the power of art; but they rarely exist independently of other lesions equally unfavourable. Wounds of the scrotum are not dangerous, unless a large quantity of blood be effused into the tunica vaginalis; those of the vesiculæ seminales are not mortal, but are a cause of absolute sterility. Section of the penis is not dangerous, as hæmorrhage can be easily arrested; the wound cicatrises; but there will be incomplete erection on the injured side of the organ. Total ablation of the penis will prove fatal, unless the arteries are secured. Contusions of the testicles may induce scirrhus, which will require castration.

Lesions of the generative organs of women.—Contusions and wounds of the external genitals are not dangerous, unless inflicted during menstruation, when serious consequences may result. It is very evident that the uterus in the unimpregnated condition can scarcely be injured by external violence. In the gravid state, when it ascends above the pubes, it may be seriously injured by blows, falls, &c. inducing fatal inflammation or rupture of the organ, detachment of the placenta, and death of the fœtus. If the organ be punctured, the wound must be considered fatal, if followed by inflammation or gangrene, to both the mother and the fœtus. The organ may be inflamed and gangrenous, complicated with peritonitis and enteritis, in the last month of pregnancy, and without any external violence, or even any evident cause; a case of which is narrated by Dr. Malins, of Liverpool, and myself, in the Lond. Med. and Surg. Jour. 1831, vol. vi. p. 52. In cases of prolapsus of the organ, its total removal has been effected by ignorant midwives; and

the fatal injuries inflicted by ignorant male obstetricians, by manual and instrumental operations in difficult parturitions, are unfortunately too notorious, of late, to require further comment.

Within the last year medical men in this country and in France, have been found guilty of manslaughter, and very justly, for the rashness and violence of their operations were more characteristic of illiterate savages, or of the darkest ages, than of men acquainted with the principles and practice of obstetrics at the present period. Like all ignorant and bad practitioners, the delivery of the woman seemed their only object, and as to the consequences of contusions and lacerations of her organs and their fatal results, they were totally forgotten.

Lesions of the extremities.—Contusions, dislocations, fractures and wounds of the superior and inferior extremities are seldom fatal. The loss of a member or part of a member by external violence, accompanied with laceration, may destroy life by intensity of pain, prostration of the vital powers, by inflammation, profuse suppuration, gangrene, or sloughing. The divisions of the large vessels and nerves of the extremities, are mortal wounds, unless timely aid be afforded. Here we must recollect the danger of comminuted fractures, especially in or near joints, wounds of joints, inflammation, suppuration, hectic fever, constitutional irritation, habit of body, &c.

II.—Mr. Searle *on Cholera—Reclamation.*

[We readily insert this reply to our Review of Mr. Searle's work on Cholera: 1st. because it is written temperately and to the point; 2dly, because it is on a subject of vast interest at present; and, 3dly, because we are anxious to convince its author, that we could have no object in animadverting upon his opinions, but the interests of science. In the discharge of our editorial duty, we speak of works as we find them, uninfluenced by name, station, partiality, favour, or self-interest; ours is the cause of science and of truth, and no base, ignoble, motive will ever dissever us from our principles—no cringing, crouching, gross adulation, or unmerited censure for us. We admit that a more accommodating line of conduct, and a closer eye to self-interest, would be more in accordance with the modern spirit of reviewing, and, perhaps, with worldly wisdom. It is our merit or demerit—which ever the reader may chuse to designate it—to prefer the principles we have adopted.

We have as yet no reason to be dissatisfied with our course. Authors, whose productions we have been obliged to censure, at first

felt offended, then admitted the justice of our remarks, and finally became our friends. Even Mr. Searle has made one step in this march of reconciliation, when he partly admits the justice of our remarks. He must be well aware of the utter impossibility for an independent journalist to please authors and publishers. He must also acknowledge, that a medical man, whose duty it is to peruse all new and old publications of this and other countries, must be as competent to offer an opinion, more especially when it is that of the majority of the profession, and be as likely to arrive near the truth, as an author who broaches a new hypothesis. Such is the relative position of Mr. Searle and ourselves on the present occasion. However ingenious his views, and they are very much so, we cannot assent to them. Much more proof must be offered, before they can be received as legitimate. At so advanced a period of our publication, we cannot devote further time to this subject at present; but remain perfectly satisfied in referring our review and Mr. Searle's reclamation to the judgment of our readers.—Ed.]

To the Editor of the London Medical and Surgical Journal.

Sir,—Being on the Continent at the time your review of my work on the Cholera issued from the press, it escaped my notice, and it was by mere accident I came to a knowledge of the circumstance, a few days ago. This explanation, I trust, and your impartiality, will give me claim to a hearing on the subject, even at this distant period, it being in the September Journal when your review appeared.

With respect to the composition and style of the work, I am but too sensible that your strictures are but just. But far different do I consider your animadversions on the subject matter of the work, and your condemning in toto, all that I have advanced on the pathology of cholera and of fever, because I have presumed to differ with what may be the more generally received opinion, as to the primary operation of malaria on the system, in producing disease. My opinion being, that by inhalation, it is received into the circulation, in common with other serial fluids; and thus, in common with many other poisonous agents of the sedative class, which I assume malaria to be, contaminating the blood; it primarily operates on the organic structure or functions going on in the capillary system; and thence its influence on the brain and heart, in torpifying or arresting their functions, and by consequence the secretive, and in short, all the functions of life. A position which, to my judgment, is quite as rational, and I maintain too, as tenable (although you have thought proper to designate it unphilosophical) as the more prevalent opinion, that the primary operation of malaria and other poisonous agents, is upon the nerves and brain; and by no means incompatible with the experiments of Messrs. Morgan and Addison, to which you have alluded.

That as you have commenced your review with the profession, that you will endeavour to detail faithfully my views, on the nature and treatment of this but too formidable disease, I beg leave to state,

and appeal to the candour of any one, that your differing in opinion with me in the above instance, is not a justification of your condemning me unheard, and injuring my publication in the opinion of the public, in the manner which you have done: and suppressing, in the following words, what has been acknowledged by all to whom I have shown the work, as exceedingly ingenious views, if not altogether a satisfactory explanation of the symptoms of cholera, and of fever also; to which I have made it appear cholera is allied. "Mr. Searle endeavours to explain the semeiology of the disease agreeably to his theory, but as his premises are untenable, it is unimportant to hear his conclusions." Now, really this is a very hard sentence, to say the least of it; and thus am I condemned to silence in all that I consider interesting in the work, or principally so; and whatever my faults are, rendered most glaringly conspicuous. A mode of reviewing, upon which I shall make no comment, hoping this will be unnecessary; and trusting, that my having pointed it out, will obtain for me the only reparation in your power, by allowing me to present to your readers, in your next journal, what are my views of this disease, and the real nature of the publication. When, if you have any objections to advance against my reasoning, I shall be happy to meet you in an open, candid discussion; which, at this particular time, cannot be without interest, seeing that the disease, in its devastating course, has already extended to Russia, and may very possibly, at no distant period, make its appearance in this country. But, whether as an epidemic, it does so or not, is sporadic and endemic; instances are already known to occur in this country, in proof of which, I need only instance the disease which occurred at Mr. Day's school at Clapham, a year and a half ago, to justify me in the assertion, that the subject is meriting every attention which can be bestowed upon it.

Sincerely believing this to be the case, and confiding, Sir, in your sense of justice, I shall proceed to give as concise an analysis of the work as is consistent with the comprehension of the subject.

The work first presents the reader with a general description of the disease; the nature of the attack, the progression of the symptoms, the state of the functions, the condition of the blood, and so forth. This is extracted principally from the Report of the Madras Medical Board, as being better testimony on this head than my own; and the same obtains of the appearances noticed on post mortem examination, which is the subject of the next chapter. This is followed by my own case, it having been by strictly attending to the progression of the symptoms in an attack of the disease in my own person, which led me more particularly to the views I have taken of the disease, as I have explained in my preface. At the same time, it was the circumstances attending this attack, which led me to the cause; which I assume to be, some terrestrial exhalation of the nature is not identical with malaria, as the poultry about my house and premises at the time of attack, were dying in great numbers, of an analogous affection; and this view is supported by numerous quotations, which are strikingly corroborative of the opinion. There is one, however,

to which I should more particularly wish to draw the attention of my readers, as it almost amounts to demonstrative evidence; this is the disease of precisely the same character which occurred at Mr. Day's school at Clapham, which attacked twenty out of twenty-two boys, in the course of a morning, and of which number two died. This was unquestionably attributable, upon the evidence of Drs. Latham, Chambers and Spurgin, whose assistance was called in upon the occasion, to malaria, arising from the contents of a cesspool, which had a few days before been thrown upon the garden adjacent to the play-ground, to the effluvia of which the boys were fully exposed. That these, in conjunction with the several other instances adduced in the work, will, I think, leave no doubt on the mind of the reader, that malaria is the cause of this disease, as well as of fever, to which I have made it appear that cholera is nearly allied, observing, in the 47th page, "The connection between the two diseases is very intimate, for the fact is undoubted, that fever has not unfrequently succeeded, or has been conjointly prevalent with cholera during its epidemic visitations, though, for a certainty, it has not been of usual or common occurrence." And, in an after page, it is observed, "In the primary actions of disease, the resemblance in all the essential characters that exist between cholera and fever is most striking, so much so, that it has been noticed by several practitioners in India, that the former appeared to them a protracted or continuance of the first or cold stage of the latter, which, in its essential character, I believe it to be; the efficient cause or causes giving rise to the affection, operating with greater intensity or virulence, so depressing to the vital functions, that reaction of the system but seldom, or very partially takes place. Whereas in fever, the energies of the system not being equally depressed, excitement becomes developed to its preservation. In fine, the resemblance between cholera and the congestive typhus of Armstrong, is so strong in all the leading features of the two affections, that they present to my mind but one, or modifications of the same disease."

The next question which arises, is, what is malaria? This, we have replied to, by stating, that as it is the gaseous production of organized substances, in a state of decomposition, we may fairly infer that it is some compound of carbon, hydrogen and nitrogen, as these are the principal constituents of animal and vegetable substances; and as such of the gases are known to be highly deleterious to animal life, and produce effects in common, there can be no difficulty in conceiving the thing, although endiometrical experiments have hitherto failed in determining the point; and reasoning by analogy that it is so, from the effects induced upon animals by experimental exposure to such of the noxious gases, and to the appearances which have presented themselves upon the dissection of the bodies of those who have died from exposure to memphitic exhalations.

We proceed next to observe, "The next question presenting itself is, upon what parts or textures of the body are the primary operations of malaria exercised? Now, as the skin and the lungs are the organs

more particularly exposed to its operation, indeed, we may say exclusively so, a doubt can hardly arise upon the subject, especially as regards the lungs; and little objection, I think, can be made against the operation of the same influence on the skin, the experiments of Jurine, Spallanzani and Abernethy, having unquestionably proved similarity of function; the imbibition of oxygen, and the exhalation of carbonic acid gas, by the capillaries exposed to ærial influence on both surfaces; and the same is inferred, by the experiments before quoted; the effects upon the system being the same from sulphuretted hydrogen, whether inhaled, or left sometime in contact with the sound skin. It remains then but to determine, whether this agency operates on the nerves and capillaries exposed to its influence, in arresting their function; or, whether as a poisonous agent, it is imbibed and received into the circulation. The latter, I think, it will be acknowledged, the most reasonable conclusion, as it offers an explanation why diversity of effect, and variety in disease is induced, by variety or difference in the composition of the memphitic vapour or malaria; and thus fever is the product in one case, and cholera in another. This view meets too with support, in the experiments with the noxious gases upon animals, which are found to exercise beyond the exclusion of oxygen, a positive noxious influence upon the system; and this we find, differing somewhat in effect, according to the particular gas which is employed; as is the case with the various other poisons, both of the animal and vegetable kingdoms; effects which are presumed to take place in most instances, from the absorption of these substances and the blood's contamination."

"Indeed, the office of the lungs would appear quite of a passive character, in relation to the changes effected on the blood by respiration; the conversion of black into red blood, which is the simple effect on the one hand, of the exhalation of the ready formed carbonic acid gas, which the experiments of Mr. Brande proved it to contain, from the ramifications of the pulmonary artery distributed over the air-cells; and on the other, of the imbibition of oxygen with the returning blood, by the pulmonary veins, which being connected by their trunks, with the left auricle of the heart, is thus absorbed by its dilitation; hence it is, as was proved by the experiments of Professor Mayer, that absorption goes on from the lungs more energetically than from any other part of the system."

"We are borne out in these views of the respiratory function, by analogy with both Spallanzani's and Abernethey's experiments on the skin. The first was completely satisfied, that air in contact with the skin, is changed exactly in the same way as by respiration. When atmospheric air was employed, oxygen disappeared, and carbonic acid was produced. He was of opinion, the oxygen employed had no share in the immediate production of the carbonic acid gas, because it was equally great, when the animal was exposed to gases containing no oxygen; and he therefore concludes, that the carbonic gas was exhaled, and the oxygen absorbed; and Mr. Abernethy's experiments warrant the same conclusions."

"That any appreciable direct influence, arising out of the inhalation of malaria, if it exercised any on the nerves of the part, the chemical it would appear, living but secondarily subject to such influence, would be, on the mechanical function of respiration, and which were it thus to operate, would give rise to symptoms so characteristic, that they could not have escaped notice."

"That I believe we may safely conclude, that malaria is received into the system by absorption, and thence its influence is exerted; though I may add, when very virulent it may simultaneously affect the capillary vessels exposed to its influence, whether cutaneous, or pulmonary, or both; but of this I shall speak hereafter."

"Assuming then, that the noxious influence of malaria is induced by the blood's contamination, I shall, after a short digression I am constrained to make, in pursuance of the inquiry, trace its effects on the system in giving rise to the symptoms of the disease."

"It is an established fact in chemistry, that the decomposition of a compound, or the formation of a new one, is attended with an alteration in the electrical capacities of the products. The change manifesting an increase or loss in this respect, it becoming either plus or minus, latent or evolved. Now as the process of acretion, assimilation and secretion, constituting the change or conversion of arterial into venous blood, at the termination of every arterial ramification throughout the system, is a chemical process; this conversion is not only attended with an evolution of caloric, but it will not be unfair to add, with electricity also; hence from the first, the body's temperature, and its equal diffusion; and from the second, its nervous, or electrical excitement or vitality. The latter or electrical evolution, which I believe to be in a ratio with the calorific and chemical change that has taken place, having its source in the capillary circulation, explains the reason why, vitality goes on in these vessels for a considerable time after the apparent death of an animal; and the irritability of muscular fibre after the appearances more particularly denoting life have ceased. And it explains also the reason why the arteries after death are found empty, capillary circulation still continuing as long as the arterial trunks furnish blood for their excitement."

"Another argument that may be adduced, favouring this view of the body's electrical generation, is the known fact, that a capillary tube is quite impervious to the passage as a fluid, but under the excitement of electricity, admits its passage freely; now, as the capillary vessels of the accessorial system are so minute, that they are not discernible by the naked eye, but by a powerful glass, the free circulation of the blood is to be seen through them; we are warranted in our analogy, in supposing them to be excited by the same means. As it has been proved by experiment, that it is no impulse of the heart, or action of the arteries, that carries on the circulation in these vessels; as it still goes on long after the heart has been removed from the body. And further, it has been proved,

that the excitement of these vessels is not derived from the brain and nerves, by removing both brain and spinal marrow."

"That there can be little doubt of the origin of the nervous or electrical fluid of the body being in the way suggested. The electricity thus generated, I am of opinion, is transmitted by the most perfect conductors of the animal textures, the nerves, to their source, in the common acceptation of the word, and its receptacle, the brain and spinal marrow; from whence it is again transmitted by the nerves, at the pleasure of volition, in the several actions of muscular contractions; excites the sensorium to the various operations of the mind; and the organs of sense to their respective functions; or is transmitted by the par vagum to the great secretive processes of the stomach and other organs to which these powers are transmitted; and hence, the intimate connection and remarkable sympathy existing between the head and stomach; and an explanation why mental emotions so immediately derange digestion, and the functions of the several organs to which these nerves are transmitted. For further particulars and arguments in illustration of these views, see the Essay in the Appendix."

"From the previous considerations, the following inferences are deduced:—That the noxious influence of malaria is induced by the blood's contamination, and operates in torpifying or arresting the chemical functions which take place in the general capillaries of the system, by which there is a diminished evolution of caloric and electricity, and in consequence, debility of all the functions. And it is probable, in the same way the venom of the serpent and the various other sedative poisons of both the animal and vegetable kingdoms induce these effects; for it has been observed, by several persons, of cholera, "that there appeared a sudden depression of every vital energy, and those who died had more the appearance of persons labouring under the bite or sting of some poisonous reptile, or the effects of some narcotic poison than of disease."

"Another argument that may be adduced in favour of my views, is, the fact before adverted to, that in animals killed by exposure to the noxious gases, as well as in persons who have died by the like or mephitic exhalations, there has not only been this blackness and fluidity of the blood noticed, but annihilation of the contractility of the muscular fibre; both of which are noticed by Dr. Davy, in the subjects of cholera; the latter, however, if not so fully expressed, being fairly implied. The experiments of Bichat too, on the respiratory function in animals may be adduced, as bearing upon the subject, who concludes his numerous experiments by observing.—We conclude then in general terms, and without attempting to determine how this takes place, that the heart's action ceases, when the chemical phenomenon of the lungs are interrupted; because the black blood which penetrates its muscular fibres, is not capable of keeping up their action." And, the same he says of the brain, and finally observes, "The circulation of black blood carries to every part debility and death, the organs ceasing to act, because they receive no

red blood." I have only to add, how well do the views I have taken of the capillary circulation, explain all this; and render it, I am of opinion, apparent, that the primary operation of malaria, not only as a cause of cholera, but of fever also, is not upon the brain and spinal marrow, as it has been supposed, and asserted by Dr. Southwood Smith in his late work on fever, but are effects secondarily induced, as I have already partially, and shall more particularly explain hereafter; with the majority of symptoms in common to the two affections, which I repeat, are but modifications of the same disease."

"If my views are correct as to the course and operation of that cause, the symptoms which ensue, are necessarily referable to the defective excitement of the heart and brain, or principally so, these being the two principal organs, and on which the functions of the others are dependent. The first I shall notice will be that of the heart, in a ratio with its defective power, in its twofold capacity of a forcing and sucking pump, which the experiments of Barry and Majendie warrant us in the conclusion that it possesses, will accumulation of blood take place in the veins, which accumulation or congestion will necessarily be to the greatest extent at those points of the circulation the most remote from the heart's influence; which obtains to by far the greatest extent in the mesenteric, gastric and splenic veins, forming the roots of the vena portæ; as the propelling action of the ventricle ceases in the arteries, and the sucking power of the auricle's dilitation has to operate through the additional and protracted route of both the hepatic veins and vena portæ. Hence, the distention of the mesenteric and gastric veins, and sense of precordial oppression, the first symptom experienced by me, when I was the subject of the disease, as noticed in my case."

Further, as it has been proved by the experiments of Home, Majendie and others, that these vessels in health absorb fluids from the stomach and bowels, and which it may be presumed, is effected by the heart's sucking agency, it is fair to suppose, the permeability of these vessels, which admit of absorption in health, under their present state of engorgement, and condition in which the sucking agency is withdrawn, or rendered comparatively nugatory, would admit of exudation; and hence the sero-mucous or conjee water-like evacuations, either from the stomach or bowels or both; but particularly from the latter, as the natural exit of the contents of the former is through them. That sickness or vomiting, in the early stage, I think rather attributable to the stomach's defective excitement, from diminished energy of the brain, as we see so often exemplified in cases of debility, on the patient's removal from the recumbent to the erect position; and particularly from the sudden loss of blood, the patient becoming giddy and sick from defective arterial distention and excitement of the brain. And this explains the giddiness and sense of weakness that so generally attends an attack of cholera, and has been so frequently complained of, as the first symptom the patient was sensible of or noticed."

"In a ratio with the defective excitement of the heart and brain, will be that of the glandular system; hence, the diminution or suppression of the secretions of bile, urine, &c.

"Inflammation and spasm come next to be considered; and are as readily accounted for, by pursuing the same chain of reasoning, adding to the consideration, difference of temperament, idiosyncracy, state of the individual at the time of attack, a greater or less intensity of the cause and treatment pursued.

"Thus, I would say, if the exudation from the mesenteric and gastric vessels do not take place, or is not equal to the relief of the distended veins, free egress of blood is not admitted from the capillary arteries, and the consequence is, they become irritated by distention, and excited into inflammatory action. And hence the sense of burning heat, pain, extreme restlessness, and desire for cold water, and irritability of stomach: symptoms specifically denoting inflammation of the stomach and bowels."

"It is worthy of notice, that these organs being primary in the scale of animal existence, derive their nervous influence principally from the sympathetic: which originates in twigs given off by every collecting nerve, proceeding to the spine and brain, that they may be little influenced by causes operating on the latter; hence it is, the stomach and bowels retain their irritability to the latest period of existence, even after the apparent vitality of every other organ has long ceased. And from which it may be inferred, that these organs would be proportionably more susceptible of inflammatory excitement than any others; and hence it is in this disease, the leading features of which may be said to be the very reverse of inflammatory, that these organs have been found almost exclusively the seat of inflammation."

Spasms come next to be considered; they are for the most part of the clonic kind, or primarily so in all cases, dependent, I believe, on congestion in the spine, at the origin of the affected nerves; and the tonic kind, to which the European is more frequently the subject, dependent on the same, but having developed a certain degree of inflammation on the part."

"Having completed an explanation, which appears to me satisfactory, and the whole phenomena of the disease,* I have, in conclusion of the subject, but to ask, are not those sudden and concentrated attacks, which destroy the patient, without the developement of the usual and more characteristic symptoms of the disease; like a resistless apoplexy, resulting from the overwhelming congestion of the brain, annihilating its functions and all the powers? ' Mr. Finlayson, observing, of some cases, which happened often in Bengal, that the operation of the morbific course was so violent as to destroy life in a few hours, without any other characteristic tokens of the disease, except the extreme prostration of strength. In these cases,

* For the symptoms not enumerated I must refer to the work.

there was such congestion of blood in the brain, that it had the appearance of being enveloped in a layer of dark coagulated blood, or by a diffuse and general ecchymosis, and in some cases, when it was cut into, large quantities of dark coagulated blood gushed from it, and from the theca of the spine. In the ordinary form of the disease, this appearance was wanting, the blood being principally collected in the abdominal viscera.' And the Bombay Medical Board observes, 'That those who are most intimate with the disease, will be struck with the great similarity between it and the congestive typhus of Armstrong. And dissections they state, abundantly prove, that venous congestion constitutes the principal change that takes place during life.'

"Having represented the connexion as most intimate between cholera and fever, it may be necessary that I say a few words on their distinctive characters. The former I have represented as a disease, marked by the subduction of power, or in which, symptoms of excitement are but seldom evinced, beyond what are resulting from topical inflammation; whereas, the characteristics of fever in general, may be said to be the very reverse of this; increased action and general excitement. The way in which this is brought about in the adynamic or typhoidal order, I believe to be somewhat analagous to that by which I have previously represented cold to have operated in the production of the synochal order. The depressing cause, being of less virulent character than in cholera, operating but to the extent of producing that degree of congestion which comparatively little interferes with the functions of the brain; and but of resistance to the blood's egress from the arteries, that distention in these trunks and excitement ensues. To which, we may add, that in proportion to the severity of the cause, and susceptibility and so forth, of the patient, will topical engorgements and inflammation be concomitant. Which inflammation will be seated in those parts, for reasons already enumerated and assigned to them in cholera; which being in the stomach and bowels more particularly, and the head, explains how both Clutterbuck and Broussais were individually led to the mistake of assigning to these organs the exclusive seat of fever."

"We have analogical illustration of this cause of excitement, in the operation of other sedative agents on the system; opium may be mentioned, small doses producing primarily a certain degree of excitement; whereas, a large one, induces an opposite effect, or at least the excitement is so transitory, that it cannot be calculated upon, and this is followed by overwhelming cerebral congestion."

We have next divided the disease into three species, adding, however, "that the distinctions here made, although not without use, will not often be found so well defined in practice, as the species not only run into each other by insensible gradations, but are variously modified, by constitutional idiosyncrosy, temperament and habits of the patient; and by numerous other circumstances of a local character; for after all, they are but one and the same disease, modi-

fied by these circumstances, and a greater or less intensity of the morbific influence."

"We shall now present the reader with the symptoms of the most frequent form of the disease, our second species, or cholera congestion, as we have thought proper to denominate it in preference to spasmodica, as spasms are by no means uniformly present, whereas congestion, I believe, is always so."

"The patient is usually suddenly seized with giddiness, borborygmus and purging; or the latter, with a sense of weakness, and symptoms of indigestion have been for some hours, or even days duration; these are followed by vomiting, which with the evacuations from the bowels soon assume the conjee or barley water-like appearance, succeeded by great prostration of strength, tremor or twitching of the extremities—alias clonic spasm; a sunken ghastly countenance, ringing noise in the ears, cold damp skin, feeble pulse, and præcordial oppression. From the sense of præcordial oppression, heat sooner or later becomes developed, and the patient complains of inward burning, attended with great thirst and insatiable desire for cold water; the irritability of the stomach is now usually increased, and there is extreme restlessness. The pulse becomes now sharp, frequent and wiry; while the extremities are cold, and in general damp. With the developement of this partial excitement, tonic spasms or cramps usually set in, commencing in the feet and legs, and gradually increasing, or extended to the upper extremities, and occasionally involve the muscles, also of the belly and chest. The exhausting influence of these spasms, or sense of inward anguish singly or conjointly, is soon succeeded by collapse. The stomach and bowels, which continued before irritable, now retain whatever is poured in them; the spasms cease, the skin is livid, covered with cold sweat, and the fingers shrivilled; the eyes are suffused with blood, or covered with a dense film, half open, inanimate, and countenance death-like; coma and dyspnœa ensue, and life gradually leaves its frail tenement without a struggle."

"Nothing, perhaps, can be of more practicable consequence than to note accurately the various stages of acute diseases from their commencement to their termination; for unless this be done, the disputes may be endless about the modes of treatment, which must correspond to the leading phenomena of each stage. This erudite and just observation of Dr. Armstrong is particularly applicable to the disease under consideration; and it has been the want of its observance that has occasioned the discrepancies that at present prevail in practice. I shall therefore offer a few observations on this head. Each species is made up of an assemblage of the three following stages:—The first stage of torpor or oppression; the second of general or partial excitement; and the third of collapse."

"The second species or congestive, combining the whole. In the first instance oppression, bounded by the tonic spasms, or other symptom denoting the partial or topical excitement of the second

stage; which terminating in the least of collapse, is evinced by the spontaneous cessation of the vomiting, purging, and spasms; accompanied with the loss of pulse, coma, and profuse cold sweat."

"The indications of treatment resulting from thus viewing the disease, are obvious—to remove the first stage of oppression, which our explanation attributes, both to suppression of power and venous congestion, by remedies both stimulant and evacuating; then follows on its supervention, the moderating or removing the second of excitement, by remedies more particularly evacuating; bearing in mind at the same time, the nature of the disease, that the powers of life may not be by the means employed in this, fatally subdued in the event of the third of collapse ensuing; in which stage, the indications are, to allay irritation, restrain every debilitating evacuation, to restore the natural secretions, and at the same time to husband and support the remaining feeble powers of existence."

"The laws of nature and of living matter being immutable, it is only to understand aright the operation of diseased action, and the same of our remedies, to enable us to lay down determinate rules of treatment."

This calls upon me for the following observations, in reference to the indications of treatment, and to the modus operandi of our principal remedies:—

"The immediate cause of the disease, being, torpor of the general capillaries of the system, by which the chemical changes in the blood are but imperfectly effected, and as a consequence of diminished evolution of vital temperature and nervous energy that becomes debility of all the functions—and hence the congestions and stage of oppression which ensue; the primary indication of treatment is obviously the restoration of excitement to these vessels on which the whole phenomena of the disease depends. To accomplish which, stimulants are expressly indicated, and of chief among their number, might perhaps be mentioned, the inhalation of oxygen gas: but as this is a remedy so seldom available, it is well that we have another that is always so, and whose operation, I believe to be, specific on these vessels; this is mercury, for of this remedy I expressed my opinion some years ago, to the following effect, which every day's experience confirms me in the belief, is a most just one."

"The effects of this remedy being so multifarious in the cure of disease, its operation must be very general on the system; its primary action, I believe to be on the capillary vessels, exciting them to increased action; hence its renowned deobsturent powers, and its operation on the glandular system in increasing the various secretions. Its more obvious effect on the hepatic function, is probably owing to its primary direct influence on this organ, by its absorption from the stomach and bowels by the veins from these points forming the roots of the vena portarum. Its operation in exciting the capillary arteries, necessarily removes congestion from their venous terminations and obstruction from the exhalents; hence its accredited action on

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the absorbents in removing the various exudations. Its power of increasing vascular action is further evinced by the febrile commotion it excites in the system, and the buffed blood under its influence; effects, however, when they occur, that evince its contra-indication in practice.

"In thus viewing its operation, its employment in cholera, would appear in various points of view, we might almost say, specific in the cure of this disease, and which I believe it to be, aided of course, by such remedies as circumstances require to further its action; and in the removal of symptoms, as effects, arising out of the continuance of the disease. With the first of these intentions, both local and general, the more ordinary stimuli are indicated; such as external heat and friction, aided by the recumbent posture; and of internal administration, ammonia, warm spirit and water and the like. And with the second intention, stimulating saline clysters, with the view of increasing serous exudation, and by consequence, the removal of congestion from the mesentric and gastric vessels, as well as from the brain; and thus aiding absorption of our remedies from the stomach and bowels. The experiments of Majendie having proved, that absorption from all the surfaces, went on in the inverse ratio with vascular distention; and they may be resorted to with the further intention of tranquilizing the stomach. With the same intentions, added to some others, blood-letting becomes a remedy of great importance; it would appear, by the removal of oppression from the capillary vessels. to afford direct aid in their excitement, or necessarily to increase the emulation through them, as verified in daily experience, the blood flowing in common phlebotomy, becoming after a certain loss, of a brighter colour; which can only happen, from the removal of resistance from the veins, to its ingress from the arteries. It is hardly necessary to add, the more obvious indications for blood-letting in the second stage of the disease. It must, however, in the employment of this remedy be carefully borne in mind, that one of the essentials to the heart's action, would appear to be a certain degree of distinction; that in a disease like the present, after its operation a certain period of time, from the congestions that ensue, there remains but little blood circulating through the heart; hence the small weak pulse, which clearly prohibits its use, as I know by fatal experience. That it is an object with Europeans in general, I am of opinion, and the more robust among the nations of India, wherever there is no absolute prohibition to its employment, to practise it, at the earliest stage of the disease, whilst the pulse admits of it; as it is a remedy judiciously resorted to, that general experience leaves most ample testimony in favor of; and which is most obviously indicated with the intentions specified. But in saying thus much in its favor, I must add, my most solemn protest, not only against its indiscriminate employment, but in any one case, usque ad deliquium, which has been the advice of some, or to an extent bordering thereon. That to adopt it successfully, we should draw it from a small orifice,

the patient being in the recumbent posture, at the same time with our finger on the pulse, that its effects may be *carefully* watched, carrying it to an extent limited alone, by the constitution of the patient on *rising* of the pulse under its loss; or *arresting* it, should the pulse flag under the operation."

"As theory and successful practice both operate in my mind against what I believe to have been too common, the exhibition of opium in this disease; this becomes next the subject of consideration, and the indications for its employment are pointed out. A detailed treatment follows: in support of which, numerous cases are recorded in the Appendix. Added to which, is an Essay on the Vital Temperature and Nervous Energy, in which, we have endeavoured to show the nature, source, and distribution of the latter; and the connexion existing between the mind and the body."

"In submitting the above extracts, which may be considered a pretty fair outline of the work, I shall content myself; leaving the merit of the publication to the attention and to the judgment of your readers. I have only to add, that I was constrained to its publication by a sincere and conscientious belief, that I could throw much light upon a benighted subject; having not only had a great deal of experience in the treatment of the disease during twelve years, but from having also been the subject of its attack more than once during that time. And I may notice, recovered from it, which has not been the lot of many in the profession, nay, without arrogating any particular merit to myself, be allowed to have attained to a degree of experience, which others who have written before me on the subject, can lay no claim to.

"With which observation I shall conclude,

"Subscribing myself, Sir, your most obedient Servant,

"CHARLES SEARLE."

106, Great Russell-street, January 12th, 1831.

BIBLIOGRAPHY.

MIDWIFERY.

1. *On the follicular origin of some vaginal tumors.* By George Oakley Heming, Esq. Member of the Royal College of Surgeons, London.—Sir Astley Cooper has, in a very interesting paper, shown that some encysted tumours consist in enlargement of cutaneous follicles; and in the course of his work upon hernia, that gentleman has described a similar tumour originating in enlargement of a mucous follicle, situated just below the *meatus urinarius* in women.

It has not, I believe, been hitherto conjectured that some of those tumours which are known occasionally to occupy the pelvis and obstruct parturition, have a similar origin. This fact appears, however,

to be distinctly established by cases which have fallen under my observation; and it is the more important, because it immediately suggests the propriety and safety of the treatment by free incision.

I have carefully examined the bodies of two women in whom I found tumours of this description projecting into the vagina; in one there were two of these tumours, in the other there was a single one as large as an egg. On a minute examination of their internal structure, it was evident that they consisted of obstructed lacunæ, which had thereby become dilated into a cyst, and distended by a gelatinous fluid. I was enabled to trace distinctly in the smallest tumour a continuation of the mucous membrane of the vagina into the tumour, and a reflection of this membrane forming the lining to the latter. I can have no doubt that the tumour in Mrs. Hollingsworth, the particulars of which I am about to detail, was of the same nature. Mr. Vincent as well as myself was convinced of this fact; and it is probable that the greater number of those tumours which obstruct parturition, and which have been described by the authors who have written on this subject, were of similar origin. If this be the case I think no one would doubt that when they existed in labour so as to obstruct the descent of the child, the best practice is to evacuate, and thereby diminish them by a *very free opening*.

This view of the subject is further confirmed, if that were necessary, by the history of the cases of this kind which are recorded. Perfect, Denman, Park, Merriman, Davis, and Drew, have each described cases in which tumours were found between the vagina and the rectum at the commencement of labour, which, from their bulk, afforded greater or less impediment to the passage of the child. Some of these tumours were proved by examination after death to have been diseased ovaries; others were concluded to have been ovaries, although sufficient proof of this fact was wanting. But in others the histories of the cases show that they could not have been ovaries; but they leave the nature of the tumour in complete obscurity.

Some which were not opened disappeared spontaneously after delivery, leaving the practitioner to conjecture what they could have been. Others which were opened through the vagina or through the rectum, discharged a bloody serum with membranous flakes, and became thereby collapsed; others, during an attempt to lift them above the brim of the pelvis, disappeared with a sensation of bursting; and one, an account of which is given by Dr. Drew in the first volume of the Edinburgh Medical and Surgical Journal, was extirpated by an incision in the perinæum. In this doubtful state of our knowledge concerning the nature of tumours which are not of unfrequent occurrence, which, when they do occur, occasion so material an impediment in the process of parturition, and about the nature and treatment of which the minds of practitioners are so very unsettled, it is important to establish the fact of the follicular origin, and safe treatment of some of them by incision.

Besides the proof of the first of these facts already given from dissections, I am enabled to add that of the second by a case which fell under my care some time ago.

Mrs. Hollingsworth came to me in April 1822, with a tumour in the vagina, which a surgeon whom she had previously consulted told her was *prolapsus uteri*. I found an oval tumour situate between the *vagina* and the *rectum*, its attachments to either of these parts were so loose, that I could, by putting my finger beyond it, hook nearly the whole of it out of the vagina. It could not be *prolapsus*, for the neck of the uterus could be felt above it in its natural situation; and the same circumstance, together with the absence of the symptoms of pregnancy, proved that it could not be retroversion of the uterus. As the tumour, from its situation and bulk, was very inconvenient, the patient wished to have it removed; but before doing it, I advised her to consult Mr. Vincent, who agreed with me in thinking that this might be done with safety. I therefore proceeded to perform the operation. On cutting into the tumour, I found that it consisted of a cyst containing a considerable quantity of glairy fluid. This was evacuated, the cyst was left in its situation, and the patient was well in a few days. Three months elapsed, at the end of which time the patient came to me again, stating that the tumour had returned; that it was considerably larger than the first time she applied to me; and that she wished I could remove it entirely. This I did by simply dissecting it out. The operation was attended with very considerable hæmorrhage, which, however, was stopped by plugging the vagina with lint, and in three weeks she was quite well.

The great point is the diagnosis. This may be distinctly established by carefully tracing the origin of the tumour. The conduct of the practitioner may then be both prompt and confident. A free incision at the period of parturition, and excision at any other time, will safely relieve or cure the patient.—*Edin. Med. & Sur. J.*

SURGERY.

2. *Operation for restoring the Columna Nasi.* By Robert Liston, F. R. C. Surgeon, one of the Surgeons to the Royal Infirmary, Lecturer on Surgery, &c.—Case I. More than seven years ago I was consulted by Mr. M., then aged 16, on account of deformity occasioned by loss of the *columna nasi*, of the cartilaginous septum, and of part of the osseous septum, in consequence of external injury. At that time I proposed, as soon as the discharge had ceased, to furnish him with a new columna from the upper lip, and had several conversations with him and his friends on the subject. The proposal, however, was not acceded to, and I lost sight of Mr. M. till the beginning of 1828. In July 1828, I performed the operation as originally planned. The patient's head being held backwards, the under surface of the point of the nose was pared, so as to present a raw and concave surface; a bistoury was twice passed through the upper lip, close to the root of the original columna, and each time carried forwards to the mouth in a straight direction, and with little sawing motion, so as to include a slip about a quarter of an inch in breadth. This slip, composed of skin, mucous membrane, and the interposed tissues, was then deprived of its prolabium, and elevated, without

twisting, so that its oral margin was placed in contact with the raw surface on the tip of the nose; and in this position it was retained by a point of convoluted suture, a pin being passed obliquely through the point of the nose and the upper part of the new columna. The raw edges in the wound of the lip were brought into accurate apposition by two points of twisted suture, as in the operation for harelip.

The pins and ligatures were removed after a few days, and adhesion was found to be completed. The lip, which before was too full and dependent in the centre, had united with very little mark, and was materially improved in appearance. The union of the upper portion of the slip was also perfect; and by supporting this part by a small round compress, and carefully plugging the nostrils, so as to distend the alæ, the patient's appearance was totally changed. The point of the nose could not fall downwards; the alæ were not shrunk and approximated to each other, but tense and natural; and the cavity of the nostrils was not exposed, presenting the appearance of a dark and foul sore, but hid and protected by the firm and fleshy new columna. The patient, instead of being constrained by horrid deformity to confine himself to his house and surrounding grounds, was able to mix in and enjoy society, without its being observed that any operation had been performed to improve his countenance. That part of the membrane of the mouth forming the outer surface of the new columna, remained reddish for some time, but by exposure gradually assumed the same colour, and apparently the same structure, as the surrounding skin.

Case II.—Anna Riley was admitted into the Royal Infirmay on the 10th of August 1828. There was very copious and fœtid discharge from the nostrils; the triangular cartilage and columna nasi were completely destroyed; and the inner surfaces of the alæ extensively ulcerated. The point of the nose had become quite flat and depressed, from the loss of its natural support. The disease was of six months' duration, and commenced without evident cause.

"On the 7th of October, ulceration had ceased, and I formed a new columna, in the same manner as has been already described. The parts united by the first intention, and the operation succeeded perfectly.

"On the 27th she was dismissed with her features greatly improved.

"Case III.—Mary Anne Love, aged 11, was admitted about eighteen months ago, labouring under *lupus*. The alæ of the nose, the upper part of the lip, and the inner surface of the nostrils presented one continuous surface of angry ulceration. The *columna nasi* and part of the cartilaginous septum were destroyed, and the point of the nose was flattened and depressed. The discharge from the ulcer was acrid and highly offensive, and the countenance was very much disfigured.

"The disease had existed for six months previously to her admission; and during that time various applications had been employed with the view of checking the ulceration, but without effect.

"In the Infirmary means were taken to improve her general health, and the sore was touched occasionally with spirit of turpentine. Under this application the ulceration seemed to be arrested for some time, and the aspect of the sore began to improve; but the benefit was temporary, and the liniment, having lost its influence over the irritable surface, was disused. A solution of the nitrate of silver was then employed, and that also, though at first beneficial, gradually became inefficacious. Solutions of the sulphates of zinc and of copper were afterwards had recourse to; and by changing the above applications, according as each became inactive, the sore was brought into a healthy state, and the process of reparation commenced. The topical remedy which all along proved of most service, and under the use of which the parts were ultimately brought to cicatrize, was the spirit of turpentine.

By the middle of last May, cicatrization was almost complete, and I prevailed on the patient to have her deformity removed by the formation of a new columna. The operation was performed in the same manner as in the preceding cases, and adhesion was completed in both the nose and lip in two or three days. The columna was supported by compress and bandage, and the alæ were kept distended by dossils of lint.

Ulceration has not returned; and the margins of alæ, which were not quite healed previously to the operation, are covered with thin crusts, and apparently cicatrizing. The change in her appearance is very flattering, and promises to be still more so when œdema leaves the part.

Case IV.—In the summer of 1827, I performed the Indian operation for restoration of the nose on Charles Thorne, and gave some account of his case in the 92d number of this Journal. I then stated that the operation had completely succeeded, except in the columnar part, and that I intended to repair that deficiency as soon as the patient would submit to farther procedure. To this, however, he was averse, and left this part of the country.

In August last he again presented himself, and was now anxious that the operation should be performed, as the point of the nose had necessarily fallen much down from want of mesial support. I made him a new columna (the third he had had) from the upper lip, having previously elevated the point of the nose as much as possible. The parts adhered quickly and firmly, and he left the Infirmary much pleased with the support and improved appearance which the new feature of his countenance had obtained.

Case V.—Mr. R. H. enjoyed good health till April 1827, when he had a smart attack of tertian ague, which yielded to the use of sulphate of quinine. In the following August, after severe mental exertion, he complained of pain in the head and general indisposition. He was advised to abandon professional pursuits for a season, and went to Brighton, where he was seized with violent pleurisy. Early in October he had another attack of tertian ague, with severe pain in the right side of the head. Aguish symptoms continued to harass

him till December, after which he remained well till April 1828, when he was again affected with ague, pain of the head, debility, &c. and these symptoms returned in January following.

"In July, 1829, he was sent to Leamington, and while there encrustations began to form in the nostrils, and on the separation of the crusts fœtid discharge occurred. The discharge continued till the latter end of September, when he went to London. There his case was pronounced to be one of secondary syphilis, though the patient declared then, and declares still, that he never had primary symptoms; and, accordingly, he was ordered blue pill, sarsaparilla, and eventually mercurial friction. His mouth soon became affected, and the salivation was very profuse. In October the bones of the nose and palate began to exfoliate, and the patient became much reduced. Early in November severe inflammation of the eye and of the side of the face supervened; and Mr. H. was bled, purged, and starved. The inflammatory action was soon subdued, but was followed by a violent attack of diarrhœa, which brought the patient very low. From this time he regained strength gradually, and now he enjoys excellent health.

"He applied to me in August last. The exfoliation has been extensive, and caused apparently by the abuse of mercury. In the posterior part of the palate there is a large deficiency, which the patient is obliged to supply by a metallic substitute; and the lower part of the osseus septum is destroyed.

"The cartilaginous septum and columna nasi were gone, and the nose lay quite flat on the face, with its wrinkled alæ sunk on the floor of the nostrils, and its point adhering to the upper lip, where the root of the columna had formerly been.

"The first thing to be done in this case was to prepare the parts for the columnar operation; and accordingly, I divided the attachment between the point of the nose and the lip, removed the ruinous remains of the columna, and separated some adhesions within the nostril that had formed during the cicatrization, raised the apex of the nose, and distended carefully its alæ. By these means even, the appearance of the patient was much altered, and he began to be satisfied with what had been done. He was persuaded, however, to get a more durable and elegant support for the parts than dossils of lint, and underwent the columnar operation on the 31st of August.

"In this case, as in the others, union took place by the first intention; and, I need scarcely add, that the result is very satisfactory.—*Edinburgh Medical and Surgical Journal.*

(Literary Intelligence, Books for Review, &c. in our next.)

All Communications and Works for Review are to be addressed to the care of Messrs. Underwood, 32, Fleet Street; or to the Editor, at his Residence, 61, Hatton Garden.

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CRITICAL REVIEW.

I.—*The Dublin Hospital Reports and Communications in Medicine and Surgery.* 1830, Vol. V.—*(continued.)*

We resume, with much pleasure, our analysis of this very important work, every page of which is replete with valuable information. We have noticed some of the papers in our preceding numbers, and now proceed to place the succeeding ones before our readers. The paper which stands next in order is entitled, "Practical Observations on certain Diseases of the Anus and Rectum." By A. Colles, M. D. Professor of Surgery in the Royal College of Surgeons in Ireland.

This essay is one highly deserving of attention and study, as it is the production of a gentleman of the highest eminence, and the most extensive experience, both in private and in hospital practice, and especially as it controverts the general idea as to the frequency of stricture of the rectum. We are glad that a surgeon of such great celebrity as our author, has arrested the extravagance with which certain writers have of late referred every disease to stricture of the rectum. He also states that bougies seldom, if ever, cure the disease, and are used in numerous cases where no such disease has existed, and with fatal effects in some instances which had fallen under his own extensive observation. His remarks are so important that we cannot but give them at length, as they cannot fail to render science and suffering humanity a great benefit.

"*Organic stricture of the rectum.*—This disease spares neither sex nor rank; it most frequently attacks those who are about the meridian of life; sometimes, however, it afflicts children as early as the seventh or eighth year of their age. I have not met with any instance where it attacked a person at or beyond sixty years of age.

" In some few cases the patient appears to be aware of the moment of the first attack of this disease; for he tells us, that without any previous illness the bowels at a certain period suddenly became costive; that for the purpose of relieving them he took large and repeated doses of physic for three, four, or five successive days; that at length his bowels suddenly gave way and a very severe purging took place, which having continued for a day or two, was then succeeded by those symptoms which attend the disease when fully formed.

" Many patients, however, cannot give any account of the first approach of this disease; they merely state that they have been for many weeks, months, or years, subject to it; that the symptoms from the commencement were pretty much the same as those they now labour under, but perhaps not quite so severe and urgent.

" When organic stricture is fully formed (by questioning him,) we learn from the patient, that in the course of each day he has many and sudden calls to stool; that at each of these he is obliged to strain very much, and that the straining, which is not followed by any severe pain, produces a discharge of not more than a table spoonful of mucus, which is sometimes streaked with blood, and very rarely mixed with a small quantity of fæces; that these evacuations are generally attended with a copious discharge of wind, and that as soon as the evacuation has taken place, he feels free from pain or uneasiness: the remission however is of short duration, as he is soon again compelled to undergo the same unavailing distress. The number of these discharges are seldom less than from seven to twelve during each day and night; they do not take place at regular intervals, but generally a considerable number occur in quick succession, and then are followed by a pretty long interval of ease. The greater number of these evacuations are devoid of fæces; a feculent stool is passed perhaps once in two or three days; the fæces are then found passed in short pieces and of very reduced dimensions, not larger than a full-sized cathether, and in quantity not equal to what is passed in an ordinary evacuation by a person in health, yet after each feculent stool the patient feels much relieved.

" There is not the slightest prolapsus ani with any of these evacuations.

" The bladder is in some cases slightly affected; the patient then complains of a little difficulty or delay in passing his urine.

" In some cases a fistulous opening forms in the nates or the perinæum, which will admit a probe to pass into the rectum; it yields a moderate quantity of healthy pus. The fistula undergoes little or no change from the time of its first appearance, even until the death of the patient. In some cases, especially in females, I have known the number of these fistulous openings to amount to twelve or twenty. The majority of cases of stricture of the rectum, however, are unattended by fistulæ.

" Although this state of daily suffering proceeds with the most unvarying regularity, not only for weeks and months, but even for many years, yet the constitution of the patient does not seem to sym-

pathize in the slightest degree for a long time; not only do his colour and appearance proclaim the enjoyment of good general health, but even the most strict examination cannot discover in any of the functions the slightest deviation from health, except those above mentioned.

" After a lapse of time, however, which is very different in different cases, a peculiar paleness of countenance and wasting of flesh announce an inroad on the constitution; those symptoms are soon followed by night-sweats, and now the patient complains of uneasiness about the sigmoid flexure of the colon, which soon extends along the left colon.

" In this stage of the disease, it too frequently happens in females, that a communication is formed between the rectum and vagina, which causes the greater part of the entire of the fæces to pass through the latter. In men, but more rarely, a similar communication is established between the rectum and bladder.

" As the disease draws towards a close, the patient begins to suffer much more serious distress from the state of the rectum, for in addition to the frequent unavailing efforts to discharge the bowels, he is troubled on the slightest exertion, such as coughing, sneezing, or voiding urine, with an involuntary discharge of a thin brownish fluid of a muco-purulent nature. After some time this peculiar discharge comes away in the morning, the moment the patient rises from his bed. In the last stage of the disease, this discharge comes away unceasingly without the consciousness of the patient, and the fæces will not pass unless in a perfectly liquid state.

" This aggravation of local distress is accompanied by a corresponding decline in the general health; his appetite fails, thirst becomes very urgent, emaciation proceeds rapidly, hectic fever becomes fully formed, though more marked by profuse night sweats than by midday or evening exacerbations; and now the patient, extenuated to the last degree, seems to be carried off as much by the exhausted state of his constitution as by the torments of the local disease.

" Sometimes in the advanced state of this disease, the patient is seized with symptoms of peritoneal inflammation, which puts a speedy termination to his sufferings, and he is suddenly carrried off. In such cases, on examination after death, we discover that the process of ulceration had opened the intestine immediately above the stricture, and that through this opening a portion of fæces had passed into the cavity of the abdomen.

" In some very few patients, the hectic fever seemed to have been arrested by the warmth of summer weather, but only to run the remainder of its course with unusual precipitancy on the approach of winter.

" Among a considerable number of patients afflicted with this disease, I have had an opportunity in two instances only, of meeting with it in its incipient state. In both of these, the patient complained of different symptoms of irritation of the rectum, frequent stools, discharges mixed with mucus, and certain feelings of uneasiness: on

examination by the finger, a thickening and slight projection of the gut was felt at a small spot on one side; this morbid alteration spread gradually round the entire of the canal, and extended along it only to a small distance; but until the morbid derangement of structure had almost entirely performed the circle of the intestine, the patient did not exhibit those symptoms which I consider as the common and inseparable attendants on stricture of the rectum. However constant in their attendance, or unvarying in their course, may be the symptoms of this disease, yet will the surgeon desire to be confirmed in his opinion by manual examination. Proceeding to make this examination, we often observe at the orifice of the anus the following appearance, which is indeed almost always present when the disease is seated near to the external sphincter, namely, at each side of the anus a small projection, which on its external surface appears as a mere elongation and thickening of the skin, but internally presents a moist surface, not exactly like the lining membrane of the gut, nor yet can we say that it is ulcerated; these two projections lie close together below and divaricate above, presenting a resemblance to the mouth of an ewer. Whenever this external appearance exists, I feel almost certain of finding a stricture of the rectum before the finger is pushed as far as the second joint into the gut. In some cases, however, this external mark has not been present.

"When the stricture is situated pretty high up, the portion of gut interposed between it and the anus is found to be in a perfectly healthy state; but when the finger arrives at the stricture, it is arrested by the narrowness of the canal, which will barely admit the point of it; if now a slight degree of force combined with a boring motion be employed, the finger may be pushed through the thickened and indurated part, and will then (as well as its benumbed condition permits it to feel) find that the gut just above the stricture is in a very healthy state. The extent of the stricture, however, is very variable; sometimes it is little more than a mere ring, but at other times, it extends along the canal as high as the finger can reach.

"I have not yet met with any instance in which the intestine was strictured, only by means of bands thrown across its canal; such cases I presume must be very rare.

"In a few instances the stricture has been seated so high in the gut that it could be barely touched with the point of the finger, until the patient was desired to "force down," and then a satisfactory examination of it could be made.

"Cases of this disease examined after death, present all the coats of the intestine very much thickened, except the peritoneal tunic, which when closely inspected is found to retain its healthy structure and appearance; the muscular, cellular, and mucous coats are much thickened, the latter is moreover hardened and raised into irregular ridges, or folds, but without any ulceration."—p. 139.

The diagnosis between this disease and those of the pelvic visera is graphically given. Cancer of the rectum possesses many of the symptoms of the affection under notice, but the leaden colour of the countenance and examination of the rectum, enable the surgeon to make a proper distinction. In cancer, the same hard feel is often perceived, but if the examination is made after the lapse of some weeks, a certain portion of the hardened wall of the intestine will be found destroyed. In a rare form of scirrhus of the uterus and vagina, in which the latter passage is almost obliterated by the thickening of the parietes, a train of symptoms not unlike those before us is observed, but examination of the finger will remove all doubts; the same test applies to enlarged prostate gland. Again, ulcer of the rectum may be detected, if low down, by expanding the anus, or by the finger, and a tumour in the pelvis can only press upon the canal laterally, and that the coats of the bowel are soft and healthy. Lastly, the calibre of the gut above the sphincter may be filled up with folds of the lining membrane, and in such cases the health is perfectly good. This fact is further attested by Mr. Houston in a subsequent paper, in which he describes four such folds, and illustrates them by well-executed engravings. We now arrive at the treatment of stricture of the rectum, which, for the gratification of those who cure it so effectually, we must insert. For ourselves, we can only observe, that the testimony of such an able and justly celebrated practitioner as our author, weighs more with us than ten times that of those who entertain the opposite opinion.

"The treatment, by bougie, usually recommended in this disease, appears to be well calculated to alleviate the sufferings of the patient. I feel confident, however, that a perfect cure of the organic stricture of the rectum has not been effected by any plan of treatment hitherto employed. I have paid great attention to the use of bougies, and yet I must candidly declare that hitherto I have not been so fortunate as to have effected a permanent cure in a single instance; nor have I had the good fortune to meet with any patient whom I knew to have been afflicted with this disease, who had been cured by another surgeon. No man can be more ready to proclaim and boast of our control over diseases, and therefore I trust that this declaration will be received by my brethren as it is intended, viz. that it will cause them to consider the history and nature of this intractable disease, and to engage themselves earnestly in discovering some other plan of treatment which will gain the object of our anxious wishes.

"I have not been contented with applying the bougie simply; I have often made it at the same time the means of conveying various applications to the seat of disease. For this purpose I have employed bougies, with a deep groove running spirally their whole length, so that the ointment employed should not be rubbed off the instrument by the tightness of the anus and its sphincters.

"I have nothing cheering to offer on the treatment of this disease; I have given the fullest and fairest trials to various internal medicines."—p. 143.

Mercury, arsenic, hemlock and iron, were repeatedly urged to the fullest extent, without any benefit. Large quantities of mucilage, blue pill, with double the quantity of pulv. ipecac. c. have occasionally afforded a temporary alleviation. The puffing of certain members of the profession on the frequency of the disease, and their infallibility in curing it, is rank empiricism, and highly disreputable to the dignity of true science. Dr. Colles next alludes to spasmodic stricture, which is so confidently described by modern authors, which they so effectually cure by bougies. As his practice is the first in Dublin, and has been for many years, and probably more extensive than that of the whole writers on the subject before us, his opinion is entitled to confidence and respect. And here it is, gentle reader—

"I must, however, frankly declare, that in the course of a pretty extensive practice, the most extensive for the last twenty years, I have not been able to discover a single case of a disease corresponding to the description of the spasmodic stricture of authors. I therefore feel a considerable share of scepticism on this point. Indeed I not only doubt the existence of any such disease, but I can recollect many cases in which this suspected condition of the rectum has yielded to the ordinary means for improving the state of the stomach and bowels, especially when combined with positive assurance to the patient that no such disease had existed: by this assurance alone we can sometimes remove all his anxiety and apprehension on this subject."—p. 145.

"The symptoms which are stated by authors to indicate these diseases of spasmodic stricture, or of organic stricture seated beyond the reach of the finger, will, upon investigation, be found very fallacious; even supposing all those enumerated should be found combined in the same individual:—thus, we are told, that in such cases we arrive at a knowledge of the existence of these diseases by examination with a soft bougie, by the very diminished diameter of the fæces and by the admixture of blood or mucus with the stools.

"The soft bougie, however, may, and very generally will receive an impression from the projecting ridge of the sacrum; for it is by

no means an easy matter to pass a rectum-bougie so that it shall not be arrested at this point, and consequently receive an impression from the projecting bone.

" The diminished diameter of the fæces too, may be produced by any irritation in the rectum, which will cause it to act frequently, and with increased contraction; this is often experienced even in perfect health.

" The admixture of mucus or blood with the fæces, is also frequently met with in other and very different affections of the bowels.

" To prove the futility of these symptoms as a discriminating test, and the danger of being misled by them, I shall briefly state the outlines of one case only.

" Mr. ——, æt. ann. 36, who had lived rather fully and freely, applied to me six or seven years ago under the following circumstances:—he said that he had been, for the last two years, affected with stricture of the rectum; that in the preceding year he had an attack of dysentery, and that since that time he found the stricture worse; the diameter of the fæces diminished, calls to stool more frequent, and seldom passing without an admixture of blood and purulent mucus: he was losing flesh rapidly, his appetite and rest were very indifferent, and his mind was miserable. Having examined the rectum by the finger, I expressed to him my hopes that he was not affected with such an intractable malady, by which I very nearly forfeited his confidence; for he told me that he had applied to a very eminent physician in the north of England, and then to another in London, both of whom assured him of the existence of this disease; and lastly, he had been under the care of the late Mr. White of Bath, who furnished him with the bougies he was then using, and immediately introducing one, he shewed me the mark which the stricture impressed on it. My most urgent remonstrances could at this time only obtain from him a promise that he would not use the bougie as frequently, or for as long a period as usual. By small doses of blue pill, combined with compound powder of ipecacuanha and an enema of olei oliv. cum subacet. litharg. liquor, the irritation of the bowels was mitigated in the course of eight or ten days. Availing myself of this favourable change, I again urged him to lay aside the bougie, and with some difficulty obtained a truce for ten days; within this period it fortunately happened that he passed one consistent motion, in which the fæces were of a large diameter; after this I had but little trouble in prevailing on my patient to lay aside altogether the use of the bougie. By persevering in the internal use of mild bitters and bark, and injecting every night an enema, consisting of ol. oliv. and unguent. supernitrat. hydrargyr. into the rectum, his disease was finally cured, and since that time his bowels, though sometimes deranged by ordinary complaints, have never suffered from a return of the former affection, and he has enjoyed very good health.

" When we consider the irritable state of this patient's bowels, the wasting of his flesh, and the wretchedness of his mind, we may, I

think, reasonably believe that a further perseverance in the use of the bougie would have rendered his disease eventually fatal; yet here were present all those symptoms which are said to indicate stricture high up in the rectum; the event has proved that no such disease did exist. And here let it be remembered, that serious mischief has occasionally been committed by rude attempts to dilate a *supposed* stricture at the top of the rectum or termination of the colon, for I have known two cases where peritoneal inflammation and death speedily ensued; and I have heard, on the best authority, of two similar instances."—p. 149.

Our author considers spasmodic stricture of the sphincter ani a very rare disease. He met with only one case, which was pronounced stricture of the rectum, by an eminent provincial surgeon, another in Dublin, and a third in London. The patient had suffered from two to three months at a time, and then he enjoyed immunity from it for four months. By a minute examination, our author was satisfied it was only a spasmodic condition of the sphincter; and to convince his patient that his fears were unfounded, he passed a wooden globe, three inches and a half in circumference, mounted on a rod of whalebone, "ten inches up the scrotum, without having met with any obstruction." Here is a salutary lesson for those worthy surgeons who would have tortured this unfortunate patient to the brink of the grave, had he had the misfortune to submit to their practice. That stricture of the rectum occasionally occurs, every man of science will acknowledge, but that it is the *fons et origo malorum*, as certain interested individuals lead the public to believe, is a species of knavery which merits the indignant reprehension of every scientific practitioner.

Dr. Colles next describes "vascular tumours of the rectum," or, what are denominated "hæmorrhoidal excrescences," a term he deems objectionable. He describes their pathology in these words:—

"I had an opportunity of examining the structure of these tumours in a patient who had died of another disease. On slitting up the rectum I saw three blood vessels, each as large as a crow-quill, running for some way down the intestine, and then dividing into a number of branches; these vessels ramified very profusely, and each seemed by interweaving of its branches to form one of these tumours. The trunks and branches were covered only by the lining membrane of the intestine."

With respect to the treatment, he prefers excision to ligature, as the latter may be followed by tetanus, and the hæmorrhage from the former can be readily controlled. His

mode of operating and suppressing hæmorrhage is extremely judicious :—

" The following mode of operating I have found to be uniformly and permanently successful, and it is considerably less severe than that generally recommended. The tumours having been made to protrude by means of a purgative injection, I direct my assistant to pass a hook or common tenaculum through one or two of the largest, while I seize another lengthwise with a polypus forceps, then drawing the tumour a little towards the axis of the gut, with a large pair of scissors passed behind the forceps, I cut off all that portion which is engaged between its blades. I then proceed in the same manner to remove those tumours which the assistant holds transfixed by the hook. By fastening and drawing out the tumour with the forceps, we much facilitate its removal by the scissors; proceeding in this way, I guard against these tumours being drawn up within the sphincter, as soon as the first had been removed. I do not think that any case will require the removal of more than three of these tumours, and not unfrequently the cure will be ensured by cutting off only two of them. When the operation is finished, the protruded parts generally lie within the sphincter; should any part remain out, it must be completely pushed in with the finger. In order to guard against the danger of hæmorrhage, I take care not to prolong my incision higher on the bowel than what I conceive will, when replaced, lie within the sphincter; for if we cut the gut higher up, this part, when returned, may bleed freely, from not having any surface closely opposed to it. Besides, we know that by cutting higher up we are in danger of cutting the trunk of the vessel, instead of confining our incision to the tumour which is composed solely by the convolutions of its very minute branches.

" I should be afraid to adopt Mr. Hey's method of cutting away all the protruding tumours, together with the skin at the verge of the anus, lest the patient should afterwards occasion the distress which a too contracted state of this outlet must occasion; for in one case, where for the purpose of extirpating warts, a ring of skin at the verge of the anus, had been cut away along with these excrescences, the condition of the patient was rendered truly miserable."

He terminates his paper with an account of a " peculiar kind of ulcer," which he treats as follows :—

" The remedy for this disease is, to introduce into the rectum a convex-edged scalpel, and make an incision through the entire length of the ulcer, continuing it through the sphincter and dividing the verge of the anus; as soon as this wound has got into a state of suppuration, we should dress it and the ulcer, with some stimulating ointment introduced on a dossil of lint. The case goes on without interruption, although it is rather tedious and slow of healing. I need hardly say, that the final cicatrization will be promoted by the occasional application of the nitrate of silver."

The succeeding paper is by Dr. Houston, entitled "Observations on the Mucous Membrane of the Rectum." It is an excellent appendix to that we have just concluded. The author, who is demonstrator and curator of the Museum of the Dublin College of Surgeons, in preparing specimens of the pelvic viscera, which he has well delineated in an another work, discovered valvular folds in the rectum, which he supposes are destined to support the weight of the fæces, and thus preventing too much pressure on the sphincter. His pathological views are well worthy of attention, and the anatomical description is as minute as possible. We regret that our space prevents us from noticing his remarks in detail, but we must confine ourselves to those on the pathology.

"Considered in reference to disease, the valves or shelves thrown across the cavity of the intestine are fraught with still more importance. They may possibly become the most frequent seat of that morbid alteration of the inner membrane termed stricture. I have not, however, examined the subject with a view towards determining this question, but there are several facts which give probability to the conjecture. In the first place, this disease is generally confined at its commencement to a portion of the circumference of the gut; and, secondly, the seats of this occurrence correspond very much to the places where these valves are most frequently found, viz. near the orifice, about three inches up, or at the top of the rectum. There is still another more weighty reason why the surgeon should bear in mind the existence of these folds, that he may not mistake them for strictures in the gut, a mistake which, it is to be feared, has often happened to those who have reported such numerous cases of this disease, and which, by leading them to the frequent practice of bougies, may have brought on the very malady which their instruments were intended to remove."

Our author and Mr. Crampton propose a spiral bougie in such cases.

The next paper is deeply instructive, as it shews how liable the most eminent and talented men are to mistake. The report is entitled "A case of Aneurism of the Abdominal Aorta, with dissection and observations," by Thomas E. Beatty, M. D. &c. The patient was a gentleman aged 33, of a robust frame and temperate habits of life, who was subject to lumbago. He complained of pain in the back, as if it were between the bowels and spine. This was increased by making a false step or any irregular motion. The pain soon extended round the abdomen, and tympanites appeared. Drs. Cheyne, Graves, and Boisragon, of Cheltenham, and

Author, employed numerous remedies, with only temporary relief; Dr. Colles was consulted, and also Mr. Fitzpatrick, of Woolwich. The patient was next under the care of Mr. Brodie, and finally he visited Paris, where he consulted M. Andral, in conjunction with Drs. Graves and Townsend, who happened to be there at the time. The father of French pathology pronounced the case "neurose intestinale." Dr. Wilson Philip was next consulted, and pronounced the case one of indigestion. The unhappy sufferer finally returned to Dublin, and placed himself under the care of Drs. Graves, Townsend and Beatty. He was now attacked with violent spasms of the back and side, which forced him to cry out, and leaping from his chair, he threw himself flat on his face in bed, which afforded him temporary relief. His daily dose of black drop at this time was from 150 to 200 drops, yet he was never drowsy, nor narcotised, and once he took 285 drops. A singular effect was produced by the opium, and this was retention of urine, which required catheterism. Death at length closed the scene, and the autopsy was as follows:—

"The body was examined on the following day in the presence of Dr. Cheyne, Dr. Graves, Dr. Townsend, Dr. Wm. Beatty, Dr. Greene, Mr. Harris, and myself. On exposure, the emaciation appeared extreme. Before proceeding to the dissection, we wished to let some of the gentlemen present, who had not attended him, feel the enlarged liver, but we were much surprised to find that no tumour could be perceived; this, though at the time inexplicable, was afterwards satisfactorily accounted for. The thorax was now opened and the right lung was found healthy, but in the left cavity of the pleura a large effusion of blood, partly coagulated, presented. The lung was compressed, and the inferior border appeared slightly carnified, leaving the rest of the organ healthy. The incision being carried into the abdomen, disclosed the viscera contained in it, the external appearance of which was natural, the longitudinal fibres of the large intestine were strongly developed, the stomach adhered to the diaphragm by a small band of membrane, and the liver, which during life had appeared so much enlarged, was found very little increased in size, and in structure quite healthy, but the outer convex surface was marked by deep indentations corresponding to the ribs, as if it had been subject to strong pressure against them. When the intestines and liver were removed, a large firm tumour was discovered about the size of the head of a child a year old, lying upon the three last dorsal vertebræ, its transverse diameter being a little longer than the perpendicular, and extending with a curved outline to the kidney on both sides, having the aorta passing down before it, in a sort of groove on the anterior surface. The artery was cut across at the bifurcation, and slit up above the tumour, by which a round well

defined hole, as large as a shilling, was exposed on its posterior surface, a little above the origin of the cœliac artery, communicating with the tumour, which thus proved to be an aneurism of the aorta. On examination it was found that it was covered by the crura of the diaphragm, which were expanded and stretched tightly over its surface, forming an outer coat for it, on which many filaments of nerves were observed to run. In removing the tumour, an irregular opening was discovered at the upper and left part, through which the blood found in the thorax had escaped. The aneurismal sac was deficient at the back part, and its place was supplied by the three last dorsal vertebræ on which it lay. The bodies of these were deeply eroded, but the intervertebral cartilages remained sound and entire, forming prominent white rings between the destroyed vertebræ. At the left side of the eleventh dorsal vertebra, an opening large enough to admit the end of a finger was found, leading into the spinal canal. The heart was small; there was concentric hypertrophy of the right ventricle, the walls of which were thicker than those of the left. The stomach and intestines were slit open through their whole extent, and with the exception of partial softening of the mucous membrane, were quite healthy. The course of the symptoms in this case, although strange, and at the time inexplicable, can be accounted for by the position and growth of the tumour, and its influence upon the parts with which it was connected. In the commencement, when it was yet small, it produced the dull fixed pain that was mistaken for rheumatism; and this may be considered the first stage of the disease. As it advanced in size, it gave origin to the train of symptoms in which this case differs from any that I have found recorded; I allude to the severe suffering of pain and spasm in the tract of the alimentary canal; this, as far as I know, did not occur in others, but in this it was so great, that for several months it formed the whole subject of complaint, and the attention was directed entirely to these organs; this can be satisfactorily explained by a reference to the situation of the tumour; it was placed in the neighbourhood of the solar plexus, and the pressure exerted by it upon this great nervous centre, at once produced irritation in the whole of the organs supplied by filaments from it, and caused the "neurose intestinale" of Andral. The obscurity in the diagnosis was caused in a great measure by this class of symptoms, but from what I have observed on the situation of the disease, it will appear they were accidental, and therefore are not to be expected in similar cases, unless the tumour occupies the same position: this may be said to constitute the second stage. The third and last stage commenced when the tumour, having by its pressure destroyed the vertebræ, opened a communication with the spinal canal; it is marked by the occurrence of the pain and spasms of the external muscles, and parts supplied by the spinal nerves indicative of irritation of the medulla spinalis.

"It might be expected that the pulsation of so large a tumour would have been perceptible, and thus the nature of the disease have been developed. But it is evident it was not so in this case, else some

of the many physicians who examined him must have discovered it. Andral, amongst others, made a most minute examination of the abdomen; his expression on the occasion was, "*il faut vous bien palper monsieur,*" yet he detected no pulsation. In fact, the situation of the tumour entirely precluded the possibility of ascertaining its existence by the touch, firmly bound down to the spine by the crura of the diaphragm, and protected on the sides by the ribs, it lay secure from observation. A few days before death I perceived a pulsation in the epigastrium, which, on examining more closely, I found to be that of the artery, but I could discern nothing of tumour or diffused pulsation, and as it is usual to be able to feel the beating of the aorta in these persons, I took no more notice of it. I regret much that we were not led to employ auscultation to the spine, as I think it very probable the disease would have been thus discovered, but as there was not the most remote suspicion of the existence of such a disease, the examination was not made. The chest was examined on two occasions, before death, by two most experienced and successful stethoscopists, Doctors Graves and Townsend, and no lesion was discovered. Auscultation affords a ready means for the diagnosis of aneurisms in the limbs, in those cases in which there is no perceptible pulsation. The "bruit de soufflet," heard on applying the stethoscope, is very striking, and points out the nature of the disease; and it is fair to suppose that this indication would have been afforded had the instrument been used along the spine.

"The intermissions seem to be the most inexplicable part of the case; they formed part of the grounds upon which Andral and others founded the opinion, that the disease was in the nerves; but although so remarkable a circumstance, the case is not singular in this respect, for Scarpa relates one in which there was a complete suspension of suffering, at a period of four months from the commencement of the disease."—p. 192.

Here we must conclude our analysis for the present, and however tedious it may appear to some of our junior readers, we believe all engaged in practice will be deeply interested in these highly instructive reports. The remainder of the volume is equally important, and will appear in a future notice.

II.—Dublin Medical Transactions. 1830. *(continued.)*

A paper, entitled "Observations on the Use of Instruments in cases of difficult protracted Labour, by John Beatty, M. D. &c. &c. claims especial attention, from its great importance and value. It has often struck us with surprise and astonishment, that the Dublin and London obstetricians should have been so extremely fond of performing

craniotomy. The general and universally received axiom is, that the forceps or lever should be preferred to the perforator. In Dublin the latter is generally preferred to the former, and this has led Dr. Beatty, an able and eminent obstetrician, to oppose this unjustifiable practice. In justice to the profession in the Irish capital, we must state that it is chiefly among the older practitioners craniotomy is preferred, for it appears by the recent reports of Dr. Cusack and Mr. Gregory, which we have noticed, the practice is not sanctioned by the rising portion of the profession.

Few physicians are so well entitled to discuss this question as Dr. Beatty. He has been forty-two years in extensive practice, during the first five years of which he was assistant to the late much respected Dr. Clarke, in the great Lying-in-hospital in that city. He informs us that he has delivered 111 women in private practice with the forceps or lever, never observing any unpleasant result.

"None of the mothers died—none of them had their perinæum lacerated, nor any of those evils, which are set forth as the effects of the forceps; and still more, all the children that we had any reason to think were alive at the commencement, were born living, and none of the whole number had any injury or mark whatever inflicted by the instrument. From this extensive experience of the value of the forceps, I think I am justified in saying, that the opinions of the authors already quoted, are fully supported by the facts."—p. 12.

And he cites the works of Lamotte, Deventer, Chamberlin, Smellie, Chapman, Sir Fielding Ould, the first Professor Dease, Merriman, Dewees, Denman, Burns, Millot, Maygrier, Lachapelle and Osborne, in favour of the forceps.

Indeed he might have quoted the best obstetricians of all countries in favour of the practice he advocates. We believe the profession have been deceived by the sophistry and metaphysical reasoning of Dr. Osborne, in his defence of the perforator and embryotomy, opinions so ably and so justly criticised by Dewees; and which are in direct opposition to those received throughout Europe at the present period. We confidently affirm, that the weight of authority is in favour of the forceps or lever. If we examine the records of obstetric institutions, we find that the perforator is very rarely necessary, and yet a very large majority of modern practitioners are constantly detailing cases of craniotomy. We could narrate cases in which this operation has been unnecessarily performed, and even by lecturers on midwifery in this metropolis. The day is not far distant, when more scientific obstetricy will and must prevail, for at length

those who regulate medical education have enforced its study; the salutary effects of which will be a powerful check to unnecessary and unjustifiable operations. The rising race of obstetric practitioners will discover and expose the blunders of their contemporaries and seniors, and humanity will be the gainer. Having premised these few remarks, we hasten to introduce our author's judicious observations to the notice of our readers; he says—

"In every case of midwifery, the chief object to be attained by the practitioner, should be the preservation of the lives of both mother and child entrusted to his care. The great majority of cases require no extraordinary assistance, and the duty of the accoucheur consists principally in watching the progress of the efforts which nature makes, and guarding against any unfavourable accident, or deviation from the ordinary course. Unfortunately, however, some few cases do occur, in which from particular circumstances, instrumental aid is required, and while we may lament the necessity for such interference, it is our duty diligently to inquire into the merits of the means proposed to assist delivery, and to select those that we find most likely to effect the purpose already mentioned, that of preserving our patient and her offspring.

"It is of importance that every man practising midwifery should avoid as much as possible the use of instruments in delivery; for it is certain, that if he suffers his patience to be too readily exhausted, or yields too easily to the suggestions and alarm of the patient, or her friends, he will frequently be induced to promote delivery too soon, very much to the injury of the patient, and consequently to his own character. On the other hand, he has an important duty to perform in judging of the necessity, and the proper time for using instruments, and the kind suited to each particular case, for as much or more mischief may be done by delaying their use when absolutely required, as by having recourse to them too soon. In fact, in this, as in most other situations, the man who has patience to watch, judgment to discriminate, and firmness to act, will be the best qualified to perform the duties required of him.

"Having endeavoured, during a long and actively employed life, to regulate my practice by such principles, I have formed the following conclusions respecting the comparative value of the different instruments used, in long protracted or difficult labours. And I am induced to give a faithful account of my own experience, and of such means, as I have occasionally employed, because I have reason to know that my opinions on the subject, differ from those of some of the most eminent, and justly esteemed members of the profession in this city.

"I do not propose to enter into a detail of the causes and nature of long protracted and difficult labours; these are so fully treated of, and explained in all works on midwifery, that it would be useless to repeat them at present; but I may observe, that the cases in

which mechanical assistance is required, may be comprised in two divisions; 1st, Those where there is a disproportion between the head of the child, and the passage through which it must come; and, 2dly, Those in which, although no mechanical impediment exists, the expulsive powers of the mother are not sufficient to accomplish the delivery.

"Under the former will be found those caused by the deformity of the bony parietes of the pelvis, and by disease or rigidity of the soft parts, as well as unnatural size of the head of the fœtus, face presentations and transverse position of the head. And under the latter, those in which delivery is delayed by general weakness of the patient, hæmorrhage, frequent faintings, convulsions, great exhaustion, fever, &c.

"To assist delivery under such circumstances, two classes of instruments have been devised; 1st, Those by which extraction may be effected without injury to either mother or child; 2dly, Those by which the life of the latter must necessarily be sacrificed. I need scarcely remind the members of an enlightened and humane profession, that the adoption of the latter alternative, is a step calling for the most serious consideration, and one that involves an awful and heavy responsibility. The value of human life is not to be estimated by the age, nor is there in the eye of the law, either human or divine, any distinction between that of the octogenarian and the child unborn.

"It matters little, therefore, what the nature of the situation is, in which a fellow-being committed to our care is placed, whether it be a fever striking him in the prime of life, or a disease requiring the performance of a capital operation, or the perils attending his first entrance into the world, it is our bounden duty to employ such means as will best insure his safety.

"Let it not be imagined that by these observations I would inculcate, that the well-being of the mother is to be overlooked in endeavouring to save the child; far from it, the very nature of the sentiments points out the contrary; but what I desire to maintain is, that the life of the child in utero, is as sacred as if it had breathed, and walked, and that its destruction can only be conscientiously resorted to, when every other means by which it and its parent might be saved, have been fairly tried and found inefficient." —p. 4.

Our author describes the usual mode of applying the forceps, which need not be inserted here, and proves the safety of the operation. He next proceeds to show how unnecessarily the perforator is employed. Every man of eminence in this branch of practice could corroborate his statements. The blunders made in obstetricy are little known to those who do not engage in this branch of medicine. The following remarks deserve serious reflection:—

" I have been called upon in several cases of protracted labour, some of them of first children, and in women advanced in life, to give sanction to delivery with the perforator and crotchet, and have found the instruments ready prepared for the operation, when I have recommended a trial with the forceps, and fully succeeded in bringing into the world living children, with very little, if any trouble to myself, no risk to the mother, and no injury to the child; this is well known by several most respectable practitioners in Dublin, who have been witnesses to the result.

" When I contrast the feelings created at such a moment, in the operator, the patient, and her friends, with those experienced, when the body of a child (of whose previous life the mother had no doubt), is dragged mutilated into light, I confess that I cannot understand why the latter should ever be adopted, without the fullest certainty of the impracticability of the former. What adds to the horror of the perforator is, that it is no uncommon circumstance to have a child born alive and cry, whose head had been opened, and the brains partially destroyed. Doctor Burns says, " by the rash and unwarrantable use of the crotchet, living children have been drawn through the pelvis with the skull open, and have survived, in this shocking state, for a day or two." Deventer, Chamberlain, and others, give instances of women delivered by the crotchet of dead children, as " they supposed, when to their great surprise, the miserable infants filled their ears with cries." Mr. Dease states, " that he has seen instances where the child has been miserably dragged alive into the world, with a great part of the brain evacuated."

" Similar instances have (I understand) occurred in this city, in one of which humanity prompted the accoucheur to plunge the child into a vessel of water, to put an end to its existence and cries.

" I can never forget a scene of horror to which I was a witness in the year 1800. I was called upon to see a very young lady, in labour of her first child, who was under the care of one of the oldest and most eminent practitioners in this city, (since dead); her labour was most violent, which she bore with great impatience and noise. The head had been down on the perinæum (he said) several hours; I proposed to give more time, and an opiate, not doubting the powers of nature, or to try the forceps, which he declined, on account of its being her first child, and the apprehension he entertained of her being exhausted; and finally, he opened the head. The operation, as it always does, excited extraordinary uterine action, and before it was well concluded, or the brain evacuated, so as to lessen the bulk of the head, the child was propelled into the world alive and crying.

" The old gentleman whose patient she was, was a person of very fine feelings, and the reader may imagine his sufferings on viewing the effect of a rash and ill-judged operation; he declared no earthly consideration should ever induce him again to witness the application of the perforator,"—p. 15.

When convulsions supervene, Dr. Beatty strongly insists upon the necessity of first trying the forceps, which does not occupy so much time as the perforator, and should the attempt fail, it is easy to have recourse to the latter. That this principle admits of practical application, the following case testifies :—

" In the year 1814, a gentleman, residing eighteen miles from Dublin, called on me, to request I would accompany him with all expedition to see his wife, who had been suddenly seized with labour of her first child, attended with convulsions before he left home. We reached his house in about five hours from the time he left it. I found the lady lying on the parlour floor, labouring under severe convulsions, and quite insensible, in which state she had remained during her husband's absence. On examination, the head was found to be low in the pelvis, and the os uteri dilated. Without removing her I introduced the forceps, and in a few minutes succeeded in extracting a female child alive. The mother was now removed to bed; the convulsions ceased in a short time; her senses were restored, and the recovery was as speedy as if no untoward circumstances had occurred. I may observe that the gentleman had no more children, and the child then born is now alive, and heiress to his large estates; a consolation of which he must have been deprived, had I rashly employed a destructive instrument. If I had experienced much difficulty in this case, I would have thought myself justifiable, nay, called upon, to sacrifice the child, but certainly not until I knew it was unavoidable; and I state it to show that in the worst cases, the milder means may be resorted to with considerable prospect of success."—p. 19.

Our author further informs us, that since 1804, he has used the crotchet but three times, during which period the majority of his 111 forceps cases occurred, and he concludes with these impressive words—

" In conclusion I will observe, that nothing short of the most imperative necessity can warrant the use of the destructive instruments, and no case can be considered as demanding them, until every means by which both mother and child might be saved have been put into requisition, and fairly tried. Let us ask with Dewees, what is to be feared from a proper application of the forceps? Is their mode of action such as to do injury to either mother or child, when well directed? Certainly not. Then there is nothing to be apprehended from their structure, application, and mode of action, since they neither cut nor contuse mother or child when well directed. They neither create unnecessary pain, nor inordinately augment that which may be present; but are truly calculated, in the language of Dr. Denman, to supply the insufficiency or want of labour pains. If this be so, and it is admitted by Dr. Denman

himself, why should they be condemned, because in common with every thing we possess, they may be abused. I repeat it, the object of the practitioner should be to preserve both mother and offspring; if, unfortunately, he should ultimately fail in this endeavour, he must then decide between the two, and sacrifice the child. To be driven to such an extremity, is one of the most painful situations in the practice of midwifery: it forces a man to perform an operation, differing in principle from every one in use among medical men. All others are done with a view to the ultimate benefit of the sufferer: this alone tends to his immediate destruction. Such a consideration, together with the heavy responsibility a man incurs, by becoming the voluntary destroyer of a human being, should make us pause ere we lightly reject means, by which results so lamentable and awful might be avoided."—p. 23.

We fully assent to the opinion so ably maintained in this paper, which is consonant with science, judgment and experience. Every practitioner, with a spark of humanity in his breast, must shudder at the idea of destroying a fellow creature, and we know no law, human or divine, which justifies such a proceeding.

In a subsequent paper, Dr. Beatty relates a case of "Cancer Uteri," attended by the usual symptoms, and presenting extensive disease in the viscera and linings of the pelvis. He then relates a case of incipient cancer of the cervix, which was examined by two of the most eminent physicians in Ireland. Both were of opinion that the lady should live *absque marito;* but our author has long observed that the disease in general occurs to those whose connubial intercourse had been interrupted at an early period of life. He therefore suggested that the lady should be restored to her conjugal rights, and that her disease might be arrested. The idea was new to his colleagues, but they readily acceded to the proposal. The result was the birth of a healthy child in less than a year. A perfect restoration of health followed, and has now continued for fourteen years.

That pregnancy may happen in incipient scirrhus uteri, is well known to all obstetricians, but that the disease should be arrested in consequence of the proposed measure, is certainly a new and a singular observation.

Dr. Collins, the master of the Lying-in Hospital, Rutland Square, relates two cases of "Laceration of the Uterus and Vagina," which terminated favourably. The treatment consisted in purgation and repeated leeching the abdomen, warm baths and fomentations. About the end of the fourth,

or in the course of the fifth day, all abdominal tenderness was removed. Our author cautions the practitioner against allowing the child to escape into the cavity of the abdomen, and he recommends pressure to be made on the abdomen, to prevent the head from receding when the perforator is applied. He observes, that in some rare cases rupture occurs before the dilatation of the os uteri, and here the operation of gastrotomy is the only chance of success. No instance of this kind occurred during the mastership of Dr. Clarke. Though this recommendation is made by most obstetric writers, we very much doubt the propriety of acting upon it. In the majority of such cases, the child is dead, and in every case the vital powers of the woman are extremely depressed immediately after the occurrence of the rupture. This, perhaps, mainly depends upon the loss of blood consequent to such an accident, which may be so copious as to destroy life. It is to be recollected that the few instances in which gastrotomy was successfully performed, the vital powers were allowed to rally from one to eighteen hours after the rupture. Besides, the only other danger that can arise to the woman is the supervention of enteritis or peritonitis, neither of which can occur instantaneously, nor very speedily, when the vital powers are prostrate. It is therefore evident that time ought to be allowed the constitution to rally, that the operation ought not to be instantly performed after the rupture, as excision in such cases of prostration might extinguish life. Few surgeons would be willing to perform so serious an operation when the vital powers are prostrate in any considerable degree. A little sober reflection on these objections must convince the most sceptical of their validity. The fact is, writers in general have erred on this point; for the facts on record are too few to warrant their conclusion.

The next paper is on the "Value of Auscultation in Pulmonary Apoplexy," by Dr. J. C. Fergusson. The author very satisfactorily proves that the true nature of this disease cannot be discovered by the symptoms, and that practitioners unacquainted with the stethoscope, will be in general deterred from employing depletion to the necessary extent, as it seems to be contra-indicated by the usual symptoms. The value of auscultation is now so well established, that we need not continue our notice of this paper. We have only to state that Dr. Fergusson is an able stethoscopist, as more fully appears in a subsequent paper,

entitled "Auscultation, the only unequivocal evidence of Pregnancy."

Every man engaged in practice must admit that an infallible diagnosis of pregnancy, whether there be a fœtus in utero, and whether it be living, would be highly important in forensic and private practice.

Our author thinks he has made this important discovery; he says; "I have had opportunities of testing the value of auscultation in such cases above one hundred times, and in every instance, with but one exception, I could detect either pulsation of the fœtal heart, or placentary noise, generally both, after the patient had passed the fifth month of gestation, and in many, and indeed in the majority, before that period." He makes the examination when the patient is placed in a chair, and no part of the dress removed. He, however, prefers the horizontal posture. The only error of which he is aware, and into which we are liable to fall in making this examination, is where the pulsation of the iliac arteries are accompanied by "a bruit de soufflet." But this noise will be heard at both sides in the groin, whereas the noise of the placenta is heard over a space of some extent, perhaps three or four inches square. The fœtal heart may be heard in almost every region of the abdomen, though it, and that of the placenta, may be heard in the same side, or even in the same spot, yet generally they are to be met with in the opposite sides, in the iliac regions. The double pulsation of the heart is usually felt in one spot, it may vary, and is double that of the mother. He detected the two sounds in a fœtal heart, not larger than a hazel nut. Drs. Corrigan and Hunt were present at the examination. He then relates cases of concealed pregnancy, which he detected, and which will be found in a late original article on forensic medicine in this Journal. Our readers are aware of the objections made to the infallibility of auscultation, by Dr. Nagle, in the Lancet.

Dr. Law describes cases of "Putrefactive Disorganization of Lungs." He commences with a description of the received opinions on gangrenous inflammation, and then details his cases. He says that the disease may exist for a year; that the lung will be reduced to a blackish, softened substance, not unlike the broken, dissolved condition of the spleen after protracted ague. The autopsies of his cases warrant his conclusions.

The first patient was a lad, aged nineteen, who was admitted into Sir P. Dunn's Hospital, labouring under severe hæmoptysis, with fœtid breath. The usual remedies were tried with success; the hæmorrhage was arrested, but he finally sunk.

Autopsy.—The right lung adhered to the ribs, was studded with tubercles, and its parenchyma in a sloughy state. The left lung was similarly affected, but not to so great an extent. Three similar cases are detailed. The author denies the reality of dyspeptic phthisis, and asserts, that had Dr. Philip employed the stethoscope, he would not have broached such a doctrine. He also cites a case, which disproves the curability of phthisis, by the suppuration of the glands in the neck, as attested by the same author; and states that mercury will rapidly excite the softening of pulmonary tubercles.

He relates two cases of hæmatemesis, in which the gastro-intestinal mucous membrane was blanched, but the liver tuberculated, and quotes the authority of Frank in support of this pathology. He has also observed that when young females are affected with this disease, whose catamenia are irregular, an uneasy sensation is experienced in the spleen, which he thinks may arise from the organ disgorging itself of its contents. This is a further proof of Mr. Dobson's theory, and illustrates the pathology of the pain in the left side, which is so troublesome in such cases, and which has lately been so much noticed by writers on neuralgia and hysteria. These papers are highly creditable to the attainments and judgment of the author.

Dr. Collins relates an interesting case of "Extra-uterine Fœtation." A tumour was felt between the vagina and rectum, which Dr. Labatt considered enlarged uterus, and Dr. Colles fungus hæmatodes of the organ. The os uteri was examined, but no trace of membranes could be found. After much pain in the lower part of the abdomen and pelvis, the woman sunk. On dissection, the pelvic cavity was found filled with blood—the tumour contained a fœtus of about two months, the sac had burst, the intestines were inflamed, and both Fallopian tubes were impervious—not a vestige of them remained in the uterus. The author thinks the fœtus must have been formed without the uterus. This case favours the doctrine of seminal absorption from the vagina, as stated by Gartner and others.

The next paper is on "Hydrophobia," by Dr. Purdon. It contains nothing worthy of attraction.

A case entitled "Anomalous Labour," is related by Dr. Fergusson. It was a footling or pedal presentation, which proceeded favourably until the base of the skull presented. Here unusual difficulty was experienced, which was found to arise from the presence of the head of a second infant, occupying the pelvic cavity. The first infant, which was partly expelled, was alive, and remained so for a considerable time, but the head of the second was first expelled, accompanied by that of the first. The first infant was dead, the second living. Our author intended to have perforated the vertex of the second infant, but fortunately he had no instruments, and was refused the loan of them by some *humane* practitioners. It was his intention to save the life of the infant that was partly expelled, but nature decreed otherwise, and preserved that of the other. The author refers to three cases somewhat analogous, but differing widely in their peculiar circumstances, which are recorded in the Med. Chir. Trans. v. 12. We may observe that such cases are noticed in almost all the French works on obstetricy.

Dr. Harty describes two cases of "Polypus of the Heart," one of which was witnessed by Dr. Colles, the other by Mr. Crampton, the Surgeon-General. The latter is now in the museum of Dr. Montgomery. Our author details the symptoms of both his patients with great minuteness, but we think no diagnosis could be formed from them. He, however, predicted the existence of the disease before the second autopsy took place. He refers to the opinions of the numerous writers on cardiac affections, and shews these are not against the possibility of the occurrence of the disease.

III.—*Outlines of Physiology, with an Appendix, containing Heads of Lectures on Pathology and Therapeutics.*—By William P. Alison, M.D. F.R.S.E. Professor of the Institutes of Medicine, in the University of Edinburgh. Edinburgh 1831, 8vo. pp. 452. William Blackwood.

The author deems it necessary to apologize for the publication of a work on physiology, which contains no new

facts, after the appearance of productions of such value on the subject, as the System of Dr. Bostock, the Outlines of Mr. Mayo, the Translation of Blumenbach's Physiology by Dr. Elliotson, and of Magendie by Dr. Milligan.

"My apology is, that it appears to be important for a teacher of any branch of science to follow the arrangement which seems to his own mind the most satisfactory; and important likewise for the students attending any course of scientific lectures, to have in their hands a text-book arranged on the same plan, and containing the same views. The following pages have been written, therefore, for the sake of the medical students of this school. My objects in writing them have been, first, to state the facts which appear to be ascertained, and the inferences which appear to be fairly deducible from these, in regard to the functions of the living human body; and secondly, to arrange these facts, as far as possible, in the order in which the functions, as existing in the living body, in the adult state, are dependent on one another.

"I entertain a hope, that some of those, already conversant with the science, who may look into the following pages, may approve of the attempt to give a more systematic form to the subject than has been usual in most recent publications; while I am aware that others do not think the science sufficiently advanced to be taught with good effect on such a plan; and may not approve of the views, as to the connexion of the nervous system with other parts of the animal frame, and particularly with the functions of organic life, which are here stated, and which appear to me to justify the present arrangement.

"In justification of such views on these subjects as may appear to some erroneous or premature, I can only say, that they seem to me the most legitimate inferences from the facts that are known, and to involve less of hypothesis than those to which they are opposed; and that, in many of the medical writings of the present day, I think there is a want, not so much of facts in Physiology, as of principles by which these facts ought to be connected, and by which the recollection and useful application of them may be best secured.

"I have thought it right to enlarge, in these outlines, not on the subjects which occupy the largest portions of the lectures, but on those where, without such assistance from a text-book, the statements made in lectures may be the most easily misapprehended; and on this account, I fear that some of the subjects here discussed may be thought more abstruse than I should have wished them to appear.

"By the publication of these outlines, I expect to be able to abridge considerably the time occupied in the first division of the Lectures on the Institutes of Medicine in this University; and, for the convenience of students, I have added an appendix, containing the Heads of the Lectures on Pathology and Therapeutics. These I hope to be able to enlarge, at a future time, into another volume, similar to the present."—Preface, p. 10.

The work consists of seventeen sections, arranged as follow: I. Preliminary observations.—II. Of the laws of vital contractions.—III. Of the circulation.—IV. Of the composition and properties of the blood.—V. Of nutrition, exhalation, and secretion in general.—VI. Of absorption.—VII. Of the properties of the textures and secretions formed from the blood in the living body, as bone, cartilage, tendinous and fibrous substances, serous and mucous membrane, glands and secretions, substance of the lungs, skin, muscular and nervous substance.—VIII. Of the animal functions in general.—IX. Of respiration.—X. Of animal heat.—XI. Of digestion.—XII. Of the external sense, common sensation, smell and taste, sight, hearing.— XIII. Of the mental faculties.—XIV Of voluntary and instinctive motion.—XV. Of the physical effects of emotions and sensations.—XVI. Of sleep.—XVII. Of generation; and XVIII. Of the peculiarities of age, sex and temperament. The appendix contains Heads of Lectures. Part I. On Pathology. Part II. On Therapeutics.

The author commences with an inquiry on the phenomena of life, which he treats in an able, concise, and simple manner, as appears by the following extract:—

"In treating of physiology, we first consider the living human body when fully formed, in the adult state, and in the full enjoyment of health; and endeavour to deliver the history and explanation, so far as is yet possible, of all that takes place in it, different from what takes place in the dead body. Afterwards we explain the manner, in which the body gradually attains to the state of perfection in which we first considered it.

"In order to have a distinct understanding of the kind and degree of *explanation* of which facts in physiology admit, and to avoid the misapprehensions and controversies which have obscured the first principles of the science, it is necessary to attend to the following considerations.

"The word life, as commonly used, does not denote an individual fact, nor a simple idea, and cannot, therefore, be *defined*. It is applied to a certain assemblage and succession of phenomena, which are seen in a great variety of the objects that surround us, and distinguish them from the other objects of our senses. When these phenomena are examined throughout the whole of nature, it is found that the most general and characteristic of them is, the continued appropriation and assimilation of surrounding matter, which we call *nutrition*; a process which maintains a certain definite structure called *organization*,—which originates in all cases that can be satisfactorily observed by *generation*,—and terminates by *death*.

"Having given this general *description* of what are called living bodies, we next observe, that many of the phenomena exhibited by these bodies have been found to be not only inexplicable by, but manifestly inconsistent with, the mechanical and chemical laws that regulate the changes, and have been inferred from the observation of other departments of nature. In so far as we can ascertain this to be the case, we say that these phenomena are effects of the *vital principle*, or of *vitality*; and that is our *definition* of these terms. They are the general expression for those of the changes occurring in living bodies, which we judge to be peculiar to them; and stand in the very same relation to the science of physiology, as the terms chemical affinity, electricity, gravitation, to other departments of physical science.

"Thus defined, the notion of vitality is not only admissible in physiology, but is that which entitles it to the name of a separate science. Those physiologists, accordingly, who object to the substantive term, vitality, or principle of life, are obliged to use the adjective *vital*, which conveys the very same idea.

"This notion of vitality, extending to all classes of organized beings, has no connexion whatever with the notion of mind, as distinguished from matter. The latter is the characteristic mark of the animal creation only; and requires the admission into the physiology of animals, of a class of facts, and a kind of evidence, that have no place in any other physical sciences. Neither does any opinion, or conjecture, that can be formed concerning the essential nature of vitality, affect the conclusions in natural theology, which are drawn from physiological facts; because these conclusions do not rest on the mode in which vitality is thought to be communicated to living beings, but simply on the observed adaptation of means to ends, in the economy of living beings.

"As the phenomena of life are seen only in bodies more or less organized, it has been conjectured that they depend merely on organization; but when we inquire how organization has been effected, we find that it implies in every instance, where we can observe it, the previous existence of vitality; and therefore must be regarded as one of its effects, not as its cause.

"On the other hand, the supposition entertained by others, of a *material substance*, such as an ethereal or subtile fluid, superadded to organization during life, and producing the phenomena of life, is both unsupported by evidence, and useless in the explanation of facts.

"Setting aside both these hypotheses, we hold that all physiological inquiries are intended only to *ascertain the conditions, under which the various phenomena of life take place*, and naturally terminate in a reference to certain *laws of vitality*, or ultimate facts in this department of nature; just as the investigation and explanation of phenomena in the inanimate world terminate in a reference to certain laws of motion, of gravitation, of chemical affinity, &c. Of such first principles in science we can give no other account, than that they depend on the will of the AUTHOR OF NATURE; but the deter-

mination of such first principles is the main object, and the applications of them constitute the details, of all sciences; and every science is thus mainly conversant with principles *peculiar to itself*.

" In this, as in other sciences, these general laws of nature can only be ascertained *analytically*, i. e. by the slow process of observation and comparison of individual facts; but when they have been ascertained, even partially, in this way, the information acquired is more quickly and easily communicated to others, by stating some of these principles in the outset, with short and simple illustrations, and then tracing the facts which constitute the details of the science *synthetically*, as originating, in part at least, from the operation of the laws first laid down, and then related to each other as physical causes and effects. The science of physiology appears sufficiently advanced to be taught on this plan. The physical causes, or conditions requisite for the performance of each of the functions, will thus appear, in part at least, from the subjects discussed immediately before it, and its final causes or uses, from those discussed immediately after it; and several advantages seem to arise from this arrangement, particularly in a course addressed to students, who have already acquired a considerable knowledge of physiology in the course of their anatomical studies; but have not been accustomed to regard the functions of the living body systematically, or as connected with a perfect whole.

" The explanation of many of the phenomena of living animals is still very imperfect: but enough has been done to shew, that the principal laws regulating these phenomena must be ranked under three heads; 1. Those of *vital contractions*, by which the visible movements of living animals are chiefly effected: 2. Those of *vital affinities*, by which the chemical changes peculiar to living animals are determined, and their physical structure maintained; 3. Those of *nervous actions*, by which the physical changes in living animals are placed in connexion with mental phenomena, and subjected to the control of mental acts.

" Of these, the vital affinities are perhaps the most general and the most fundamental; but they are the least understood, and, in the higher animals at least, their exercise is dependent on internal vital contractions; and the laws of these contractions are, therefore, properly to be considered first.

" The most important division of the phenomena of living animals is into the departments of *organic* and *animal life*, as distinguished by Bichat; *i. e.* into those which do not imply the intervention or consciousness of the mind, and those in which some act of the mind is essentially concerned; and the former are obviously subservient to the latter. This distinction will always be kept in view, but cannot be strictly observed; the more complex functions (such as respiration and digestion) comprehending phenomena which come under both heads.

" The most general of the laws which regulate the economy of animals appear to extend throughout the whole range of creation;

and all the vital functions, as occurring in man, may be illustrated by the corresponding functions, at least in the different divisions of the vertebrated animals."—p. 6.

We have now afforded the reader a fair specimen of the manner in which the work is executed, and we think he will agree with us in opinion, that it is very favourable to the high reputation of the author. Instead of spreading out the subject to a great length, he has condensed the principles of physiology into a simple concise form, and thus afforded the student and young practitioner an excellent text book. The style is good, the information complete, and the work rendered at a moderate expense. It is a work of great interest and utility, and cannot fail to have a place in every medical library. We hope soon to have the pleasure of noticing the promised volume on pathology and therapeutics, and we know few so well qualified to execute the task as Dr. Alison.

IV—*A Manual of Surgery, founded upon the principles and practice, lately taught by Sir Astley Cooper, Bart. &c. and Joseph H. Green, Professor of Surgery, in the King's College, &c. Third edition considerably enlarged, containing many additional notes from the writings of other distinguished surgeons.* Edited by THOMAS CASTLE, F. L. S. of the Queen's College, Oxford, &c. London 1831. 12mo. p.p. 515. E. Cox.

THIS work is published with the express permission of Sir A. Cooper and Mr. Green, and is a compendium of the lectures on surgery, delivered by these eminent teachers. Mr. Castle has compressed the opinions of lecturers, and added some important extracts from the best surgical works. We think he should have distinguished his annotations from the text, as most readers would prefer a line of demarcation. The work is an excellent manual for students and younger surgeons; it has rapidly passed through three editions, a fact which affords the best proof of the degree of estimation in which it is held by the profession. It is one of the best text books extant, and ought to be in the hands of surgical students. It has a large sale, and it well deserves it.

V.—*Two Lectures on the Study of Anatomy and Physiology, delivered in the Medical School, Aldersgate-street.* By JONES QUAIN, M. B. Lecturer on Anatomy and Physiology. London, 1830. 8vo. pp. 44. Two plates. Simpkin and Marshall.

THESE lectures bear strong evidence in favour of the talents and attainments of the author. He displays the most intimate acquaintance with the sciences of anatomy and physiology, and his descriptions elevate the mind to the most sublime conceptions of the beneficence of the Author of nature. A spirit of religion, as well as philosophy, breathes through every page, which reflect great credit on the author and the man. We select a passage to show the truth of our position, and which must convince even the sceptical that the most enlightened part of our profession is not, and cannot be, affected with the poison of infidelity.

"The personal I is confessed a permanently being; every individual acts as if he were one and identical; and such he is invariably considered by others, notwithstanding the admitted fact, that the material components of his body are subject to a perpetual mutation; for, over this ceaseless cycle of change presides that power, which altogether suspends the ordinary play of affinities in the first moments of fœtal existence, modifies and controls them during the succeeding stages of life, and allows them to come into action, only when it is withdrawn at death. "I had rather," says Bacon, "believe all the fables of the Legend, the Talmud, and the Koran, than that this universal frame is without a mind. When the mind of man looketh to second causes scattered, it may sometimes rest on them, and go no farther; but when it beholdeth the chain of them confederate and linked together, it must needs flee to Providence and to Deity." How strangely then do those men argue, who contend that all the phenomena of living beings, and all the functions which they perform, are results—the necessary results of their organization; and that their structure is produced by an aggregation of particles, according to the laws of chemical attraction. We have seen, however, that such is not the rule of their formation; so far from it, they are formed by a process the very reverse of this; which is a conclusive evidence that there is some other power at work, besides that of attraction. But, were we, for a moment, to admit that the form and structure of organized bodies are determined by attraction, then we could have no grounds for expecting to find evidence of design or forethought in their conformation. This at once prompts us to enquire, (and surely it is an interesting subject of enquiry) whether they do not exhibit incon-

testable evidence of both, in whatever point of view we examine their habits and capabilities, or investigate their structure.

" It is a favourite opinion with many that all our knowledge is derived from the senses; as well might it be said that all arts and manufactures are derived from the doors and windows of the houses, into which the raw materials are brought to be subjected to the skill and dexterity of the workmen. Again, as our senses exist before we have acquired any experience, we have sufficient grounds for questioning another assertion, which is frequently put forth, namely, that all knowledge comes from experience. There is a sort of knowledge which is prior to experience, and acts quicker than reason, and which exhibits itself for the most part in prompting measures for self preservation. Thus young animals seek the breast from which their nutriment is derived; and, in after life, the different tribes of living beings select different sorts of substances for their food; some feed on herbs, and every part of their conformation marks them to be fitted and intended for digesting that kind of food. Others live on animal substances, and as we saw yesterday, when examining the structure of carnivorous animals, the conformation of their teeth, jaws, stomach, limbs, adapt them for the habits that have been impressed on them. Some become torpid during winter, and choose places of security whilst in that state; others, as the swallow, enjoy a perpetual summer, by migrating from one country to another, and their conformation enables them to fulfil their destination. The bee and the wasp lay up stores for winter, and, strange to say, the comb which the bee builds is always placed vertically, that of the wasp, horizontally. Moreover, the cells are all constructed on strictly geometrical principles; for each of them is a hexagon, terminated by a pyramidal base. In the execution of their work they give a practical solution of a very difficult problem. " A quantity of wax being given to form out of it, similar and equal cells of a determinate capacity, but at the same time so arranged, collectively, as to occupy the smallest possible space, whilst each individual cell possesses the largest possible area in proportion to the quantity of matter employed." If they were cylindrical, vacant spaces must exist between each three contiguous cells: if they were square or triangular, they would require more material, and be altogether unsuited to the form of the bee's body.

" Is it from instruction—is it from their senses—is it from experience, that these creatures execute their work with the precision and method of the most accomplished artist? No one, I believe, would answer in the affirmative; each group of living things has its special aptitudes, its peculiar habits.

> Dente lupus, cornu, taurus petit; unde nisi intus
> Monstratum?

" Their habits and their aptitudes are stamped upon them at the first moment of their being, and constitute them so many agents fashioned for the execution of a purpose,—so many means devised

for the attainment of an end; as such, every one of them bears upon it the impress of design and contrivance. Observe some of these groups attentively, note the peculiarities which characterise them, and then pass on to an investigation of their internal structure and conformation, you will not fail to find abundant evidence of their perfect adaptation to their different spheres of action—their various modes of life."—p. 36.

VI.—*The Life of Sir Humphry Davy, Bart. L. L. D. late President of the Royal Society, &c. &c.* By JOHN AYRTON PARIS, M. D. Cantab. F. R. S. &c. Fellow of the Royal College of Physicians. 4to. London. Colburn and Bentley, 1831.

OF all the philosophers who have contributed by their genius and labours to exalt the scientific character of the modern world, no one deserves better than Sir H. Davy, that his life and actions should be attentively considered. The peculiarity which entitles the biography of Davy to this distinction consists in the important circumstance that even his most surprising discoveries were attained not by any fortunate accident, not by chance medley in the laboratory—but by a deliberate and well adjusted process of reasoning—which operated among some of the mysteries of nature as successfully as the faculty of intuition itself. The more then we reflect on this fact, which so forcibly puts into contrast the career of Davy with that of Galvani and other discoverers, the more we shall be convinced of the utility of handing down to posterity such examples as the former, for assuredly no man can peruse the annals of such a progress as Davy's, without feeling all his noblest impulses,—all his propensities to industry, invigorated and quickened.—Viewed then through the medium of such a description as is given to us by a writer like Dr. Paris, one who, from his avocations, is enabled so well to appreciate them, the labours of Davy become not only a valuable record of important events with regard to the past, but also a history very much calculated to "teach by its example" with respect to the future.

The subject of this memoir was born in Penzance, on the 17th December, 1778. His parents were respectable, although Davy himself was the sole founder of his own fortune.

After receiving a good education, he was bound apprentice to a surgeon-apothecary named Borlase, in his native town. The youth however displayed so strong an attachment for chemical inquiries, as to justify the fear at a very early period of his life, that he would do but little at the profession in which he had been initiated. Dr. Paris gives many pleasant anecdotes illustrating the fondness of Davy for his favourite employment, and showing the natural energy and ingenuity of his mind. To some influential persons with whom he became acquainted during his apprenticeship, but especially to the patronage of Mr. Thomas Giddy and Mr. Gregory Watt, he owed those recommendations which gained him some public notice, and finally secured him the situation of assistant in the Pneumatic Institution of Dr. Beddoes, at Bristol. Before this event, Davy, by several beautiful compositions in verse, proved himself to be possessed of a fine imagination, and of a forcible and elegant vocabulary. Whilst in the capacity of assistant at Bristol, young Davy performed some of his most dangerous experiments. Those on the respirability of nitrous oxide, are some of the most memorable acts of temerity which a love of science has ever succeeded in impelling any of her suitors to commit. Having found that this gas served as a stimulus when inhaled, the philosopher was resolved to try its effect in increasing or modifying the intoxicating power of wine. He, for this purpose, swallowed a bottle of wine in a few minutes, which soon produced on one so very abstemious as Davy always was, complete drunkenness.

"While I was drinking," he says in one of his letters, "I perceived a sense of fulness in the head and throbbing of the arteries, not unlike that produced in the first stage of nitrous oxide excitement; after I had finished the bottle this excitement increased, the objects around me became dazzling, the powers of distinct articulation was lost, and I was unable to stand steadily. At this moment, the sensations were rather pleasurable than otherwise; the sense of fulness in the head however soon increased, so as to become painful, and in less than an hour I sunk into a state of insensibility. In this situation I must have remained for two hours, or two hours and a half. I was awakened by head ache and painful nausea. My bodily and mental debility was excessive, and the pulse feeble and quick."

These experiments were followed by one still more hazardous, and indeed scarcely justifiable, to ascertain the possibility of respiring *carburretted hydrogen gas.* Upon this subject Dr. Paris has the following observations:—

" The scientific and medical world are alike indebted to Davy for this daring experiment, (breathing carburetted hydrogen gas), and, if the precaution it suggests be properly attended to, it may become the means of preserving human life. The experiment is also valuable, as affording support to philosophical views with which the author was probably unacquainted. In the first place, it may be necessary to apprise some of my readers, that the hydro carbonate here spoken of, differs very little from the gas now so generally used to illuminate our streets and houses. We have just seen how deadly are its qualities, and that, even in a state of extreme dilution, it will affect our sensations. The question, then, naturally suggests itself, how far this gas can be safely introduced into the interior of our apartments? Did we not possess any direct evidence upon the subject, the answer would be sufficiently obvious, since it is impossible so to conduct its combustion, that a portion shall not escape unburnt. Such is the theory; but what is our experience on the subject? That pains in the head, nausea, and distressing langour have been often experienced in our theatres and saloons by persons inhaling the unburnt gas; that the atmosphere of a room, although spacious and empty, will, if lighted with gas, convey a sense or oppression to our organs of respiration, as if we were inhaling an air contaminated with the breath of an hundred persons. In the next place, Davy's experiment is important, inasmuch as it proves, that in cases of asphyxia, or suspended animation, there exists a period of danger after the respiration has been restored, and the circulation re-established, at which death may take place, when we are least prepared to expect it. Bichat has shown that, when dark coloured blood (venous) is injected into the vessels of the brain, by means of a syringe connected with the carotid artery, the functions of the brain become disturbed, and in a short time entirely cease. The effect is precisely similar, whether the dark coloured blood be transmitted to the brain by the syringe of the experimentalist, or by the heart itself. Thus, to the case of asphyxia, the dark coloured blood which has been propelled through the vessels during the suspension, or imperfect performance, of respiration, acts like a narcotic poison on the brain; and no sooner, therefore, does it extend its malign influence on that organ, than deleterious effects are produced, and the animal, after apparent recovery, falls into a state of stupor, the pupils of his eyes become dilated, the respiration laborious, the muscles of the body convulsed, and it speedily dies—poisoned by its own blood. In the experiment which has given origin to these reflections, (adds Dr. Paris), Davy distinctly states, that after having recovered from the primary effects of the carburetted hydrogen gas, and taking a walk with his friend, he was again seized with giddiness, attended with nausea and loss of sensation. The imperfectly oxygenized or dark coloured blood had evidently affected the brain, and his life, at this period, was probably in greater jeopardy than in any other stage of the experiment.

Sir H. Davy had already acquired a considerable degree of celebrity as a chemist, when the establishment of the Royal Institution in London opened a field of employment, to which it was likely that the ambition of the rising philosopher would direct him. Davy's abilities were well appreciated by Count Rumford, the director of the new Institution, so that no difficulty stood in the way of his engagement, except what arose, strangely enough, from the prejudice which the first appearance of the young chemist produced in the mind of the Count. The following anecdote, perhaps as forcibly as any description could do, serves as a criterion of the rustic state of Davy's personal address at this time.—Dining one day amongst a large and select company, he ventured to differ with Fuseli upon Milton's poetry, which the latter affected to love with enthusiasm; Davy observed that there were passages in the works of that great poet which he at least could not understand—"Very likely, Sir," replied the artist, with an unfeeling arrogance quite characteristic of him—"Very likely, Sir, but I am sure that it is not Milton's fault." Davy had been but a short time lecturing at the Royal Institution, when he became a general favourite. By his abilities and address he made chemistry a fashion, or rather a *rage*, so that Albemarle-street was as much frequented by the countesses of *bon ton* as Fop's Alley in the Opera House is this moment by the dandies. It is stated by our author that a lady, now of some celebrity in literature, sent Davy a poem, full of compliments, and accompanied by a pretty pendant suited for a watch, which she requested he would wear at the next lecture. He was welcomed in the highest circles, and became, even in the most exclusive coteries of the West end, a lion of no minor interest and value. Nevertheless he pursued, with redoubled exertions, his favourite employments.

In 1806-7, Davy favoured the world with an account of his *Electro-Chemical Theory*, which *from its importance merits a few words*:—Volta proved that electricity was developed when certain metals were placed in contact with each other. Such, for example, as copper and zinc; the demonstration of this fact is, that these metals, when separated after contact and insulated, are found oppositely electrified. The conclusion which Sir Humphry drew from his experiments was, that one of the metals became positively electrified, and the other negatively electrified. But this power of disturbing the equilibrium of electricity resident in bodies, was not possessed by metals alone, for Davy showed by experiment, that

alkaline earths may be deprived of their electricity by the contact of metals, nay even, that acids may undergo the same change by the contact of alkalies, both being in the dry state. Sir Humphry even went farther than this, and maintained, that when the *atoms* (those who are acquainted with Dalton's theory will understand us) of two different bodies are in contact, one of the atoms renders up its electricity to the other; wherefore, by reason of the positive electricity of the one atom, and the negatively electrified state of the other, both atoms cohere, and unless there be adequate counteracting causes, they will remain together, forming an entirely new compound. The whole phenomena of chemical affinity or attraction are accounted for, therefore, according to Davy's theory, by the opposite states of electrical excitement in which the concurring particles are respectively found. The essence of the theory of Davy then is, that all compounds consist of elements which are oppositely electrified; and he necessarily inferred that if these elements, which were thus held in combination, could be placed in the *same* electric condition, the bond of union would be forthwith broken, and the particles would retire from one another. The truth of this theory was demonstrated on a cup of water. This liquid, it is well known, is a compound of oxygen and hydrogen; in other words, it is constituted by the union of two elements, each in an opposite state of electricity. Davy showed, that if water be exposed to the power of atoms, which have a greater attraction for its separate constituents than is the attraction that keeps those constituents in union, then the elements are separated; and this is the whole theory of the decomposition of substances by means of galvanism. By the aid of such an agent, Davy was able to show that several simple ingredients entered into the formation of what hitherto had been deemed in itself simple. He, for the first time, decomposed alkalies and earths, and astonished the world by producing the metal *potassium*. As connected with this theory, although the subject is not noticed until a much later stage of his work, by Dr. Paris, we must mention Sir Humphry's plan for protecting the copper sheathings of ships' bottoms from oxidation by sea water.

Upon an elaborate investigation of the phenomenon of the destruction of these sheathings, it was inferred that the corrosion occurred in this way:—The atmospheric air is constantly dissolved in water; the oxygen, which is a part of this air, is taken up by the copper; the oxide of copper formed by this junction, takes up the muriatic acid which was in

combination with soda and magnesia in the sea water, and thus the formation of submuriate of the oxide of copper is constantly going on. In plainer phrase, the copper is undergoing a permanent process of decay. Now Davy argued, that if the copper did not oxidize, it would have entered into no combination with the muriatic acid, and consequently, that by forbidding the union of the oxygen and copper, he would afford to the latter the fullest protection. How was this to be done? He reverted to his original theory of the union of two different bodies, and referring the combination of oxygen and copper to the fact, that their contact had created the disturbance of the electrical equilibrium (the copper becoming positively and the oxygen negatively electrified), he concluded that to render the copper negative, or in fact, to reduce them both to the same electric condition, no union would take place, and consequently none of the effects resulting from that union.

The practical experiment dictated by this reasoning proved triumphantly successful. A piece of zinc was placed in contact with the copper, it drew off a sufficient portion of the electricity of the latter, and thus what Davy ascertained to be the source of union between them, namely, the opposite state of their electricity being changed, the oxygen and the copper no longer coalesced, and the latter remained perfectly free from corrosion. Mr. Babbage, in his able work on the Decline of Science,* says that Laplace considered this as Davy's greatest discovery. We are ourselves of the same opinion, inasmuch as the result was an induction which could have been foreseen only by the most delicate and accurate application of the principles of reasoning. The remedy was but *too* successful, for in such a perfect state did it keep the surface of the copper sheathing, that an evil of an opposite kind was induced; marine animals and vegetables, which before could not live in contact with the submuriate of the oxide of copper, now clung in such abundance to it, that in order to get rid of an inconvenience so much greater than the corrosion of the copper, the remedy was abandoned. But though the plan was found to be unfortunately impracticable for the reasons stated, the genius and intelligence of the inventor merit all the applause which a successful invention should receive. That which he promised he performed,

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* Reflections on the Decline of Science, &c. by Charles Babbage, 8vo.

and his method was invalidated not by any inefficiency of its own, but on account of a misfortune which was only contingent on the very perfection of its succcess.

In the midst of all his cares, Davy proved himself an enthusiastic fisherman. To relieve the seriousness of our narrative, we shall give an account of his sporting costume—

"His whole suit consisted of green cloth, the coat having sundry pockets for holding the necessary tackle: his boots were made of caoutchouc, and for the convenience of wading through the water, reached above the knees. His hat, originally intended for a coal-heaver, had been purchased from the manufacturer in its raw state, and died green by some pigment of his own composition; it was, moreover, studded with every variety of artificial fly which he could require for diversion. Thus equipped, he thought, from the colour of his dress, that he was more likely to elude the observation of the fish. He 'looked not like an inhabitant of the earth, and yet was on't;' nor can I find any object in the regions of invention with which I could justly compare him, except, perhaps, with one of those grotesque personages who, in the farce of the Critic, attend father Thames on the stage as his two banks.

"I shall take this opportunity of stating, that his shooting attire was equally whimsical: if, as an angler, he adopted a dress for concealing his person, as a sportsman in woods and plantations, it was his object to devise means for exposing it; for he always entertained a singular dread lest he might be accidentally shot upon those occasions. When upon a visit to Mr. Dillwyn, of Swansea, he accompanied his friend on a shooting excursion, in a broad-brimmed hat, the whole of which, with the exception of the brim, was covered with scarlet cloth."

The latter statement is curious, particularly when considered in reference to what we must call a superstition of Davy's, we mean a horror which he always showed to any person crossing his knife and fork at dinner in his presence. It is said that when De Humboldt innocently adjusted the implements of dinner in this way, Davy manifested the most serious displeasure. Such are the strange contradictions that unite, even in the characters of the most intellectual men; he who was ready to expose his life in the inhalation of deleterious gases, and approached in a rash moment, as near as ever a healthy being did to the precincts of death, *he* was constantly afraid of being shot in his sporting excursions, and became horror struck at the sight of a *crossed knife* at the table where he sat!

The next great discovery which we have to notice, and indeed that by which he is most extensively known, and by

which he will be longest remembered, is his invention of the safety lamp. Here again we have a magnificent result from his powers of induction. This invention is well known, and to those who wish to be well acquainted with its origin, progress, its principles and nature, we recommend an attentive perusal of the elaborate and accurate account of the history of this lamp by Dr. Paris. We cannot however refuse ourselves the pleasure of inserting from the work the following recapitulation :—

" He commenced with ascertaining the degree of combustibility of the fire damp, and the limits in which the proportions of atmospheric air and carburetted hydrogen can be combined, so as to afford an explosive mixture. He was then led to examine the effects of the admixture of azote and carbonic acid gas; and the result of those experiments furnished him with the basis of his first plan of security. His next step was to enquire, whether explosions of gas would pass through tubes; and on finding that this did not happen if the tubes were of certain lengths and diameters, he proceeded to examine the limits of such conditions, and by shortening the tubes, diminishing their diameters, and multiplying their number, he at length arrived at the conclusion, that a simple tissue of wire-gauze afforded all the means of perfect security; and he constructed a lamp, which has been truly declared to be as marvellous in its operation as the storied lamp of Aladdin, realizing its fabled powers of conducting in safety through ' fiends of combustion,' to the hidden treasures of the earth. We behold a power which in its effects, seemed to emulate the violence of the volcano and the earthquake, at once restrained by an almost invisible and impalpable barrier of net-work. We behold, as it were, the dæmon of fire taken captive by science, and ministering to the convenience of the miner, while harmlessly fluttering in an iron cage. And yet, wonderful as the phenomenon may appear, his experiments and reasons have demonstrated, that the interruption of flame by solid tissues permeable to light and air, depends upon no recondite or mysterious cause, but simply upon their cooling powers, which must always be proportional to the smallness of the mesh, and the mass of metal. When it is remembered that the security thus conferred upon the labouring community is not merely the privilege of the age in which the discovery was effected, but must be extended to future times, and continue to preserve human life as long as coal is dug from our mines, can there be found in the whole compass of art or science, an invention more useful and glorious ?"

The blot on Davy's character was his conduct in France, in the company of the French philosophers. In his intercourse with them, he showed the most extraordinary contempt of the common courtesies of life—and that too, whilst the Savans made even sacrifices in order to show their esteem

for Davy. Dr. Paris is very candid on these points, and endeavours to excuse his hero with infinitely more good nature however in our opinion, than success. The following laughable anecdotes will appear almost incredible, when we remember that Davy was a man of so much imagination as to be able to gain reputation as a poet, and that he always showed a genuine relish for beauty, wherever it was visible in the works of art, as well as of nature.

" He was conducted to the Louvre by Mr. Underwood. The English philosopher walked with a rapid step along the gallery, and, to the great astonishment and mortification of his friend and *Cicerone*, did not direct his attention to a single painting; the only exclamation of surprise that escaped him was—" *What an extraordinary collection of fine frames!*"

" On arriving opposite to Raphael's picture of the Transfiguration, Mr. Underwood could no longer suppress his surprise, and in a tone of enthusiasm he directed the attention of the philosopher to that most sublime production of art, and the chef-d'œuvre of the collection. Davy's reply was as laconic as it was chilling—" Indeed, I am glad I have seen it;" and then hurried forward, as if he were desirous of escaping from any critical remark upon its excellenciess

" They afterwards descended to a view of the statues in the lower apartments: here Davy displayed the same frigid indifference towards the higher works of art. A spectator of the scene might have well imagined that some mighty spell was in operation, by which the order of nature had been reversed:—while the marble glowed with more than human passion, the living man was colder than stone! The apathy, the total want of feeling he betrayed on having his attention directed to the Apollo Belvidere, the Laocoon, and the Venus de Medicis, was as inexplicable as it was provoking; but an exclamation of the most vivid surprise escaped him at the sight of an Antinous, treated in the Egyptian style, and sculptured in *alabaster*. ' Gracious powers,' said he, ' what a beautiful stalactyte!' "

" What a strange, what a discordant anomaly in the construction of the human mind do these anecdotes unfold! We have here presented to us a philosopher, who, with the glowing fancy of a poet, is insensible to the divine beauties of the sister arts! Let the metaphysician, if he can, unravel the mystery,—the biographer has only to observe, that the Muses could never have danced in chorus at his birth."

Sir Humphry Davy spent the last years of his life chiefly on the continent. He married a Mrs. Apreece, by whom he had no issue; but who brought him a fortune that enabled Davy to be indifferent to the pecuniary results of his great discoveries. This circumstance however does not detract from the noble liberality with which he communicated the

produce of his labours to the world—and for the most splendid of which the philosopher never received any state reward or acknowledgment beyond the sterile dignity of a patent of baronetcy. In giving an account of his death, Dr. Paris relates,

"In addition to his will, he left a paper of directions, which have been religiously observed by his widow. He desires, for instance, that the interest arising from a hundred pounds stock may be annually paid to the master of the Penzance Grammar School, on condition that the boys may have a holiday on his birth-day. There is something singularly interesting in this favourable recollection of his native town, and of the associations of his early youth. It adds one more example to show that, whatever may have been our destinies, and however fortune may have changed our conditions, where the heart remains uncorrupted, we shall, as the world closes upon us, fix our imaginations upon the simplicities of our youth, and be cheered and warmed by the remembrance of early pleasures, hallowed by feelings of regard for the memory of those who have long since slept in the grave.

"With that restlessness which characterises the disease under which Sir Humphry Davy suffered, he became extremely desirous of quitting Rome, and of establishing himself at Geneva. His friends were naturally anxious to gratify every wish; and Lady Davy therefore preceded him on the journey, in order that she might prepare for his comfortable reception at that place. Apartments were accordingly in readiness for him at *L'Hotel de la Couronne*, in the Rue du Rhone; and at three o'clock on the 28th of May, having slept the preceding evening at Chambery, he arrived at Geneva, accompanied by his brother, Mr. Tobin, and his servant.

"At four o'clock he dined, ate heartily, was unusually cheerful, and joked with the waiter about the cookery of the fish, which he appeared particularly to admire; and he desired that, as long as he remained at the hotel, he might be daily supplied with every possible variety that the lake afforded. He drank tea at eleven, and having directed that the feather bed should be removed, retired to rest at twelve.

"His servant, who slept in a bed parallel to his own, in the same alcove, was, however, very shortly called to attend him, and he desired that his brother might be summoned. I am informed that, on Dr. Davy's entering the room, he said, 'I am dying,' or words to that effect; 'and when it is all over, I desire that no disturbance of any kind may be made in the house; lock the door, and let every one retire quietly to his apartment.' He expired at a quarter before three o'clock without a struggle."

We conclude by reminding our readers that we have not in this review affected to give any thing like a consistent account of the life and labours of Sir H. Davy. Our ambi-

tion was limited to the mere duty of presenting to the profession, such samples from the pages of Dr. Paris, as would fairly represent the manner in which the whole composition is executed: and if we succeed in inducing any of our readers to desire a better acquaintance with the able and well written work from which we have made our extracts, our aim and our wishes will be alike answered.

ORIGINAL COMMUNICATIONS.

I.—Mr. Mitchell *on Disease of the Hip-joint.*

To the Editor of the London Medical and Surgical Journal.

Sir,—I have enclosed a very protracted case, which I have detailed briefly. If you find it worthy of insertion, please to give it a place in your valuable Journal, and you will oblige

Your most obedient servant,

Charles Mitchell, Surgeon.

J. B. æt. 38, a painter, of a scrofulous habit, had, twenty years ago, rigors, much constitutional disturbance, and pain of the right hip-joint: an abscess formed, the contents escaped, and the cavity contracted. The shiverings recurred shortly afterwards, followed by fresh collections and consequent discharges of matter, sometimes scanty, and in other instances profuse.

January, 1829, he had a slight attack of fever, attended by head-ache, thirst, aching of the limbs, dull countenance, quick breathing, hot skin, quick pulse, sickness, loss of appetite, white tongue, and urine high coloured. These, however, rapidly subsided, under the use of an emetic, followed by salines and occasional purgatives. He had another febrile attack in April (but symptomatic), with the subsequent formation and evacuation of matter. During the febrile attack the hip was inflamed; two caustic issues were applied, fluctuation soon became apparent, cataplasms were applied, the sympathetic fever increased, the secretions lessened, diarrhœa ensued—he became exceedingly debilitated. The diarrhœa resisted rhubarb, combined with chalk and opium, but was restrained by opiate enemata.

The general health improved amazingly; bark, diluted sulphuric acid, porter, nutritious diet, soon effected rapid amendment.

The secretion became more puriform from a thin acrid sanies, and the pain and inflammatory nature of the abscess subsided.

April, 1830, had an attack of pneumonia, which was subdued, by a strict adherence to antiphlogistic regimen. The irritation and discharge of the hip became again aggravated; a clyster was applied, ultimately a moxa, but they rather increased than alleviated the irritative action; several ulcerated openings formed immediately opposite, in the neighbourhood of the trochanter major, the discharge became profuse, the pain settled in the knee; by his own desire a blister was applied to each side, which certainly afforded him considerable relief, aided by repeated doses of the pulv. ipecac. c.; he continued much in this state during the months of July, August and September. In October, the hectic became more permanently established; colliquative sweats ensued, followed by roughness and dryness of the skin; a renewal of the diarrhœa, which became of a most incessant and irritating nature. The pulse became small, frequent, and weak, finally wiry,—the voice failed, the masculine features shrunk and disappeared—the countenance pourtrayed a most afflicting and aggravating gloom, the stomach lost its retentive power, the eye acquired a pearly appearance, the skin became of a yellow hue, ultimately shrivelled and contracted—the non-naturals were almost annihilated; toward the middle of November, the fatal catastrophe happened; thus terminated a deplorable and irremediable course of suffering, which extinguished the miserable afflictions of this poor victim's ill-fated career.

It of course became necessary, in order to alleviate the harassing nature of these symptoms to administer opiates freely.

Sectio cadaveris.—Upon laying open the chest, the lungs were found tuberculated; adhesion to a considerable extent had taken place. The centre of some of the tubercles contained small quantities of purulent matter. The lower extremity of the left lung was inflated, forming a bag larger than an ordinary clenched hand, which Dr. Parr assigned to absorption, in consequence of having viewed it repeatedly in other parts not at all connected with the respiratory action; but it appeared more plausible, judging from the lax and strumous habit, that it arose, in the first

instance, from rupture of one of the cells, and that at each inspiration, the quantity collected was imperfectly expelled; hence from the compressible and dilatable nature of the reticular substance, we had the gradual evolution of the cavity. If we were to reason from analogy, the imperfect expulsion of air in some obstinate and fatal cases of asthma, and the consequent enlargement of the cells, form a most convincing proof of its rectitude. Vessels extended through the empty cavity unsupported.

The liver was pale and granular.

Through the course of the colon, one half of its villous tunic was absorbed, which rendered it extensively ulcerated, in some places deep, but for the most part superficial; its calibre was considerably contracted, some of the smaller vessels were injected, forming red streaks, but by no means numerous. The discoloured skin surrounding the four large ulcerated openings, on the upper and outer part of the thigh, was tense. Upon introducing the finger into the largest opening, which was three inches long, and seven in diameter, numerous elastic spiculæ of bone were adherent, and moveable with the muscular substance to which they were attached. They were more distinctly exposed upon dividing the skin, arranged in the form of laminæ, which adhered through the medium of tough fibrous substance; the ossific parts of which had been absorbed. The muscles were exceedingly pale.

In dividing the gluteal muscles inserted into the trochanter major, half an ounce of dark coloured matter issued forth. The trochanter was enlarged, softened and perforated. The capsular ligament was entire. The head of the os femoris encircling the lig. teres, was ulcerated, as much as would admit an ordinary sized hazle nut. Two inches from their insertion, the gluteus med and minim were altered in their structure, having become of a fatty, fibrous consistence.

There were some places in the cervix of a dark appearance; there was likewise a dark fissure extending from the cervix to the centre of the head of the bone, the perichondrial covering of which was denuded, although it had a shining lustre. At the outer and lower side of the trochanter major, there was a depression, with elevated and irregular margins. The periosteum at the edges of these had a corroded appearance, leaving little doubt from whence the sequestra had proceeded.

Lamb's Conduit Street,
Feb. 18, 1831.

[This case possesses many interesting features, and shows the dangerous effects of hip-joint disease and of scrofula upon the constitution. We are much obliged to Mr. Mitchell for its narration.—Ed.]

II.—Mr. Searle *on Cholera.*

To the Editor of the London Medical and Surgical Journal.

Sir,—The ready compliance, on your part, with my request, by the insertion of my reclamation, claims not only my acknowledgment, but a willing assent to the principles which you state to actuate you in your editorial duties—the cause of science and truth, uninfluenced by name, station, partiality, favour, or self-interest—a line of conduct much to be lamented, but little in accordance with the modern spirit of reviewing. Difference in opinion, when expressed in becoming language, is what no one can object to, and particularly when it bears reference to a new hypothesis, which you are pleased to consider mine. Expressing, at the same time, your sense of the exceedingly ingeniousness of my views; a circumstance which encourages me to hope, that I have not made altogether a wrong estimate in supposing the work to have some little claim to the attention of the profession.

I have only to add, that in your insertion of my reclamation, I am sorry to have to notice some typographical errors, but as few readers would be at the trouble of correcting them, it would be of little avail to point them out.

I am, Sir,
Your most obedient servant,
Charles Searle.

Great Russell-street, February 7th.

[Mr. Searle must remember, that his manuscript was not the most distinct, and that it bore marks of hasty composition. It was printed exactly as sent us, as we considered he might complain had we made some verbal changes which seemed to us to be necessary.

We agree with him, that the spirit of modern reviewing is very far from what it should be, but the evil will be removed by the good sense of the profession. We believe Mr. Searle to be influenced by no other motive than the wish to elucidate an obscure and difficult point in etiology; and if he has not convinced the whole profession of the soundness of his views, he must not be surprized. His work evinces considerable research, much original and ingenious thought, and many valuable practical precepts. It deserves a place in the libraries of those whose future destiny may place them in our East Indian possessions.—Ed.]

III.—*Case of Chronic, Peritonitis, without much pain—delivery—death.* By John Rees, Esq.

——— Warren, æt 28, a married woman, of a slightly florid complexion, middle stature, and of regular habits. She had a living child, about three years ago, her labour was natural. She has always enjoyed very good health. Her husband (a butcher,) left her about six months ago; this circumstance did not appear to have greatly affected her mind. The person that she had lodged with for the last fortnight told me, that she always appeared in good spirits; yet (added she) "her husband, I think, is always uppermost in her mind."

On Saturday, January 29, the liquor amnii was discharged without being attended with any labour pains, and on Monday evening, January 31st, uterine action came on. The labour proved of a very lingering nature, slight bearing down pains occurring occasionally, which would continue tolerably regular for a few minutes; and during the interval of the pains she would complain very much of aching pains about the lower part of the abdomen and small of the back.

At 8 o'clock on Tuesday morning, the os uteri had become dilated to about the size of the mouth of a wine glass, it was soft and yielding, and the parts were abundantly lubricated with mucus. She had now given her ʒfs. of the secal. cornut. in decoction, with no other effect than that of increasing the aching pains in the back and abdomen. The labour went on in the same lingering way during all Tuesday. She took in the evening ʒi. of the secal. cornut. in decoction in two doses, with the same effects as attended

the dose in the morning. By about 8 o'clock on Tuesday evening, the head had advanced as far as nearly to bear on the perineum. Uterine action having been for some time quite suspended, the patient being now (10, P. M.) very restless and much exhausted, and the pulse being frequent, small and weak; the forceps were applied, and the fœtus was extracted in a short time and with tolerable ease, although the child (which was dead) was a very large one. The catheter was introduced, to relieve the bladder, twice during the labour.

The uterus being in this torpid state, the hand was introduced into its cavity with the intention of exciting uterine action, for the expulsion of the placenta. This course of proceeding had the wished for effect and the attending loss of blood was very trivial.

February 2nd. A. M. Has been very restless all night, says she feels very weak, face is flushed, feels very sore about the parts; there is pain in the lower part of the abdomen increased on pressure; tongue white, pulse small, weak and about 120. Bladder and bowels have not been evacuated. ℞ T. Hyos. ʒij. spr. æther, nit. ʒiss. m. camph. ʒviij. m. cap. coch. ij. amp. ter. hora.

Ten, P. M. Did not get the mixture till six o'clock. Has not made water, no evacuation from the bowels, says she is very sore. Pulse 140, very intermitting, ordered to apply warm fomentations to the hypogastrium and external genitals.

3rd. Was called up at 5 this morning, I found her greatly troubled with hiccup, much exhausted. Pulse very feeble, very intermitting and about 143. There has been no evacuation from the bladder or bowels.

She had brandy given her immediately, which was repeated till the pulse got tolerably regular, and stronger. I drew off by the catheter about iss. of high coloured urine, and ordered her an enema of gruel every quarter of an hour till the bowels should be acted upon, and after alvine evacuation to take the following draught, ℞ L. opii. sedat. mxii. mis. camp. ʒiss. ♏. ft. haustus.

Seven, P. M. Has had four glysters without the desired effect, she is very restless, tongue brownish, hiccup less distressing, pulse 140 and regular. Bladder was relieved by the catheter. Ordered to have two glysters ʒss. of ol. ricini in each, one immediately and the other in an hour if necessary; and should the bowels not be opened, to take ʒss. of ol. ricini and another half in three hours if necessary.

4th, A. M. Has had the glysters, and has taken the ol. ricin. without giving rise to alvine evacuations. Has been very restless all night, say she is weaker. Abdomen is painful on pressure, pulse 140, regular. Has vomited some black adhesive fluid. Urine was drawn by the catheter.

℞. ol. crot. m. iss. in pil. 2 c. ext. gent. capt. i. stat. et aliam post duas horas si opus sit.

Nine, P. M. She omitted the pill; Mr. Jewel ordered her a glyster, which gave her one stool, highly offensive and of a black colour; has not been much troubled with hiccup to-day; has again vomited some black fluid; has been dosing this evening. Pulse 120, regular and tolerably strong, can take only a little tea; has been observed this evening, to turn up frequently the white of her eyes.

5th, A. M. Has been speechless and insensible since three o'clock this morning. There have been involuntary evacuations from the bowels, which were highly offensive. Tongue brown, pulse intermitting and very weak. She lingered in this manner till 6 o'clock on Sunday morning the 6th, when death closed the tragic scene.

Sect. cadav. 6th horis post mortem.

The body appeared to be that of a person who had enjoyed good health, but had been cut short by some acute disease. The muscles were firm, the abdomen was not unusually large.

All the thoracic viscera were perfectly natural. The head was not opened. *Abdomen*—The omentum was highly inflamed, being of a brownish red colour, and at several parts it was adherent to the anterior surface of the uterus. The small intestines in the neighbourhood of the womb were greatly inflamed, and several parts of them adhered to the fundus uteri. The peritoneum lining the lower parts of the abdominal muscles, was in a state of high inflammation, and there was ulceration of some portions of it. The inferior part of the uterus had contracted strong and extensive adhesions to the adjacent parts. On the right side of the uterus and anterior to the cœcum was observed a kind of a sac, which appeared to be bounded externally by the peritoneal coat of the uterus, and internally by the uterine parietes. The anterior of this sac, which contained gas, also black and highly offensive matter, communicated by an opening (sufficiently large to admit the passage of the thumb,) with the cavity of the uterus. The fundus uteri was in a natural state excepting its peritoneal coat, which was highly vascular, but more so on the anterior than posterior part. The ante-

rior part of the uterus was in a gangrenous state. There was a white muddy fluid in the peritoneal cavity. The descending colon, and cœcum presented marks of great inflammation.

February 8th, 1831.

[This was clearly a case of chronic peritonitis, in which the symptoms were obscure, and in many points bear a close resemblance to that narrated by Dr. Malins in our January number. We are much obliged to Mr. Rees for the history of this case, as it strongly attests the views we took of that just alluded to. We earnestly hope that the details of both cases may attract the attention of practical obstetricians to a subject of such vast importance. We have only to observe in conclusion, that the unwearied attention bestowed by Mr. Rees, affords no slender proof of that anxiety which characterises the majority of our profession.—Ed.]

IV.—*Popular Summary of Vaccination.* By John Marshall, Esq.

Mr. Editor,

The publication of the history, perhaps, of the following experiments upon the cow, although unsuccessful, yet, in conjunction with some other collateral relation concerning vaccination, &c. may become somewhat interesting to your numerous readers, through the medium of your excellent and widely circulated Medical and Surgical Journal, which will be gratefully acknowledged by your obedient and obliged servant,

John Marshall,

53, Jermyn Street, Jan. 22, 1831.

TO THE READER.

The principal object of the present essay, is to promote the views already promulgated in my former publication, relative to the practice and causes of failure of vaccination; and, I trust my extended practice has enabled me to elicit some further information upon the important subject of security. In drawing up my statement, I have carefully avoided all technical expressions, as it is my anxious wish to give as general a currency as possible, to opinions which must carry comfort and satisfaction into the bosom of every family.

The cow-pox, though harmless, no doubt requires the most careful manipulation, in order to secure ulterior protection; but there is the satisfaction of knowing that there does not exist any difficulty in comprehending the sources of failure. Although it may be remarked that the operation of cow-pox has been simplified beyond the boundary of safety, for it is deeply to be regretted that numerous cases have unfortunately from time to time, and recently occurred, of small-pox, after vaccination, among families of the highest rank, as well as of middle classes of society. But these instances are attributable to various causes, but above all to the palpable error of a *solitary vesicle*, which has been far too generally adopted ever since its promulgation. In short, its prophylactic power is only to be obtained, by forming, in all cases, a plurality of vesicles; this principle is founded upon irrefragable facts, and it is strongly recommended to be adopted in the first, second, and either annual or every repetition of the process.

Some baseless theories are yet upheld against vaccination's durable hold upon the human frame, which have arisen from mere deficiency of information; such doctrines are wholly untenable, they are neither to be supported by reasoning, nor countenanced by facts. In this country, and, I believe, in most others, as yet, there is neither decadency nor deficiency in the pristine power of vaccine lymph, nor is such an event likely to happen, since man is to all intents as well capable of ensuring its successive production as the cow.

It may be observed, that some remarks on this subject are similar to those which I have already published, but I may be allowed to repeat them, since further experience has brought to light additional evidence in their support.

Some experiments are recorded wherein I have inoculated the cow with both distinct and confluent small-pox matter, in its most virulent state, with the hope of ascertaining whether such a source gave rise to cow-pox, by the accidental application of the disease on the hands of the milkers to the nipple of the animal. The unsuccessful result of these trials is fully exemplified. It may, however, be here remarked, that facts implicitly recorded in every branch of science are pithy things, which in all instances ought to present the shield of protection against unwelcome reproach. If this experiment, at all events upon the cow, in more able hands, can eventually be found to succeed in England, I shall not only be most readily open to conviction, but even highly delighted and richly gratified. It is therefore surmised that the trial could be accomplished upon a larger scale, with far greater facility, among the herds of liberal graziers of our dairy counties, than the fastidious herdsmen of London. This hint is given with a sincere wish that it may be the means of stimulating some gentlemen of the faculty, residing in the country, who may have perchance perused this friendly challenge, since they

must be fully aware of the state of doubt in which the question is left, which evidently forms a physiological *desideratum*.

By way of concluding this address, I embrace this opportunity of recording a singular, and perhaps novel reality, which has been lately made to me by an all-talented physician. That all persons of both sexes, who are freely pitted with the small-pox, generally possess, *e consequentia*, a pallid complexion (with the occasional exception of free livers). This extraordinary phenomenon is ascribable to severe inflammation, which vents its force upon the features pending the disease, and by thus obliterating the faciel cutaneous colouring vessels. Such an alteration, however, of the countenance but rarely occurs when small-pox succeeds non-efficient vaccination.

The merits of vaccine have been simply elucidated by practical documents throughout my studies, and wholly divested of theoretical reasoning.

SECTION I.

The origin of Cow-pox considered.—Description of the genuine vaccine purple Scab upon the teats of the Cow.—Intelligence from Egypt, France, Scotland and England, relative to inoculating the Cow with Small-pox matter.—Eleven quadrupeds vaccinated at Utrecht, and similar operations upon Cows in the British empire.

It is readily admitted that in all branches of scientific inquiry, the labours of an experimentalist, whether for or against the subject of pursuit, may, peradventure, contribute to aid the cause, since negative are equal to positive proofs, and may be the means of stimulating others towards lending their aid, by either establishing or confuting the theorem.

I have undertaken the task of inoculating three cows with the most active small-pox virus, on the back of their udders, with numerous punctures, thereby with the hope of establishing the momentous question respecting such a cause being the rightful origin of the genuine disease of cow-pox. From this affection, peculiar to the cow, has sprung one of the highest benefits to mankind, by its leading to, and forming the source through the medium of the milker, of the discovery and practice of vaccination. This opinion, ever since its rise and promulgation, has been unremittingly entertained by celebrated philosophers, both at home and abroad; namely, that its origin is ascribable to small-pox matter conveyed to the cow; while many others have maintained with equal ardour, that the grease of the horse was its true base. But after all these cogent arguments, I am more than ever inclined to think that the disease will ultimately resolve itself into one which is naturally incidental to, or the sole offspring of the cow. Moreover, should this opinion

be found to be hereafter established, it goes far to corroborate the doctrine I have premised in the first section of my publication, a Popular Summary of Vaccination, with the causes of failure, &c. wherein these words occur, which may perhaps eventually be proved to be prophetically correct, that " the disease, however, of the cow, is probably *sui generis*, and is propagated alone in that animal."

So recently as on the 13th instant of November, 1830, for the first time in my life, I had the opportunity of witnessing, among a very numerous herd of cows kept at Knightsbridge, the remaining vaccine scabs of the genuine cow-pox, on the various nipples of four of the animals. This visit was made as soon as reported, with the hope of obtaining a specimen of recent vaccine virus, but the vesicles on the teats were all perfectly dried up by the termination of the active symptoms of the disease; and all the necessary precautions were adopted by the herdsman, bearing the name of Dexter, to check its further progress, together with the immense trouble it occasioned among his milkers, during the indispensable operation of emptying the udders. On inquiry, I learned that the respective vesicles had been each surrounded with the circumambient inflammation, which fully proved that the genuine cow-pox had prevailed. The scabs were so remarkable in shape and appearance, that they are deemed worthy of describing. The colour resembled a mulberry about two-thirds ripe, of a deep reddish purple, edges jagged, of irregular shapes, and varying in size, the largest about an inch and a quarter in length, approaching indefinitely the figure of a triangle, placed carelessly topsyturvy, and here and there touching each other by its angular apex. A very fine cow, which had suffered the most, had large and very white teats, which ground, so suddenly contrasted with the zig-zag purple edge of the vaccine crust, formed a very grotesque appearance, which forcibly struck me at the moment to be very unlike any thing else that could possibly be effected by either grease or small-pox matter.

The intelligence collated from Egypt, France and Scotland, about to be described, seems highly plausible, by supporting both the theory and practice of such an origin, but nevertheless I am as yet free to confess, since candour is my object, prompted by the rules of experience, that I am disposed to doubt the fact of obtaining, by so eligible a mode, a supply at command of recent vaccine lymph in the climate of England. Previously to entering upon the detail of my own trials upon the cow, it seems incumbent upon me to lay before the public the several documents just alluded to, which, if they are still capable of realization, would no doubt afford a cause of delightful gratification to the enlightened world, to find that cow-pox is neither more nor less than a mitigated small-pox. I may, however, be permitted to premise, that pending the foreign experiments upon the animal, that in each case they might possibly have been simultaneously affected by the accidental visitation of the genuine cow-pox; and if such a casualty can be admitted, it might, perchance, have led to an inference grounded on fallacious prin-

ciples. It is painfully conjectured, that occasionally in medical works and others, theoretical cases are published, which have been figured in the study, free from truth and experience, but reprehensibly designed for betraying the unsuspicious. Such measures stint the advancement of science by fading the growth of its fruit.

In the year 1829, at one of the evening meetings so generously given to the faculty and literary members of learned institutions, by the Royal College of Physicians, under the patronage of its learned President, Sir Henry Halford, Bart. and the rest of its enlightened Fellows, a very interesting and elegantly written paper on vaccination, was read from the rostrum by the Registrar, Dr. Machmichael. By the liberal permission of the President, I have not only been honoured by the loan of this classical document, but also permitted to cull the following partial extract, which is closely allied to the subject:—

"But a letter from India, with the perusal of which I was favoured yesterday, contains the following remarkable statement, which seems to me deserving the greatest attention:—

"It appears that from the vaccine matter having lately failed in Egypt, in a great many instances, medical gentlemen were led to institute certain experiments, by which it has been discovered, that by inoculating a cow with small-pox matter from the human body, fine active vaccine virus is produced. At the time the letter was written, there was a Greek child at Mocha that had been successfully vaccinated with matter direct from the cow, produced as above mentioned; and the virus taken from its pustules had acted with the best effect on several other children at Suez, where former attempts had failed."

"Now if this shall be found upon further trial to be really true, it will prove one of the most important facts connected with this interesting subject, for henceforth we need no longer fear that we may be deprived of the means of combating the small-pox, since that baneful contagion will furnish its own antidote."

A question may fairly be asked, what cause can have given rise to the paradox, that vaccine lymph "has lately failed in Egypt in a great many instances," while in England, and all other countries, we are as yet strangers to such a phenomenon.

The concluding paragraph of the learned author contains, from such a document, the most appropriate inductions that could be drawn; which, peradventure, it is hoped, may yet be found capable of confirmation. It must, therefore, be strikingly evident that the subject may still require the attentive investigation of English physiologists, and that the truth of this doctrine is worthy to be put to the test of further experimental trials, and more especially since the disease in the cow has ever been considered by experienced graziers as of rare occurrence.

Another parallel extract, equally interesting, and apparently fully confirming the foregoing quotation of the transmutation of *variola* into *vaccina*, bred through the medium of the constitution of the

cleanly cow,' is also extracted from the London Literary Gazette, dated March 20, 1830.

"M. Robert, a physician at the Marseilles Lazaretto, has made a number of experiments, from which he concludes that the vaccine eruption had no other origin than the accidental transmission of the variolus virus of man to the nipple of the cow, and its consequent mitigation. He thinks that this discovery will diminish the number of opponents of vaccination; as it will shew that the vaccine virus does not proceed from any impure and disgusting animal malady, but is simply a mild and local small-pox.

In consequence of the seemingly faithful relation of the antecedent foreign experiments in two quarters (but since the discovery of Australia, what is now called by the literati, two-fifths) of the globe, Asia and Europe, they each demand our respect, which, in the opinion of many, may yield an impression of truthful conviction. A practical query may possibly arise, however, by the trial failing here and succeeding there, that warmer climates are probably more congenial towards aiding the full characteristic developement of the inoculated small-pox upon the system of the cow. It is universally admitted, from time immemorial, that warmth greatly increases the morbid effects of variolus miasmata, as proved by the immortal Sydenham. Suffice it to say, that since this is the truth, the important subject under contemplation becomes a pathological problem, that still merits solution by further inquiry. Hence I have resolved again to repeat the experiment upon the cow during the prevalence of the hot weather, usually occurring in the vernal months, other reasons may be also assigned for choosing this period of the year; namely, the animal is then deemed by all experienced graziers to be in the highest state of health, and more generally attacked by genuine cow-pox, which opinion is confirmed by Jenner, in conjunction with many other authors.

Again, Dr. Paterson has done me the honour to communicate orally the following additional and highly interesting intelligence, which is intimately connected with this point of discussion:—

About thirty years ago, Dr. P. while practising medicine at Ayr, in the West of Scotland, having, for the first time, introduced vaccine inoculation into that part of the kingdom, he was impressed with an idea, that cow-pox originated from small-pox matter being communicated to the nipples of cows by the milkers; under this impression, Dr. P. inoculated nine milch cows on the lower part of the udder, in two different stables, with matter taken from a case of confluent small-pox. In a few days pimples had been produced on each of the animals, with one exception, which pimples continued to increase and form matter, with which this gentleman was very desirous to inoculate children, in order to discover what disease might follow. But this was unfortunately prevented by the impossibility of inducing any parent to allow their children to be inoculated with such matter.

Surely the large proportion of successful inoculation, in the ratio of eight to one, affords a striking, and even an encouraging stimulus

towards reiterating the scientific attempt of confirming this important question, by further experimental search. And again, I repeat, that thus encouraged by the sanction of Dr. P. on whose integrity and veracity the utmost confidential reliance is placed, to reiterate the experiment.

The following extract on vaccination may also prove additionally interesting to the physiologist, by exemplifying the effects produced by vaccinating eleven quadrupeds, widely differing in zoological classification. Many of these trials being original and described in a strain of truth and simplicity, they are worthy of communicating. But more especially since the information has been conveyed to this country by so highly a respectable source, the London Literary Gazette, July 4, 1829. These cases prove that even the mild lymph of cow-pox, is fully capable of producing its vesicle in all these animals, with only one exception, namely, the rabbit. Many of the facts recorded and seemingly established, are truly remarkable, which may be said to afford some very scientific and curious points, worthy the consideration of the pathologist:—

" M. Numan, a veterinary surgeon at Utrecht, has recently made several experiments with the vaccine matter, upon the following animals—the cow, bull, horse, ass, camel, sheep, pig, ape, dog, and the rabbit. He states as the result of these, that the vaccine virus taken from man, reproduces the original effect when applied to the cow and the bull; but that the action of the virus so applied to these animals, is only for a *single time*; on the horse and the ass it produces pustules, and when applied from them to the cow, its action is more intense than that of the primitive virus. The camel receives it easily by inoculation; but when taken again from the camel and applied to the cow, it produces little effect. Applied however from that animal to the goat, it is quite efficacious; but both the goat and camel are susceptible of its effects only once. The sheep does not yield readily to its influence; and the virus from this animal has no effect upon any other. On the ape, the effect is nearly the same as upon man. The pig may be vaccinated, but the virus cannot be subsequently propagated. The dog is more difficult than the sheep, and the rabbit is quite inaccessible to the influence of the vaccine matter.

It is rather whimsical, that the effect of vaccine virus upon the ape comes the nearest to man.

So many principal animals recorded in the list of M. Numan, namely, the cow, bull, camel, and goat, that are subject only a *single time* to the vaccine disease, and first and foremost the cow, is readily granted; because, in England, this particular subject has been long known as an established fact in our dairy counties. For whenever it has been retaken by the animal, further proofs of its capability of resisting its former virulence has been invariably confirmed, first by the harmlessness of the vesicle, and secondly, its rapidly dying away; thereby strictly resembling a case of re-vaccination in man, who has already derived full protection from a former operation. This re-

markable circumstance, I think, if memory does not mislead, is recorded in the works of Jenner. M. Numan is entitled to the thanks of the public, for prosecuting the experiments with so much ability and zeal. The successful management so largely diversified from one animal to another, must have occasioned considerable toil and difficulty. By succeeding also with vaccine lymph, which being comparatively less virulent than small-pox matter, it is fair in justice to infer, that each operation must have required in its manipulation a high degree of experience and intelligence, and proves that he is a truly expert and zealous vaccinator. But nevertheless it remains to be a subject of doubt whether these animals would have been, either collectively or individually, alike susceptible of small-pox matter by inoculation.

It is likewise a well-authenticated fact, that in England, the vaccine lymph derived from the vesicle in the human subject has been from time to time inserted into the udders of heifers, and milch cows, by surgeons in London and its vicinity, as well as in several parts of the British empire. The vaccine vesicle, thus produced in the animal was found by following up vaccination, to give back to man a genuine and unalloyed specimen of the vaccine disease, in all its wonted bearings.

With the exception of Dr. Paterson's experimental cases, thirty years ago, of small-pox inoculation upon the cow before mentioned, it appears that the only similar trial, perhaps, which has ever been since attempted, and recorded in this country, was performed in the year 1829, by W. Sewell, Esq. assistant professor to the Royal Veterinary College. I am permitted also by this scientific gentleman, to state, that the variolous matter was freely inserted by inoculation into the teats and udder of a fine healthy milch cow, two calves, two lambs, and a couple of rabbits. But I greatly regret to be compelled to state that his praiseworthy intentions, of realizing this remarkably interesting phenomenon, entirely failed in these seven animals. Such negative proofs go far, as yet to confirm my own unsuccessful efforts, and casts a sombrous shadow over the ray of future hope.

It excites however my surprise that this influential subject for experimental investigation, so apparently and originally connected with the question of the disease in the cow, and its valuable power, so auspiciously ordained for the relief of mankind, should have remained in a comparative state of relinquishment among the numerous scientific members of the faculty, during an epoch so pre-eminently distinguished by the rapid advancement of scientific discoveries. I deeply regret that this important object has devolved upon myself, because in abler hands it would have been adorned with superior physiological illustration, which would have caused a more forcible claim to public attention.

SECTION II.

A general Detail of Experiments tried upon three Cows by Small-pox Inoculation.

After surmounting numerous impediments and anxious delays, arising from objections made to the proposition of trying the experiment upon the property of herdsmen, both within and without the metropolis, at length however, I am enabled to announce a series of trials, which, although successless, may probably be deemed somewhat interesting, inasmuch as they may become useful to others, who may be induced to perform the like.

On September, the 16th, 1830, I obtained a supply of small-pox matter, of the distinct type in its most active state, on the eighth day from a young man of good stamina. On the same day, in a cow-pasture at Kilburn, the variolous matter was introduced by inoculation into the udder, between the legs, of a healthy milch cow, five years old, which period is deemed by farmers the prime, in full milk, and which had calved about six weeks; sixteen punctures were made with armed lancets and needles, from which resulted twelve red spots or blotches,—they all became distinctly visible on the second day; on the fourth, they were each progressing, and accompanied with a circumambient ring of inflammation; on the fifth, increasing simultaneously in size; but on the sixth day, they all suddenly dried up, and degenerated into a brown coloured scab, corresponding with the relative dimensions of the rose coloured spots; three were oviform and the rest circular, and each about a quarter of an inch in diameter.

A question may possibly arise, how came it that matter was not taken from such a numerous sprinkling of what has been styled blotches, before they resolved themselves into a crust? Because there was not the smallest approach made in either, towards the formation of matter; and thus decidedly differing from either small-pox pustule or vaccine vesicle, when obtained by inoculation upon the human subject. In fact, they were all, strictly speaking, neither more nor less than simply a red blotch, without the slightest elevation or distention of the epidermis beyond the *cutis vera*, although the lump projected above the surface in the form of a plano-convex lens. Hence they were unworthy to be called by the name of either pock, pustule, vesicle, or pimple. A slight areola oftentimes accompanies a blotch upon the human skin, and this momenclature is more significantly adapted to the appearance on the udder than any other can express in the vocabulary of our language.

The sudden stoppage of the vesicles was at the time, for want of experience, attributed to the probability of the animal having previously undergone the genuine cow-pox.

Before commencing inoculation, the cow was secured by a rope round its horns, and fastened to a gate post; the hind legs were

also bound by a rope above the tarsus or hock; this mode of precaution is called hobble, by herdsmen; but in restive animals two ropes are necessary, one as before, and the other round the pastern or fetlock, which is technically named double-hobbling. Milkers rarely keep the hobble-straps, which are used in operations by veterinary surgeons to guard against accident. It will presently be made to appear that the hobble straps, being thongs of leather, had better be used than inferior tackle. Since the temper of animals, especially that of cows, is known greatly to vary, and the effects even of this slight operation cannot be prejudged; it is therefore more prudent, in every instance, to be protected from danger.

The udder had been recently milked, which renders it far more manageable than while in a state of spherical distention.

On the score of humanity the nipples were purposely avoided, by preventing the sufferings of the animal, and the risk of injuring the pustule, during the frequent repetitions of milking; and in anticipation of checking the supposed liability of the unpleasant consequence of extending the disease by the hands of the milker to the rest of the herd.

But further trials have been made upon two more cows, which moreover shew the precariousness awaiting the means of pursuit. These animals were selected from a numerous herd, being the healthiest and finest among them; one yielded daily eleven quarts of milk, and the other nearly as much. On Saturday, November the 6th, 1830, they were each inoculated, by well armed lancets and needles, with confluent small-pox matter, taken from a lad on the seventh day of eruption. In the first cow fifteen punctures were made upon the hinder part of the udder, with every possible deliberation and cautious manipulation, but no proofs of effect of any sort or kind was ever afterwards perceptible. The other animal became so extremely restive and viciously inclined, that she broke her ropes, and remained for a time almost ungovernable; the herdsman, milkmen, and self, were compelled to run by a speedy retreat, to escape her long and powerful strides; under such untoward circumstances, only two inoculations could be effected. These, however, took an effect by exhibiting, on the second and third day, two red circular blotches, which dried up, and partly disappeared on the fourth day, when only a dry cuticular scale distinguished the spots.

It may be remarked that these experiments seem to involve in considerable doubt the questionable hope of ulterior success. The most active variolus virus of the distinct and confluent type has been freely employed, and the effect has fallen far short of realizing the project, which appears thus far to be consigned to mere theoretical speculation, unaided by useful facts. Suffice it to say, that these failures are truly appalling, and serve to stagger hope and faith.

The cow, however, is capable throughout the seasons of equally displaying all the phenomena of the progressive changes of the vesicle by vaccination as perfectly as her genuine cow-pox, while the highly virulent small-pox matter, only exciting a temporary spot of

inflammation, goes far to prove that her constitution seems to possess an innate power of resisting its specific action.

SECTION III.

Hereditary Cases of Secondary Small-pox, &c.

It is much to be lamented that the small-pox has raged epidemically with great severity throughout London, and its vicinity, also in divers parts of the country, during the last two years, but at the present period, although the depth of winter, it has become more rife than ever; this fact is corroborated by the teeming instances of small-pox, after undue vaccination, not being followed up among the rising generation; then may a further diffusion of my endeavours be effected by repelling the prevailing evil. About thirty cases have been reported from various parts of the British empire, of the variolous miasmata having recurred to those who had had it before, either naturally or by inoculation. About eighteen years ago, my attention was drawn, by my late revered friend Col. B. to an hereditary and secondary case of small-pox, which had been exemplified in father and son. The singular anecdote connected with the history of these cases is worthy of record. The father, during infancy, caught the small-pox naturally, and his face was in consequence ever afterwards severely pitted. In early manhood, on the morning fixed for the solemnization of this gentleman's marriage; as bridegroom, however, he was prevented meeting his bride at the altar, by a severe attack during the night of the eruptive fever of secondary small-pox; who, when slowly recovered, from a hair breadth escape of the confluent type, the marriage was happily consummated. The son and heir of this gentleman, while an infant, had been inoculated, and his face, like his father's, bore ample testimony of its severity; who, when arrived at the age of manhood, during a visit to London, he again imbibed the small-pox. I saw him repeatedly, while alarmingly ill and blind with confluent variola, of which attack, however, he also slowly recovered.

Such hereditary cases of small-pox, appear to me to have been but rarely noticed by medical authors, but left to be communicated by tradition. Upon inquiry, however, among many of my professional colleagues, I have been enabled to glean some further intelligence, orally, upon this curious deviation from the general laws of nature, which, by surpassing the instinctive faculty of man, bids defiance to pathological explanation. A whole family of an English baronet, have been long known to be liable to secondary and hereditary attacks of small-pox; from motives of delicacy the name is suppressed, which was imparted to me by a friend who has long attended the family. Some other gentlemen of the faculty, whom I have long known, have also met with similar instances in the course of practice.

In all such cases, it would be unreasonable to expect entire protection from vaccination, yet it is highly consolatory to find, that even in such cases of constitutional peculiarity, whenever small-pox does recur after genuine vaccination, that the antecedent operation is frequently found to controul its threatening danger, by preventing the accession of the secondary fever. Hence, although this phenomenon, in the opinion of the inexperienced reader, may appear paradoxical, yet it is a well known fact to the faculty, that small-pox, by recurring, even after the lapse of a large portion of life, is more severe in its secondary visit, as exemplified by the foregoing cases, and oftentimes fatal.

These comments may contribute towards confirming the comparative merits of the vaccine disease, and also that it is in every instance, and on every account infinitely more prudent and wise to vaccinate than to inoculate. If, however, doubts of security continue to exist in the mind of the timid, from either hereditary or casual causes of failure, the patient had better be annually re-vaccinated, until its effects are capable of banishing the alarming impression of casual small-pox.

It ought to be universally known that vaccine lymph is specifically free from the contamination of the seeds of all other diseases; and also that it remains identically the same in our own and many other climates, both in force and efficacy, after the long periodical test of thirty-one years. This circumstance admits of comparison by a new light. The rising generation who are now entering into the cares of the world, having been vaccinated, I have a right to suppose in early infancy, full twenty years ago, were consequently vaccinated when the lymph was proportionably new; therefore it brings to conviction that one of the principal causes of failure is infinitely more attributable to a solitary vesicle than to decadency.

SECTION IV.

Some further Remarks derived from ocular Observation, which go far to enforce the necessity of forming a plurality of Vaccine Vesicles.

Several opportunities have recently occurred, by tracing and obtaining a more enlarged insight into the public and private practice of vaccination. To fearlessly expose the reasons of failure, founded on the principles of experience, truth and candour, has been my object, yet wholly divested of feelings, either of rancour or scurrility, but merely with a view of upholding this striking object of humanity. It grieves me, therefore, to be constrained to announce the following facts, which, impelled by public duty, ought not to be repressed, as a general salvo re-vaccination in all doubtful cases has already been strongly recommended. By so doing, I am well aware that my professional colleagues, by being called upon to

reiterate vaccination in numerous instances, to correct the omissions of others, have had no feasible reason to complain. On this point of practice, I have also appealed to the warm affections and lively sympathy so unremittingly pourtrayed by all intelligent parents, in every family, towards the health and welfare of their offspring. Lest, however, these prefatory remarks may be deemed either tedious or superfluous, I shall now proceed forthwith to illustrate this topical subject of contention; which, though far from personal reflection, it has been, alas, too general. These practical hints are therefore given with the hope of more certainly insuring the prophylactic power of vaccination.

During the last eighteen months, at various periods of life, from childhood to manhood, among the high and wealthy classes, as well as the middle and lower ranks of society, who had been vaccinated, in town and country, I have detected a very insufficient mode of vaccinating, by carefully examining both arms previously to repeating the operation; when only a solitary scar, very rarely two, and three never as yet found; while many others, not having a vestige left, by escaping the power of naked vision, and even when assisted by the help of a double convex lens. But what is more remarkable, the cases of one cicatrix far outnumbered the average of the rest; the consequence, however, that followed was still worse, because among those a larger proportion were found unprotected! But my astonishment of such a discovery was cautiously suppressed, because many had been thus vaccinated by gentlemen of high professional rank, to use a vulgarism, "at the top of the tree," many of whom have long ceased to exist, and others who are now in full practice! It is a well known axiom, that the fear of overdoing this disease by a plurality of vesicles, is groundless. The praiseworthy example of triplet vesicles in each arm, is coeval with the commencement of the practice in the year 1799, in this metropolis, which highly prudential mode has been ever since, down to the present era, faithfully observed and encouraged by all the patronized vaccine institutions of this vast emporium. This precedent, it is fervently hoped, has been generally adopted throughout the British empire, in all the charitable establishments which adorn the state; and should it also be further proved that the faculty elsewhere have been equally regardless of this valuable precept, it is never too late to mend; the mind of the enlightened is readily open to the conviction of error.

During the epoch of variolous inoculation, from the fickleness of the matter, more especially in adults, by its venom producing reciprocally either confluent or distinct small-pox, a single pustule was deemed sufficient. But on account of the perfect harmlessness and comparative definite effects of vaccine virus, it possesses a diminished degree of force, and if so, it consequently requires a freer administration for the purpose of effecting future protection; and also by thus creating a wider expansion of surface for absorption, the system necessarily becomes more efficiently saturated.

The following trite remarks, if faithfully and universally adopted, will go far to insure a signal success to the cause. The vaccine lymph, obtained from a well-conditioned vesicle, if *timely* and *freely* employed, affords lasting protection. These emphatic data, pointed out by italics, may be said to comprehend the pith and marrow of the practice of vaccination.

Solely with a view of corroborating the laws and practical effects of vaccination, I may be permitted to give a summary view, free, it is hoped, of the unwelcome stigma of either vanity or boasting, which is founded on the basis of honour and ingenuousness. Among the thousands recorded in my public and private list, not a single case of subsequent small-pox has ever as yet occurred to my knowledge. Numbers of whom, at various periods of life, have been since severely and repeatedly exposed to the contagion of variolous miasmata. The following additional statement contributes to confirm the foregoing inference, namely, from the willingness of my public patients, assisted by the ignorant, to impugn the practice of vaccination. Three instances at lengthened intervals have happened, wherein the children have been brought to me at six, eight, and fifteen months after genuine vaccination, with the eruption of varicella or chicken-pox, and each of these cases were unjustly denominated small-pox, two of which had been so misjudged by chemists; these, however, were fortunately confronted and contradicted by the accidental presence of Mr. Stone, in one instance, and Mr. Tupper in the other.

But it fully appears that all impediments to the advancement of vaccination are rapidly subsiding, by its vast extension throughout the habitable world.

Hence from the foregoing arguments, it may perhaps be made evident that this innocent disease, while under the guidance of genuine principles of practical management, offers the feasible prospect of protection. It therefore constitutes a source of happiness to man, by defending him from the loathsome ravages and perils of small-pox; its enfeebling inroad upon the human constitution too frequently occurs, which lurks throughout the destined period of mortal existence. Whereas the faculty are strangers to any malady which can possibly be imputable to the gifted powers of vaccine, which fortuitously shields and nurtures the blessings of health, strength and beauty.

SECTION V.

Some original Events, illustrating the History of Inoculation and Vaccination, by those who were unconnected with the Medical Art; namely, Mr. Benjamin Jesty, and two illustrious personages, Lady Mary Wortley Montague, and Viscountess Strangford.

With a view of informing the reader, who has not seen my former publication on the practical causes of failure of vaccination, and to

elucidate one important branch of this section, it appears to be somewhat expedient to give a succinct sketch of my fourth section, and more especially since its contents are original, by having never appeared before (it is surmised) in any other regular work of vaccination. The intelligence was chiefly obtained at the dinner table of the late Dr. George Pearson, who honoured me with an invitation expressly to meet at his hospital board Farmer Jesty, and the medical staff, who at that early period belonged to the Original Vaccine-Pox Institution.

A farmer, bearing the name of Benjamin Jesty, determined to try the effects of vaccine inoculation on himself, his wife and two sons, who accordingly armed the needle from the vesicle on the teat of a cow, and operated on the back of the hand near the knuckle of the fore finger, which left a cicatrix. This experiment took place in 1774, at least thirty years before Dr. Jenner. In 1804, Mr. Jesty and one of his sons came to London, at the request of the Board. On being asked why he did not persevere in his plan of inoculation, he replied, "That he was so laughed at and ridiculed by the inhabitants of the village, for introducing a *bestial* disease into his family, that he gave it up, and thought no more about it; notwithstanding, however, he rejoiced to find that it was taken up by the faculty." A question was asked (which I have since remembered) what induced him to make the trial? "By having known, throughout his life, that all the milkmaids who had taken the disease from the cow, never afterwards caught the small-pox." In order, however, to ascertain whether they were secure after the lapse of thirty years, Jesty and his son were re-vaccinated. The operation I severally witnessed, which was followed by premature irregular pimples, attended by itching, which died off in a few days. Farmer Jesty was then in his seventieth year, who, on being asked how often the disease prevailed among cows, replied, to our mutual surprize, "That it was by no means a common or frequent occurrence; he had only seen the complaint three times during his life, and that it happened about once in two or three and twenty years, or thereaway."

It may be here remarked as somewhat surprising, by the acknowledged freedom with which the story got wind among the tittle-tattle scandle of the village gossips, aided by the satirical weapons of peevish old maids, that some juvenile medical spark residing in the purlieus, did not embrace the fit opportunity of crowning himself by taking a hint, and snatching the laurel from the brow of Jesty.

A hundred years ago, Lady Mary Wortley Montague was Ambassadress to the Sublime Ottoman Port of Constantinople, by whose elegant epistolary correspondence, a vast improvement in the treatment of small-pox was introduced to Old England, by mitigating the deadly attributes of natural variolous by inoculation, which is fully described, in vol. ii. fifth edition, 1805, of her Ladyship's works. For the amusing intelligence of the reader, a compendious abstract follows. By the pressure of modern works, and the lapse of

a century, this subject may have been partly forgotten by the public, but never by the faculty.

"*A propos* of distempers, I am going to tell you a thing that will make you wish yourself here. The small-pox, so fatal and general amongst us, is here entirely harmless, by the invention of *ingrafting*, which is the term they give it. There is a set of old women, who make it their business to perform the operation every autumn, in the month of September, when the great heat is abated. People send to one another to know if any of their family has a mind to have the small-pox; they make parties for this purpose, and when they are met, the old women come with a nutshell full of the matter of the best sort of small-pox, and ask what vein you please to have opened. She immediately rips open that you offer to her with a large needle (which gives no more pain than a common scratch), and puts into the vein as much matter as can lie upon the head of the needle, and after that binds up the wound with a hollow bit of shell, and in this manner opens four or five veins. The Grecians have commonly the superstition of opening one in the middle of the forehead, one in each arm, and one on the breast, to mark the sign of the cross; but this has a very ill effect, all these wounds leaving little scars, and is not done by those that are not superstitious, who choose to have them in the legs, or that part of the arm which is concealed. The children or young patients play together all the rest of the day, and are in perfect health to the eighth. Every year thousands undergo this operation, and the French ambassador says pleasantly, that they take the small-pox here by way of diversion, as they take the waters in other countries. You may believe I am well satisfied of the safety of this experiment, since I intend to try it on my dear little son."

It appears, however, by other travellers, who have stated that the part principally selected for inoculation by the Turks, is between the thumb and finger.

Another authentic memorial, outvieing the former in value, affords an eligible subject for concluding this section. The communication, however, far exceeding in extent of utility, yet serves to elucidate a parallel line of association, by each acting in return or correspondence to the other. This memorable reciprocation, at all events of superior advantage to man, richly merits our admiration, and becomes an honour to England.

The vaccine disease was propagated in the following manner, from our native shores into the Turkish dominion, which completely absorbed the untoward impediments in the medical art, which had been hitherto fostered by the superstitious doctrines of the Koran. By the powerful influence of this regal example, many other countries rapidly adopted vaccination, situate in the eastern climates; namely, Egypt, Arabia, Syria, and Abyssinia. This reminds me of the anecdote told of Louis the Fourteenth, who banished, in one day, the mistaken objections made by his subjects against the

potatoe, by wearing at court a blossom of the plant in his button holes, as a *bouquet*.

Vaccination was primarily communicated to the juvenile princes of the august Mahometan family, of the grand monarch of the Turkish empire, residing in the sumptuous Seraglio of Constantinople, through the medium of one of the illustrious offsprings of our Lady Ambassadress, Viscountess Strangford.

This striking coincidence of mutual benefits imparted from Constantinople to London, and vice versa, by two lady ambassadresses of exalted rank and talent, must be for ever hailed as a remarkable reality by the inhabitants of both nations, which will live for ages in the annals of history and natural philosophy.

SECTION VI.

The highly important Subject of the Decadency of Vaccination, together with Cow-pox Lymph, separately considered.

The chief aim here intended is to uphold the aspect of good faith and simplicity, but above all the cause of humanity, assisted by practice.

An almost uninterrupted succession of opinions are yet prevailing among the faculty and public, with regard to the durable power of cow-pox. This subject appears to demand further investigation. Some there are who tenaciously cling to an opinion that vaccination looses its protective property upon the human constitution after a conjectural number of years, varying despotically from five, seven, to fifteen years; such a line of demarcation, however, I have never as yet been able to discover: and probably this tact in reality may puzzle the acumen of the most profound pathologist; but nevertheless this prophetical doctrine is supported by many with a degree of *sang-froid* which is somewhat surprising. Again, others are of opinion that decadency, or failure of vaccine lymph, is owing to its gradually wearing out. But this principle is also equally untenable, because the various evolutions of the vaccine vesicle in England progresses unalterably, as it did originally. I am unable to discover any ostensible reason for adopting such theories. These important heads are proposed to be separately elucidated by practical data; but it is first deemed necessary to give a cursory history of small-pox virus upon the human frame. The change from a better to a worse state of small-pox miasmata, has never as yet been heard of among the annals either of ancient or modern authors, it remains unchanged by the hand of time. It has been, however, at all times subject to the influence of the floating temperature of climate, the changes of relative seasons either increasing or diminishing its

malignity, the mode of treatment, and by a peculiarity of constitution varying in families.

But whether it has been either mild or virulent, the same lasting effect remains, with the exception of those ungovernable attacks of secondary cases.

The weighty question of vaccine lymph possessing a prophylactic force, constitutes the sheet-anchor of the merits of this national discovery, and throughout its career, this point of view has invited my untired labours of research; cow-pox appears, by manifold results, to require a considerable degree of circumspection in its administration, which is the only means of securing its action.

By way of exemplification, a few hints may go far to strengthen the position, by tritely alluding to my former statement. Numerous mothers, who had been early vaccinated, have been tested in after life from the cow-pox vesicle of their sucking babes, with exemplary proof of protection. Milkmaids, after imbibing the matter of genuine cow-pox from the animal, become for ever invulnerable to small-pox. Numbers of men and women among the humble classes of society, who have long surpassed the adult age, by the test of re-vaccination, have been found protected. Such proofs go far to upset the opinion of decadency of vaccine upon the constitution of man.

The second division of this subject remains to be explained; the fading of vaccine lymph, still in use throughout the British empire, appears to rest upon a false foundation; the discrepancy of small-pox virus might as well be granted with equally physical truth. It appears, however, by some foreign reports from Egypt and Bengal, that the fervid heat during the torrid zone has impaired its efficacy; while on the contrary, by intelligence received from the English faculty practising in our West India Islands, it has not suffered an iota in diminution;—thus the western report presents a flat contradiction to the eastern. The European inhabitants residing at the presidency of Calcutta, prefer the cooler months of November, December, and January, for vaccinating during the prevalence of the north-east monsoon.

If the opinion upon the declining state of vaccine lymph at home, after the lapse of thirty-one years, becomes an admissible fact, by such reasoning, those patients, it would be fair to suppose, who were vaccinated with its infant lymph, ought to have evinced a more forcible or lasting effect, and the scale of decadency must have been governed by the revolving of time. But it is useless to defend such misconceived notions; the decading property of the vaccine lymph has been rejected by the highest authorities at home, by patronised institutions on the continent of Europe. After eight years trial of the identical source of lymph, Dr. Jenner prognosticated this encouraging doctrine, which has been strongly defended by numerous authors. But another all-powerful defence of the *non-decadency* of cow-pox lymph remains to be quoted, which sustains the argument down to the present epoch, by positive illustra-

tion. I performed the operation during the summer of 1830, upon the *nævus maternus*, or mark of the mother, situate in the arm of a child, which was wholly obliterated by the united combination of numerous vaccine vesicles. This subject alone brings home to conviction that the pristine force of the lymph remains in *statu quo*. This merciful result has been also recently testified by surgeons of acknowledged rank and talent.

The sequel, however, of such defalcation is easily accounted for; the alarming attacks of small-pox after vaccination, are primarily attributable to a parsimonious vesicle, by wounding the same when at its height of perfection, to administer its ripening contents to others; also employing it after the by-gone period of activity and perfection, or by some untoward accident arising by either rubbing, scratching, or crushing by pressure.

These circumstances, by occurring in a vesicle, are not unfrequently so slight or trivial, that they evade detection even among a group of six or more; if it happens to be solitary, it beguiles the surgeon and patient. The antecedent adverse chances comprise the fundamental causes of failure, and exonerate the genuine lymph from blame. It is therefore hoped to be made to appear that the balance of justice springs high in its favour.

SECTION VII.

The discovery of Vaccination derived from Milkmaids, and whether Cow-pox is also attributable to the same class of peasantry.

It is universally admitted, that mankind is wholly indebted to the discovery of cow-pox by English milkers resisting small-pox contagion, after imbibing the genuine disease from the nipples of the cow.

The blithsome milkmaid rising in the morn, beholds with awe Aurora's purple eastern beams, who tramps in verdant lawns and pastures wild, bedecked with

> Rosy cheek and sparkling eye,
> Beauty, health, and symmetry.

But it becomes a questionable subject, to understand whether or no the disease in the teats of the animal has likewise originated by their hands and fingers being infected by small-pox pustules during the operation of milking. An apparent solution of this intellectual difficulty is not satisfactorily to be met with in any author; it appears at all events, for want of due deliberation, to have been by many too hastily adopted; an attempt will, therefore, be made to refute this notion, by practical observation, assisted by the laws of pathology. Would it not be repugnant to the feelings of philanthropy, even for a moment to conceive that a poor humble individual, sorely afflicted by a loathsome eruption of pustules extending all over the body to the

fingers' ends, accompanied by fever, debility and blindness, to be conveyed in such a plight to a pasture field to perform the functions of her calling? Such a sight would accord with the tragical scenes of Melpomene. Reduced by disease, the patient requires recumbent rest, medicine, and nourishing diet to recruit her stamina, long after the drying-up of the pock and separation of its scab. These remarks prove the needful absence of the patient from the cow, and may perhaps suffice to carry conviction home to the breast of the sceptic. Many slighter cases of natural small-pox may readily be quoted to strengthen opposition to this groundless doctrine, *e. g.* frequently the disease in various constitutions is mild, and accompanied by a slight sprinkling of pustules, which are chiefly confined to the face, with but few or none either upon the body or hands. But modified specimens, among milkers and others, have been more frequently effected by inoculation, whereby the venom is often confined to a few pocks either within or hard by the scope of the surrounding inflammation of the original pustule obtained by the lancet, with pain in the armpits and transient fever, while the patient is announced to be safely protected. By the general adoption, however, of vaccination throughout our country, this speculation must speedily fall to the ground. The cases which occurred last November, 1830, among cows at Knightsbridge, could not be ascribed by the herdsman, Dexter, to small-pox prevailing among his numerous helpmates. Has ever an authenticated case been heard of from any dairy county, wherein the animal became affected by variolous matter by the hands of the milker? Dr. Jenner, it is well known, practised many years in the dairy county of Gloucestershire, who never adduced such an instance; so far to the contrary, I have already proved at length, that his judgment was diametrically opposed to this origin.

This subject, after all, may be said to rest upon a fanciful basis, which by analagous experiments upon the cow, I am prompted to reject as a phantom. Suffice it to remark, that a plausible tale frequently involves matter of fact into a mist of obscurity. The late Dr. Hawes, pending the meetings of the debating society, held in the theatre of Guy's Hospital, who whenever a student indulged too largely in theory, he used to call him to order by this appropriate address that, "a drachm of practice is worth a pound of theory."

[For Mr. Marshall's Cases of N*ævus Maternus*, we refer our readear to our Number for July last.]

A COROLLARY.

It may be here observed, by way of corollary, that the small-pox has been ascribed by ancient authors, to owe its origin to a disease in the hoof of the camel; a theory, however, during the lapse of some thousand years, a period sunk into oblivion by the revolving darkness of ages, has never as yet been proved experimentally upon the human

being! At present, therefore, it strikes the author, that the cause of cow-pox is inveiled in a somewhat similar perplexing mystery. It appears also to have been equally impracticable to produce any decided affection upon the cow, by the grease of the horse. It may be asked, while the cow is always amenable to mild cow-pox by vaccination, all the year round, how is it that she is at any time capable of resisting the effects by inoculation of virulent *variola*.

Here follows a trite metaphorical illustration, in three alternate sentences; of natural small-pox, inoculated small-pox, and vaccination.

Man, in a state of nature, forded the river, and thousands of his fellow creatures were drowned.

The savage, impelled by instinctive reflection, constructed a raft and boat, by which fewer companions were lost.

As civilization advanced, however, the skilful architect designed a bridge, where all pass over in safety!

53, *Jermyn Street, February*, 1831.

V.—*Judiciary Examination of Wounds.*

By M. Ryan, M. D.

According to the law of this country, the surgeon must describe the length, depth and situation of wounds, also state whether they be mortal or not. He is to examine the *organic state* of the *wound*, and ascertain whether it be in a healthy or morbid condition. Thus a slight blow may cause rupture of a vomica or an aneurism, strangulation or gangrene in a hernia, or rupture of a varicose vein in the leg. A person who inflicts a wound or contusion in such cases cannot be responsible, as he did not foresee the danger, and the injury he inflicts is independent of his will. We must examine the *state of the constitution* and *habit of body*, as wounds are greatly aggravated, when the patient is of a weak, enfeebled constitution, or is labouring under a chronic disease, or is of scrofulous, venereal or cancerous habit. We must bear in mind the *personal conduct of the patient*, as his refusal to submit to proper treatment or a necessary operation, his removing bandages, his inattention to regimen, his use of aliment or ardent liquors, interdicted by his condition, may render a wound not necessarily mortal, highly dangerous or fatal. The *conduct* of the attendants must be observed, as their opposition to the proper treatment,

their excitement of strong emotions in the sufferer, may cause death. We should also remember the state of the weather, or insalubrity of situation, as an atmosphere too warm or cold, or that charged with putrid emanations, or that of hospitals, may render a wound mortal. The occasional occurrence of hospital gangrene, and epidemic erysipelas, such as has been lately present in the London Hospitals, and well known to scientific surgeons, may of course render a wound not dangerous, after infliction, ultimately fatal. Lastly, we should consider whether the treatment had been scientific. Here we must be exceedingly cautious in giving an opinion, and always recollect that the greatest diversity of opinion, both as to the nature and treatment of, by far the greatest number of diseases exists, and that the authority of eminent men may be quoted on both sides of the question. On the other hand, when gross ignorance is displayed and fatal injury follows, such conduct richly deserves exposure. This rule was laid down by Dr. Percival, and ought to be followed. It would, however, be an ungracious task to volunteer an opinion on the practice of a respectable contemporary, even for the promotion of the ends of justice. But no honorable practitioner would violate the etiquette and fraternal feeling which have invariably characterised the profession, by exposing or censuring the practice of another from private pique or jealousy, and for no public advantage. Every man who does so, will be despised by the profession, and indeed by the sensible and thinking part of the public. He violates the golden rule of ethics, "do unto others as you would they should do unto you." All medical practitioners, like their fellow mortals in all stations, are fallible; whoever is without this imperfection, may throw the first stone. Every man engaged in practice meets with bad and fatal cases, and may make mistakes, but it would be unjust and unwarrantable in a brother practitioner to expose him to public censure, unless the interests of humanity and science demanded it. As the law now stands, the president of the College of Physicians or College of Surgeons is as liable to be criminally indicted for unsuccessful practice as the veriest empiric in this land of empirics; such was the opinion lately laid down by Judges Park and Garrow, at the Old Bailey, in Long's case; but they went further and declared no man, regular or irregular, can be subject to a criminal information. Lord Coke held a felony for an irregular person to undertake a cure and allowed to die. Sir Matthew Hale thinks this an error, and Judge Blackstone

sides with the former; Mr. Justice Bayley holds it manslaughter—Willcock on the laws relating to the medical profession, p. 227. Such is the discord among the judges upon this point; but common sense and justice are in favour of the profession and against empirics. From the preceding statements it is evident, that one medical man should be cautious in condemning the practice of another, unless under the circumstances mentioned.

The rules to be followed in making an autopsic examination for juridical purposes have been in a great measure described in the article infanticide. Other points are to be kept in view, as the posture of the body, whether it be naked or covered, if it be in contact with any hard substance, if it be so situated that putrefaction may be retarded or promoted; how it is situated relative to surrounding objects, and particularly with respect to weapons of all descriptions. Every part of the body is to be examined, and all marks of violence carefully noted, when a weapon is found in the hand of the deceased, if this really produced death, or was so placed by a homicide. We should compare its dimensions with those of wounds, and consider the state in which the body has been found, and before removing it, ascertain the site, direction and extent of lesions, and finally, to avoid confounding the derangements which may be caused by removal with those produced by former violence. We should also notice whether the instruments have pierced, cut, or contused any part, and if deceased could have made resistance. It is also necessary to note the apparent age, muscularity, condition of the body, whether full or emaciated, the colour and quantity of hair, and in a word, every feature which can prove identity. It is right to observe the dress, all papers, money and other matters found about the person of the deceased.

Having accomplished these things, the body may be removed, washed, and every mark of injury, contusion, ecchymosis, wound, fracture, dislocation, carefully examined, and we must take care not to confound cadaverous lividity with ecchymoses. If the body is that of a female, we must examine the mammæ, abdomen and reproductive organs, in order to ascertain signs of recent or former delivery.

After all these considerations on the external state of the body, we are next to examine all the outlets, observe all fluids contained in them, and sometimes analyse the latter.

The body may be examined in the manner laid down when describing the examination for infanticide, or as recommended

in the recent manuals of practical anatomy. The most minute examination of all internal organs should be made, and all marks of disease carefully noted.

A question has arisen, whether an autopsic examination ought to be made when putrefaction has set in; and it has been decided in the affirmative. Orfila was charged to examine a body, which had been buried twenty-nine days; the external surface was generally in a state of putrefaction, and exhaled an insupportable odour, which required the use of disinfecting agents; but the digestive organs, liver and spleen, pancreas, bladder, heart and lungs, were unaffected by decomposition, and traces of poison were found in the stomach and bowels. A case was lately recorded in one of the French journals, where poison was discovered fourteen years after the interment of the body.

The brown, green or blackish colour of the skin should not prevent the examination of the body, and the fetid odour and all danger arising from effluvia, will be obviated by a free use of the chlorate of lime, in the proportion of six ounces to fifteen pints of water. Orfila strongly advises this solution when exhumation is to be effected, and says some pints of it are to be poured on the earth, when the labourers approach near the coffin, and also when the latter is uncovered before raising it from the grave. The labourers should apply a handkerchief, dipped in vinegar, to the lips and nostrils, as in some cases instant death has been produced by opening a grave.

It is indispensably necessary to open the head, chest and abdomen in all cases; to state all morbid appearances as concisely and as intelligibly as possible, avoiding technicalties whenever we can, and observing generally that all parts were healthy, with the exceptions which may be found. The object of a coroner's inquest in these countries is to ascertain the cause of death, and not to hear a tedious and unintelligible detail of the natural appearances of every tissue in the human body. The questions are the morbid appearances observed sufficient to account for death, and were they produced by natural disease or by violence? I shall consider all the bearings of this position in my remarks on the manner of giving medical evidence.

When the body is mutilated externally, we should examine all the cavities, especially the intestinal canal, as cases are recorded in which poison was detected under such circumstances.

Can we distinguish wounds inflicted before and after death?

In describing wounds, I have endeavoured to point out the diagnosis between ecchymoses and cadaverous lividity—a point of the greatest importance.

When a wound is inflamed, in a state of suppuration or cicatrization, it must have been produced before death.

If it is inflicted in the last moments of life, its edges are more or less retracted and tumid, it is covered with a clot of blood, there is a sanguineous infiltration in the cellular tissue.

When a wound is made some hours after death, its lips are retracted as if inflicted during life, but its lips are pale, not tumified, without any trace of blood; the cellular tissue is not infiltrated, unless a large vein has been divided.

But when a wound is made immediately after death, it is impossible to draw a distinction; it will possess all the characters of a wound inflicted in the last moments of life Much stress has been laid on the presence of blood stains upon clothes, and deadly weapons found upon or near the deceased, or in the possession of the accused, but we must be fully convinced of their existence, before we give a positive opinion. Evidence upon this point has too often proved fatal to innocent persons. When such stains are sworn to, the prisoner usually ascribes them to the blood of animals, or to effusion of blood from the nose, an accidental wound or an ulcer; but other facts generally disprove his assertions.

Can we distinguish by dissection whether death is the effect of homicide or suicide? A careful examination of the situation of a wound, may perhaps enable us to determine this question in the affirmative. If, for example, a fatal, incised, or punctured wound, exists on the back of the head or chest, if the hand or hands of the deceased are also wounded, it is evident resistance had been made, and murder generally proved, though there may be some exceptions. In general a suicide inflicts wounds on the anterior surfaces of the face, chest, and abdomen, and almost always in an oblique direction from right to left: those made by an assassin are from left to right; but though this difference is conclusive with some jurists, I think it far from being positive or satisfactory.

Fodéré is of opinion that the expression of the physiognomy of the suicide is more tranquil than that of the victim of homicide; but this distinction is far too nice to be depended upon.

Before we arrive at a final conclusion, we must consider the age, physical and moral constitution, the season and constitution of the atmosphere, &c. In general, suicide is

very rarely committed before puberty, generally from the age of 20 to 50, and rarely after this period. It is said that persons of a sanguine temperament commit suicide in an instant of passion, and the melancholic after long deliberation. It is proved by late writers, that this dreadful act is not so much influenced by climate as was formerly imagined, and that it is as common in Paris as in London. The human frailties and passions are to be found in all nations; and hence we observe, that the hope to serve a country, parent or friend, the respect for religion, for the laws, the belief in a certain religion, political dogmata, philosophical principles, prejudices, usages, pain, moral or physicial, chagrin, weariness of life, impotence, delirium of passions, acute diseases and mania, are the motives and causes of suicide in all civilized countries.

Reflection has convinced me that the moral as well as the physical defects of the human family throughout the face of the globe, are not so very dissimilar, as national jealousy had at one time determined.

Dr. Powell, who was secretary to commissioners for licensing lunatic asylums, published an account of the number of lunatics from 1775 to 1809 inclusive, in which he concluded the malady was on the increase in this country. This conclusion is disputed by Dr. Good, who says, "calculating with Dr. Powell, that the number of lunatic paupers, and those received into public hospitals, which, under the act of parliament, are not cognizable by the commissioners, together with those neglected to be returned, compared with the returns entered into the commissioners' books, bear the proportion of three to two, which is probably far above the mark, still the aggregate number of insane persons for the year 1800, contrasted with the general census for the same year, will only hold a ratio of about 1 to 7300; while if we take, with Dr. Burrows, the proportion of suicides committed in foreign capitals as a test of the extent to which insanity is prevalent in the same towns, which is nevertheless a loose mode of reckoning, though it is not easy to obtain a better, we have reason to conclude, that insanity is comparatively far less frequent among ourselves, than in most parts of the continent: the suicides of Paris, Berlin, and Copenhagen, as drawn from tables collected by Dr. Burrows for this purpose, being, in proportion to the relative population of London, as 5 to 2 for the first, 5 to 3 for the second, and 3 to 1 for the third."

Sir Andrew Halliday maintains, that the number of the insane in England has been tripled during the last twenty years.—*Letter to Lord Robert Seymour*, 1829.

BIBLIOGRAPHY.

MEDICINE.

1. *Phthisis in its last stage, terminating favourably.*—I was requested to see a post-boy, who had been long ill with cough, and had emaciated considerably; I found him, as I thought, in a hopeless state of pulmonary phthisis. He was a victim to the dark catalogue of ills which characterize the last stage of that complaint. His emaciation was extreme. He had, alternately, colliquative diarrhœa and profuse sweating. The mouth was aphthous; the cough harassing, and the expectoration profuse. The ankles were œdematous, and the countenance pale and cadaverous. The breathing quick and laborious. The disease had come on insidiously. I regarded it as a lost case, and so spoke of it to the friends, ordering merely a mixture of chalk and laudanum to restrain the diarrhœa; and after visiting him a few times, abandoned him to his fate. To my no small surprize, the man recovered by continuing the chalk mixture, and has resumed his station as a post-boy, which employment he has continued for the last three years: but there is manifestly still existing great mischief in the lungs. His breathing is short, and he is never without a cough; moreover, his appearance is cadaverous, and gives proof that he is still a prey to some disorganizing process in the important viscera of the chest. Notwithstanding all this, he has so far recovered as to be able to follow his avocation, and is exposed to all the hardships which attend the life of a post-boy.

What shall we say, then, of this case? Is chalk mixture a cure for pulmonary consumption in its last stage? Dr. Hastings.—*Midland Med. and Surg. Rep. Feb.*

2. *Impotence and Sterility.* Dr. Harrison has published an essay on the powerful influence of the spinal nerves over the sexual organs, and through them upon the general state of the body, which was added to an appendix to the Monthly Gazette of Practical Medicine. The author relates some curious cases of spinal disease which produced impotence and sterility, which finally gave way to his plan of treating the original disease. We believe there are few practitioners in this country so successful in the treatment of spinal curvature as Dr. Harrison, and we have in an original editorial observation, on impotence and sterility published in this Journal, adduced ample

evidence of the possibility of these affections depending on the causes under consideration.

We are sorry to observe a gross and personal attack, in the last Monthly Gazette of Practical Medicine made by Dr. Fosbroke of Cheltenham, on a highly respectable and regularly educated surgeon of this city—Mr. Darwin. Granting every merit to the writer for his unbounded zeal in attacking empiricism, of which few more highly approve than ourselves, we would recommend him to be a little more cautious in naming individuals in future. We might expatiate further on this topic, but we shall decline to do so. Neither shall we remind the parties of an old adage, which will naturally suggest itself, if not to them, to every other practitioner who views their position.

3. *Proposed Nottingham Dispensary.*—We have been favoured with a well written historical sketch of the Medical Charities of Nottingham, by Mr. Thomas Jewett, surgeon of that town, where, among the fullest particulars of these Institutions, we find to our utter astonishment "the exclusion of the medical faculty from the committee of the proposed dispensary." This piece of imbecility and presumption on the part of the governors, naturally aroused the profession to assert its dignities, and led to several meetings of the whole faculty, which were conducted in that decorous manner, characteristic of our profession. A remonstrance was unanimously adopted against the *nominal* cause of exclusion, "it was not desirable to place medical gentlemen on the committee from the danger of exciting professional jealousy and of giving undue influence to individuals, who might afterwards wish to become medical officers of the charity." It clearly appears to us, from the evidence before us, that the exclusion of the physicians and surgeons was a preconcerted plan on the part of the governors, and that they were perfectly justified in remonstrating and resenting the indignity offered to them. We are truly surprised that the governors should be so blind to the interests of the intended institution, as to exclude those best qualified to afford information on the best manner of managing it. They might have looked to their Hospital, Lunatic Asylum and other Institutions, for the benefits conferred by the medical committees; and if they still doubted, they might have inquired how is this affair managed in the metropolis. They would then have learned that there is not a Dispensary in London, that has not its medical committee, a body to which the general committee looks with the greatest respect for information as to the best mode of conducting the institution. We should have doubted the possibility of the occurrence of such a piece of absurdity, had we not been convinced of the fact, that Dr. Marsden, the senior physician of Nottingham, and twenty six other medical gentlemen had signed the remonstrance. As soon as the sage governors had their eyes opened by the medical meetings, they struck their colours, and expressed themselves, ready, willing and "happy to receive them (the medical practitioners) into their body."

These worthies ought to be henceforth designated, "*The Wise Men of Nottingham.*"

PRACTICE OF MEDICINE.

4. *State of Medicine in Turkey.*—"This gentleman was born at Zagori, a district not far from Ioanina, famous throughout the Levant for its breed of itinerant quacks. The male population consists solely of M. D.'s; Zagoriot and doctor being synonymes; and indeed, the medical profession becomes, in their hands, so lucrative, as entirely to supersede the necessity of any other. An idea of their wealth may be formed from their houses, which are well built, spacious, and the best furnished in Turkey. When at home, they live like gentlemen at large. It may not prove uninteresting to those who wish to ascertain the state of medicine in Turkey, to hear some particulars relative to the education and qualifications requisite to obtain a degree at this singular university. The first thing taught to the young men is the professional language; a dissonant jargon composed purposely to carry on their business, hold consultations, &c. without being understood by any being in existence but themselves. They are then taught reading sufficiently to decipher the pages of their ιστοριφι, or manuscript, containing a selection of deceptive formulæ, for all possible diseases incident to human nature. When a candidate has given before the elders proofs of his proficiency in these attainments, they declare him to be *dignus entrare in docto nostro corpore*; and he then prepares to leave Zagori. The Zagoriots generally travel about Turkey in small bands, composed of six or eight different individuals, each of whom has a separate part to perform, like strolling players. One is the signor dottore. He never enters a town but mounted on a gaudy-caparisoned horse, dressed in long robes, with a round hat and neckcloth; never opening his mouth but *ex cathedra*, his movements are performed with due professional gravity, and he is at all times attended by his satellities. One is the apothecary; the second the dragoman; for it is the doctor's privilege not to comprehend a syllable of any other language but the Zagoriot: a third is the herald, who, endued with a surprising volubility of tongue, announces through the streets and in the public squares, the arrival of the incomparable doctor; enumerates the wonderful cures he has performed; and entreats the people to avail themselves of this providential opportunity: for, not only does he possess secrets for the cure of actual diseases, but of insuring against their future attacks. He possesses the happy talent too of ingravidating the barren, and leaves it to their choice to have male or female, &c. &c. He is skilled in the performance of operations for the stone, cataracts, hernia, dislocations, &c. Two others, who pass under the denomination of servants, employ their time in going from house to house in quest of patients; and as, from their menial employment, they are thought to be disinterested, credit is the more easily given to their word. Thus they journey from town to town, hardly ever

remaining more than a fortnight in any place. After a tour of five or six years, they return for a while to their families, and divide in equal shares the gains of their charlatanism. On a second journey, they all change parts, in order to escape detection. The dottore yields his dignity to the servant, and does the same offices to him as he was wont to receive; the dragoman becomes herald, the herald apothecary, &c."—*Literary Gaz.*

SURGERY.

5.—*Case of Fungus Hæmatodes of the Thigh, cured by Amputation.* By William M'Dowall, Surgeon, Kirkcudbright.—William Carson is a lad of about 23 years of age, in the village of Twynholm, near Kirkcudbright. He had about nine years ago been seized with a swelling and inflammation a little above the right knee joint, upon the inside of the thigh, accompanied with fever and swelling all over the thigh, and an abscess formed, which, as described to me, had broke of itself, and discharged a great quantity of matter from three different openings above the knee. It continued to discharge matter occasionally till about the end of September 1829, when I was called to see him. The thigh was then swelled from the knee to near the groin. The tumour was found soft, and had the appearance of fluctuation but not very distinct, like a deep-seated abscess. I called two days afterwards and opened the tumour, with an abscess lancet, but no matter came out; thinking that I was not deep enough to reach the matter, I opened it more deeply with a scalpel, but nothing appeared except a white fatty substance and a little discharge of blood from the cut. From that opening of the integuments, a large fungous white tumour began next day to advance, and every day it gradually shot out larger and larger. I enlarged the opening of the integuments of the thigh to see what size the tumour would grow to. It continued to enlarge till it measured about twenty inches the one way over the top, and nineteen inches the other way, and the circumference at the base measured about twenty-five inches. It had much the appearance of a large melon, and blood began to ooze from it, as if pressed from a sponge. There was no way of stopping the bleeding, but by fine tow or lint applied dry over the surface; upon the top it began to mortify, and emitted a very fœtid smell. The lad was anxious to have this tumour removed. For this purpose, he was taken out of bed, and placed upon a table, and when the tumour was cut into, its substance appeared to be soft and pulpy like brain. It was removed down to the bone of the thigh, and was found to penetrate under the integuments and betwixt the muscles; I was obliged in a great measure to push it out with my fingers, for, on account of its softness, it would not separate well from the muscles by cutting.

There was a great loss of blood in the removing of the tumour, which took much longer time than I had anticipated. The lad was nearly an hour under the operation; and from these causes, when the wound was dressed he fainted away, and I was much alarmed for his

recovery from the faint; but by cordials and applying heat to his feet he gradually recovered. The sac and wound seemed to get clean, and began to fill up with new granulations. The matter got better; his appetite and strength seemed to recruit for about two or three weeks; and we were hopeful that the wound would have healed, but the appearances did not continue long. Five fungus tumours began to advance out of the sac of the wound. Every day they enlarged, and they at length assumed heads as big as the largest apples, and indeed appeared very like a cluster of apples upon a tree. When this second fungus growth was advancing, a sharp point of bone was felt by the finger just over the head of the fibula. It had separated from the inside of the thigh bone, and had passed into the situation just mentioned, where it was cut out with difficulty. As soon as it was removed, a large fungus tumour just of the same appearance with the others began to advance. That fungus bled profusely; and when the lad moved his limb, or upon the tumours being dressed, I observed the blood oozing out of the top of them all, like water pressed from a sponge. He went on in this way for several weeks; and from pain and loss of blood he was reduced to the last state of human distress and misery. His pulse was upwards of 125, his face pale, and his appetite nearly lost, and he was affected with diarrhœa. It was now about ten weeks from the time I had first seen him, and it was suggested that the only chance he could have of recovery was by the amputation of the limb. To this, although he had previously objected, he now readily submitted; and on the 10th December, 1829, after consulting with James Watson, Esq. surgeon in Gatehouse, I performed the operation by amputating the limb above the diseased part. The lad stood it well, and there was not above half a cupful of blood lost in the operation. The place where the patient lay was a poor cottage, which being badly lighted, and the day being dark, we were obliged to use candles in taking up the vessels—this caused the operation to occupy a few minutes longer. It is unnecessary to relate the different steps of the operation, but the limb was taken off very high up, about four inches below the trochanter major. The pulse came down, and the general health improved every day after the limb was taken off, and in about a month the stump was quite healed, and the poor lad had quite recovered his strength. I may mention, that I met him on the road upon the 10th day of April, 1830.

After the limb was removed, it was dissected and examined, when it was found that the piece of bone measuring five inches in length, which was cut out near the head of the fibula, had been detached from the femur, and had left the cavity of that bone open to the marrow. From this opening the fungus hæmatodes had proceeded. The whole of the muscles near the knee joint were turned into cellular substances and had lost their action, and there was very little motion of the joint. The cavity of the joint seemed to be

sound, but the thigh bone above the knee on the inside where the piece of bone had exfoliated was in a curious state a long way up.

MATERIA MEDICA.

6. Dr. Reece has published a Medical Annual for 1831, containing an account of the latest discoveries and improvements in medicine of real practical utility, in which the author has executed his task in a concise yet comprehensive manner. He has added a selection of prescriptions of established efficacy, a catalogue of diseases and their treatment, with a list of drugs, their doses and numerous auxiliaries to medicine. This work contains much valuable and recent information, and will be perused with great advantage by the general as well as the junior medical reader.

MIDWIFERY.

By Mr. J. Greening, Surgeon, Worcester.

7. I was requested to call upon Mrs. O. aged 35 years, of a spare habit. She complained of acute pains over the lumbar region, which were increased upon taking a deep inspiration, or from over exertion. The bowels were regular; she had not menstruated for the last five or six months; she believes herself to be pregnant; the palpitation of her heart is so strong, as to be visible; the carotid arteries are quickly pulsating. She had been troubled with this complaint for several years, and had taken the opinion of the best informed medical men in this part of the country, whose opinion was, that she should be occasionally bled. At times, she seemed to have lost the use of her arms; but, upon grasping any thing firmly, she was relieved. The pulse is regular and full; she is troubled with leucorrhœa. Fiat venæ sectio ad ℥xvi. Low diet.

28th.—The blood is buffed. She is better.

29th.—I saw her again about half-past nine, P. M. She had been with a person whom I delivered the day before, the best part of the day. After her return home, she was seized with acute pains in her bowels, coming on at intervals, like labour pains, There is no discharge. ℞ tinct. opii ♏xx. mist. camph. ℥iss. m. ft. Haust. statim sumend. Eleven o'clock. The pains still continue.

30th.—1 o'clock, A. M.—A fœtus was expelled at the sixth month. The placenta was thrown off by the efforts of the uterus. The child was so small and feeble, that I requested the nurse to put it by, for I thought it could not possibly live. I am confident it would go into a quart jug.

July 1st.—She had a very restless night; she is thirsty; her bowels are costive. Sumat ol. ricini, ℥ss. Milk is secreted in her breasts. The discharge continues. The pulse is hard and frequent, not so full. The child is alive, and takes gruel.

9 o'clock.—The oil has operated; she is restless; the pulse is soft, and 80 in a minute; the skin is dry; there is much pain over

the lower part of the belly and right iliac region; pressure gives pain. Ap. hirud. xii. part. affectæ. ℞ Liq. ammon. acet. ʒiss. Pot nitrat. ʒi. Liq. antimon. tart. ʒiss. Aq. menth. ʒiv. ss. m. Sumat. coch. mag. iii. 4tis. horis.

2d.—She is much better.

3d.—She had occasional pains in the night. The pulse is 75; the tongue is clean; the skin moist. Capt. ol. ricini. ʒss. statim. The child takes the breasts.

4th.—She is sitting up, and complains of nothing but weakness. The child improves.

31st.—Up to the present time they are both well. I again questioned her respecting the time when she last menstruated, and she assured me she had not since January.

April 30, 1830.—She engaged me to attend her again in her lying-in, which she expected to take place at the latter end of July of the present year.

June 13th.—I was sent for from Malvern, about three o'clock, P. M. She had been in labour for some hours. She was delivered at five o'clock. The labour was natural. The child was betwixt the seventh and eighth months, and very feeble. Brandy was administered to it, and the warm bath used. This child was much larger than the last, but the nails were wanting.

14th.—The child is living, and the mother is doing well.

The foregoing cases do not abound with much novelty; still it seems worth while to note the occurrence of two children born at so early a period of pregnancy, and both of them thriving and doing well. Dionis, Portal, Chapman, and other authors of a more recent date, who have written upon midwifery, have given numerous cases; but I do not remember any of them describing a case in any respect like these.—*Midland Med. Rep. Feb.*

MEDICAL JURISPRUDENCE.

8. *Trial of St. John Long, for Manslaughter. Before Baron Bayley, Justice Bosanquet and Baron Bolland. Old Bailey, February* 19.

The indictment against the prisoner charged him "with having, on the 6th October, 1830, committed an assault upon Mrs. Colin Campbell Lloyd, the wife of Edward Lloyd, and on divers other days between that and the 12th of same month, by administering certain noxious unwholesome vapours and a certain inflammatory, corrosive, and dangerous liquid which was applied to the chest and breast of deceased, by washing, sponging and rubbing, whereby she received and procured one mortal sore and ulcer, of sixteen inches in length, nine inches in width, and two inches in depth; in consequence whereof she lingered to the 8th of November following, when she died."

The deceased was forty-eight years of age, and had no complaint except globus hystericus. The husband had first seen the pa-

soner at the inquest of Miss Cashin in August, and deemed it right to have his advice. It appeared that the deceased inhaled, and was rubbed on the 6th of October, and on the 8th her breast was sloughing and in excruciating pain, and the prisoner said "that every thing was well and going on just as he wished." He even proposed to repeat the external application, which deceased refused. Mr. Campbell was now called in, as also Mr. Vance, both of whom considered the patient in great danger, and she ultimately expired. Such is a condensed view of the facts stated in the opening speech for the prosecution.

Captain Lloyd substantiated this evidence, and stated, that on the 3d of October his wife had applied a blister about the size of half-a-crown to her throat, as was her usual practice, and this was nearly healed on the 6th. She called on the prisoner on the 7th, 8th, 9th and 10th, and then complained of a violent burning across her chest, there was great redness, darker in the centre than at any other part; she also complained of great shivering and cold; the edges round the spot became white and puffed up, there was a whitish thick discharge from the centre; these symptoms increased when the redness stopped; there were blisters on the skin; wherever the discharge had gone the skin was irritated, in the end wherever the discharge had gone, the part mortified. Thirst, restlessness, vomiting and feverishness were urgent. At this time the prisoner said there was no danger, as these appearances were generally the case in the first instance. During this state of things, a cabbage leaf was applied by the advice of the prisoner, but it having procured no relief, deceased threw it aside, and applied a simple blister and dressing. The prisoner applied a towel to absorb the moisture; or, as he said, to rub it out. He said greasy plasters were injurious, and old linen the best. He was dismissed; Mr. Campbell called in, as also Mr. Vance and Mr. Brodie. The prisoner sent a strange person to see Mrs. Lloyd, but he was refused, and referred to the medical gentlemen in attendance.

Mr. Campbell described the deceased as suffering great pain from an extensive wound covering the whole anterior part of the chest, the skin was destroyed and lay separated in folds on the chest, the cellular membrane under the skin was partly destroyed, and there was a considerable discharge from the whole wound, which extended from nearly one armpit to the other, above the throat, to the bottom of the chest; the skin was nearly off both breasts; the centre of the wound was darker in colour than the other parts, cabbage leaves were applied, which witness removed, and substituted spermaceti ointment. When Mr. Vance came, he approved of the treatment, and advised some calamine powder with poultices. The patient had saline aperients, quinine and mineral acids. Mortification commenced about a week after witness's attendance. The wound on the breast was the cause of death; it

was not necessary to produce it for the disease in the throat or for any disease. On cross-examination, Mr. C. admitted the known injurious effects produced by blisters, had apprized the sister of deceased of her danger, did not recommend a consultation, as the family were satisfied with his ability.

On re-examination, witness said, though he apprehended danger, he believed he understood the treatment perfectly, and after the body was examined, he saw no reason to think he was mistaken; the injury was not similar to that produced by common blisters. The simple dressing was calculated to reduce inflammation; rubbing would have increased, and would not in any way have benefitted the treatment.

Mr. Vance corroborated the testimony of last witness; was called on 21st October, when Mr. Lloyd described the patient as suffering from extreme soreness in her mouth and throat, and attributed it to the inhalations of Mr. Long; there was a sloughing ulcer on the chest, the wound was 17 or 18 inches long, and 10 or 12 broad, the dead parts were separating from the living; the friends were apprized of the certainty of her death; the mortification was the cause of death. No man of common skill or prudence would have produced such a wound in two or three days; such practice is the greatest proof of rashness and ignorance. Mr. Campbell's account in court of his treatment, corresponded with his statement to me.

Mr. Brodie confirmed the evidence of the last two witnesses; he never, in the whole course of his practice, knew such inflammation as in the case of Mrs. Lloyd, produced by any external application, prescribed by a medical man.

Mr. Richard Franklin, a surgeon, agreed with the former witnesses. This was the case for the prosecution.

It was contended on behalf of the prisoner, that there was no felony committed, that both regular or irregular practitioners were placed in the same situation in the eye of the law, and that there was no case to go to the jury.

Mr. Baron Bayley held, that any man presuming to meddle with what he did not understand, unacquainted with principles, venturing to prescribe for the sick, incurred a heavy responsibility, and indisputably, in some cases, was guilty of manslaughter. Thus, if a man were to say laudanum is an exceedingly good medicine, no one could question his assertion; but were he to administer a teacupful of laudanum, was there any man in his senses would say that such a person was not guilty of manslaughter? Surely then, the person who would so deal with that valuable medicine, a deadly poison, for it was the one or the other, according to the quantities in which it was administered, would in the eyes of all men, be guilty of a most criminal act, and would be pronounced by every lawyer, to have committed the offence of manslaughter. The same observation applied with equal force to any misapplication of any medicine, when the party misapplying it, had neglected previously to

nake himself acquainted with its properties. The consent of the patient in the present case, did not prevent it to be an offence against criminal law.

The prisoner was then called on for his defence; the principal points of which were the following: that when he ceased to attend Mrs. Lloyd, there was no mortification; the flesh was red and healthy, and no injury appeared for eight days afterwards. He knew nothing of any blister; how could the medical men state the cause of death, without the examination of the head and spine, the case was not his but Mr. Campbell's; and the only remedy employed to cure mortification was spermaceti plaster. He could show by the testimony of hundreds of witnesses, that his process of inhaling, is attended with the most complete success; he prescribed for the deceased on the Sunday, and she was taken out of his hands on the Tuesday, and then her death attributed to him. Could it be supposed that he, who had cured so many hundreds, should all at once be deprived of his skill, and should be accused, when having prescribed but once, not only of a total failure, but of a felonious intention? Mr. Campbell followed a particular line of practice, evidently absurd and insufficient, and why should he be responsible for the act of another? He could produce gentlemen of known learning and character, who would prove he had sufficient knowledge to prescribe as he had done; he had cured consumption, liver complaint, diseases of the hip-joint, small-pox, insanity, and a number of other maladies, and he never lost a patient, except those who had been previously in the hands of regular practitioners. This proceeding originated with the physicians and surgeons of this Metropolis, though he had spent more money on his education than any ten physicians in that court. He reminded the jury, that he stood there upon the same terms as the President of the College of Physicians; he could produce hundreds in that court, whom he had saved from the jaws of death.

An immense number of highly respectable witnesses bore testimony in the strongest and most unqualified terms to the assiduity, skill and humanity of the prisoner, in the practice of the healing art, and to the high character which he bore amongst those who had been placed under his care, and to the extraordinary success which had uniformly attended him.

Mr. Baron Bayley summed up the evidence in the most luminous manner, and told the jury, if they were satisfied that the prisoner acted with a felonious intention, they must find him guilty. But, on the other hand, they were to remember, that persons with the best intentions, might be sometimes mistaken as to the effects of the remedy they might administer; and God forbid that felony should be imputed in all cases where ill success took place; the chief question for the jury was, whether or not the prisoner had in the present case, acted with due caution, and been previously aware of the nature and effects of the substance he was applying,

and also whether he had shown sufficient skill and knowledge to estimate the effects of such a remedy upon the individual constitution of Mrs. Lloyd; if they thought that he had betrayed gross ignorance, gross rashness, or want of thought, they must find him guilty. It was clear enough, that subsequently to the application of the remedy, he was not guilty of any negligence; but the question was, whether in the first instance, he was rash, ignorant and unskilful. The learned judge then gave an historical account of the evidence, and told the jury, that if they should be of opinion that the death of the deceased took place from the wound, they must give the verdict against the prisoner, but they must be fully satisfied that the death arose from that alone. If, however, they entertained any doubt about it, then they would give the benefit of that doubt to the prisoner; they should also consider, whether the remedy applied was of an improper nature to administer, for if it were not, then the prisoner could not be charged with any bad intent; if they were of opinion that the prisoner was rash in making the application, then he had been guilty of a felonious act; the two points, therefore, he begged to remind them of were, had the death of Mrs. Lloyd proceeded from the wound, and was the application that caused that wound of a felonious nature.

The learned judge then commented upon the evidence of the prisoner, and said it afforded him an excellent character for skill, general care and humanity; the jury must be satisfied as to what was the exact state of the wound when taken under the care of Mr. Campbell, and how it had been in the early stages of the transaction; if, on due consideration of all these circumstances, the jury had a perfect conviction produced in their minds that there was a want of care and improper rashness in using the application in question, and that the use of that was the cause of Mrs. Lloyd's death, then the prisoner was liable to be found guilty, and ought to be found guilty; but if they did not feel that full conviction, then the prisoner was entitled to that doubt, on the points that he had already brought before their notice.

The jury retired for an hour, and then returned a verdict of —*not guilty*.

A more extraordinary verdict than this was never returned in a court of justice. A clearer case of manslaughter, according to the law laid down by the learned judge, could not be recorded. It was stated by the judge, that if the prisoner were considered guilty of rashness, he must be found guilty; and if the wound caused death, a like verdict must be returned. It was proved by all the medical witnesses, that the man who would produce such a horrible wound as that described, afforded the best proof of rashness and ignorance, and this evidence was unimpeached and unimpeachable. This would be the evidence of all the Faculties of Medicine in existence. The deceased lost her life by the infliction of the injury or by the treatment pursued; the medical witnesses proved the

latter to be judicious, and therefore she lost her life by the injury. As to the defence made by the prisoner himself, it was all assertion; and the medical part of it the grossest nonsense ever uttered. The very words, terms and phrases used by this rash and audacious quack, prove his utter ignorance of the slightest acquaintance with medical science.

Who ever heard of spermaceti plasters, of rubbing a suppurating or sloughing ulcer with a towel; of curing incurable diseases?

The presumption and impudence of this man is unequalled in the annals of empiricism. It was no wonder he should influence a common jury by such a tissue of plausibility and nonsense, who decided in this instance directly contrary to the charge delivered them; they have rendered the State a service in allowing him to resume his vocation; but had he been a poor, illiterate, half starved mechanic, he would have found little sympathy. There must have been a few thick headed persons on this jury, and we most strongly advise them to have some of Mr. Long's innocent liniment applied to their scalps as early as possible, lest at a future sessions they perchance might again be called upon, of course, to lend their lucid minds to the consideration of another death, accidentally caused by his remedies, not manslaughter. If Mr. Long have a spark of humanity in his composition, let him peruse some work upon local and constitutional irritation, and open his eyes to the dangerous and fatal practice he employs indiscriminately and extensively in all ages, constitutions, habits and temperaments.

Had he been aware of the danger of slight local irritation in certain habits of body, and how speedily it will destroy life, he would shudder at the rashness and presumption with which he applies his external remedies. We are firmly convinced in our own minds, indeed as much so as we are of our existence, that both Miss Cashin and Mrs. Lloyd lost their lives by his remedies; and any candid, honest and scientific member of our profession, must arrive at this conclusion. If Mr. Long pursued a practice, not indiscriminate, not dangerous to human life, we should never waste a line about him. We should consign him, with his innumerable brethren in this metropolis, to silent contempt. We should not blame him to gull the public, "nine tenths of which are fools," and his supporters chiefly of this class; for if lords, ladies and gentlemen choose to stultify themselves, they cannot be prevented. But when we see a man cause a painful ulcer of the magnitude in Mrs. Lloyd's case, and persist in declaring it safe and as he wished, and what was usual, no punishment could be too great for such a fell destroyer of society; for upon his own showing he must be guilty of sacrificing human life to an extent little imagined by the public. Can any scientific practitioner deny this fact?

If 1000 patients were subjected to the same injury as Mrs. Lloyd, we would ask how many could recover? Perhaps not five

not even one. Well might Mr. Vance and Mr. Brodie condemn the desperate practice of producing such a formidable and fatal injury. Mr. Long, like all pretenders to physic, entertains a most erroneous and absurd idea, that he can cure all diseases by one remedy. He of course can form no idea of the difference of tissue, of structure or of functions of different organs, nor no notion of the fact, that when a part becomes disorganized, or its natural structure destroyed by disease, such an organ can never be restored to its natural condition. In the last stage of consumption one or both lungs may be disorganized in part by tubercles, by purulent matter or the various other morbid changes, known to the educated practitioner; and it would be as sensible of Mr. Long to assert he could substitute a new lung for a diseased one, as to say he can cure consumption. So also with regard to all other organs. We throw out these observations as we know they will meet his eye, otherwise we should apologise to our readers, for stating facts so well known, but we hope humanity may be the gainer.

MISCELLANIES.

9. *Asbestos*—In a communication recently made to the French Academy by M. Aldini, with reference to his fire-proof dresses, he states that some experiments, which have been made at Milan, seem to shew that garments, composed of asbestos, will supersede the necessity of metallic dresses. A manufactory for asbestos cloth has already been established at Valleline; and a paper maker has it in contemptation to employ it instead of cotton or linen in the fabrication of paper intended for theatrical scenery. Asbestos may be easily imported from Corsica, where it is found in great plenty, and of excellent quality. It exists also in several other countries of Europe, in which no use is at present made of it.—*Literary Gaz.*

10. *King's College.*—We have at various times reported progress in what concerns this interesting Institution, and have now to add to the several appointments mentioned on preceding occasions, those of N. W. Senior, Esq. to the chair of political economy; J. J. Park, Esq. English law and jurisprudence; the Rev. Henry Moseley, natural and experimental philosophy; Joseph Lowe, Esq. lectureship of commerce; the Rev. J. R. Major, A. M. head master of the High School, attached to the upper department.

11. We are glad to learn that the typhus fever, which has for some time past been raging with great violence at Warwick Bridge, is now considerably abated. The greatest exertions have been used by the Messrs. Dixon to arrest the progress of this dangerous disorder; and to these, added to the skilful treatment of the patients recommended by Dr. Barnes, may in a great measure be attributed the decidedly favourable turn which it has already taken. Printed regulations and directions, drawn up by Dr. Barnes, in which cleanliness, ventilation, fumigation, and immediate separation of the sick from the healthy, were insisted upon, have been strictly enforced

among the operatives; and the more effectually to carry them into effect, a temporary hospital, to which all access was shut out, except by permission, was erected, and a person appointed to fumigate and whitewash the houses, and to see the regulations attended to. Owing to these excellent precautions, the fatality of the fever has been comparatively trifling. There have been a few deaths among persons in different occupations in life; but it is worthy of remark that not one person in Messrs. Dixon's cotton-works has died, although upwards of one hundred cases of this fever have occurred, —a circumstance which speaks loudly in favour of the preventive and remedial system adopted in that establishment.

12. *Extraordinary Productiveness.*—In the month of September, there were sown, in a garden near Silberberg, in Silesia, 287 grains of wheat. At the ensuing harvest, they actually produced 117,644 grains, fully and perfectly matured! There were two ears, amongst the rest, one of which contained 1055, and the other 1077 perfect grains. The longest halm measured six feet two inches in length, inclusive of the ear, and some of the leaves were two feet and more in length.

13. *Paracentesis cranii.*—Dr. Conquest has performed this operation in seven cases of chronic hydrocephalus, in four of which a complete cure has been effected. We trust a full detail of these important cases will be speedily laid before the profession.

BOTANY.

14. *Guaco.*—At a late meeting of the Medico-Botanical Society, a paper on guaco, by Mr. Hermann, was read; in which numerous facts in proof of the efficacy of this plant as an antidote for the bites of serpents were adduced. Dr. Sigmond informed the meeting, that Mr. Tegart had the plant in full perfection in his garden. It was also stated by the noble and scientific president, Earl Stanhope, that the Society will furnish any practitioner with this remedy by applying to the secretaries, Dr. Sigmond, 24, Dover Street, and H. Gibbs, Esq. 47, Half-moon Street. We communicate this information, as Dr. Whiting observed, that the remedy seemed to procure some beneficial effects in a case of hydrophobia.

The anniversary address of the noble President was delivered on Wednesday, the 2d ultimo, at eight o'clock in the evening, and was numerously attended by some of the most eminent physicians and other scientific characters. Sir H. Halford addressed the meeting, and eulogized the able address of the noble President, and moved that it be printed for distribution among the members of the Society. It affords us much pleasure to observe the progress of this Society, as it is the only one in this metropolis devoted to investigation of therapeutics. The next meeting of the Society will take place on the 9th instant, and we are happy to state that all medical students are allowed admission to the discussions and lectures on materia medica, botany, toxicology and chemistry, by application to one of the secretaries.

BOOKS RECEIVED DURING THE MONTH.

1. Outlines of Physiology, with an Appendix, containing Heads of Lectures on Pathology and Therapeutics. By William Pulteney Alison, M. D. F.R.S. E. Professor of the Institutes of Medicine in the University of Edinburgh. Edinburgh. 1831. 8vo. pp. 452. Blackwood.

2. A Manual of Analytical Chemistry. By Henry Rose, Professor of Chemistry at Berlin. Translated from the German, by John Griffin. London. 1831. 8vo. pp. 454. Tegg.

3 Physiology of the Fœtus, Liver, and Spleen. By George Calvert Holland, M. D. Lecturer on Physiology, and Joint Lecturer of the Practice of Physic in the Sheffield Medical Institution. London. 1831. 8vo. pp. 229. Longman and Co.

4. The Effects of the principal Arts, Trades and Professions, and of civic states and habits of living, on Health and Longevity; with a particular reference to the trades and manufactures of Leeds; and suggestions for the removal of many of the agents which produce disease, and shorten the duration of life. By C. Turner Thackrah. London. 1831. 8vo. pp. 126. Longman and Co.

5. Appendix to the Second Edition of a Series of Observations on Strictures, &c. &c. By R. A. Stafford, Esq.

6. Arteriology of the Human Body. By Bornmann; revised, and adapted to the English Nomenclature, by T. King, Professor of Anatomy and Surgery. London. 1830. 8vo. pp. 15. Feuillet, Dumus and Co.

7. Medical Zoology; or Illustrations and Descriptions of the Animals and Minerals employed in Medicine, and of the Preparations derived from them; comprising their generic and specific characters; English, provincial and foreign appellations; a copious list of Synonymes; natural history; physical, chemical and medical properties and uses; including also a popular and scientific account of animal, mineral, atmospheric and gaseous Poisons; with figures coloured from Nature, intended to serve as a continuation or supplement to the Author's, and other works on "Medical Botany," and Materia Medica. By John Stephenson, M. D. F. R. S. London. 1831. Published monthly by Wilson.

8. A few Observations on the Subject of Medicinal Composition, with a view to the establishment of an improved form of Aperient Pill, for domestic purposes; addressed to dyspeptic Invalids, Amateurs in the Practice of Medicine, and the consumers of popular Pills, styled "Antibilious;" and recommended to the attention of country clergymen and benevolent ladies, who interest themselves in the welfare of their poor and afflicted neighbours; to which are added, some remarks upon the St. John Long's principles of Practice; the whole accompanied by numerous explanatory notes. London. 1830. 8vo. pp. 32. Miller.

9. The Companion to Post Mortem Examinations; illustrated by six plates. London. 1831. 8vo. pp. 24. Rose, White, &c.

10. Illustrations of Mr. S. Cooper's Surgical Dictionary, published monthly, containing four lithographic plates, with letter-press descriptions, and references to the text. London. 1830. Longman and Co.

11. The Nottingham Dispensary; its necessity, origin, objects and history; historical and statistical inquiries into the Nottingham General Hospital, St. Mary's Medical Establishment, and other provisions for the sick poor of Nottingham; their resources, expenses, supporters, privileges and government; the nature and extent of their assistance, and other useful information; a correct narrative of the proceedings relating to the proposed Dispensary; full particulars of the exclusion of the Medical Faculty from its Committee; correspondence; the meetings and resolutions of the Medical Profession; and other proceedings arising from that measure; opinions and comments, &c. &c.; the whole drawn up from authentic sources. By Thomas Jowett, Surgeon. Nottingham. 1831. 8vo. pp. 49. Bennett, &c.

12. A Letter to John Bull, on the Dissection of his Body. By Gracchus. 1829. 8vo. pp. 19. London. Eccles, &c.

All Communications and Works for Review are to be addressed to the care of Messrs. Underwood, 32, Fleet Street; or to the Editor, at his Residence, 61, Hatton Garden.

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CRITICAL REVIEW.

1.—*Change of Air, or the Pursuit of Health; an Autumnal Excursion through France, Switzerland and Italy, in the year* 1829. By JAMES JOHNSON, M. D. Physician Extraordinary to the King. London, 1830. 8vo. pp. 294. G. Underwood and S. Highley.

IT is long since we passed an evening so pleasantly, as in the perusal of this very amusing and instructive volume. Every page of it reminds us of the "Sentimental Journey," and in referring to that imperishable production for the list of travellers, we could find none so applicable to the able author before us as that of Yorick—namely, the Sentimental Traveller. Like its prototype, this work, is so spirited, so sentimental, so full of sound moral reflection, so correct and so impartial, that we scarcely know where to look for its equal. It may be said to contain all the information relating to the countries named in the title, which can be interesting to the whole circle of travellers,—whether simple, idle, inquisitive, lying, proud, vain, splenetic, and we may add philosophical. It is a classical and philosophical tour, in which the characteristic features of every district are sketched with fidelity and effect; and allusion is made to every remarkable person or event, connected with the locality described. In addition to extensive reading and research, the author has travelled over many countries in collecting his materials. The work is full of entertainment for all who love history, topography, the description of beautiful scenery, the traditionary legends of country, and the antiquarian accounts of the remains of historical monuments. To travellers and invalids it is an amusing, instructive and invaluable companion. It is impossible to dip into any part of it, without having the attention rivetted, and

the fancy pleased. Of this production we need only say, it is worthy of the accomplished author. It is written with elegance, accuracy, and an impartial spirit of philosophy, and will add to his high literary and professional reputation. Had he written but this volume, he would have ranked among the best topographical writers of the day, for his descriptions "of men, manners and countries," are seldom equalled, and scarcely surpassed.

In justification of these remarks, we must place a few specimens of the work before our readers, though there is little medical matter to be laid under contribution. The following extract is partly of the latter description:—

"*Moral Effects.* If abstraction from the cares and anxieties of life, from the perplexities of business, and, in short, from the operation of those conflicting passions which harrass the mind and wear the body, be possible under any circumstances, it is likely to be so on such a journey as this, for which previous arrangements are made, and where a constant accession of new and interesting objects is presented to the eye and understanding, that powerfully arrests the attention and absorbs other feelings, leaving little time for reflections on the past, or gloomy anticipations of the future. To this may be added, the hope of returning health, increased, as it generally will be, by the daily acquisition of that invaluable blessing, as we proceed.

"One of the first perceptible consequences of this state of things is a greater degree of serenity or evenness of temper, than was previously possessed. There is something in the daily intercourse with strangers, on the road, and at the TABLE-D'HÔTE, which checks irritability of temper. We are not long enough in each other's society to get into argumentation, or those collisions of sentiment which a more familiar acquaintance produces, and too often raises into altercations, and even irascibility, where the mind and body are previously irritable. These short periods of intercourse are the honeymoons of society, where only good humour and politeness prevail. We change our company before we are intimate enough to contradict each other, and thus excite warm blood. Besides the conversation generally turns on scenes and subjects with which we are pleased and interested on the road—while political and religious discussions are studiously avoided by all travellers, as if by a tacit but universal compact. One of the best remedies, then, for irritability of temper, is a tour of this kind. A few hundred pounds would be well expended, annually, by many of our rich countrymen, in applying this pleasant remedy to the mind, when soured and unhinged by the struggles after wealth, rank, or power!

"I have already pourtrayed the influence of bad health, and especially of disordered states of the digestive organs, in producing *depression of spirits*, or mental despondency, far worse to bear than corporeal

pain. For the removal of this kind of melancholy, there is no other moral or physical remedy of half so much efficacy as a tour conducted on the plan which I have pointed out. It strikes directly at the root of the evil, (as I shall presently shew, when speaking of the *physical* effects of travelling,) by removing the causes on which this sombre and irritable state of mind depends. It is true that, in some cases of confirmed hypochondriacism, no earthly amusement, no change of scene, no mental impressions or excitement, no exercise of the body, can cheer the gloom that spreads itself over every object presented to the eye or the imagination! With them, change of place is only variety of woe—cœlum non animum mutant. Yet, from two or three instances which have come within my knowledge, of the most inveterate, and apparently indomitable hypochondriacism being mitigated by travelling, (though the mode of conducting the journey was far from good) I have little doubt that many cases of this kind, which ultimately end in insanity, or at least in monomania, might be greatly ameliorated, if not completely cured, by a system of exercise conducted on the foregoing plan, and urged into operation by powerful persuasion, or even by force, if necessary. The change for the better, in such cases, is not perceptible at the beginning of the tour; but when the functions of the body have once begun to feel the salutary influence of the journey, the mind soon participates, and the gloom is gradually, though slowly dispelled. Where the mental despondency is clearly dependent on disorder of the digestive organs, and has not yet induced any permanent disease of the brain, an almost certain cure will be found in a journey of this kind, for both classes of complaints. It is hardly necessary to observe that beneficial effects, to a greater or less extent, will be experienced in other sombre and triste conditions of the soul, resulting from moral causes, as sorrow, grief, disappointment, crosses in love, &c. by a tour conducted in such a manner as strongly to exercise the body, and cheerfully excite the mind.

" In a former part of the work has been shewn the powerful influence of moral causes in deranging the functions of the body through the medium of the intellectual functions. The same functions may be made the medium of a salutary influence. In the greater number of nervous and hypochondriacal complaints, the attention of the individual is kept so steadily fixed on his own morbid feelings as to require strong and unusual impressions to divert it from that point. The monotony of domestic scenes and circircumstances is quite inadequate to this object; and arguments not only fail, but absolutely increase the malady, by exciting irritation in the mind of the sufferer, who thinks his counsellors are either unfeeling or incredulous towards his complaints. In such cases, the majestic scenery of Switzerland, the romantic and beautiful views in Italy and the Rhingau, or the keen mountain air of the Highlands of Scotland or Wales, combined with the novelty, variety, and succession of manners and customs of the countries through which he passes, abstract the attention of the dyspeptic and hypochondriacal traveller (if any

thing can) from the hourly habit of dwelling on, if not exaggerating, his own real or imaginary sensations, and thus help to break the chain of morbid association by which he is bound to the never-ending detail of his own sufferings. This is a paramount object in the treatment of these melancholy complaints: and I am convinced that a journey of this kind, in which mental excitement and bodily exercise are skilfully combined, would not only render many a miserable life comparatively happy, but prevent many a hypochondriac and dyspeptic from lifting his hand against his own existence. It would unquestionably preserve many an individual from mental derangement.

"This principle was well understood long before medicine was established as a science. At the extremities of Egypt were two temples dedicated to Saturn, and to these the melancholics or hypochondriacs of ancient days were sent in great numbers. There the priests worked on the body as well as the mind by the pretended influence of supernatural, and the real influence of medicinal agents. The consequence was, that miracles, or at least *miraculous* cures were daily performed. The Romans sent their invalids to Egypt for change of scene; and Hippocrates has distinctly recommended those afflicted with chronic diseases, to change the air and soil—'In morbis longis solum mutare.' It would be going out of my province to speak of the benefits of travelling in any other moral point of view than that which is connected with the restoration of health: I shall, therefore, proceed to a consideration of the effects of this combination of mental and corporeal exercise on our bodily functions.

"*Physical Effects.*—The first beneficial influence of travelling is perceptible in the state of our corporeal feelings. If they were previously in a state of morbid acuteness, as they generally are in ill health, they are rendered less sensible. The eye, which was before annoyed by a strong light, soon becomes capable of bearing it without inconvenience; and so of hearing, and the other senses. In short, morbid sensibility of the nervous system generally is obtunded, or reduced. This is brought about by more regular and free exposure to all atmospheric impressions and changes than before, and that under a condition of body, from exercise, which renders these impressions quite harmless. Of this we see the most striking examples in those who travel among the Alps. Delicate females and sensitive invalids, who, at home, were highly susceptible of every change of temperature and other states of the atmosphere, will undergo extreme vicissitudes among the mountains, with little inconvenience. I will offer an example or two in illustration. In the month of August, 1823, the heat was excessive at Geneva and all the way along the defiles of the mountains, till we got to Chamouni, where we were, at once, among ice and snow, with a fall of 40 or more degrees of the thermometer, experienced in the course of a few hours, between mid-day at Salenche, and evening at the foot of the Glaciers in Chamouni. There were upwards of fifty travellers here, many of whom were females and invalids; yet none suffered

inconvenience from this rapid atmospheric transition. This was still more remarkable in the journey from Martigny to the great St. Bernard. On our way up, through the deep valleys, we had the thermometer at 92o of reflected heat for three hours. I never felt it much hotter in the East Indies. At nine o'clock that night, while wandering about the Hospice of the St. Bernard, the thermometer fell to six degrees below the freezing point, and we were half frozen in the cheerless apartments of the monastery. There were upwards of forty travellers there—some of them in very delicate health; and yet not a single cold was caught, nor any diminution of the usual symptoms of a good appetite for breakfast next morning.

"This was like a change from Calcutta to Melville Island in one short day! So much for the ability to bear heat and cold by journeying among the Alps. Let us see how hygrometrical and barometrical changes are borne. A very large concourse of travellers started at day-break from the village of Chamouni to ascend the Montanvert and Mer de Glace. The morning was beautiful; but, before we got two-thirds up the Montanvert, a tremendous storm of wind and rain came on us, without a quarter of an hour's notice, and we were drenched to the skin in a very few minutes. Some of the party certainly turned tail; and one Hypochondriac nearly threw me over a precipiece, while rushing past me in his precipitate retreat to the village. The majority, however, persevered, and reached the Chalet, dripping wet, with the thermometer below the freezing point. There was no possibility of warming or drying ourselves here; and, therefore, many of us proceeded on to the Mer de Glace, and then wandered on the ice till our clothes were dried by the natural heat of our bodies. The next morning's muster for the passage over the Col de Balme shewed no damage from the Montanvert expedition. Even the Hypochondriac above-mentioned regained his courage over a bottle of Champagne in the evening at the comfortable 'Union,' and mounted his mule next morning to cross the Col de Balme. This day's journey shewed, in a most striking manner, the acquisition of strength which travelling confers on the invalid. The ascent to the summit of this mountain pass is extremely fatiguing; but the labour is compensated by one of the sublimest views from its highest ridge, which the eye of man ever beheld. The valley of Chamouni lies behind, with Mont Blanc and surrounding mountains apparently within a stone's throw, the cold of the Glaciers producing a most bracing effect on the whole frame. In front, the valley of the Rhone, flanked on each side by snow-clad Alps, which, at first, are taken for ranges of white clouds, presents one of the most magnificent views in Switzerland, or in the world. The sublime and the beautiful are here protended before the eye, in every direction, and in endless, variety, so that the traveller lingers on this elevated mountain pass lost in amazement at the enchanting scenery by which he is surrounded on every point of the compass. The descent on the Martigny side, was the hardest day's labour I ever endured in my life—yet there were three or four invalids with us, whose lives were

scarcely worth a year's purchase when they left England, and who went through this laborious, and somewhat hazardous descent, sliding, tumbling and rolling over rocks and through mud, without the slightest ultimate injury. When we got to the goat-herds' sheds in the valley below, the heat was tropical, and we all threw ourselves on the ground and slept soundly for two hours—rising refreshed to pursue our journey.

" Now these and many other facts which I could adduce, offer incontestible proof how much the morbid susceptibility to transitions from heat to cold—from drought to drenchings—is reduced by travelling. The vicissitudes and exertions which I have described would lay up half the effeminate invalids of London, and kill, or almost frighten to death, many of those who cannot expose themselves to a breath of cold or damp air, without coughs or rheumatisms, in this country.

" The next effect of travelling which I shall notice, is its influence on the organs of digestion. This is so decided and obvious, that I shall not dwell on the subject. The appetite is not only increased; but the powers of digestion and assimilation are greatly augmented. A man may eat and drink things while travelling, which would make him quite ill in ordinary life.

" These unequivocally good effects of travelling on the digestive organs, account satisfactorily for the various other beneficial influences on the constitution at large. Hence dyspepsia, and the thousand wretched sensations and nervous affections thereon dependent, vanish before persevering exercise in travelling, and new life is imparted to the whole system, mental and corporeal. In short I am quite positive that the most inveterate dyspepsia (where no organic disease has taken place) would be completely removed, with all its multiform sympathetic torments, by a journey of two or three thousand miles through Switzerland, Germany, or any other country, conducted on the principle of combining active with passive exercise in the open air, in such proportions as would suit the individual constitution and the previous habits of life.

" There is but one other effect of travelling to which I shall allude, before I close this section; but I think it is a very important one—if not the most important of all. It is the influence which *constant change of air* exerts on the blood itself. Every one knows the benefits which are derived from change of air, in many diseases, when that change is only from one part to another, a few miles separated. Nay, it is proved, beyond all possibility of doubt, that the change from what is considered a good, to what is thought a bad air, is often attended with marked good effects. Hence it is very reasonable to conclude, that the *mere change* of one kind of air for another has an exhilarating or salutary effect on the animal economy. It is true, that we have no instruments to ascertain in what consists this difference of one air from another, since the composition of the atmosphere appears to be nearly the same on all points of earth and ocean. But we know, from observation, that there are

great differences in air, as far as its effects on the human frame are concerned. Hence it would appear that the individual, confined to one particular air, be it ever so pure, languishes at length, and is bettered by a change. This idea is supported by analogy. The stomach, if confined to one species of food, however wholesome, will in time, languish and fail to derive that nutriment from it, which it would do, if the species of food were occasionally changed. The ruddy complexion then of travellers, and of those who are constantly moving from place to place, as stage-coachmen, for example, does not, I think, solely depend on the mere action of the open air on the face, but also on the influence which change of air exerts on the blood itself in the lungs. I conceive, then, that what Boerhaave says of exercise, may be safely applied to change of air. 'Eo magis et densum, et *purpureum sanguinem esse*, quò validius homo se exercuerit motu, musculorum.' It is to this *constant change of air*, as well as to the constant exercise of the muscles, that I attribute the superiority of the plan of travelling which I have proposed, over that which is usually adopted—where HEALTH is the entire object. On this account, I would recommend some of my *fair* country-women, (who have leisure as well as means) to improve the languid states of their circulation, and the delicacy, or, more correctly speaking, the pallor of their complexions, by a system of exercise in the open air, that may give colour to their cheeks, firmness to their muscles, tone to their nerves, and energy to their minds."—p. 30.

Another section of the work, "on the medicinal effects of Italian climate on consumption," is deeply interesting to the medical practitioner. The author satisfactorily proves, that the supposed advantages of residence in warm climates for the cure of phthisis, have been very much over-rated. This is also the opinion of Dr. Clark and others. He institutes a comparison between this and warmer climates, shews the superiority of our own, and, in other words, expresses the sentiments of Sterne, "where, then, my dear countrymen, are you going?" He observes—

"The sum total of our knowledge, then, on this important point, appears to stand thus:—I. In delicate health, without any proof of organic changes in the lungs—in what is called a "tendency to pulmonary affection," a journey to Italy, and a winter's residence there (under strict caution), offer probabilities of an amelioration of health:—II. In cases where there is a suspicion or certainty of tubercles in the lungs, not softened down or attended with purulent expectoration, an Italian climate *may* do some good, and *may* do much harm, the chances being pretty nearly balanced:—III. Where tuberculous matter appears in the expectoration, and where the stethoscope indicates that a considerable portion of the lungs is unfitted for respiration, a southern climate is more likely to accele-

rate than retard the fatal event—and takes away the few chances that remain of final recovery.

" If this be a correct estimate (it is at least an honest one) of the influence of an Italian climate on constitutions disposed to, or affected by pulmonary consumption, it shews that medical men incur a fearful responsibility in proposing to the parents and friends of invalids, a measure which is fraught with danger, involved in uncertainty, and too often attended by the most destructive sacrifices of the feelings, as well of the finances of the parties concerned.

" Those who have not witnessed lingering illness and death-bed scenes in distant climes, can form no just conception of the tide of mournful emotions which daily rushes over the mind of the dying stranger in a foreign land. Death is deprived of more than half his terrors by the sympathy of friends, and the consciousness that our ashes shall be deposited in the land that gave us birth, near those whom, in life, we cherished, loved, or revered! This may be a prejudice—perhaps even a weakness; yet it is natural—it is instinctive—and the instincts of nature can seldom be entirely repulsed, even by the most philosophic minds.

" Expellas naturum furca tamen usque recurrit."

" But the sigh of sorrow, perhaps of regret, is not always buried in the grave of the sufferer, on these occasions. The companion, who counts the tedious hours of protracted disease, and closes the eyes of the departed friend in a foreign country, undergoes a terrible ordeal, always harrassing to the feelings, and not seldom hazardous to life; while the surviving relatives, at home, are subject to the painful anxiety of suspense—sometimes to the poignant stings of remorse, for having suffered the victim of an irremediable malady to expire on a foreign shore!

" Heaven forbid, that on such a momentous question as this, involving the lives of my fellow creatures, I should throw the weight of a feather in the scale against the preservation, or even the prolongation of human existence; but I have lived too long, and seen too much, not to know the errors of discrimination and the fallacies of hope, that send pulmonary invalids from the gloomy skies, but comfortable abodes of England, to lands where comfort is unknown, even by name, and whose atmospheres cannot work miracles, whatever their saints may do. The balance, indeed, between permanent benefit and blighted expectation, or even actual injury, is so nearly poised, that a breath may turn the scale.—That breath is as often one of error as of judgment. The consequences are obvious.

" But there is a large class of complaints which resemble consumption, and which, I have no doubt, contribute much to the reputation of southern climates, for the cure of that terrible scourge. These are bronchial affections, viz.—chronic inflammation or irritation of the mucous membrane of the lungs. The journey to Rome, or to Pisa, and the mild air of the winter in those places, with care

to avoid sudden transitions, often cure or greatly relieve these complaints, and the individuals are said to be saved from tubercular consumption. The greatest care—sometimes considerable power of diagnosis, is required to discriminate the bronchial from the tubercular affection—and yet, upon this discrimination, often hangs the fate of the patient, or, at all events, the propriety of migrating to a southern clime. The science of auscultation, now so ardently cultivated, will prevent much injudicious advice being given by the profession, and much serious injury being sustained by invalids.

"It is also probable, that in some cases where there is a very partial or circumscribed tuberculation of the lungs, (the rest of the apparatus being unaffected) a winter's residence in Rome, Pisa, or Nice, might be beneficial. This is the opinion, at least, of Dr. Clark; but here the greatest care is to be taken, in examination with the stethoscope, to ascertain that the expectoration comes from a very small excavation, the lungs being elsewhere in a sound state.

"There are several other infirmities, for the cure or mitigation of which, the climate of Italy is recommended. One of these is chronic rheumatism, and we have the testimony of Dr. Clark and others, that benefit is often derived, in this complaint, from a residence of some duration at Rome or Nice. This is probably the case; since the cold winds of Italy are dry, and the hot winds are moist—circumstances rather favourable to rheumatism. But it should be remembered that rheumatism is very closely allied to neuralgia, and produced, not seldom, by the same cause—malaria. We shall probably therefore be no greater gainers by depositing rheumatism in the eternal city, and bringing back tic douloureux, or some other malarious disease in its stead. Whatever advantage, then, the rheumatic invalid may derive from the climate of Rome or Nice, during the winter, one position may be safely laid down, that he should avoid those seasons and those places where malaria obtains, in other words, that he should quit Italy in summer."—p. 271.

A curious fact is mentioned with respect to a susceptibility to nervous and spasmodic complaints among the residents of Rome, which is ascribed by many writers to luxurious habits, and by our author to the filth of the eternal city, which, he says, is the dirtiest in Europe, except Lisbon. Both ladies and effeminate gentlemen often faint, on perceiving the odour of the most pleasant flavour. "If compelled to answer the cause of this, I would say that it is the habituation to *stink* of the Roman streets, which prevents the sensibilities of the olfactory nerves, renders them unaccustomed to decent smells, and throws them into convulsions on contact with a perfume." In disorders of the digestive organs, comprising indigestion, bilious, stomach

affections, our author thinks a journey to Italy of advantage, but he will neither assert confidently, nor peremptorily deny, whether a permanent residence be beneficial.

Such are some of the medical opinions of this work, from which few well-informed physicians can dissent. The other parts of the volume are not fit for our pages, but we most strongly recommend the work to all classes of our readers. It is one of the most interesting productions which modern times have produced.

II.—*The Effects of the Principal Arts, Trades and Professions, and of Civic States and Habits of Living, on Health and Longevity.* By C. Turner Thackrah: London, 1831. Longman and Co. Leeds, Baines and Co.

THIS is an exceedingly instructive essay, containing much valuable information on hygiene, a branch of medicine totally neglected in this country. It is the production of a man intimately acquainted with the medical sciences, and is the only work in our language upon the subject. In other countries, the influence of arts, trades and professions, and of civic states, and habits of living, on health and longevity have been duly considered; but thanks to the antiquated rules of our universities and medical colleges, a matter of such vast importance has been excluded from the education of the cultivators and practitioners of medicine in this part of the world. We trust the day is not distant, when reform will and must be effected in our profession—when the vile absurdities of three centuries' date, will be consigned to well-merited oblivion. We have repeatedly exposed the imperfect state of medical police in this empire, and thereby excited the ire of our medical corporations; but we console ourselves with the idea, that one and all of them deserve exposure, as well as the indignation of every independent and zealous friend to science. The day of monopoly and insolent tyranny is gone by, and no longer shall the few lord it over the many. The voice of the many will, shall, and *must* prevail—the whole body of our profession will arouse from that lethargy into which they have been thrown by the sordid and corrupt imbeciles whom the law has placed over them, and whose base and iniquitous career draws fast to a termination. The insolent treatment

and arrogant manners of all our medical corporations, destroy a friendly intercourse or close connexion between their respective members, parties who live by wrong, and fatten upon the vitals of their profession. We turn from such preposterous conduct with disgust, to the pleasing duty of placing the inestimable value of our science to mankind before our readers. The talented and erudite author, after describing man in his several relations, as the most interesting subject for examination and reflection, observes—

"If we turn our view from man to his works, we see the wilderness converted into towns and cities, roads cut through mountains, bridges carried over rivers and even arms of the sea, ships which traverse the globe, lakes converted into corn fields, forests made into pasture, and barren rocks covered with timber; in a word, we see the face of the world changed by human will and human power.

"If we look immediately at home, we observe the wonders which science and art have effected. We see large buildings, manufactures of almost every kind, and substances so changed, reformed and combined, that nature could scarcely know her own productions. We admire the inventions of science, alike in their minuteness and their size, their accuracy, and their extent of operation. We see wool converted into cloth, in establishments so numerous and extensive as almost to supply the civilized world: we see the slight blue-flowered product of the field formed, in the same mill, into the thread which passes through the eye of the needle, and into the canvass which bears our ships to every region of the globe: we see rough and massive minerals drawn from the bowels of the earth, converted, on the one hand, into instruments which surpass in power the united strength of the largest animals, and on the other hand, formed into the finest and most delicate pieces of mechanism.

"These, and works like these, are assuredly wonderful. But while we admire, let us examine. What are the effects of these surprising works—effects, I mean physical and moral? I say nothing of the wealth they produce or have produced, for wealth is good or evil according to its application. I refer to the health of fifty thousand persons, who spend their lives in the manufactories of Leeds and its neighbourhood, or in allied and dependent occupations. I ask, if these fifty thousand persons enjoy that vigour of body which is ever a direct good, and without which all other advantages are comparatively worthless? I ask, if the duration of life is as great here as in the agricultural districts?

"To the first inquiry, the mere appearance of our population affords a reply. Take indifferently twenty well-fed husbandmen, and compare them with twenty manufacturers, who have equal means of support, and the superiority of the agricultural peasants in

health, vigour and size will be obvious. Medical men, moreover, have daily proof of the ill effects on the human constitution, which our employments produce. They find a number, a variety, and a complexity of diseases, which are little known in country practice, and which, though not directly fatal, greatly reduce the powers of life."—p. 3.

Our author satisfactorily demonstrates the destruction of 150 persons annually in Leeds, from the injurious effects of manufactures, the crowded state of population, and consequent bad habits of life. He argues that the impaired health, the lingering ailments, the premature decay, mental and corporeal, of nine-tenths of the survivors, cannot be a subject of indifference. "Assuredly," says he, "an examination into the state of our manufactures has long been demanded, alike by humanity and by science." This position cannot be disputed, but the cultivation of public medicine is scarcely tolerated, and certainly not fostered in this section of the empire, excepting the novercal protection of that wise and enlightened body, the worshipful Company of Apothecaries. The medical student never hears a word upon the subject during his education, and he is expected to illumine judges and juries on all points relating to public and legal medicine. What an absurdity! He is about as well qualified to perform this task, as he is to enlighten the judge upon the common and ever changeable statute law of the country. Such is the condition of nine-tenths of the profession, and if proof were demanded in support of this conclusion, we have merely to refer to the public press for the amplest evidence. No day passes without presenting us with the humiliating evidence of some practitioner stultifying himself in courts of justice—the most eminent as well as the most insignificant.

In further illustration of this argument, we may add, that our author reminds us "his subject is new, and that scarcely any thing has been published even on the employments common to England at large."

For the convenience of the inquiry, our author divides the inhabitants of Leeds into four great classes: 1, operatives; 2, dealers; 3, master manufacturers and merchants; 4, professional men. He commences with the operatives, who approach nearest to the perfection of the physical state. They are men of active habits, and whose employments are chiefly in the open air.

" Butchers stand at the head of this division. They are much in the open air, and take strong exercise. Most of the masters ride on horseback to the neighbouring markets, and often traverse the surrounding country to buy cattle. They are well known to ride fast, and to take often long journies. Drovers of cattle for the butchers, though their action is generally less violent, have great distances to travel. They walk twenty, thirty, or forty miles a day. Butchers, and the slaughter-men, their wives, and their errand boys, almost all eat fresh-cooked meat, at least twice a day. They are plump and rosy. They are generally also cheerful and good-natured. Neither does their bloody occupation, nor their beef eating, render them savage, as some theorists pretend, and even as the English law presumes. They are not subject to such anxieties as the fluctuations of other trades produce; for meat is always in request; and butchers live comfortably in times as well of general distress as of general prosperity. They are subject to few ailments, and these the result of plethora.

" The atmosphere of the slaughterhouse, though sufficiently disgusting to the nose, does not appear to be at all injurious to health. The mere odours of animal substances, whether fresh or putrid, are not apparently hurtful; indeed, they seem to be often decidedly useful. Consumption is remarkably rare among the men employed in the slaughterhouse. If we see a phthisical youth in the fraternity, we shall generally find that his parents, aware of an hereditary disposition to consumption, brought him up to the business with the hope of averting this formidable malady. The atmosphere of the slaughterhouse, imbued with a foreign admixture, is moreover less susceptible of those natural changes, which produce epidemics. From this circumstance, conjoined with their diet and habits of life, butchers are less subject than other trades to cholera and dysentery. To the same favourable combination, we attribute their comparative exemption from diseases, considered as infectious or contagious. Of five hundred and twenty patients taken to the House of Recovery in this town, during the last year, only one was a butcher, and his was a case not of typhus, but of simple fever.

" Notwithstanding the favorable circumstances in which butchers are placed, longevity is not greater in them, than in the generality of employments. I suspect it is even shorter than among most other men, who spend as much time in the open air. Butchers in fact live too highly, not too highly for temporary health, but too highly for long life."—p. 9.

Cattle and horse dealers lead an active life in the open air, and would be healthy were it not for the habit of drinking. They are liable to diseases of the stomach and liver. Our author thinks cart drivers, labourers in husbandry, sand leaders and road makers, would be healthy had their wages been higher. They are subject to disorders of the digestive organs, and suffer greatly from epidemics. Brickmakers

have full muscular exercise in the open air, and though half naked, and with their bare feet in the puddle all day, are not more liable to catarrh, pneumonia and rheumatism, than men who work under cover and are dry. Persons of great age are found at this employ.

"Chaise drivers, postilions, stage coachmen, and guards of coaches, with an equal advantage of fresh air, are differently situated in reference to exercise. Postilions, of course, have great and continued exertion; but the kind is objectionable. Their position on the saddle is bad, and they use the arms unequally; hence curvature of the spine. They are moreover said by Morgagni to be particularly subject to aneurism of the aorta. The drivers of chaise and hackney coaches have more moderate and equal exercise; but their position subjects them to popliteal aneurism. They, as well as postilions, suffer from irregular living, and the habit of frequent potation. They are subject to disorders of the head and the stomach. Still worse is the state of stage coachmen and guards. With an equal or greater degree of intemperance, they have less muscular exercise to counteract its effects. In addition to morning sickness, and other affections, indicating gastric disease, they have venous congestion of the abdomen; then of the head; finally apoplexy and palsy.

"The atmospheric vicissitudes to which all drivers are exposed, are thought to produce rheumatism and inflammation of the lungs. I conceive, however, that these diseases would rarely occur to abstemious men. It is intemperance which gives the susceptibility to such maladies; and it is intemperance which produces much greater, the fatal affections which we have just mentioned. I scarcely need add, that the whole class is short-lived. They generally die before they reach the age of fifty. Among all the Leeds men, we could find only three individuals who are old, and two of these have the character of great temperance.

"Gentlemen's coachmen often suffer from excess of nourishment; they eat more than they work. Having often to wait for their masters, to use Dr. Good's phrase, "They fill up their time, by filling up their stomach." They also take ale too frequently. And from these united causes, they become plethoric, have the venous systems congested, and the secretions consequently impeded. The fault of these men, though much less than the dram drinking practised by their brethren of the stage, certainly tends to the production of gout and serious affections of the brain."—p. 12.

Coach builders, carpenters, joiners, wheelwrights, millwrights, coopers, ropemakers and paviors, are generally healthy when they are temperate.

Our author adverts to the unnatural state of the air of Leeds, which he considers deteriorated by an excess of carbonic acid, and says "our skins and linen prove an abundant

admixture of charcoal itself." Ammoniacal and other vapours from manufactories, sewers and places of refuse, add to the general impurity. This state of the atmosphere affects, in a greater or less degree, all the inhabitants. He thinks that not ten per cent. of the inhabitants are in full health—the complexion is pallid, and the tongue shews that digestion is disordered and imperfect. Alas! what must be the fate of the residents of the modern Babylon, on whom the advice of the medical poet is lost:—

> Fly the rank city, shun its turbid air,
> Breathe not the chaos of eternal smoke
> And volatile corruption, from the dead,
> The dying, sick'ning, and the living, world
> Exhal'd, to sully heav'ns transparent dome
> With dim mortality.

However true this picture may be, it is now universally admitted, that the progress of phthisis is much less in smoky towns than in purer air of the country. Still it must be granted that the impure atmosphere of crowded streets with imperfect ventilation, is highly injurious to health and longevity. This fact is well illustrated by the pale and emaciated countenance of the sedentary mechanic, which proves the presence of formidable encroachments upon health. The truth of this position is amply attested by daily observation. It is not air, which has reeked back from a million lungs inquinated by rank exhalations from "all obscene, corrupt, offensive things," that can be beneficial to health. Of the persons employed in a confined and impure atmosphere, tailors are placed first.

"Sitting all day in a confined atmosphere, and often in a room oo crowded, with the legs crossed and the spine bowed, they can- ıot have respiration, circulation, or digestion well performed. The mployment, we must admit, produces few acute diseases. But lisorders of the stomach and bowels are general, and often obsti- ate. Pulmonary consumption is also frequent. Some of the men tate their liability to pains of the chest; but the majority make no omplaint. It is nevertheless apparent, even from observing only ıe expression of countenance, the complexion, and the gait, that ıe functions of the stomach and heart are greatly impaired, even ı those who consider themselves well. We see no plump and rosy ilors; none of fine form and strong muscle. The spine is gene- lly curved."—p. 16.

Not one of the workmen employed in Leeds attained the ;e of sixty. The evils attendant on the employment, are

in many cases greatly aggravated by bad habits, as these people who are physically depressed, often seek comfort from ale and ardent spirits. Our valued correspondent, Mr. Dobson, informed the author of the following facts:—

"Shultz and Co. tailors, of London, employ three hundred and thirty-four men. Of these six are above sixty years of age; fourteen about fifty; and the greater number of the remainder about forty. Three men of the above six above sixty have curvature of the spine. They are so subject to anal fistula that they have a 'Fistula club.' Their most common affections are dyspepsia, diarrhœa, and dull headache, with giddiness, especially during summer. They attribute their complaints to two causes; one of which is, the posture, the body bent for thirteen hours a day; the other, the heat of the shop. I examined the temperature of the rooms on Monday, the 7th June, 1830. It was 98°, while in the open air the thermometer stood at 76°. On Tuesday it was 108°, and in the open air 84°. Tailors are the most intemperate set of men in London. A large proportion died annually of phthisis."—p. 17.

To correct these evils, the author suggests a plan which might be easily adopted.

"The position of the tailor might be amended. He now sits cross-legged on a board; because in the ordinary sitting posture he could not hold a heavy piece of cloth high enough for his eyes to direct his needle. Let a hole be made in the board of the circumference of his body, and let his seat be placed below it. The eyes and the hands will then be sufficiently near his work; his spine will not be unnaturally bent, and his chest and abdomen will be free. I am aware that old workmen will be unwilling to regard this or similar suggestions; for every man is formed to his habits. If however masters and medical men would urge an alteration, and if especially boys apprenticed to the trade were taught to work in the posture recommended, tailors would assuredly become much more healthy. The practice of drinking might also be easily reduced, if masters discharged from their employ every man who absented himself a day without proper cause."—p. 18.

The evils which affect milliners, dress makers and straw bonnet makers, arise from crowded apartments, and improper length of time in which these persons are employed. They are often employed from six in the morning until twelve at night. The bent posture in which they sit injures the digestive, circulatory and respiratory organs. Hence fresh looking country girls soon become pale and thin. The constant direction of the eyes to minute organs produces ophthalmia or amaurosis. The respiration is affected very much by the sulphurous gas evolved in the process of stoving straw

bonnets. It induces cough, and finally pulmonic disease. This gas might be absorbed, in a great measure, by placing water in a shallow dish, or prevented by having the operation performed in a small out building. The other remedies for the evils attendant on these trades, are ventilation, reduction of the hours of work, and exercise in the open air. The great cause of ill health of dressmakers is the lowness of their wages, which oblige them to work in excess. They are subject to pain in the left side, constipation, dyspepsia, irregular menstruation, and probably from neuralgia, arising from slight curvature of the spine, or at least from the unnatural position of that column.

"Weavers have a confined atmosphere, and, though the limbs are fully exercised, the trunk is kept comparatively fixed, and the chest is not expanded. This stooping however, is somewhat diminished by the mode of casting the shuttle with a string, instead of the hand. When weaving is carried on at home, the rooms are often small and ill ventilated; and among the Irish we find a sad want of cleanliness. Fever is rather frequent among weavers, but other acute diseases are rare: the men, however, seldom enjoy health. Digestion is imperfect, asthma and other affections of the chest are common. They complain of the smell from the oil-lamps. This no doubt annoys the lungs, but their reduction of health is attributable chiefly to the confinement. The susceptibility of fever may arise from the frequent defect of proper nourishment. The weavers of stuffs have low wages, and are often out of employ. There are more old men in the occupation of weaving than in most others."—p. 21.

Our author describes the injurious effects of all trades, but we must confine ourselves to the most common.

"Shoemakers, it is well known, are placed in a very bad posture—a posture second only to that of tailors. The abdominal viscera, and especially the stomach and liver, are compressed. Lads put to this employ, often suffer so much from headache and general indisposition that they are obliged to leave it; and men who have been able to bear it for years, lose appetite and strength. Digestion and circulation are so much impaired, that the countenance would mark a shoemaker almost as well as a tailor. We suppose that, from the reduction of perspiration and other evacuations, in this and similar employments, the blood is impure, and consequently the complexion darkened. The secretion of bile is generally unhealthy, and bowel complaints are frequent. The capacity of the lungs in the individual examined we found to average six and one-third, and the circumference of the chest thirty-five inches. In the few shoemakers who live to old age, there is often a remarkable hollow at the base of the breast bone, occasioned by the pressure of the last.

Are shoemakers subject to popliteal aneurism? Morgagni asserts this; but I am not aware that a similar observation is now made. Much as posture injures shoemakers, bad habits injure more. Working late on Saturday night, they often lie in bed all Sunday morning, lounge in listlessness all the afternoon, drink all Monday, are sick and taking physic on Tuesday, and return to work on Wednesday. Surely the interference of the masters might prevent half the disease and wretchedness for which the shoemaker is remarkable. Exercise in the open air is urgently required for the relief of this as well as other employments, which we have yet to examine; but to prevent repetition I shall make some general remarks on this subject at the close of the paper.

"Curriers and leather-dressers are subjected to no injurious agent, except the bent posture in the process of "shaving." This affects the head. The smell of the leather produces no disagreeable effect. The men are generally very healthy, and a considerable proportion live to old age.

"Saddlers are obliged to lean forwards, and are confined to this position. Hence they are subject to headache and indigestion.

"Printers are kept in a confined atmosphere, and generally want exercise. Pressmen, however, have good and varied labour. Compositors are often subjected to injury from the types. These, a compound of lead and antimony, emit, when heated, a fume which affects respiration, and are said also to produce partial palsy of the hands. Among the printers, however, of whom we have inquired, care is generally taken to avoid composing till the types are cold, and thus no injury is sustained. The constant application of the eyes to minute objects gradually enfeebles these organs. The standing posture long maintained here, as well as in other occupations, tends to injure the digestive organs. Some printers complain of disorder of the stomach and head; and few appear to enjoy full health. Consumption is frequent. We can scarcely find or hear of any compositor above the age of fifty. In many towns printers are intemperate.

"Bookbinders and pocket-book makers are similar employments. The work is remarkably easy, and keeps no muscles fixed, nor demands excessive action from any. The workmen suffer no annoyance, except occasionally from close atmosphere, and from the smell of the putrid serum of sheep's blood, which they use as a cement. The selection of this substance is unwise, since white of egg or other albuminous matter would answer the purpose, without offending the senses. The pocket-book makers have high wages, and are not compelled to keep hours. Hence they are often very dissipated. One master informed us that several of his people have died from consumption. This, however, I should attribute, not to the employ, but to intemperance.

"Carvers and gilders are kept in a confined atmosphere, and often for long periods in a leaning posture. Hence they sometimes suffer from headache. Though the pallid appearance, general among

these workmen, indicates a reduction of health and vigour, life is not abbreviated in a marked degree.

" Clockmakers have little objectionable in their occupation; for though the making and fitting up are carried on in the house, the posture is varied, and the men are frequently travelling to repair clocks in the country. They are generally healthy, and attain often advanced life. Watchmakers have a much worse employ. They sit all day with their trunk bent forward. The digestive organs almost always suffer, and the lungs are sometimes affected. The close and continued application also greatly injures the eyes. Many youths apprenticed to watchmaking are obliged to leave the employ, and the individuals who remain rarely live to old age.

" Smiths have an employment remarkably conducive to muscular power. The use of the large hammer powerfully excites all the muscles, and especially those of the arms, throwing on them a large supply of blood, and consequently producing their enlargement. Exertion like this, moreover, has a considerable effect on the circulation in general, and the functions with which it is connected. For youths of strong constitution, no labour is better than than of the smith. For those, however, naturally delicate, the exertion is too great, and young men of scrofulous constitution are particularly liable to sink under the employ. Smiths are subject to high temperature, and frequent changes of temperature, but with no obvious injury. They are rarely affected with rheumatism and catarrh. The employment subjects the eye to the annoyance of smoke, and to excitement from the glow of the heated iron. But our examination of the smiths in this neighbourhood does not prove them subject to ophthalmia; nor does it show that vision is impaired by the excitement of the retina. When smiths are ill, the cause is most frequently intemperance. They do not however arrive at great age. We could hear of but one old smith in the town of Leeds.

" Cabinet-makers are generally healthy, though employed within doors. The labour is good; and there is no hurtful accompaniment, with the exception of the dust, which is produced by sawing certain kinds of wood.

" Patten-makers are subject to no other inconvenience from their employ, than the bending posture required in cutting the sole or clog.

" House-servants, from their confined situation in a smoky town, are rarely in full health. We find them often affected with disorder of the digestive organs and of the head; the latter particularly frequent. Girls from the country soon lose their ruddy complexion, and suffer more than the natives of the town. Kneeling produces in housemaids a swelling of the bursa, near the patella, which produces considerable inconvenience, though seldom serious disease. Footmen, who stand long behind carriages, are said to be frequently affected with hydrocele.

Waiters at inns, irregular and dissipated in their habits, are generally unhealthy. They die comparatively young.

III.—*A Brief Statement of the Progressive Improvement of the Health of the Royal Navy, at the end of the eighteenth and beginning of the nineteenth century; together with practical illustrations, and a narrative of some historical incidents connected with the subject.* By Sir Gilbert Blane, Bart. M.D. Physician to the King, &c. &c. London, 1830. pp. 55.

We are much indebted to a medical officer of the navy, for the two tracts on the subject at the head of these remarks, as their perusal has afforded us great satisfaction, and as the information they contain is so highly important, we hope our esteemed correspondent will excuse us for making a few extracts, though the productions have not been published.

Any one acquainted with the naval history of this country for the last fifty years, must reflect with pain on the great mortality of seamen before that period, and must feel sincere pleasure at this sort of improvement which has taken place in the health of seamen. This mighty change was effected by Sir Gilbert Blane, Bart. by whose exertions alone, are the wooden walls of England enabled to rule the waves at all seasons, and in all climates, for an indefinite length of time. Such are a few of the benefits conferred on science and humanity by this humane and talented physician, of whose career we gave an imperfect sketch in a former number. The first essay before us was presented to his most gracious Majesty at New York, at the date of its publication, and the second is now respectfully dedicated to the same illustrious and universally beloved sovereign, whose paternal love for the welfare of all classes of his people, is the theme of the first admiration of his devoted subjects.

These tracts are highly instructive, and exceedingly interesting. They cannot be perused without impressing the reader with the most favourable opinion of the head and heart of the author; for an ardent love of science, of country, and of humanity, is displayed through every page, which is calculated to make a deep impression upon the minds of every class of readers. We hasten to illustrate our statement by a few extracts.

"In the course of the year 1780, my first year of service as physician to the fleet on the windward station, I found from my own returns and from examining the records of the hospitals, that

the annual loss of lives from disease previous to our arrival, and some time after, had been at the rate of one in seven; nor was this alarming rate of mortality imputable to the prevalence of the peculiar epidemic of the climate, for there were then very few cases of yellow fever; and as the principal causes of it were such as seemed to me to be removable by practical and attainable means, I was anxious to state these circumstances at the source of authority. I found that in a fleet, of which the complement of men was 12,109, the mortality in one year had amounted to 1,518, besides 350 rendered unserviceable, a number more than equal to the equipment of three ships of the line. When this is duly weighed by a considerate mind, as it affects the most important interests of the state, together with the great difficulty and expense of replacing these valuable subjects by fresh recruits, and when the calamitous sufferings of the individuals themselves are brought home to our feelings, no case could be conceived more calculated to awaken sentiments of patriotism and humanity.

"No opportunity occurred of effectually removing these deplorable evils till the autumn of 1781, when I attended Sir George, afterwards Lord Rodney, to England, whither he went in order to procure reinforcements, foreseeing that the windward station in the West Indies would become the great theatre of war. It was then I made such representations as brought about a total change in the state of health of the fleet.

"In a memorial to the Board of Admiralty, I stated the causes of disease to consist in:—

"1st. The neglect of cleanliness, ventilation, and dryness in the interior economy of ships.

"2ndly. The want of the supply of an article, which had been found, by the most unequivocal experience to be infallible in preventing and curing scurvy, one of the most destructive scourges, and the most peculiar to the sea service, of any class of disease. The remedy alluded to is the juice of lemon or limes.

"3rdly. The abuse of spirituous liquors, not merely as the most common means of intemperance, but as the habitual beverage of seamen, even when diluted. I recommended the substitution of wine, and, I ought to have added, of strong malt liquor.

"4thly. The want of adequate nourishment and comfort for the use of the sick and convalescent on board of their own ships.

"5thly. The want of proper bedding and of soap; so that along with the suitable articles of diet, the means might be afforded of curing men on board of their own ships, the hospitals on that station being at that time too small, ill arranged, and extremely expensive; the men by going ashore being also exposed to the epidemic and endemic of the climate, and to the most pernicious temptations, from the facility of procuring the means of intoxication.

"6thly. The want of a gratuitous supply of medicines, as well as necessaries to the surgeons, in order to enable them to cure as many as possible without sending them to hospitals.

"7th. As hospitals are, to a certain degree, indispensable at the principal stations, especially for the relief of ships in which contagious diseases prevail, new regulations of them in point of space, separation, ventilation, and cleanliness, were also recommended.

"Though all the recommendations here specified were not at first complied with in their full extent, enough was done to evince their expediency, and to lead to great future improvements. I had the immediate and high gratification of succeeding in the recommendation of wine, and of being an eye witness of its almost incredible benefit in the new reinforcement which accompanied the admiral on his return."—p. 22.

"There are so many public advantages as well as sentiments dear to the heart of every good subject and good man, that they cannot be too much recommended, cherished, and dwelt upon. Of these subjects of reflection none seems of such magnitude as the consideration that, in consequence of the great improvement of health the efficiency of the navy is doubled, and the national treasure husbanded to an incalculable amount. What a consolation it is in the present state of the public finances, that in case of any future war, it can be carried on at sea with so great an abatement of treasure, and consequent burdens on the nation! For it does not require any deep thought to perceive that at a time when a fleet, as we have seen, could not keep the sea for more than ten weeks without being rendered unserviceable by scurvy, and that national protection required that when the channel fleet has been constrained to return into port in so short a time, another naval force, as nearly equal as possible, ought to be ready to replace it, for repelling invasion, or baffling the expeditions of the enemy. I was in the habit of saying that at present there was as much service in two ships as formerly in three; but one of the most distinguished sea officers that ever lived, declared to me, that it was his conviction that two ships now are equal to four of former times. How must every young man's breast therefore exult, when, from the moment he enters the service, he feels conscious of his contributing to these splendid results, while at the same time their hearts are swelling with pride that they belong to a country, which almost in their own memory, or that of their fathers, have made such displays of skill and gallantry as are unequalled in the history of the world, namely, the conflicts of the 12th of April, 1782, near Dominique, under Lord Rodney; that of the 1st of June, 1794, on the confines of the Bay of Biscay, under Lord Howe; that of the 14th of February, 1797, under Lord St. Vincent; that of Camperdown, on the 11th of October, of the same year, under Lord Duncan; that of the 1st of August, 1798, at the mouth of the Nile, under Lord Nelson; and that of the same great commander on the 2d of April, 1801, at Copenhagen; that of July, 1801, under Sir James Saumarez; and, to crown all, that of the 21st of October, 1805, at Trafalgar, under the immortal Nelson."—p. 17.

Our author deemed it expedient to enlighten the commanding officers of the navy, regarding the most effectual means of maintaining the health and vigour of the men, of preventing the invasion of disease, and of doing justice to the sick.

"I felt it therefore as a matter of impervious duty to explain myself fully on this subject to the commanding officers of the fleet: This I did in a printed tract, 1780, which was distributed among the flag officers and captains. In this I endeavoured to set forth how much the health of the men, particularly with regard to the prevention of disease, depended on the good judgment and exertion of officers, who alone could establish and enforce the regulations respecting ventilation, cleanliness, and discipline. This was extremely well received;* and it is not for me to say what share it may have had in the great alteration in the conduct of the officers of the navy regarding these duties, and how far it may have contributed to the revolution which has taken place in later times in the whole system of the medical management of the navy. There can indeed be no situation in which there is more room for genuine virtue, praiseworthy conduct and address;—none to which there attaches more grave and solemn responsibility; none on which there is a more imperious claim on the conscientious discharge of duty, than that of a naval commander. The men are cast on his humanity and discerning judgment under various aspects. A ship in the middle of the ocean is a little world in itself, at the arbitrary disposal of an individual—seamen and marines are subjected by martial law to a more despotic exercise of power than the constitution of the state authorizes in civil life, or even in the army—naval officers can, at their single arbitrary discretion, inflict such a summary and severe punishment as cannot be inflicted in the army without the solemnity of a court martial. Englishmen surrendering from considerations of public expediency what they hold most dear, and that of which they are most jealous—their liberty, becoming thereby the greater objects of grave decision and considerate feelings. All seafaring people, especially those employed in war, are exposed to peculiar and unavoidable privations, hardships and dangers, which ought to be mitigated, as far as is practicable, by those at whose

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* The author has in proof of this, not only the innumerable testimonies of personal regard which he has experienced during the after part of his life from these distinguished persons, but their interposition on his behalf on the conclusion of the war, when they unanimously made application, through the Admiralty, for a reward to him in peace, no half-pay being then established for physicians to fleets. In compliance with this, his majesty was pleased to grant him a pension for his services.

absolute will they place their lives and limbs; it is in their character to be unthinking and careless of their own welfare and interest, requiring to be tended like children, and, like children, are entitled to a *parental* tenderness from the country they protect and the officers they obey."—p. 29.

Scurvy has been prevented, subdued, and totally rooted out, by the general use of lemon juice, since 1795, and has remained so, and fevers are entirely extinguished.

These improvements have extended to the naval services of all countries, and entitle their author to a place among the best friends of science and of mankind.

IV.—*The Life of John Walker, M. D. Graduate of the University of Leyden, Licentiate of the Royal College of Physicians of London, and late Director of the Royal Jennerian and London Vaccine Institutions.* By JOHN EPPS, M.D. Graduate of the University of Edinburgh, Lecturer on Materia Medica and Chemistry, Director of the Royal Jennerian and London Vaccine Institutions, &c. &c. London 1831, 8vo. pp. 342. Whitaker, Treacher & Co.

THE subject of this biography was one of the most strenuous supporters of the Jennerian discovery, and diffused its blessings among mankind under a variety of circumstances and in opposite climes. The career of this extraordinary and eccentric character, abounds with features replete with interest. It would be foreign to the tenour of this Journal, to introduce a full account of the life of this worthy physician, more especially as it contains his literary, political and religious opinions, which would be misplaced in a journal of this description.

His biographer and successor has done him ample justice, and executed his undertaking with much ability and judgment. His dedication is so singular, that it must be quoted.

"To the World,

"To thee, thou mass of civilized and uncivilized intelligence, I present this work, containing truths of the highest importance. The individual whose life this is, devoted his existence to thy good: and that thou wilt look to the promotion of his good (in the person of his widow) in return, in promoting the interests of this offering, is the hope of the biographer,

JOHN EPPS.

To those who knew the Doctor, that is the whole profes-ion in London, a few anecdotes of him cannot be void of nterest. Dr. Walker was born in the borough of Cocker-nouth, in July, 1759. His parents were humble and indus-rious, and took great care to procure the blessings of edu-ation. While at the grammar school with his fellow ownsman Dr. Woodville, it appears he had no great love for earning or the learned, as the following anecdotes amply estify:—

"While there, Walker exhibited that vagariousness of disposi-ion, which formed a constant feature in his life. At his tasks he vas the idlest of boys; at his amusements the most active. His uilty looks, on repairing to school after an holiday, sufficiently vinced that the whole time had been spent in play. When obliged, owever, he could write with considerable expedition his Latin hemes, which were so well finished as to obtain for him considerable raise. Frequently he went to his master's desk four or five times a the day to repeat his lesson in Virgil or Ovid, depending, espe-ially after his master's dinner, upon the soporific influence thence rising. Cultivating this dependance, he learned generally only two r three of the first lines, and a few at the end of the lesson. lefore completing the few he knew, the master began to nod. 'oung Walker kept his eye fixed upon the sleeper, keeping up, at he same time, a humming sound, without articulating a syllable, ill the master, giving a greater nod than usual, awoke, when the oung rogue repeated the last line of his task and went to his seat. When the honest pedagogue was sufficiently on the alert, the defi-iency was detected, and Walker flagellated, was sent to his form." —p. 5.

Having received a limited education, he became weary of he pursuit of his father, which was that of a blacksmith, and letermined to go on board a privateer in the Bay of Dublin. On his arrival in the capital of Ireland, he was astonished at he splendour and elegance of the public buildings, a full nd faithful account of which is given in his Universal Gazet-eer, published in 1795. "The attentions and familiar man-ers of his new acquaintances made him feel very soon at ome." He failed however to accomplish his object in oing to sea, and was greatly reduced in circumstances, hen chance threw him in contact with an engraver, named sdale. With this worthy man he remained for four years, nd in the year 1780 published Walker's Hibernian Magazine. Ie had the use of a good library with his friend, and readily vailed himself of its advantages, devoting all his leisure

hours to acquiring the knowledge of Greek, Latin and mathematics.

He now determined to become a schoolmaster, and braved the difficulties which at first appeared insurmountable to this accomplishment of his wishes, by adopting the axiom, "possunt, quia credunt posse;" in other words, "they must conquer who will." He soon discovered, however, that this motto did not remove his difficulties; he was scarcely able to meet his slender expenses, and was so distressed that he could not afford himself candlelight during the winter's nights. This however arose from his expending every penny he possessed, after the discharge of his bills, in the purchase of books at the auctions in Dublin, which are always numerous. On leaving these marts of literature, he often wished he could enjoy the light of the street lamps in his chamber, to enable him to prosecute the drawing and etching of a set of plates for a Latin edition of Euclid, then publishing by the University. Such were the privations which this worthy lover of literature and the arts was doomed to endure. Influenced by the motto we have inserted above, he discharged the duties of his little school with unwearied zeal, and was so fatigued by his calling that he was obliged to retire to bed after his labours were over at 5 p. m. and slept until midnight, when he arose to prosecute the arrangement of his geography and Gazetteer, which originally consisted of the substance of a course of lectures he delivered to his pupils, in his mathematical and classical academy on Usher's Island. These works, so well known to the public, were finished in 1788. Time rolled on, he acquired many friends, his scholars increased to a hundred, so that in 1792, he was able to publish the quarto edition of his works. Here we must mention a curious feature in his scholastic discipline; he had no corporeal punishment, very little coercion, and so far did he cultivate a familiarity of address with his scholars, that they always called him by his sirname. No man could be more interested with his vocation. A second edition of his works were called for, and as his resources did not enable him to incur the expenses of publishing, he determined to commence a tour through England, Wales and Ireland, to solicit subscriptions, having committed the care of his school to competent assistants. These peregrinations conluded, he gave up his school to Mr. John Foster, author of the "Moral Essays," and repaired to the great metropolis of the world. He now entered himself a student at the medical school, Guy's Hospital, where he became acquainted with Sir Astley Cooper and others, who have since attained con-

siderable eminence. He there acquired a knowledge of anatomy and physiology, and was so fascinated with these branches of science, that he prefixed a sketch of the latter to his own work. The success of this production need not be mentioned; its rapid sale enabled him to prosecute his medical studies in London, Paris and Leyden. He remained three years in the celebrated school in the Borough, and in 1797 repaired to Paris, in further pursuit of knowledge. At this period the revolution raged in that city, which led our hero into some awkward embarrassments. Though not an orthodox Quaker, for he was never regularly admitted into the society of friends, he was one in garb and principles, and in support of the peculiarities of his sect, he refused to wear the national cockade, or to take off his hat in the council of the ancients. So strange did this conduct appear, that the news boys in the Palais Royal offered papers for sale, vociferating, among other remarkable events of the day, "voila, citoyens! voila le grand detail d'un homme assez singulier qui ne voulait pas oter son chapeau au tribunal du conseil des anciens. Voila le grand detail."

In 1799, Dr. Walker obtained his medical degree at Leyden, and returned to England to complete a tender engagement under which he had been for some years. This subject, as well as the numerous incidents which occurred to him in Scotland, and more especially with the Edinburgh professors, we must pass over, with one exception, which was the assistance he received from Professor Campbell, author of "The Pleasures of Hope," in correcting the second edition of his Thesis, which he composed at Leyden, and also his Dissertation on the Structure and Functions of the Heart.

In the year 1800, he was appointed to accompany Dr. Marshall, who was sent to Naples to introduce vaccine inoculation. During the voyage, the protective influence of vaccination was exerted at Minorca, Malta, Gibraltar, Naples and Sicily; and at length, we find the fleet before Alexandria. Here the victorious French were on one side and the invincible British on the other, and both looked with anxious suspence at the result of the conflict.

"The troops were ordered to land. The hostile shore bristled with bayonets. The carnage is terrific. One boat is sunk. Others are in danger. The admiral, not wishing to destroy his men in what he considered a fruitless attempt, ordered a return. The signal was not, in the moment of excitement and confusion, noticed. The British persevere; they land; the battle is fought; the shout

of victory is heard, mingled with deep-toned grief at the death of Abercrombie. Dr. Walker grieved for Sir Ralph, and says of him, "he was not more distinguishable for his bravery than for his humanity and generosity," a very appropriate description.

"The fact above noticed is rather interesting, and was never, it is believed, recorded till by the subject of this memoir. How extraordinary are the turning of events! Benevolence led the admiral to hoist the flag of return. The confusion prevented its being perceived. Perseverance was the consequence, and success was the result. Had the order been noticed, Buonaparte might, perhaps, have extended even farther than he did his gigantic strides.

"While our troops were using the weapons of destruction, Dr. Walker was busily employed in saving life. His work of vaccination being completed, he attended the sick of the British navy and of the Turkish army. The word "weariness," while engaged in these works of mercy, he seems hardly to have known; being assisted therein by his excellent friend, General Sir John Doyle, in prosecuting these labours of goodness. He was much pleased with the cleanliness of the public hospitals, being in this respect, and in that of attendance, better provided than the European; each patient having a comrade (putting aside poetical augmentation) "to fan him when he sleeps, and wait on him when he wakes,"

"Foreigners, and it is grievous to mention it, appreciated his services more than the British government. From the Pacha at Rosetta, a town situated on the western branch of the river Nile, about twenty-five miles N. E. of Alexandria, he received a *present*, with an apology for its smallness, in the declaration that the French had diminished the resources of his country. The services, however, which Dr. Walker rendered to the British seamen ashore, (no part, be it remembered, of his proposed duty) were not attended to by the British government. The government did not even refund the money he laid out for providing his suffering patients such necessary refreshments as the commissary's stores could not supply. In making this provision he was authorized by the Inspector-Generals. It is right, however, to state that Dr. Walker believed that the Admiralty gave orders that his and his colleague's disbursements should be paid; an order which, from the changes in this department of the government at the time, has never been attended to. The sum voted was comparatively trifling; being from the Admiralty only £.100, to be divided between Drs. Marshall and Walker; and from the War Office £.100 each, and this simply from the kindness of the Duke of York. This sum did not equal a fourth of the expenses which they had to experience. And even this sum was not awarded until letters upon letters were written to the principal members of the various ministries which have existed since the time,

"The declaration has escaped Dr. Walker in conversation that the neglect rests with a late secretary, who, having since been promoted, seems not likely to trouble himself more about the matter.

The Doctor, too, not being a vindictive creditor, pocketed the loss, and endeavoured to find the best of all remuneration for his painful services, and his passing his nights on the hard ground at the camp before Alexandria, in the recollection of his usefulness—in the

"Mens sibi conscia recti."

"This neglect, however, should no longer be allowed to remain, and the widow of Dr. Walker should receive, from the hands of the government, what her husband had a right to claim; more especially as the following testimonial from Major-General Hutchinson proves how diligently the now defunct laboured in the promotion of the cause of his countrymen:—

"'Dr. Walker accompanied the expedition, with the approbation of the Commander-in-Chief, to Egypt, and introduced the new practice into the army in general, which was found effectual in arresting the ravages of the small-pox,' those soldiers escaping it who submitted to his operation, and doing their duty as usual; while a few, who neglected the opportunity, were laid up. We now experience his services in another way, he having consented to be associated with the surgeon of the brigade of seamen on shore; and, from Sir Sidney Smith finding it necessary to have the attendance of the surgeon at a distance from the camp, the medical care of the whole brigade falls upon him. Major-General Hutchinson feels a sincere pleasure in recommending Dr. Walker to his Royal Highness the Duke of York, who ever takes so lively an interest in whatever renders the situation of the soldier comfortable.'

"'Camp, four miles from Alexandria.
'8th of April, 1801.'

"It is to be added, in order that mankind may appreciate the zeal of Dr. Walker, that Dr. Walker never received any salary from government. He went out without any expectations, except from the benevolence of individuals. He had no government funds at his command; not even when on board his Majesty's vessels. It was by *permission*, not by *command*, that he went with the fleet to its different stations. He was the apostle of vaccination."—p. 53.

It will be an indelible blot on the page of English history, that the benevolent and highly important services of Dr. Walker should have been unrewarded by the government of this country, while his aged and helpless widow should be left in a state of utter destitution. We sincerely trust, that some of our readers may exert themselves in behalf of a person who has such strong and just claims upon the government. Many who peruse these pages could effect the desired object, and ameliorate the forlorn condition of the relict of a brother practitioner. Let them remind those in power of

the millions of public money squandered upon pensioners who have no claim upon the public; and upon the strong claims of the helpless individual whose cause we advocate. Leaving this painful subject, we return to the Doctor at Gizeh, where we find he encountered a curious adventure.

"Dr. Walker had, as the reader will have perceived, the courage to be singular. He allowed, while in Egypt, his beard to grow, so as to look very like a learned Jew. One of the young and thoughtless friends of his mess drew in chalk the French insignia, so hateful to the Turks, the fleur-de-lis, on his big white hat. Rising from dinner, the hat was put on, and falling into one of his musing moods, the bearded sage wandered through Cairo without any uniform. Conceive his astonishment, when, in the midst of his meditations, some Turkish soldiers fell upon him with great violence, believing, notwithstanding all his assertions to them, in an unknown tongue, that he was "Inglese"—him to be a Frenchman. And let Britain be ashamed of her sons (many of them now, it is true, no longer able to abuse the name of their God), when they read the fact, that the Turks, in order to satisfy themselves whether Dr. Walker was or was not a Frenchman, uttered the oaths "God d——," "by God," inferring that, if the subject of this memoir was an Englishman, he would understand a language which they had heard so generally used. Dr. Walker, horrified at the oaths they uttered, especially as coming from strange lips, instead of smiling assent, as they expected he would were he "Inglese," shook his head. This they understood as a mark of his not understanding them, and, consequently, that he could not be an Englishman! And the Arnhaut, who had applied this test, smiled triumphantly on his companions at his skill in detecting the Frenchman. They therefore seized him, and took him to prison to the citadel. The prison doors were before him; and Dr. Walker, thinking that he might be put into one of the dungeons below, where he would, most likely, be never more thought of, gave himself up as one no more to enjoy the delights of home and its social pleasures. Much to his happiness, however, they bade him ascend a staircase, running their bayonets into him and knocking him with the butt ends of their muskets behind as he ascended. While thus maltreated, and in such peculiar peril, an English patrole happened to be passing, who informed the commanding officer who the bearded philosopher—imagined by the soldiers to be a French *savant*—was, and Dr. Walker once more experienced the sweets of liberty, after enjoying the delicious dish called *killaw*, with the officer and the Mussulmans, who accommodated the unbeliever with a low stool and wooden spoon, while they sat cross-legged and with naked hands helped themselves to the savoury mess."—p. 58.

Though one would think this occurrence must have excited caution in future, we learn that our erratic and eccentric

philosopher failed to profit by it. He pursued his tour through the interior of a dangerous country, and exposed himself to a series of dangers, which few men of ordinary minds would choose to encounter. Among these, were a miraculous escape from drowning and starvation. At length he returns to his native country, where he experiences further troubles. On the arrival of the vessel El Carman, at Spithead, quarantine was strictly enforced towards the ship's crew, with the exception of Sir Sydney Smith and Colonel Abercrombie, who, with their servants, immediately left for London. Dr. Walker exposes this distinction with success.

"Whatever *fomites* of 'the pestilence that walketh in darkness, or of the destruction that wasteth at noon day,' (Psalm xci. 5, 6) might be lurking in our clothes and luggage, certain officers in scarlet and blue—Sir Sydney Smith, from the shores of Egypt, and Colonel Abercrombie, from the interior thereof—with their servants, who had attended them in that ancient house of bondage, set out, 'bag and baggage,' on the instant of our arrival at Spithead, to that spot where the greatest number of British subjects are assembled together; buttoning and unbuttoning, going to bed and getting up, from day to day, without a dream or a suspicion of the possibility of the plague again, through desolation of the inhabitants, causing the green grass to grow up in the streets, no longer crowdedly trodden by the busy feet of men.

"The prohibitions connected with quarantine, were, in respect to these remaining behind, so strictly observed, that even boats, containing refreshments, were not allowed to approach the vessel. Well might Dr. Walker exclaim on the occasion—"*Ah, ca.*"

"The prohibitions, all can see, if applicable to *one*, are so to *all*. Why, then, this distinction? The great are allowed to carry the plague; the poor must be prevented. It is absurd, and John Walker could see it so."—p. 70.

The time allotted for the performance of quarantine having expired, Dr. Walker landed at Portsmouth, and proceeded alone to Stonehouse to meet the object of his affections. Even on this occasion his eccentricity continued, as we learn from his biographer.

"He arrived at the village towards the close of the day, and there rested a short time; the house where Mrs. Walker and her friends resided being at some distance from the village. On this and other accounts, prudence dictated that they should, early in the evening, lock the door, and take other precautionary measures in respect to the wanderers and to thieves.

"The door was locked; the shutters were closed. The watch dog had received his honoured station of in-door protector, and the

friends were musing, in rather a melancholy mood, on their absent objects of affection. This cast of melancholy had arisen from the circumstances, that though notice in the papers had been taken of the El Carmen's arrival, no letter had been received from Dr. Walker. While in this pensive state, a loud single knock at the door was heard. For fear, no one answered it, save the barking of the dog. After some delay, the servant determined to look out of the window, when a voice utterred—"A letter under the knocker!" The letter would have received the dews of night, had not an old servant, who was often employed in the shrubbery, shortly after requested admittance. When admitted, he, with all the language of astonishment written on his face, said that a *strange-looking man*, with a crape over his face, had come into the village that night. The wonder of all was actively excited; and Mrs. Walker determined to take advantage of the man's arrival, to go to the front door for the letter, cherishing, at the same time, the affectionate hope that this strange man might be her dearest friend, and that the letter might be from him. The hand-writing was his. The joy almost overpowered her, and no doubt would, had not the sound of his voice met her ear as she moved with agitated steps back through the shrubbery. Soon she found herself in his embrace; yes, in the embrace of a man with a long beard (the crape of the country people.) The doctor cheered the domestic circle for some time with the enumeration of the various incidents of his tour, and again the brow cast aside its mantle of care to put on that of peace."—p. 71.

He commenced his labours as a vaccinator in Lombard-street, in August, 1802, and was stimulated in his laudable exertions by the melancholy fact, that many bodies destroyed by small-pox, were in the dissecting rooms throughout the metropolis. He now proposed to establish a public institution, an idea approved of by many medical friends, and speedily acted upon by the formation of the Jennerian Society. For full particulars relating to this useful institution, we refer to the interesting work before us. The Doctor was appointed Resident Vaccinator, but from his eccentricities and manners, "his dress and address" was loudly complained of, and was finally obliged to resign. The London Vaccine Institution was established, over which he was again elected as chief vaccinator. This was a popular establishment, was well supported, while the former gradually declined, and finally was abandoned. Vaccination was now patronized and promoted in every civilized nation in the world, as appears from the correspondence inserted in the volume under notice. The description of the Doctor at the vaccine stations, is faithfully and graphically given, with the exception of his personal appearance, which we shall add to complete the picture. He was a thin spare person, far advanced in years, dressed in

a snuff brown suit, with all the simplicity of his adopted sect. His manners were rough and repulsive, and highly injurious to the promotion of the object he had in view. This will appear from the following extract, for the accuracy of which we offer our personal testimony:—

"Any person who wished to see Dr. Walker in his most extraordinary condition, went to one of the vaccine stations for the sight. There was beheld the man in all the activity of his natural dispositions—his self-complacency, at the same time, exercising a modifying influence over all the operations of his mind, being called into activity by the conviction of the dignified situation in which he was then placed. He there experienced the exalted pleasure of perceiving the appreciation of his labours; of feeling that confidence was placed in his superior judgment. In fact, at his stations, he was the great Dr. Walker. He was there, truly speaking, the director; and any obstacle in the way of his plans did not long remain in an opposing condition.

"The first thing that Dr. Walker looked to, when entering the room, was the table on which he expected to see his books. If any mother had put the child's bonnet, pelisse, or any other person, his hat thereon, they were immediately swept away to the floor. If any woman stood in the way, he pushed her back, and would make her, if much irritated, stand up in the corner, as if she were a naughty child. He then marshalled his numerous company, and, having put them in their several ranks, gave a short, but very potent address to the mothers on the protection afforded by the vaccine inoculation. Having gone through these preliminaries, the director then issued the order for the children's names, places of habitation, and age to be told; and the individuals were exhorted to take care to speak plain. From the influence of that state of mind, that makes its possessor believe that what he knows well himself others know equally well, the parents very often muttered out the names of their children, of their places of habitation, and their ages. This disturbed Dr. Walker very much. He often made the offending woman spell her child's name ten or twelve times over, adding at the conclusion, "Now, thou wilt learn to speak plain." Often at the constant torment of being obliged to ask, over and over again, what the parents said, he became quite angry, and made the offender wait till the last.

Having collected all the names, the next process was commenced. This was to obtain some vaccine ichor for the purpose of vaccinating the children, not as yet protected. Here often was a great struggle. The "gemitus infantum" had now commenced. The few mothers that had the courage to bring back their children for examination were frightened, and looked towards the door with an anxious desire for escape. Some one, perhaps, attempted to fly; Dr. Walker leaped to the door, and barracadoed it with his body, saying, "Thou foolish woman, if thou wilt not do good to others, I will bless thy

little one," and forthwith drew his lancet, to gather the rich ichor, the produce of what he called his "vaccine roses." The screams of the terrified child, the complaints of the excited mother, and the apprehension written on the countenances of all, did not intimidate the courageous soul of the director. He finished his operation, and then, laying aside the frown of offended authority, and putting on the smile of benevolent delight, addressed the poor mother, "Thy child is safe: fear not: fare thee well."

"The children always claimed Dr. Walker's sympathy, although that sympathy was met on their part by a scream. This may readily be conceived, when it is remembered that young Astyanax, Andromache and Hector's child, cried, when his brave father, helmeted, took him in his arms. Dr. Walker's lank and long physiognomy, his broad-brimmed hat, and his *tout ensemble*, were sufficient to call forth the greeting of a scream, when he offered the welcome, even of the kindest feeling. The cries of the children (for children being imitative beings, when one commenced, the rest joined) were, sometimes, to those not aware that children often cry from imitation without being hurt, truly terrific. Dr. Walker was used to it, and, consequently, regarded not tears, or cries, or screams, or threats, all of which he had daily to meet with.

"He, it may readily be conceived, could not be interfered with, occupied as he was sometimes with the vaccination of perhaps fifty or sixty "little Londoners" at one station. Towards the conclusion of his life, if any one disturbed him in the regularity of his plans, it vexed him very much. Sometimes a medical man would speak to him about something not at all important, and break the course of his proceedings. "Cannot thou keep thy peace? I will attend to thee last"—was the result of the disturbance, and the offender had the misery of looking foolish until every one else was supplied.

"The vaccination for the day was often concluded by a lecture, after which the mothers went away, saying, "What a cross old man!" "What a strange man!" "What a curious old fellow!" "I will not go again—such a cross old stick!" and many singular vulgar remarks. However, the mothers did go again; for there was a lurking something in the "old Doctor," as he was called, that enticed them back; and also, then they had the satisfaction of hearing expressed, with the greatest confidence, by the director, "Thy child is safe."

"The medical men, who came for supplies of matter, he always kept to the last, unless wanting their lancets charged, and then it was absolutely necessary that they should present the lancet properly opened and properly guarded (that is, so fixed that the ichor when put upon the lancet, could not be wiped off). If not so given, he would return it, often not saying a word. If a servant brought the lancet unarmed, he usually told him, "Go to thy master, and tell him to send me his lancets properly, and then I will supply him." If any one ventured forward before his turn, he was sure to be supplied last. Many young students who had not yet received sufficient rebuffs in life to teach them humility, came into the stations with all the impudent

arrogance of conceit, saying, "I want these lancets armed." "Dost thou?" with a peculiar expression of dignified contempt and pity combined, "stand back there!" was all the Doctor said. On some of these occasions, when Dr. Walker had to do with such children of puppyism, an artist would have found the highest entertainment in the general expression of the old and venerable man.

"It is due to Dr. Walker to state, that any medical student who was quiet, and sought proper occasions to obtain information, was sure to meet with kind attention. He delighted in diffusing the knowledge of vaccination, and was ever glad to have any to instruct in such a good cause.

"Dr. Walker, in other words, was the monarch at the vaccine stations. His was the despotism of knowledge; and he delighted in the exercise of this kind of despotic power as much as the autocrat of the Russians does in his. Thus gratified, and impelled likewise by a sense of his duty by the delight of doing good, and also by the pleasure of cherishing a cause of which he was the principal support, it is not a matter of wonder that he should have never a missed a day, from the time when he was appointed till within a week or two of his death, in visiting the stations. It is becoming that these stations, at which he attended, should be noticed, in order to shew to the public the immense amount of service he contributed to the general good. At nine, a. m. Dr. Walker was to be met with at 215, Strand; at a quarter past nine, 337, Strand; at half past nine, at 29, Haymarket; at a quarter to ten, a. m., 27, Lisle-street; at ten, a. m., at 3, Broad-street, Bloomsbury; at a quarter past ten, at 144, High Holborn; at half past ten, at 63, High Holborn. From that station he went to one of the principal stations, at 1, Union Court, Holborn Hill (still retained by the Society), at eleven; from this he proceeded, at about a quarter to twelve, to 4½, Salisbury Court, Fleet-street, and then returned to his own house, at 6, Bond Court, Walbrook, where he vaccinated at two, p. m. Besides these journies, on every Monday, he went to the vestry of St. John's Church, Horsleydown, kindly granted for the use of the Society; thence to the Lancaster Royal Free School, 5, Thomas-street, Borough Hospitals; and thence to the South London Dispensary, No. 1, Lambeth Road.

"Such was the life of this man of benevolent industry. Day after day he went his round. Sunshine or rain, it mattered not. Vaccination was the longing of his soul; and nothing was sufficient to draw him from his course."—p. 125.

He toiled in this way for nearly twenty-eight years, and continued to perform his duties till illness put a period to his existence.

The Report of the London Vaccine Institution for 1831, paid him the following just tribute:—

"Doctor Walker was a man whose life was a continual activity in the pursuit of good; who, day after day, month after month, and

year after year, watched, with the care of a parent, the cause of which he was so experienced an advocate; who was willing to know nothing but the object of his early love, vaccination; who persevered, through good report and through bad report, in diffusing the blessings of vaccination; who, for upwards of a quarter of a century, never omitted one lawful day going his rounds to the numerous stations of the institution; and who, it may be said, almost ended his life with the lancet in his hand, for he went round to the stations two days before he died."—p. 131.

The remaining part of the volume embraces the religious, moral and political opinions of Dr. Walker, with which we can have no concern. His defence of Napoleon, in regard to the poisoning of the sick troops at Jaffa, is satisfactory, and is a complete refutation of the assertions of Sir Robert Wilson and others. Indeed, this was scarcely necessary, after all that has been written by his medical attendants and staff at St. Helena; but the testimony of such an upright and honest man as Dr. Walker, must carry conviction to the mind of the most sceptical.

We now conclude our remarks, by thanking Dr. Epps for the amusing and interesting facts he has so happily arrayed in this production. His task was difficult; but it has been ably executed. He has undertaken it for the benefit of an aged and distressed fellow-creature, a sufficient motive to induce the affluent members of our profession to afford their patronage. The work is as interesting as a standard novel; it will be perused with pleasure by the medical and the general reader.

V.—*Physiology of the Fœtus, Liver and Spleen.*—By George Calvert Holland, M.D. Batchelor of Letters of the University of Paris, Lecturer on Physiology, and Joint Lecturer on Practice of Physic in the Sheffield Medical Institution. London, 1831, 8vo. pp. 229. Longman & Co.

The author of this work is very favourably known to the profession by his "Experimental inquiry into the laws which regulate organic and animal life," a work evincing research, industry and much originality, and one which refutes many of the conclusions of John Hunter, Wilson Philip, and Edwards of Paris. It is obvious therefore that its author is eminently qualified to execute the task which he has undertaken on the present occasion.

In an exceedingly well written introduction, he describes "the causes which have retarded the attainment of sound principles in physiology." He observes—

"An inquiry into the nature and extent of those causes which impede or arrest the progress of science, must be a subject of interesting speculation, not only to the philosopher, but to very one who is engaged in the pursuit, or interested in the advancement of useful knowledge. Such an inquiry, if skilfully conducted, by detecting the fallacy of assumed principles, and exposing the errors of popular systems, would diminish that undue veneration for antiquity, and that servile reverence of great names, which have so frequently prevented the discovery of truth; and by thus liberating the mind from the restrictive bonds of prejudice, would leave it free and unincumbered to pursue its onward course, in the paths of scientific research. It is only when the fetters of authority and system have been cast off by a powerful and superior understanding, that any great advances have been made in the spacious fields of science, in which, instead of exploring new tracts, the philosophers of our age have generally been content with walking servilely in the footsteps of their predecessors, or, if they have dared to depart from them, it has too often been under the misguiding influence of some imaginary notion, rather than the sure direction of those sound principles which were likely to lead to any valuable discoveries. To this cause we must attribute the slow progress of physiological investigation. On no other principle can we account for the extraordinary fact, that so many centuries elapsed before any knowledge had been acquired of the circulation of the blood, the connexion between the powers of the mind, and the development of the brain, the exact states of the body which promote or retard the generation of animal heat, and the true mode in which the fœtus is nourished. These secrets might have been made known, long before the period of their actual discovery, by any man of ordinary capacity; if, instead of being misled by prevailing opinions, he had carefully examined the phenomena which nature presented to his view. Any thing intensely bright is seen more distinctly by the eye through a coloured medium, but the objects of mental contemplation are apt to be distorted, and rendered obscure, when viewed through any other medium than that of plain and simple facts, actually ascertained to exist, by careful and repeated experiments. He who recollects this truth will not be surprised at the slow progress of the science of medicine.

"The ancients, though possessing much less general knowledge than ourselves, and not having nearly so accurate an acquaintance with the human frame, were almost as successful in the treatment of most diseases; since their superficial knowledge of the constitution of the body, and their entire ignorance of many of its organs and operations, reduced them to the salutary necessity of close observation, and a strict adherence to those means of cure which experience had discovered: but, amongst the moderns, speculation too frequently

occupies the place of experiment, facts are disregarded in an eagerness to establish some favourite hypothesis; and the instructive voice of sage experience is not heard amidst the loud exclamations of noisy partizans, contending for the truth of new theories, and ever varying doctrines. The ancients were generally more practical, the moderns are more theoretical; the former may, therefore, be sometimes safely followed, the latter seldom: but it would be dangerous to rely implicitly on either; the ideas of the one being often crude and ridiculous, those of the other visionary or imperfect. It has been justly asked, with reference to the present backward state of medical science—What has medicine yet effected in increasing the bodily powers of man, in remedying his diseases, or in lengthening life, which can bear a moment's comparison with the prodigies effected by education, in invigorating his intellectual capacities; in forming his moral habits; in developing his sensitive principles; and in unlocking all the hidden sources of internal enjoyment?"—p. 18.

He adverts to the law which held it a serious crime to question the correctness of the philosophy of Aristotle, or the medical dogmas of Galen, and he praises that spirit which has led men to disregard opinions and systems, however consecrated by age or revered by mankind; but he properly contends, that the existing dogmas in medicine have been too often wholly received or rejected, after too superficial a consideration. We are next favoured with remarks upon the works of Darwin, Brown, Broussais, Clutterbuck, Lobstein and Abernethy, in which the merits of these distinguished writers are justly estimated. He holds that some have advanced our science by facts, others by theories; but upon the whole its advancement has been retarded by the *multiplicity of its expounders*. He justly observes that it is much easier to write on medicine than on the other sciences; to compose a work, even of a very humble kind, on natural or moral philosophy, requires superior intellectual powers, strengthened by much previous study, and long exercised in abstract speculations or experimental pursuits, whilst such a work, even when creditably executed, does not bring its author either much reputation or profit. The medical practitioner, with a very ordinary understanding, few acquirements, and but little mental application, may easily compile a treatise on some branch of the profession, availing himself of the labours of his predecessors, drawing his matter from existing stores of medical knowledge, which he has only to arrange in a new form and slightly modify, to secure both considerable fame and emolument. He soon enjoys the confidence of the profession and public, until some new work appears, which throws him into the shade This

is a faithful picture of modern medical writers. Our author adduces further facts in illustration of the retardment of medical science, and the difficulties to be encountered by its cultivators. He says—

"In investigating the operations of nature, the inquiring mind is perplexed by studying them through the medium of these ever varying systems, which involve the most important subjects of medical and physiological inquiry in almost impenetrable obscurity. There are scarcely any truths in medicine, like the axioms in geometry, or the first principles in philosophy, so universally allowed, and fully established, that the student of this science can rely on their correctness; it is, therefore, absolutely requisite, amidst so many discrepant theories, clashing opinions, and opposite conclusions, drawn from the same experiments, to put every thing to the test of the most elaborate and tedious examination. Another cause, which has retarded the progress of medical knowledge, is *an almost exclusive attention to experiments.*"—p. 19.

He examines the claims of the most eminent physiologists, of Haller, Bichat, Richerand, Magendie, and points out their defects with great candour and impartiality. He offers satisfactory evidence that these illustrious men arrived at many erroneous conclusions. He contends that physiologists must exercise the mind even more than the hand and eyes, and patiently refer every hypothesis to the test of experiment. He turns to the systematic writers, and argues that they have attempted too much and adopted fanciful notions, assumed premises and false conclusions. This will be admitted when we consider the low state of medical science in the last century. His criticism on Good's *Study of Medicine* is worthy of citation.

"The *Study of Medicine*, by Mason Good, affords the clearest evidence of the advancement of this science in late years; but I am disposed to think, that the merits of this treatise have been much overrated. It cannot be denied that it displays considerable learning, and contains many important facts and useful observations; but the value of these is much lessened by their being very frequently blended with false doctrines and physiological errors. The work is, indeed, enriched with a vast fund of knowledge, brought from almost every quarter; but to render that knowledge really useful, it ought to be much more carefully examined and scientifically arranged.

"The author would have conferred a much greater benefit upon society, if his plan had been more limited, if it had been confined to some particular branch of medicine, instead of embracing the whole of the sciences, the departments of which are too numerous in their present imperfect state, and too full of errors to be comprehended by

one mind, or to admit of generalization. No system of medicine can indeed, be formed with advantage, till its principles are more thoroughly understood, and firmly established; in the meantime, the best method of leading to a more perfect acquaintance with them, is for individuals to apply themselves to the study of those particular branches of the profession which circumstances afford them an opportunity, or nature gives them an inclination to investigate. The indefatigable industry and extensive knowledge of Mason Good fitted him for the task of compilation, and his *Study of Medicine* is certainly an elegant and learned production: but his numerous and diversified acquirements were not calculated to render him practically useful as a physician, or eminently serviceable as a writer on medical subjects. The mind is, indeed, enriched by abundant stores of information, but the judgment is not proportionally strengthened; and the time spent in the acquisition of varied and extensive learning, must necessarily be taken from that which ought to be wholly devoted by the medical practitioner to the exclusive studies of his profession. A general knowledge of many subjects, being almost necessarily received without due examination, is seldom exact, or correct; this is particularly true of medical knowledge which does not admit of accurate calculation, and the correctness of which can be ascertained only by the long and tedious process of individual observation, accompanied by a spirit of candid and patient enquiry, unbiassed by prejudice, and seeking only for truth."—p. 31.

The concluding remarks of our author are manly and candid, and reflect much credit upon him, as a zealous and ardent friend to science. He says—

"In these introductory remarks, I have fully attended to those causes which appear to me to have principally retarded the advancement of the science of medicine, and in the following pages, with equal freedom, I have attempted to refute what I conceive to be the erroneous opinions of preceding writers, on a very important and difficult subject of physiological investigation. I am well aware that with those, who are strongly attached to popular systems and prevailing notions, the freedom of my observations will, probably expose me to the charge of bold presumption: but the candid and intelligent reader will, I trust, acquit me of such presumption, when he considers that the most pernicious errors can be removed only by a fearless refutation, and that it is the duty of every member of the medical profession, to expose whatever is connected with it, that in his estimation, is either false in theory, or injurious in practice. I claim, however, no infallibility: and, if in attempting to correct the mistaken opinions of my predecessors, I should myself have embraced others equally erroneous, I shall not only be most thankful to any one, who will candidly point them out, but be the first to reject them on a sufficient proof of their fallacy."—p. 32.

He commences the body of his work with an examination of the *physiology of the liver and spleen,* and after admitting the difficulties of the subject, adverts to the opinions of Dr. Stukely, published in 1723 and of Moreschi of Pavia, in 1803, "that the spleen is an organ appropriated to the digestive function, supplying blood according to its demands." He thinks this view correct.

"When the capacity of the stomach is enlarged by the food which is received, it is supposed to press upon the body of the spleen, so as to diminish the accumulation of blood in the splenic artery, and thereby to augment the action of those vessels which are distributed upon the stomach. This view, with slight and immaterial modifications, is the one proposed by both authors. The necessity of a vigorous circulation during the process of digestion can scarcely be called in question. This state of the sanguiferous system is to be regarded as indispensable, and the views which support it are much more consistent than the ideas at present entertained with respect to the efficiency of the nervous system."—p. 2.

After a just compliment to Dr. Wilson Philip, for his numerous and well conducted experiments, he denies that they warrant the conclusion, that digestion ceases on the division of the eight pair of nerves from the immediate loss of nervous energy belonging to the stomach. He observes,

"In a work, which I lately published, it was satisfactorily shewn that the division of the eight pair of nerves is injurious to the digestive powers of the stomach, in proportion only to the disorder induced in those of respiration and circulation.* When these were protected by the introduction of a small tube into the divided trachea, which enabled the animal to breathe with facility, digestion proceeded as correctly, although a portion of the nerve on each side was excised, as when the nerves were left entire; the trachea alone being separated, and a tube attached, as in the preceding instance."—p. 3.

We cite authorities which prove, that the spleen may be partially or totally removed, and in some instances does not exist, and still digestion is effected. He notices the experiments of Sir E. Home, Malpighi and Assollant, in corroboration of the fact, that the spleen has been removed from animals, without injury to digestion, absorption, circulation, respiration, voice, secretion, nutrition, locomotion, sensibility, the instinctive faculties, and reproduction. He arrives at the con-

* See an Experimental Inquiry into the Laws which regulate the Phenomena of Organic and Animal Life.

clusion, that the spleen is not necessary for the functions which has been ascribed to it, "for if it were indispensable to the perfect digestion of food, this process would be impeded or destroyed, whenever the stomach was deprived of its assistance, which, however, is not the case." He thinks the office of the spleen is not as yet discovered. We are much surprized at his silence on Mr. Dobson's experiments and conclusions on this subject, which we noticed in our last volume; and which appear to be more satisfactory than any hitherto offered. These views were not promulgated by the Medical Journals so extensively as they merited, and hence we may excuse our author for not having noticed them.

He states, that the physiology of the liver is as obscure as that of the spleen, and denies the legitimacy of the conclusion that the venous blood forms the bile.

"From what has been previously explained, it is evident that the hepatic artery is regarded as the source of bile; and believing the production of this to be only one function of the liver, it is my intention to account for the great quantity of venous blood transmitted to it and the spleen. Both organs are well adapted to receive a great share of sanguineous fluid, whether we consider the texture as composed of blood vessels or of cells.

"The function of the spleen, as well as that of the liver, independently of the secretion of bile, is considered a diverticulum of the system. If the veins which form the vena porta had passed directly to the vena cava inferior, a thousand accidents, arising either from mental or corporeal disturbance, would have continually placed the life of an individual in imminent danger. Every passion, whether of an exciting or depressing character, and every general and local disease, if severe, whether chronic or acute, would have been liable to have deranged the lungs and heart. I have already endeavoured to shew, that passions, of a depressing nature, bring the blood in greater quantity than usual from the inferior and superior extremities, and also from the surface of the body to the chest; and I have also stated, that the abdominal viscera participate in this engorgement. Since the body is continually liable to such changes, baneful effects would follow, unless nature had provided organs, whose situation, function and organization, enable them to diminish the burden imposed upon those, whose constant and almost regular action is indispensable for the maintenance of life. This object is beatifully answered by the liver and spleen. The organs within the chest must be regarded as possessing vital functions. If the lungs were surcharged with blood, or in a condition approaching to it, the properties and distribution of this fluid would be immediately disordered, and with this primary derangement every part of the body would quickly sympathize.

"The liver and the spleen, from being placed close to the thorax, are calculated to relieve the congested lungs and heart, or rather to protect them from sudden and violent commotions; and are also favourably situated to protect in the same manner the stomach, whose action is scarcely less vital."—p. 20.

He reminds us of the minute ramifications of blood vessels in the liver and spleen, which prevent the sudden flow of blood to the lungs, an occurrence inevitable and fatal, had not these organs been wisely interposed. Man could seldom arrive at maturity, unless the constitution were endowed with these organs.

It has been long held, that the melancholic temperament is by far the most frequently characterized by disease, or augmentation of the liver and spleen. Our author endeavours to prove the validity of this position.

"The greater part of the ancients supposed, that these organs were the seats or causes of this temperament, and although it is impossible to grant that any viscus or viscery of the abdomen can fashion the peculiar constitution of the mind, still the universal language of mankind proves, that these organs were generally large or diseased in individuals of this temperament. We very rarely find persons so constituted take constant exercise; their habits for the most part are sedentary, and instead of enjoying the gaiety and hilarity of convivial parties, they generally prefer solitude, or are occupied in brooding over real or imaginary evils. In the chapter on the physiology of the passions, already alluded to, the manner in which the body suffers from a disorder in the powers of the mind is fully discussed; and as the feelings of melancholy are considered to operate in the same way, as those which were referred to the division of mental sedatives, there is little further to add on the present occasion.

"A life of inactivity, or one abounding in disagreeable sensations, tends to determine the blood internally, and those organs which are best adapted to bear this determination, or state of congestion, will suffer to the greatest extent. The liver and spleen being formed in every respect, to receive the principal share, they will necessarily exhibit symptoms of derangement or disease, as if they were the only disordered organs, but in this state of the system we also remark, very frequently, if not constantly, acute headache, palpitation of the heart, sometimes cough and difficulty of breathing, or abberration of the mental faculties; and unless the two abdominal viscera had been so constituted and placed, the whole train of the latter effects would have become too prominent for the existence of the animal economy. If these principles are allowed to be correct, the treatment of nervous diseases must be considerably modified."—p. 23.

After a variety of arguments in further proof of the doctrines already cited, our author arrives at the following conclusion as to the functions of the spleen, which is by no means satisfactory:—

"If it be removed, and the individual recovers his wonted energies, these may exist for a series of years; because their exercise does not depend upon the spleen, but upon the proper action of organic laws, which are equally independent of the same organ in the undisturbed state of the system. Its office is not to contribute, every moment, to the maintenance of life; but only, on trying occasions, to develope the full powers of its functions, and, in conjunction with those of the liver, to protect the vital principle from destruction."—p. 30.

If the conclusions of Mr. Dobson be legitimate, and they are deduced from experiment, the function of the spleen is exerted after digestion, a direct contradiction to the doctrine of this extract.

Our author deduces several arguments from comparative anatomy, in corroboration of his statements, but the insertion of these would be uninteresting to most of our readers. Though he has displayed much originality in this article, he has not adduced many authorities that might be quoted. We cannot overlook these omissions, as the work is ably executed. It is at once literary, scientific, and instructive, and well deserves a place with the first physiological productions of the day. We shall resume our analysis of the remaining part, on the physiology of the fœtus, in our next.

VI.—*A Manual of Analytical Chemistry.* By HENRY ROSE, Professor of Chemistry at Berlin. Translated from the German by John Griffin. 8vo. pp. 454. London, 1831: T. Tegg.

THOUGH we have many excellent works on chemistry, we have not one which can be considered a perfect guide to analysis, and therefore a production of this description is a great desideratum. Few chemists are so justly celebrated as Professor Rose—as an analyst, he stands unequalled in the German schools. The translation of his work will be esteemed an advantage by every scientific practitioner. It

is singular that the various German systems of chemistry, which are seldom equalled, and certainly not surpassed, should not have been translated into English. It is not easy to account for this apathy. The present specimen is well calculated to induce our countrymen to direct their attention to this branch of German literature. The accuracy and fidelity of this translation reflect much credit on Mr. Griffin. To the operative chemist this work will be invaluable. It is a production of great practical utility, and cannot fail to be encouraged. It is only fit for those who are versed in chemical science. It does not admit of analysis, and its arrangement only can be introduced. This appears in the author's preface.

"The first part contains instructions on qualitative chemical examinations. I have treated therein of the detection of those substances only which occur most frequently. I have restricted myself thus, not only because these substances are of greater interest than those which seldom occur, but especially because the description of the analyses would have been rendered too difficult to follow, had I started with the supposition that the compounds to be examined could contain all possible constituents. The behaviour of rare substances with reagents is described in the systems of chemistry, among others, in the system published by Berzelius. Every one, therefore, who is sufficiently exercised in the qualitative examination of the substances which commonly occur, will experience no difficulty in detecting those which seldomer occur, providing his inquiries are directed by the information thus obtained.

"The second part contains instructions for quantitative analysis. To every simple substance, oxygen excepted, a distinct section is allotted. In each section, I first describe the quantitative determination of the simple substance and its compounds with oxygen. I then treat of the separation of this substance or its oxides from those which are treated of in every preceding section. In the beginning, come the simple bodies which, combined with oxygen, constitute *bases*; then follow the bodies whose compounds possess *acid* properties. This order appeared to me to be the most advisable, since it permits one to trace, without much difficulty, the particular steps of a process chosen for any quantitative analysis which may be presented. Only in a few places, and then but to avoid repetition, have I departed from this arrangement. By following the plan, it has been rendered possible to treat of the siliceous substances which occur in nature under silica, of the simple and compound, factitious or native sulphurets under sulphur, and of nearly all the gases under hydrogen.

"In order still farther to facilitate reference, an index has been added to the work.

The description of the practical contrivances employed in analytical chemistry, is almost entirely passed over. For the introduction of most of these contrivances, and for the greatest improvements they have received, we are indebted to Berzelius. He has accurately described them in the fourth part of his system of chemistry, with the translation of which (into German) Professor Wohler is now occupied. It appeared to me, therefore, to be unnecessary to describe them in this manual. In a few places only have I depicted by wood cuts some apparatus employed in quantitative analyses.

" The chemical nomenclature is precisely the same as that employed by Berzelius in his System of Chemistry.—Preface, p. xii.

ORIGINAL COMMUNICATIONS.

I.—*Observations on Spasm of the Colon.* By Felix W. Lyon, Esq. Surgeon.

I have presumed to offer the following remarks on a disease, which I conceive to be spasm of the colon, in consequence of its more general cause (or at least that which I believe to be usually so) producing effects when the disease has existed for some days, which may, I think, render it liable sometimes to be mistaken, so that effect alone might possibly be attended to, and the symptoms which at this period are present, be treated without inquiring minutely into the pre-existing ones.

The disease, so far as I have observed, is one to which females are more particularly liable, apparently from the simple fact of their utter carelessness in procuring daily alvine excretions. The symptoms are as follow:—The bowels are in the first instance costive, then pain comes on, that is, there are slight and sudden attacks of it, which continue to increase until occasional fits of violent spasms occur, but between these attacks there is never a total remission of pain; the pain is usually referred to the transverse and descending portions of the colon, occasionally to the left iliac region. [This latter situation of the pain I have seen in women often declared to be indicative of disease of the ovarium, leeches have been applied to the affected part, and various things done without much benefit, when, on the exhibition of a few brisk purges, the symptom

has vanished, and the patient recovered her accustomed health]. The abdomen is flaccid, pressure relieves the suffering, nausea and vomiting are sometimes present, but the latter is less frequent: out of ten or twelve cases I saw last year, I believe I met with it in only one, and in this it proved inconvenient rather than distressing; neither was it followed by any unfavourable consequence—the tongue is usually moist, and covered with a white crust, the pulse rarely exceeds eighty-five in the minute—it is full, but compressible, there is but little thirst, the heat of the skin is slightly increased, and it is usually dry.

When the disease has existed for some days, in addition to the symptoms just mentioned, the patient is attacked with purging; it is at this period, in my opinion, that the attention is most likely to be drawn from that which I conceive to be the more general cause of the disease, and which also produces the relaxed state of the bowels (viz. scybala), and the affection at this period to be treated as one of simple diarrhœa; in one strongly marked case, I had an opportunity of proving the truth of the fact I have now advanced. I was requested to see a man who had diarrhœa, and had been attended for some days by a practitioner, whose treatment consisted in the administration of the compound powder of kino and other astringents, which only aggravated the disease; on inquiring the symptoms he then had, and also into the previous history of his case, I found that he was then suffering from diarrhœa, and had for some time experienced attacks of spasms, and the other symptoms I have already noticed, which induced me to consider the diarrhœa as arising from a very different cause to the one which had been ascribed to it by his previous attendant, and I was fully borne out in this opinion by giving him purgatives rather than astringents, under which mode of treatment he speedily recovered. When diarrhœa supervenes, the attacks of spasm are less violent, and on the whole less frequent, perhaps, than they are in the first instance; the evacuations consist of liquid fæces, and among them scybala; mucus is also frequently mixed with them, and they are occasionally streaked with blood; these appearances of the evacuations, conjoined with attack of spasm, and inquiring into the previous history of the disease will, I think, sufficiently point out its nature, and the plan proper to be pursued for its cure.

The foregoing symptoms being present, induced me to consider the disease, spasm of the colon, as arising from indu-

rated fæces. The objects I had, therefore, in view, were to relieve the spasm, and to procure free evacuations of the bowels, which were accomplished by the exhibition of aperient medicines combined with opium, such as the following:—

℞ Magnes. sulph. ʒiss.
Infus. sennæ, ʒxi.
Tinct. opii. mj. viii. ɱ. f. haustus tota quâque horâ sumendus.

This I have usually repeated, until the stools put on a natural appearance. If, however, the disease had continued some time, and the bowels were relaxed, the evacuations being mucous and bloody, I have usually substituted small doses of castor oil, (ʒiss. or ʒii.) mixed with the mucilage of gum arabic, for the infusion of senna, and sulphate of magnesia, repeated at intervals of six or eight hours, until the stools became healthy, and the following powder on going to rest:—

℞ Hydrarg. cum cretâ gr. v.
Pulv. ipecac. compositi gr. viii. ɱ. f. pulvis.

These modes of treatment I have always found attended with success, and as soon as scybala have ceased to appear in the evacuations, the pain and other unpleasant symptoms have left the patient; I then usually order some slight bitter infusion, with small doses of the sulphate of magnesia, to restore a proper degree of tone to the bowels, and a strict caution to the patient of the necessity of procuring daily evacuations for the future.

22, Dean Street, Soho,
March 6th, 1831.

II.—*Rupture of the Liver—Ignorance of Lawyer Coroners.* By Dr. Tuthill.

Four cases, in which death was produced by rupture of the liver, spleen, and an intercostal artery occasioned by violence. Reported by Richard Tuthill, M.D. Assistant Surgeon, 52d Regiment.

The night of the 27th of last July, I was called upon to visit a female named Anna Kelly, who was reported to have

been very ill; upon reaching her house I found that she had died a few minutes previously, in consequence of severe blows inflicted upon the body by her husband. Sixteen hours afterwards I examined the body in presence of two medical gentlemen. The liver was torn to the depth of an inch or more at the inferior and posterior part of the transverse fissure; the right lobe presented two deep ruptures, one near the inferior edge, the other within about two inches of the superior thick edge. Between two and three quarts of venous blood were found in the inside of the peritoneum diffused around the intestines and between the layers of the great omentum. The liver was tolerably firm, a little paler than what is usually observed, the remaining abdominal, as also the pelvic viscera were healthy. The integuments of the thorax and abdomen presented in several places, marks of bruises produced by some instrument, the skin was not broken in any place, no communication with the interior of the cavities could be discovered. I was examined by the coroner, and after stating that the above appearances were found, gave it as my opinion, in answer to his question, that the ruptures of the liver and the quantity of blood effused, were sufficient causes to have produced death, and that such injuries and their effects must have been occasioned by great violence. The case having been twice in the supreme court of this city, the 29th of October, I was called upon to bear testimony to the evidence given before the coroner: after having been sworn I recapitulated the above statement, respecting the appearances of the body and the cause of death, and I was submitted to the following examination by the council for the defendant:—What are the functions of the liver? Is not the liver attached to the stomach by an elastic ligament—is it not attached by a peculiar ligament to the diaphragm? Alluding to the ligamentum teres, is not the liver thrown into action in vomiting? How does the diaphragm affect the liver when vomiting occurs? Is not rum a poison? Might not the liver be torn in the manner described during the act of vomiting? Does not rum produce in this country a peculiar disease, not generally known in England? The learned gentleman had in view the delirium nervosum ebriositatis, and he appeared somewhat astonished, when told that this disease was not uncommon in Europe, and that it was occasioned by porter, ale, gin, brandy and other spirits, as well as rum. Was the liver altered in its appearance—was it so changed, as to render it the more easily to be torn by any preternatural excitement of the neighbouring parts? It

will appear evident from the nature of the above questions, that an answer in the negative must have been given to almost every one of them.

Mr. Gibson, surgeon of the 52nd. Regiment was sworn, and after corroborating the statement I gave, was cross-examined by another counsel. One of the questions was, is not the liver surrounded by the diaphragm? This alone suffices to shew the necessity of an anatomical course of study, for the lawyer as well as the medical man, and it is to be regretted that the more modern works on legal medicine should not contain a sketch of the various parts of the body, with a general description of them, and also more reference to the standard works on law and the modern chemistry, when the subjects connected with these are under consideration. The Nova Scotia newspaper for the 4th November, in which a full statement of the case may be seen, speaks thus. "Both gentlemen underwent a cross-examination by the counsel for the prisoner, the object of which was to induce a belief that the ruptures of the liver were occasioned by violent retching; nothing appeared to give colour to the supposition. Both gentlemen agreed in their description of the state of the body, and both gave their decided opinion that outward violence alone could have produced the inward appearances, and that such violence as the witnesses had described would have been sufficient."

On the 13th October last, James Small, æt 38, a carpenter, received a blow with the fist above the centre of the left chest, by which an oblique fracture of the seventh rib was produced. The fracture was not discovered until after death. About ten minutes after it had happened, he became faint and lay down, he complained of uneasiness about the precordia, accompanied with dyspnœa, which gradually increased to laboured inspiration; he became so restless, from general uneasiness, that he could not remain a moment in any position; the pulse became gradually very quick and so feeble as at last not to be perceived. About six hours after he received the blow, death had occurred, and twelve hours afterwards the body was examined. The sac of the left pleura contained about a gallon of blood, which was partly coagulated, its colour was redder than venous. The inferior edge of the seventh rib was found fractured to about the extent of three lines, and a small foramen was discovered in the artery, which would admit only the point of a probe. All the viscera were healthy, and no other mark of injury could be traced. A coroner's inquest was held, at which Mr. Stirling, the medical gentleman in attendance, was requested to state,

what he had seen without any examination. A verdict of accidental death was the issue.

When stationed at Sierra Leone in 1827, I had charge of the regimental hospital of the African corps; two European soldiers, patients in the hospital, had a dispute, one struck the other with a pewter pot over the spleen, which left a semi-circular mark in the integument, and gave rise to a rupture of some of its vessels, an immediate effusion of blood into the abdomen took place, and death ensued in the course of about ten minutes. Half an hour afterwards I examined the body and found a large quantity of fluid blood in the abdomen.

Some time after this a similar accident had occurred—two other European soldiers had a boxing match, one gave the other a blow with his fist over the spleen, which occasioned almost sudden death. The body was examined, and as large a portion of blood was discovered in the abdomen, as appeared in the preceding case. The spleen was ruptured where the vessels enter into it. In each of those cases a coroner's inquest was held, at which I attended, and had merely to state what I had seen, without any further inquiry. In addition to the opinions lately published on medico-legal science, and connected with it, these few cases shew the necessity of a medical coroner. In making this observation, I do not mean to find fault with those gentlemen holding that situation with whom I came in contact, but the duty of a coroner is of such vital importance to the interests of society, that it must be evident to any man whose mind has been directed to the subject, and witnessed the evils arising from its being filled by a person ignorant of medicine and surgery, that no doubt can remain for the necessity of the office being occupied in all parts of the world by a medical man. The coroner's examination should be as minute as possible, and unless he have a knowledge of the structure of the human frame, and of forensic medicine, can he judge of those alterations to which the various parts of the human frame are subject, or of the effects of such substances as are most likely to come in contact with it, if unacquainted with the animal machine, and the laws that influence it? His ignorance in these important points, subjects which none, generally speaking, are acquainted with but medical men, may be the cause of his passing over very important matters; the culprit consequently has a much less chance for the escape of his life, and much less for the freedom of his person.

Halifax, Nova Scotia,
17th Dec. 1830.

III.—*Observations on Homicide by Asphyxia.*
By Dr. Ryan.

Asphyxia is the suspension of respiration by a mechanical obstacle to the passage of the atmospheric air into the lungs, as by submersion or drowning, strangulation, suffocation, by gases unfit for allowing the necessary oxygenation of the blood in the lungs, or hæmatose, as hydrogen, nitrogen, carbonic acid, or deleterious gases, as carbonic oxide gas, sulphuretted hydrogen, nitrous acid gas, sulphurous acid gas, ammoniacal gas, chlorine, &c. Asphyxia may be momentary, and respiration may be restored; but when it is prolonged, it is fatal. Various injuries and diseases may produce it, as division of the spinal marrow, formation of false membrane in the larynx or trachea, and syncope, &c.; but with these causes the medical jurist can have no concern. I shall therefore describe those which claim his attention.

Asphyxia by submersion. The cause of death in all forms of asphyxia, is a want of oxygenation or hæmatose of the blood. This fluid passes through the lungs without any change, it possesses the characters of venous blood and is unfit for sustaining life; the brain suspends its action, the muscles lose their nervous supply and cease to contract, the chest becomes immoveable, the blood accumulates in the lungs, and as the arterial is more contractile and elastic than the venous system, the latter becomes distended, as also the right cavities of the heart, and pulmonary artery, while the left cavities and aorta contain little blood or are empty, and the fluidity of the blood is characteristic, though sometimes white fibrous clots are observed in the heart. In some cases apoplexy or syncope may occur from fear at the moment of immersion, and death will not be caused by want of respiration, but in general asphyxia is the cause of death, whether by deprivation of air or by passage of water into the bronchi.

In those destroyed by submersion, the face is red and tumid, the pupil dilated, the eyelid partly open, the eyes glassy, the tongue projected beyond the lips, a frothy fluid escapes from the mouth and nostrils, the skin of the trunk and extremities is remarkably pale, the trachea, and sometimes the bronchi contain an aqueous sanguinolent froth, according to Louis, Goodwin, Berger, Orfila, and others, and this is formed during life (Piorry), as it cannot be pro-

duced by immersion of a dead body; and is only a secondary cause of death, according to Orfila. The chest and epigastrium are swelled, the fingers are deprived of skin, there is earth under the nails varying according to the soil of the bank near the water; the brain is engorged, the epiglottis is straightened, the lungs are dilated and crepitant, containing a certain quantity of froth. All these signs however are not conclusive. Thus the pale colour of the skin might occur, if a person, destroyed by severe hæmorrhage or inanition, was precipitated into the water. The colour and tumidity of the face will not be present, should the submersion be effected rapidly and have caused syncopal asphyxia, or anger or drunkenness might induce it. The external appearances of the body will vary according to the length of time they have been in the water; so that the indications afforded by them are illusory. The frothy matter may be seen in apoplexy, convulsions, epilepsy, in certain cases of poisoning, and after strangulation or putrefaction. The states of the eye and eyelids are equivocal. The distention of the right side of the heart will be present in all cases where the circulation of the blood is suddenly suspended. The fluidity of blood is observed in scurvy, in those destroyed by electricity, and in many species of cachexiæ. The engorgement of the brain is still more uncertain, and may arise from a variety of causes. The condition of the lungs and elevation of the thorax arise from various causes. The presence of water, or any other fluid in which the body has been found in the stomach, is a strong proof; as such fluid does not enter the organ, unless the body is in the erect position when immersed, and a body might be injected with water or fluid after death.

Considering all signs, we can seldom decide indubitably that the person perished by submersion. It is also impossible to decide whether the person has fallen into the water by accident, or has thrown himself in, or is the victim of homicide. Here we must recollect that persons intent on suicide have wounded themselves without causing death and then thrown themselves into the water. We should inquire whether the deceased was short sighted, affected with vertigo or insanity, and examine the state of the bank, marks of footsteps and various other circumstances. When there are ecchymoses on the neck or wrists, or traces of poisoning, we may suspect assassination, and in the former we must be careful in distinguishing ecchymoses from cadaverous lividity, in the manner already described in treating of wounds. We can generally distinguish wounds inflicted before and

after death, though a person may fall against a stone and receive a wound in the water which can scarcely be distinguished from one inflicted before immersion. When new born infants are drowned, we must discover whether they were born alive or not, by the proofs stated in the article on infanticide.

Asphyxia by strangulation, suspension, or hanging, is effected by mechanical pressure on the neck by a cord, cravat or any other means, which prevents the passage of the air to the lungs, and thus causes asphyxia. In suspension or hanging, there is strangulation, and often dislocation of the upper cervical vertebræ, causing pressure on the spinal marrow, paralysis of the respiratory nerves, paralysis of the thorax, and instant death. Laceration of the vertebral ligaments, dislocation or fracture of the vertebræ, is caused by the modern mode of hanging, as the body is precipitated, and its weight produces these effects. Are these certain signs indicative of death by strangulation? Can we distinguish when suspension is made before or after death, or whether strangulation be voluntary or criminal?

The signs laid down by writers that strangulation has caused death are the following: the skin of the neck on which the cord has been applied is of a yellowish black colour, is dry and resembles parchment. These effects however are found when strangulation has been produced before or soon after death; the existence of ecchymoses is very rare (Esquirol. Arch. de Med. 1823), in general where there is no effusion of blood in the subcutaneous cellular tissue. When real ecchymoses are observed, the strangulation was produced during life. On the other hand strangulation may be caused, and this sign be absent, or it may be deep-seated in the muscles. Its absence on the skin is no proof that death has not been caused by this means. There is an apoplectic condition of the brain indicated by tumefaction and great redness of the face and lips, by the swelling of the eyelids, and lividity or blue colour, by the redness and prominence of the eyes, which appear as if starting from the sockets; there is the livid engorgement of the tongue which is thickened and projected between the teeth; there is a sanguinolent froth in the throat, mouth and nostrils; the lungs and heart are gorged with black blood; the extremities are violet, the fingers contracted, there is erection of the penis and seminal emission, or the latter without the former. The lividity of the face and congestion of the brain may exist, but disappear before the autopsy, or may be pro-

duced some hours after death, but not after twenty hours, (Esquirol): a vertical position will cause them to disappear or a declivity of the head of a dead body will produce them. The signs afforded by the eyes, eyelids and tongue are of little value. The presence of froth in the air passages, the conditions of the lungs and heart are seen in all species of asphyxia, and are of course inconclusive. The erection and seminal emission may not happen. The luxation and fracture of the vertebræ may happen before or after death, and unless accompanied by ecchymosis, superficial or deep-seated, are equivocal: there may be effusion of blood into the vertebral column.

Upon the whole, when strangulation or suspension causes death, there may be ecchymosis without any sign of putrefaction, and the certainty is complete, if there is lividity of the face, froth in the air passages, and the clothes stained by a recent seminal evacuation. But should all these signs be absent, there is no just ground for denying that strangulation has happened. To decide that strangulation has happened after death, we must find wounds, fractures, contusions of the cranium, or other important organs or traces of poison in the intestinal canal: where none of these signs is present, we must conclude that strangulation was caused during life. Devaux met a case in which there was no sign of strangulation, except discoloration of the face, which fact led him to examine the body closely, when he discovered a small penetrating wound of the heart, which might have been overlooked, upon a superficial examination. It is difficult to decide between suicide and homicide. A person may wound himself, if he swings himself among surrounding bodies. When blood is observed upon the individual, we may in general decide it a case of suicide; but homicide may occur under such circumstances. In real strangulation, we have grounds for supposing it homicide, for an individual who intends to destroy himself in this way, generally wants the power to effect his wicked purpose. Such persons usually tighten the ligature by some instrument, as a piece of iron or wood. It is equally difficult to distinguish suicide from homicide in the case of suspension. Fracture or dislocation of the cervical vertebræ may occur in voluntary as well as criminal suspension. Orfila, Chaussier, Pfeffer, Ansiaux. Orfila, however, concludes, that in general such lesions of the vertebral column are not the result of suicide. In all these cases we should consider, the habitude, morality, and intellectual state of the individual; but it is

foreign to my purpose to introduce in this place all the causes of suicide.

Asphyxia by Suffocation.—Suffocation is different from strangulation, it being produced by the introduction of some foreign body into the throat, or larynx and pharynx, which prevents respiration. Infants, and adults when intoxicated, are often smothered, the former by what is called overlaying, as when the bolster or bed clothes press on the mouth, and obstruct respiration. New born infants are often destroyed in this manner, as already described in the article on infanticide. Various foreign bodies, as cotton, tow, earth, sand, wood, &c. will be found in the pharynx, and may be introduced after death. When these bodies are hard, they will produce ecchymoses, excoriations and lacerations. In these cases death is caused by the prevention of the circulation through the lungs, these organs will be found gorged with blood, or contain some frothy mucosity, the brain will be congested; but these morbid conditions may be produced in the different species of asphyxia, and consequently afford no conclusive evidence. We must attend to the circumstantial evidence, which is the principal or only means to assist us in forming an opinion.

Asphyxia by non-respirable gases.—Two divisions of gases are described, which have seldom existence in practice as many are the products of art, and cannot be often applied. Some of these gases are non-respirable, and possess a direct deleterious influence on man, and kill, by causing a defect of oxygen producing the same morbid appearance as result from asphyxia by want of air: these are nitrogen, hydrogen, protoxide of nitrogen, carbonic acid, carbonated hydrogen, oxide of carbon, poisoning by charcoal. These and following gases must be included in the second species, called deleterious gases, sulphuretted hydrogen, nitrous acid gas, the gas evolved in privies, ammoniacal gas, chlorine and hydrochloric acid gas. Many of these are only to be encountered in the chemical laboratory. Professor Christison divides gases into irritants and narcotics. The irritant gases are nitric oxide gas and nitrous vapour, muriatic acid gas, chlorine, ammonia, sulphurous acid, and others of little consequence; the narcotic are sulphuretted hydrogen, carburetted hydrogen, carbonic acid, carbonic oxide, nitrous oxide and cyanogen.

Nitrogen gas.—This gas is found in cellars, in which substances are placed, which have a strong affinity for oxygen, as oils, &c. and sometimes in privies. The signs

of asphyxia from this cause, are pallidity or a greenish cast of skin, extreme anxiety, large and frequent respiration, and death occurs in a few minutes without any lesions of the nervous system. The arterial system is full of black blood. The effects of *hydrogen gas* are nearly similar, and can only be produced by chemical experiments.

Asphyxia by carbonic acid gas occurs from the combustion of charcoal, common fuel, or in cellars, from fermentation of wine or malt, and from lime kilns, from coal pits, and draw wells. Brewers' men are often destroyed by this gas, when they descend into large vats for the purpose of cleaning them, unless they use proper precaution. It is usual to lower a candle into the vat, which will be extinguished as soon as it encounters the acid, which, from its greater gravity than atmospheric air, falls to the bottom of the vessel. I have been called to two persons who were destroyed by inattention to this precaution. The effects of the non-respirable gases are similar to those arising from want of renewal of air. This was well exemplified during our East Indian wars, by the horrible incarceration of our countrymen, by their savage opponents at Calcutta. One hundred and forty-six persons were confined in a chamber of twenty-four feet square, having only two small windows. The first effect on these unfortunate persons was abundant and continued perspiration, insupportable thirst, succeeded by great pain in the chest, and a difficulty of respiration, amounting to suffocation. They were attacked with fever, which increased every moment, and after four hours most of them were dead. Many became stupid, lethargic and delirious, and only twenty-three escaped alive. In those destroyed by want of air, the right cavities of the heart, and the venous system are filled with very black blood.

The symptoms produced by *carbonic acid, or fumes of charcoal*, are heaviness of the head, intense headache, which impels the sufferer to compress the temples, cerebral congestion increases and causes vertigo, drowsiness or profound sleep, tingling of the ears, impeded respiration and circulation, dazzling, the muscular power ceases, profound coma ensues, and death seems apparent. During the development of these symptoms, some persons experience a general feeling of pleasure, and the excretions are discharged involuntary. In these cases, the body remains warm for a long time; the extremities flexible, the muscles are softened, the colour of the surface is congested, pale, leaden or violet, the face is red or flushed, the lips of a vermillion hue, the eyes are

bright, the tongue is swelled, the epiglottis is raised, the veins of the brain and lungs are congested with very black blood, the stomach and intestines are red, the mucous surfaces are ecchymosed, the blood remains fluid, and all the lesions characteristic of asphyxia, are apparent. It is not as yet determined whether this gas is deleterious, or acts negatively, by causing asphyxia; Dr. Christison thinks it positively poisonous; but it has been injected into the veins and produced slight effects, such as feeble muscular action, which disappeared spontaneously in a few days. (Nysten).

Asphyxia, by deleterious gases. Sulphuretted hydrogen, is known by its odour, which resembles that of rotten eggs, and causes a black precipitate in solutions of lead, copper, bismuth, silver, &c. A small quantity of it causes death, and even serious accidents, when mixed with atmospheric air. It is disengaged from the putrefaction of animal and vegetable substances. Its effects are great prostration of muscular power, oppression of the chest, with difficulty of respiration, headache, nausea, and marks of oppression of the nervous system, and probably a change in the blood.

After the death, the mucous membranes of the nose and bronchi are lined with a thick bluish mucosity, the blood vessels are filled with a blood of a similar colour; a colour which is observed in the brain, lungs, kidneys, and all organs and vessels. The muscles have lost their contractility, all the soft parts are easily lacerable, exhaling a fetid odour, and speedily becoming putrified.

Asphyxia, produced by gas evolved in privies and drains. This is the hydro-sulphate of ammonia, mixed with a great quantity of air, is composed of twenty-four parts in 100 of nitrogen, one or two of oxygen, four of carbonic acid and subcarbonate of ammonia. It is designated *plomb*, by the French jurists, and arises from privies of a peculiar form.

The symptoms produced by this poison, are headache, nausea, paleness of face, dilatation of the pupil, a frothy sanguinolent fluid in the mouth, constriction of the throat, sardonic laugh, violent cries, convulsions of the muscles of the chest and jaws, sometimes tetanic spasms, articular pains, coldness of the skin, irregular and embarrassed respiration. At other times, there is stupor, the visage is violet, the eyes glisten, the pulse is small and frequent, the breathing convulsive, the extremities are relaxed. At the approach of death, all the symptoms are aggravated, the sufferer roars loudly, the body is bent backwards, as in opisthotonos. The morbid appearances are similar to those observed by sulphu-

retted hydrogen or hydrosulphuric acid gas. This was said to be the cause of the fatal cholera at Clapham, which is denied by Christison.

Asphyxia, by sulphurous acid gas, nitrous hydrochloric, ammoniacal, arsenical gases, hydrogen, carburetted hydrogen, muriatic gas, and chlorine.—All these gases are irritant, inducing cough, suffocation, vivid pains in the chest, sometimes hæmoptysis, and always mucosities in the bronchi. They act negatively, or by a defect of oxygen. When death approaches, there is hiccup, rale, great pain in the diaphragm, convulsive motions, delirium and inexpressible agony. The cause of death is irritation of the mucous membranes of the bronchi. The nitrous oxide, or laughing gas, protoxide of azote, destroys life in this manner.

There are many other gases which are destructive to life, which I have not described; but these cannot become the subject of forensic investigation, as they produce their effects upon experimentalists, who may avoid them. A full account of them will be found in Dr. Christison's elaborate Treatise on Toxicology, a work which ought to be in the hands of every medical practitioner. Vegetable emanations may produce syncope or asphyxia, either by the extrication of carbonic acid, or by the odour of their flowers, which can only be accounted for by peculiarity of constitution or idiosyncrasy. The descriptions of these cases cannot be of interest to the medical jurist.

Homicide by combustion.—The medical jurist is seldom called on to pronounce an opinion on a body destroyed by combustion, as murder is seldom perpetrated by burning. The records of legal medicine afford but few illustrations of homicide by combustion. When such cases occur, medical evidence may be required, as stated in the remarks upon burns or torrefaction. It is now admitted on the continent of Europe, though disbelieved in these countries, that spontaneous combustion is possible, though its cause is as yet inexplicable. It is said to occur most commonly to aged females, who have long indulged in the abuse of alcoholic potations. Generally speaking, some matter of ignition, as a lighted candle, a pipe, &c. has been found near the remains of the body; but cases are attested in which no ingneous substances were discovered. Lecat, Kopp and Marc refer to the fact of spontaneous combustion having on the surface of the earth, and as friction on the extremities of certain persons, elicit electric sparks, why should not these excite inflammation or ignition of the alcoholic fluid, or of a gas

contained in the cellular substance of our organs? In spontaneous combustion, the flame is like that of certain meteors, and is extinguished with difficulty. The walls in the chamber in which this happens are covered with an unctious fetid humidity, such as results from the combustion of hydrogen gas. It rarely happens but some of the bones of the limbs remain, but the trunk is consumed, probably as it is connected with the large cavities, and on account of the laxity of the cellular tissue, and the evolution of hydrogen gas in the intestines. When the individual does not perish at the instant of the accident, sphacelus sets in or commences rapidly after death. If life remains for four or five days, an insupportable odour is exhaled, the nails are detached, and worms are generated. These characters cannot be confounded with accidental combustion, or burns; in these the redness of the blisters and the eschars leave no doubt on the nature of appearances, and accidental combustion seldom destroys the whole body without extending to surrounding objects; all jurists admit the possibility of spontaneous combustion. The reader will find references in the works of Beck, G. Smith, Briand, Sedillot and others.

Death by inanition or hunger.—It seldom happens that homicide is committed in this manner, though it is well known that cruel and unnatural parents, step-fathers and step-mothers occasionally destroy children and young persons by famine or starvation. The ancient and modern history of Ireland affords ample evidence of the destruction of life by this cause. Besides, persons may be found dead, when it will be important to inquire whether life has been extinguished by cold, hunger, poison, &c. It is therefore important to state what are the signs of death by starvation. The body is emaciated, the eyes are red and open, the tongue, throat and buccal mucous membrane, are very dry, the stomach and intestines are contracted and empty, there is no fœculent matter in the bowels, the gall bladder is full, and bile tinges the stomach and bowels, and all the blood-vessels are empty. Many of these signs are different from those which characterise other causes of violent death.

IV.—Dr. Malins's *Introductory Lecture.*

Gentlemen,

Established custom requires, that previous to commencing the exposition of a subject connected with science or art, a sufficient historical account of it shall be given, to enable the student to form some accurate general ideas of its origin, and the manner of its advancement to the state in which it is found at the present time. It is this preliminary measure which it is now proposed to fulfil with regard to Midwifery—a term, which in its ordinary acceptation, is held to denote a link only of the extensive chain of occurrences, which fall peculiarly within the notice of the obstetric teacher and practitioner; for if the just definition of this important branch of medical science be, that it is the amount of our information relative to the perpetuation of the human species,* it will at once appear how comprehensive must be the studies belonging to it, and how wide a field of inquiry it opens to the philosophic mind. Nor can it be less evident, from its connexion with the subject of population, that a knowledge of its doctrines and resources is worthy the attention of the politician and economist; and, from its being conversant with the concomitant circumstances of prolicide, or the destruction of the human offspring, that a strict alliance obtains between it and some of the most usual and difficult points, which it is the office of the medical jurist to investigate.

It is then a self-evident proposition, that the art of midwifery took its rise, and is coeval with the existence of mankind; to assign it any other origin, or to institute an inquiry into the date of its origin, would be equally absurd. The parturient process, in its liability to morbid interruption and dangerous complication, must have been essentially the same in all ages and countries from the beginning of the world; an assertion in proof of which, besides the convincing arguments deducible from the structure of the human frame, we may adduce the positive declaration of the Deity to the first woman, that in sorrow she should bring forth children.

In tracing the progress of midwifery from the creation of the world down to the present day, the sacred writings, as being both absolutely and relatively the most ancient documents in existence, come first to be consulted. The information supplied from these records is, as might be expected, from its being only contingent, scanty and imperfect, and consists in not more than several incidental allusions. The earliest reference made to the subject of midwifery is in the 35th chapter of Genesis, where we learn that

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* Velpeau.

Rachel, the wife of Jacob, died in giving birth to a son, although assured by the midwife that she need not fear. The second allusion is contained in the latter verses of the 38th chapter of the same book, and presents the description of a rare occurrence in the practice of midwifery. It is a case of twins, and one of them presenting by the arm, on which, to distinguish it as belonging to the first born, the midwife tied a scarlet thread; but the arm afterwards receded—the second child came down, and was eventually expelled first. From the next passage, which is part of the first chapter of Exodus, we learn that the Hebrew women were accustomed to be delivered sitting on stools, and that probably their labours were quickly terminated. It is to be noted that this circumstance is one of probability only, for though the midwives declared to king Pharoah, by whom they had been commanded to kill all the male children, that the Hebrew women were not as the Egyptian women, inasmuch as they were lively, and delivered ere the midwives came in unto them; yet when we recollect that the declaration was urged in defence and extenuation of their not having complied with his cruel commands, it is not incumbent on us to attach truth to its literal and direct interpretation. A fourth testimony, relating to the obstetric art among the Hebrew people, exists in the fourth chapter of the first book of Samuel, where we are informed, that through grief, premature labour, terminating fatally, was brought on in the wife of Phinehas, the high priest's son. The same consolatory remark of fear was not applied to her by the midwives, as in the other fatal case, and from the construction of the sentence, may be as reasonably deemed a customary form of congratulation on the occasion of a birth under any circumstances, as an indication of ignorance in misapprehension of danger. The last citation from the holy writings to which allusion must be made, refers to the treatment of the umbilical cord, the division of which, termed omphalotomy, was, without doubt, the first surgical operation performed, and may challenge the records of pure medicine for an instance of equal antiquity. Much futile, vain discussion, even among estimable authors, has taken place as to what was the management of the umbilical cord of the first infant Cain, but it is not my intention to occupy your time by the relation of their frivolities. It is at the beginning of the sixteenth chapter of Ezekiel, where we read of the comparison of Jerusalem to a wretched infant, whose navel was declared to be uncut on the day of its nativity, that the first express mention of omphalotomy occurs; and the inference drawn from it has been, that the Jews were in the habit of dividing, but not of placing, a ligature on the cord. This may have been the case, but the point is an inconsequential one; and it appears from the simultaneous mention of salting and swaddling, that if the cord was not secured by tying, at least other means were had recourse to for stopping the effusion of blood. Since also Ezekiel wrote in the year of the world 3840, at a time when the Jews had been in frequent and durable intercourse with other nations, it cannot be

more than probable that section, though then in use, was the mode of separation that had been employed from the beginning.

Nothing of particular interest is made known to us by these passages, excepting that midwives seem to have been uniformly engaged in obstetric practice among the Hebrews, and that the assistance of men was never demanded, perhaps even not for a moment imagined. Such at least is the natural and legitimate conclusion to be derived from the fact, that male practitioners are never alluded to, either in the Old Testament, or in the writings of the Jewish historian, Josephus; but there are not, on the other hand, wanting either writers or reasons inclining us to admit, that from a certain period of their national existence and in perilous labours, the Hebrews did resort to the aid which professors of the healing art could alone be supposed capable of affording. It must be confessed, however, that the belief is entirely conjectural, and rests on slender grounds. There is a passage in Herodotus, giving presumption to suppose that the eastern nations had recourse to the assistance of the physicians in the difficult labours of their women. Now, it was by these eastern people that the Jews were for so long a time held in captivity, and as conquerors have generally imposed their laws and customs on the vanquished, and moreover as constant intercourse between nations (not to mention the temporary assimilation which happened in the case under consideration) is known to induce the adoption of similar manners and usages, it is inferred that the Jewish people, from the time of their return from the second or Babylonian captivity, to that of their dispersion over the world, did, among other institutions of their conquerors, imitate that of employing male practitioners in all cases of difficult or impeded parturition.

From the consideration of the state of midwifery among the Jews, let us pass to that of its condition among the next most ancient people, the Egyptians. In the absence of direct testimony, it is only by reasoning on the few facts that we possess bearing on the question, that any conclusion can be arrived at; and even then it is not entirely satisfactory or decisive. All that can be affirmed is, that there is a high probability that the profession of accoucheur was not unknown to the Egyptians; for, in the first place, Herodotus distinctly states, that there was a subdivision of labour in the medical profession among them—that individuals attached themselves to the treatment of particular classes of maladies, or the affections of particular organs, whence there were oculists, dentists, aurists, chiropodists, &c.—in the next, the Egyptians are known, by the monuments and relics which they have left behind them, as well as by the testimonies of the earliest profane historians, to have been a highly ingenious, inventive, and wise people;—and lastly, they had continual commerce with the Greeks, who, as will be presently mentioned, did employ accoucheurs during at least some periods of their history, and in the more cultivated states. From this combination of facts,—that other branches of the art of medicine

were distinctly exercised; that the people were learned, polished and sagacious; and from their frequent communication with a country in which they could see and observe the good effects resulting from the practice being in the hands of men, it does, I think, become very probable, and it is not a mark of credulity to believe, that among the Egyptians the office of accoucheur was known, and recognized as a distinct branch of medical pursuit.

The Greek and Roman authors occupy the next place, in a picture of the progress of the obstetric art. At this era we first obtain authentic and often copious details of its practice, and are enabled to treat the subject altogether with more certainty and in the exact order of time. The origin of all medical knowledge, its separation from a superstitious philosophy, and its establishment as an independent science, depending for extension of its boundaries on exact observation, faithful induction, and ingenious experiment, are to be dated from the epoch of these classic writers, who as they are the first we are acquainted with in respect to their antiquity, seem also to have been more accurate observers than any who have succeeded them. As the notice of their opinions must necessarily be tedious, and yet cannot be dispensed with, I will commence their brief consideration without further introductory remark; and in the first place, with those of the prince and father of medicine, Hippocrates, who was born in the Island of Cos in the Archipelago, and flourished and practised in different parts of Greece in the fifth century preceding the Christian era. Among the writings of this great man which have descended to us, there are four books on obstetric subjects, which are respectively entitled *de nature pueri, de morbis mulierum, de exsectione fœtus mortui,* and *de superfœtatione;* these being the earliest express records of midwifery which are known, their venerable author is rightly considered and termed the father of midwifery, as well as of physic. It is immaterial to the purpose to settle the contested point whether or not Hippocrates practised midwifery; his precepts and observations alone claim our attention, and if he did not, as is commonly supposed, actually officiate during parturition, he yet displays an extraordinary and intimate acquaintance with the details, both of the process and of its remedial or guardian art. His opinions on the particular branch of medicine we are considering present the same compound of sagacity and superstition, of justness and error, which are so conspicuous throughout his whole writings; but, as far as relates to the mechanical management of labours, the erroneous views and directions greatly predominate. Thus, the only presentation of the infant by which delivery should ever be attempted he considers to be that of the head, and into it he directs all other presentations to be if possible converted. Presentations of the lower extremities he says are dangerous, and generally fatal to the mother or infant, or to both; and in nearly the same terms transverse positions of the child are spoken of, being ingeniously likened to an olive impacted and lying across the neck of a narrow-mouthed flask. Embryotomy, or the extraction of the child piece-meal, he directs to be

performed whenever it is so swollen that it cannot pass, or the malpresentation cannot be altered. In both these cases Hippocrates thought the child must be dead, and his directions to have recourse to embryotomy seem to refer therefore to dead children only, who, according to the belief then prevalent, could not be born unassisted, inasmuch as it was considered that the act of parturition was constituted by the voluntary efforts of the fœtus seeking its way into the world. But when we recollect how uncertain and fallacious the signs indicating the death of the fœtus are, it may be fairly enough supposed, that embryotomy, performed in all cases either of great swelling or ineducible wrong position, was as frequently the means of destroying living, as of extracting dead children. The instruments described as proper for the operation are six in number, and are variously intended to cut, comminute, and extract. The management of the placenta after the plan recommended by him, would be now considered not less improper than adherence to his precepts for conducting the birth of the child. Its removal, he said, was to be accomplished immediately after the expulsion of the child, and the methods of effecting this which he advises are, making forcible straining efforts with the breath retained, the administration of sternutatories and a farrago of stimulant emenagogues, raising the bed from its head, so that the weight of the fœtus might drag downwards, placing the woman on a high stool and attaching weights to the umbilical cord; or, if the child should be dead, allowing it to depend from the parts, but to rest at the same time on the surface of new wool or bladders filled with water and spread over with wool, by the puncture of which with needles the water would be gradually evacuated, and the infant subside slowly, so as to exert an equable and not too violent degree of traction. Notwithstanding the absurdity and danger of many of the practices of Hippocrates in the conduct of labours, he has left us some unequivocal memorials of his accuracy and exactness of observation. Such are the remarks that too early rupture of the membranes protracts the duration of labour—that venesection is useful in lingering labours when the habit of the patient is full—that implication of the funis about the neck or shoulders of the infant frequently destroys its vitality—and that in uterine hæmorrhage the application of cold water to the abdomen by affusion, cloths or sponges, and the plugging of the vagina, are essential means of checking it.

Of Aristotle, who was born at Stagyra, 384 years before Christ, and was tutor to Alexander the Great, it will not be necessary to say much. He has written little or nothing on the practice of midwifery, but in his *Historia Animalium*, has treated very profusely on conception and generation. Some of his opinions are substantially correct, but the greater number of them are crude, hypothetical and superstitious.

About 480 years after Hippocrates, or A. D. 35, Celsus flourished at Rome, and is the first author after the father of physic, who, as far as we know, has written on medicine, or given any directions on

obstetric subjects. Though for the most part a copyist of Hippocrates, Celsus has modified and deviated from his precepts in several important particulars. He advises that the feet of the child should be brought down in those cases of transverse presentation where they can be more readily seized than the head, and observes that extraction by the feet can be effected without much difficulty. Celsus gives judicious directions for dilating the os uteri when requisite, for conducting the extraction of the placenta, and for performing embryotomy. In describing the proper modes of using the crotchet or hook (two kinds of which he describes) he notices that convulsions and imminent danger are produced by the slipping of the instrument, so as to lacerate the contiguous parts of the mother.

Moschion is the author to be next mentioned. He wrote in Greek expressly on the diseases of women, but at what time is uncertain. Some have considered that he lived before the commencement of the Christian era, while others having assigned him a date so low as some part of the third century. It is however probable that he did not write till after the period of Celsus, and it is nearly certain that his was the first book written specially on midwifery. The only other work which contests the honour of priority with it, is that *de utero et pudendo muliebri* of Soranus Ephesion, a writer who lived in the reigns of Trajan and Adrian, in the second century. Moschion ventures to recommend delivery by the feet with less reserve than Celsus, though he is by no means to be considered the originator of the operation of turning under the circumstances which in this country are now universally held to demand its performance, for with the exception of knee and breech presentations, he first attempted to reduce all others to that of the head, before resorting to extraction by the feet. And this plan is now adopted and recommended by several professors in Germany and France.* Moschion speaks of parturition rendered difficult by disease and deformity of the infant's body, by presentation of the head in a wrong position, and by obliquities of the uterus; from which it appears that he must have been an able and experienced accoucheur. Among those which would in the present day be considered bad practices, the worst perhaps was that which he advocated, of assisting delivery as soon as the head of the infant is protruded into the world, by grasping it and employing lateral tractive motion—a custom even now too prevalent among female practitioners, and a fertile source of that irregular action of the uterus, which produces the hour-glass contraction.†

Pliny, who was destroyed through his imprudent curiosity during the great eruption of Mount Vesuvius in the first century, is here

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* Flamant, Ossiander, Siebold and others.

† Moschion has likewise given us a description of the chair or stool which was employed by the ancients in parturition, which he says is like a barber's stool, having a lunar-shaped foramen cut in it, for the fœtus to fall through.

mentioned, not because he was a physician, or said any thing new on obstetric subjects, but from his stating among his paraphrases or copyings of the writers on midwifery who preceded him, that from the circumstance of children presenting by the feet being so seldom, or with so much difficulty born alive, they were called by the name of Agrippæ, as if *ægre partî*. Hence Pliny thought that such positions should be always rectified.

The medical writer next following Moschion, or perhaps his contemporary or predecessor, is Galen, who lived about 600 years after Hippocrates, and is principally famous for his diffuse commentaries on his great master's works. Galen makes some excellent remarks on the diseases of women and children and has the reputation of being the discoverer of the Fallopian tubes; but he achieved nothing worthy of notice in the art of midwifery.

Towards the termination of the fourth, or, according to some, of the fifth century, Ætius a Greek, and the first Christian physician of whom we have any knowledge, flourished in high repute at Alexandria. He is a voluminous but not an original writer on midwifery, confessing candidly that he has compiled from the works of his predecessors; and indeed, it is principally because he makes us acquainted with the modes of practice of otherwise unknown obstetric professors—particularly of the noted midwife Aspasia, and of Philumenus—that his writings are interesting. Ætius treated uterine hæmorrhage by styptic injections, astringent pessaries, and ligatures round the limbs; makes a distinction of head presentations into natural, when it descends straight forwards, and præternatural, when it is turned to the right or left side of the uterus; alludes to, without minutely describing a dilator somewhat analogous to the modern speculum, and dissents from Hippocrates, holding similar opinions to those of Celsus and Moschion, with respect to pedal presentations and delivery. From Aspasia, who is supposed to have lived before the time of Hippocrates, and to have been the mistress of several Persian monarchs, Ætius cites very precise means for remedying obliquities of the uterus, and presents us with a copious list of substances for causing sterility or abortion, besides minute directions for the management of puerperal women. Of Philumenus, it is reported that he always in cases of locked head, endeavoured to turn before resorting to the performance of embryotomy—that one of the instruments employed by him in this operation was a forceps, armed with teeth for comminuting and extracting portions of bone—and that in adhesions of the placenta to the surface of the uterus, he attempted the separation, not by the forcible violent means then usually had recourse to, but by gentle efforts exerted in a lateral, rather than a straight direction, in order that there might be no risk of producing what he calls a prolapsus, but what would undoubtedly have been an inversion of the uterus.

Paulus Aginata follows next in chronological order to Ætius, and is the last of the Greek medical authors whose works have descended to us, but it is neither known where he flourished nor whether he

lived in the fourth or seventh century. Dr. Friend inclines to the latter epoch, and to place his residence at Alexandria, since learning and learned men were already at that period banished from Europe; while Le Clerc considers that it was in the fourth century that he wrote, and if so, it probably was from the eastern part of Europe. He was the first man to whom an appellation corresponding to our modern term *accoucheur* was applied—the Arabians calling him *vir obstetrix*, or *obstetricus*, but there is little doubt that others who preceded him merited the name equally well, though never given to or assumed by them. The writings of Paulus are for the most part transcripts from the works of his predecessors, and it is not therefore surprising to find that they are contradictory or inconsistent. From this circumstance also, he has been pronounced by some as a sagacious practitioner, while by others he has been denounced as rash and injudicious; and, seeing that he advises the lower extremities of an infant to be amputated when they cannot be returned into the uterus, it would appear that the latter party are in the right.

It will be convenient to pause in this place for the purpose of taking a review of the state of the art in general among the ancients, and in particular with reference to its practitioners and professors. The concurrent testimony and allusions of all the old authors render it indisputable, that women were in the commencement the chief, if not the sole practitioners in midwifery, and that they likewise exerted the privilege of treating the diseases peculiar to their sex, as well during the pregnant and puerperal states, as at other times. Those persons therefore, who in the present day, raise an outcry against the employment of male practitioners, and are so fond of appealing to the customs and usages of the ancients for confirmation of the propriety of their opinions, should extend their objections to the management, and, if themselves physicians or surgeons, should be prepared to relinquish the treatment of the diseases of females under any circumstances or conditions, for by doing so they would be enabled to fulfil, without at all exceeding the desires and directions of the people, whose usages they adduce. Peculiar names, indicative of their occupation and duties, were appropriated to the ancient midwives, answering to the terms grandmother,* female physician, and cutters of the naval string in our own language. That they were held in considerable estimation seems probable from Socrates proclaiming, with evident satisfaction, that he was the son of one, called *Phainareta*, whom he terms "generosa et gravis obstetrix," and from the circumstance of another having obtained the name of Sotira —"salvatrix or conservatrix," from the felicitous success of her practice. The sister of the doubting philosopher Pyrrho seems likewise to have been a midwife. Besides superintending the process of parturition, it was a part of their office to negotiate and assort marriages,

* Μαιαι, ιατρομαιαι, ιατρινα, ομφαλοτομοι.

and to teach their employers, as we learn from Plato, the art of procreating beautiful and healthy offspring; and they were further in the habit of administering medicines to produce sterility or abortion, and were believed to have the power of controlling or exciting labour pains, and of preventing, as well as inducing abortion by their medicines and charms. A famous practitioner among these time-honoured matrons both for alleviating disease and for the invention of receipts and cosmetics, was a certain Cleopatra, whom some of the older writers, in their zeal for the honor of the art, have endeavoured to identify with the voluptuous queen of Egypt; but their assumptions do not rest on a better foundation than that a treatise on so meretricious a subject as the care of the complexion might naturally be expected from one who had so repeatedly profited by her personal charms. Their readiness to provoke miscarriage at the will and convenience of their mistresses does not, however, appear to have been universal, for Pliny relates that Laïs (not the renowned courtesan of that name, but a highly respectable midwife of Athens) strenuously opposed what she thought so unnatural and impious a practice, and presented in that laudable respect a remarkable contrast with an eminent rival, named Elephantis. That the custom very generally prevailed may be reasonably inferred from the precautions which we find to have been specially directed against it; thus Hippocrates, in the oath which he obliged all who became his disciples to take, expressly condemns and exacts from them by its solemnity, the declaration that they will never be guilty of attempts to frustrate the designs of nature in this respect. Yet the venerable patriarch of our profession confesses that he did on one occasion designedly cause a singing girl to miscarry, an action that forms an unfortunate commentary on his rigorous precept; but which it is customary to reconcile, by considering that he spoke in one instance as a philosopher, contemplating in the practice only an outrage and offence against the laws of nature, and acted in the other as a citizen of the world, in which capacity the deed might be justified to him by the prevailing practice and notions of others. But to return from this digression.—Of the particularities of practice of these midwives we have had transmitted to us little or no direct account, the only circumstance being that mentioned and approved by Aristotle, that before tying the umbilical cord they were accustomed to compress and urge the blood of its vessels into the abdomen of the fœtus, with the view of rendering it vigorous and strong. But were it worth the task, it would not be difficult to accumulate a sufficiency of circumstantial evidence to shew that their proceedings were often reprehensible and dangerous. Some testimony of this kind will be presently afforded. Hysteria was one of the affections which they were more frequently called upon to treat than others,* and indeed received its name from them; and we know that

* Martial alludes to this circumstance in lib. i. of his Epigrams.
Hystericam vetulo se dixerat esse marito:
Protinus accedunt medici, medicæque recedunt.

the relation of the etymology of the term to the cause of the complaint is for the most part well founded and correct. But though estimated from necessity, and prescribing from custom and prejudice for the accidents and disorders incidental to their sex, the midwives of Greece and Rome were not distinguished for sagacity or good behaviour; for we find Socrates likening himself to them in being barren or destitute of wisdom, and Terence not disguising the fact that they were addicted to wine, rash, and not worthy of being entrusted with the important charge of at least a first confinement.

> Sane pol illa temulenta est mulier et temeraria:
> Nec satis digna, cui committas primo partu mulieres.
>
> Andria, Act 1

Yet there is every reason to believe that the ordinary practice of the art was in Greece, with a transient interruption, and throughout the Roman empire, from its commencement to its termination in the west, entirely in their hands; and that male practitioners, who were the regular medical men, were looked upon as referees in extraordinary and difficult cases, and summoned only when the ability and strength of the midwife were inadequate to effect delivery. And it may be stated by anticipation, of the Arabians, the subjects of the eastern empire, and of the Europeans in general during the dark ages, that similar usages obtained amongst them.

In proof of such having been the case, we have, as far as male practitioners are concerned, the direct testimony of their writings, evincing a knowledge of the subject that could be derived only from experience;—the nature of the operations so frequently described, which, it may be safely supposed have always demanded more anatomical skill, and physical, as well as moral resolution, than females can in general have possessed;—and the fact that the instruments employed were inventions of men, and so not likely to be resigned altogether to the use of women. There are these positive and negative proofs that medical men were always engaged in the practice of midwifery, in cases of doubt and emergency; while that females were previously and commonly employed, is abundantly evident also from their writings, and from the allusions contained in the works of the physicians, historians, poets, and philosophers, who were their contemporaries; and moreover, would have been a natural and legitimate inference à priori, when the low ebb at which human knowledge comparatively stood, the state of society, and the circumstance that preceding and foreign people had principally employed women, were taken into account. In addition to the confirmations already given, may be mentioned the incident recorded by Suetonius concerning Livia, the wife of the emperor Augustus, to whom, after she had suffered a long time from lingering labour, the court physician, Antonius Musa, was called for the express purpose of hastening her delivery—"pro partu accelerando," are the words used by the historian. That it was always the physician

or surgeon (for the distinction of office in the profession was not in those times established) who was called upon in cases baffling female skill, is clear, from the term "medicus," always used by Celsus, to denote the individual to whom his directions were intended to apply.

I said that in Greece the fair sex did not maintain their monopoly of midwifery practice uninterruptedly, and I now proceed to relate the occurrences connected with the suspension of their functions, as described by Hyginus, who wrote about the commencement of the Christian era. For some reason which does not appear, probably on account of the impoverishment of the state of its subjects in consequence of the inefficacy and unskilfulness of the midwives, the Athenians—that ingenious and polished people, whose name, even in the present day, is held to be typical of all that is elegant, intellectual and refined—enacted a law, prohibiting females and slaves from studying or practising any of the branches of medicine, among which midwifery was of course included. The direct tendency of this edict was to throw all the obstetric practice into the hands of men, or to deprive women of all assistance during parturition. Reduced to this alternative, many Athenian ladies (such was their high, but mistaken sense of modesty) preferred to perish in giving birth to their offspring, rather than admit the succour of male practitioners. In consequence of this unfortunate state of things, and moved either by motives of sympathy or cupidity, a young female named Agnodice, was led, after removing her hair and assuming male attire, to attend the lessons of an obstetric teacher, Hierophilus, in order that she might gain sufficient skill to administer to the sufferings of her sex, in their hour of travail and difficulty. So extensively was she sought after, that the accoucheurs, finding their interests to be greatly injured, and suspecting something to be wrong, caused her to be charged before the areopagus, with being an eunuch and corrupting men's wives. Brought to trial on this accusation, she discovered her sex to the court, on which the accoucheurs became still more virulent and urgent for her punishment, and this would no doubt have been severe, but for the intervention of the most distinguished ladies of the city, who pleaded so eloquently and pertinently in her behalf, that she was not only liberated, but the obnoxious law was also rescinded, and free permission thenceforth given to females, both to practise the obstetric art, and to treat all the diseases peculiar to the female constitution. After this time, the male and female practitioners acted concurrently, the former being consulted in all probability only when their services were indispensably required.

The state of midwifery among the Greeks and Romans having thus been considered, let us transport our imaginations to its condition among their successors in science and literature, the Arabians; for after the repeated irruptions of the northern hordes upon the fair and fertile regions of the south during the third and following centuries, the lights of learning and knowledge were soon extinguished in the

west of Europe. It was then that the Goth and the Vandal vied with each other in the work of devastation and destruction, and the monuments of ancient glory and art were pitilessly defaced and consigned to ruin, that the Huns emulated their sacrilegious and ferocious deeds, and that all the barbarians conspired to sweep away every vestige of intelligence and trace of human dignity from the face of the earth. The mental darkness in which Europe remained plunged for 1000 years followed; and as long as it continued, the grossest ignorance and superstition universally prevailed, and an entire check was given to the cultivation of art or science of any kind. The mists which enveloped the human mind, and clouded all the operations of reason during this fearful and eventful period, were but too prolific in engendering errors and evils, that have scarcely yet passed away. But these mournful consequences must gradually vanish before the dawn of true wisdom and philosophy, and will at length be irrevocably dissipated by the piercing and radiant beams of that heaven-born knowledge, which aims at uniting mankind in firm and fraternal bonds of harmony and love.

The progress of mental cultivation, though arrested in the western parts of Europe by the overthrow of the empire, was not so completely suspended in the east, where the arts still continued to flourish, though languidly and feebly, and to receive the countenance, in some measure, of the Greek emperors, but in a more zealous degree of the Arabian caliphs. It was about the year 640, that the Saracens, in overrunning Egypt, obtained possession of the books in the Alexandrine library, all of which they took care to consume, with the exception of those on medicine, from which they probably expected to derive some advantage, and accordingly preserved. These were carried away and translated into the Arabic tongue, or at least, were copiously copied and borrowed from by those Arabian physicians whose writings have reached us.

Of these paraphrasing authors, the earliest Serapion, says nothing worthy of repetition.

The next, Rhares, who flourished at Bagdat towards the end of the ninth century, and gave the first description of small-pox, notices that in premature parturition the crural presentation is most common.

Aviceuva lived about A. D. 1000, and treats in detail of midwifery and the diseases of females. In the management of protracted natural labour, by which a vertex presentation was implied, he first directs assistance to be afforded by the hand—if that is unavailing, by the application of a fillet or tape—if the additional power thus obtained does not suffice, forceps are to be used, instruments not like the forceps of the present time innocuous to the fœtus, but destructive of its life—and if the forceps fail, the head is to be opened, and its bones comminuted in the customary way.

(To be continued.)

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ANATOMY.

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II. Anatomical Demonstrations, or Colossal Illustrations of Human Anatomy. By Professor Seerig. London. 1831. pp. 1, pp. 34. A. Schloss.

III. Arteriology of the Human Body. By Borremans, revised and adapted to the English Nomenclature, by T. King, Professor of Anatomy and Surgery, &c. &c. London. 1831. Feuillet, Dumus and Co. 1, Leicester Square.

Of all the Anatomical Plates we have hitherto seen, with the exception of Mascagni's, which are unequalled, these are the best and cheapest. They are of natural size, and are executed with the greatest fidelity. The expense of the whole is a sum which can be spared by any medical student. If anatomy could be learned by plates, a facility is afforded by those before us. We strongly recommend them to every member of our profession. The publisher is entitled to the support of every friend of medical science. Professor Seerig's views of the skeleton, are the most faithful hitherto published. Mr. S. has also a splendid collection of anatomical preparations in wax, which have received the approbation of the Medical Press as well as of the Royal College of Physicians, and the various other scientific societies of this metropolis.

We have already noticed the neuralogy of Borreman's with our warmest commendations. The arteriology is still a more interesting plate to the practical surgeon and anatomical student. It is well executed. Both plates ought to have a place in every anatomical museum and lecture room in the United Kingdom. The publication of such valuable illustrations of the structure of the human body, facilitates the labours of the student, and refreshes the memory of the established surgeon on points of the greatest importance, which must be always fresh in his recollection.

MEDICINE.

2. *On Oleum Terebinthinæ as a remedy for Salivation.* By E. Geddings, M. D. Lecturer on Anatomy and Surgery, Charleston, S. C.—It was not until the winter of 1828 and 29, that we became acquainted with the efficacy of Ol. Terebinth. in the treatment of this distressing affection. We were attending a young gentleman of the medical class, who became severely salivated from a small dose of calomel. A highly intelligent young gentleman, Mr. J. E. Pierson, at that time one of our pupils, now a respectable physician of Fairfield District,

proposed the turpentine, which was accordingly employed, and afforded speedy relief. Since that time we have used it extensively, in both hospital and private practice, with the most satisfactory results. It has also been much employed by several of our medical friends, whose testimony in its favour, we are happy to state, fully substantiates our good opinion. We usually direct two drachms of turpentine to eight ounces of gum arabic mucilage, with which the patient is required to gargle frequently in the course of the day. We have, however, in some cases, employed the undiluted turpentine with the same happy effects. It usually occasions, at first, considerable smarting, which, however, is of only temporary duration, and becomes less and less at each successive application. Indeed, in many cases, the smarting is succeeded in a short time by a soothing impression, similar to that which attends the use of the turpentine in cases of burns and scalds.

We will say nothing of the modus operandi of the medicine in cases of salivation, but will merely recommend a fair and impartial trial of it as a remedy for that distressing affection.—*American Journal of the Medical Sciences, Nov.*

3. *Case of Colica Constipata removed by inflation.* By John King, jun. Surgeon, Irvine.—The importance of inflation as a remedy for obstruction of the bowels, appears to me not to be sufficiently appreciated at the present day. It was first recommended by Hippocrates for the removal of intestinal obstruction; in more modern times, it has been resorted to by Hoffman and Haller; and notwithstanding the neglect it has since experienced, I cannot but regard it as worthy of an eminent position in the list of therapeutic agents. The treatment usually prescribed in cases of ileus or colica (without inflammation) is very discordant, as witness—warm baths, fomentations, injections of warm water and oil, rubefacients, and blisters; contra, cold effusion and immersion, freezing lotions, pounded ice and snow; not to mention emetics, purgatives, and mechanical distention by warm fluids, quicksilver, gold and silver balls, &c.; and when all these remedies have failed, blood-letting, tobacco, in infusion and smoke, and lastly, gastrotomy. Yet this simple means of inflation, although probably the most powerful, and the least dangerous, is entirely overlooked. It paralyses, as it were, the constricted fibres of the bowels, and may be used in the following cases, if not with complete success, at least with advantage, viz. the various kinds of colic, proceeding from torpidity, spasmodic constriction, viscid meconium in new-born infants, impaction, bezoards, and other intestinal concretions, volvulus or intus-susceptio, and some cases of hernia. It was a happy thought of those who hit upon this means in the hour of danger, after all their other efforts had proved nugatory. For although tobacco, which is often used as a last resort, sometimes is successful, it is not uniformly so, and it too often happens, that the patient, rather than undergo a repetition of it, beseeches to be allowed "to die in peace." We may also observe the hesitation with which the practitioner has recourse to it, not only because of its doubtful efficacy,

but on account of the danger there is of greater exhaustion being produced by it. I take the liberty of giving one case, as I conceive it may give some idea of the power of inflation.

In September, 1829, I was requested to visit Mrs. G. æt. 26, of rather delicate frame. On the night previous to my visit, she experienced an uneasy sensation in the region of the stomach; for which she took eight grains of calomel, combined with a half-drachm of compound powder of jalap, without any impression on the bowels. During the night this uneasiness increased to an almost intolerable pain, accompanied with obstinate vomiting, which continued till the evening, when I saw her. In the course of the day she took two doses of castor oil, and received five injections. When I entered the apartment, she was sitting near the fire, and her body bent forward; the face was wan, sallow, dejected, and of a dingy yellow colour; the surface of the body and extremities inclining to cold. Pulse 80, soft and much compressed—tongue, at the back part, covered with a brownish coloured mucous—she had obtained no alvine solution for six days. She took no notice of my being present, or any thing going on around her, but informed me, when questioned as to the seat and kind of pain, that it was of "a violent screwing nature, working between the stomach and navel," coming on in paroxyms, and ending in, or producing vomiting. I ordered the warm bath, and gave a teaspoonful of laudanum with compound spirit of lavender, which was soon afterwards vomited. Upon this, an effervescing mixture was given, then five drops of croton oil with some laudanum, and in about three quarters of an hour, five drops more without laudanum; but each in its turn was rejected, with a quantity of yellow coloured fluid. It was at this time, I first thought of inflation. For this purpose, I procured a pair of common bellows, and securing the bladder of a glyster bag to the nozzle of the bellows, the pipe was introduced into the rectum, while the patient lay on her right side, and the bellows was commenced being wrought. As soon as the air entered the rectum, the effect was immediate and satisfactory; the countenance lost its anxiety, the eye brightened, and the patient said she felt quite relieved. A gurgling noise was heard in the bowel, with an escape of fœtid air; and in about a minute from the time the air began to enter the rectum, she requested to be allowed to go to stool. She had a copious dejection, and a good night's rest; and next morning complained only of being much enfeebled, but was otherwise well.

I was deeply impressed, about five years ago, with the fatal result of a case of intus-susceptio, in a fine robust infant, six months old, which was supposed to proceed from the effects of half a teaspoonful of some syrup of poppy, made, as is commonly done, with opium, given for the purpose of procuring sleep during the period of teething. About eight hours after it was given, the child began to cry vehemently, having appeared restless and uneasy for several hours previously. Early in the forenoon, it passed a very scanty stool, streaked with blood; soon after this, vomiting commenced, which

continued until the little sufferer sunk. Is it unreasonable to imagine that if inflation had been used in this case, the result would have been otherwise? I was hereby shown the necessity of seeking more powerful means, than fluid injections, et cætera. And I hope, as I firmly believe, that inflation with common air is the necessary desideratum, I conclude with Dr. Cheyne, that "a man dying of ileus, presents one of the most pitiable sights in nature; and a leading object of this paper is to remove a part of the horrors of the scene, by withholding many of the bitter doses, which are forced upon him by the solicitude of his friends, and the officiousness of his physician."—*Glasgow Med. Jour. Feb.*

4. In an interesting paper in our esteemed contemporary, the Midland Medical and Surgical Reporter, Dr. Hastings, of Worcester, has narrated some highly important cases of incipient tubercular phthisis which terminated favourably, on which he makes the following comments:—

"Since the above cases and remarks were composed, the work of Sir Charles Scudamore, on consumption, has fallen into my hands. In this work, I see none of the facts brought forward in support of the process of inhalation, which at all militate against the position taken up in the foregoing paper, that we have hitherto not discovered any remedy for tuberculous consumption. Out of the sixteen cases related by Sir Charles Scudamore, four were fatal, from tuberculous degeneration of the lungs. Of the successful cases, it appears to me that the bronchial membrane, in most of them, may be supposed to have been the principal seat of the disease; and there is nothing extraordinary in such cases recovering under the use of the remedies that have been long had recourse to in this species of disease.

"But I cannot help expressing my astonishment, that a knight and a physician of eminence, who supposes he has made important discoveries in the mode of treating a very intractable class of diseases, should not have been *very* particular in giving a full and precise description of the manner of applying the remedies: concealment, in such circumstances, is not calculated to produce a favourable impression of the author, who thus cannot fail to call upon himself the criticisms of his professional brethren. Nor will the reason that is given for withholding this necessary information, be considered a sufficient apology for such an omission, viz.; "from an apprehension that patients themselves might be tempted to undertake the treatment of their own cases, with the great risk of receiving injury instead of benefit, I have avoided the introduction of formulæ of the remedies for inhaling."

"By this omission, Sir Charles Scudamore has run a risk, not very favourable to his medical reputation; for in consequence of it, some persons may be induced to regard his work, rather as a species of direction for the reader to his residence, in Wimpole-street, than as a praiseworthy offering upon the sacred altar of medical science."—p. 388.

It affords us much satisfaction that a physician of such high talents as Dr. Hastings coincides in the opinions we offered in our review of Sir C. Scudamore's work, which clearly demonstrate the justness of our strictures.

5. *Cases of Congenital Incontinence of Urine. By* JOHN C. Otto, M. D. *one of the Physicians to the Pennsylvania Hospital, North American Medical and Surgical Journal, October.*

[Read before the College of Physicians, June 24th, 1830.]

Case 1.—When visiting a young gentleman, in the latter part of September 1827, my attention was directed by his mother, accidentally in appearance, to his younger brother, a lad ten years of age. He laboured under incontinence of urine, and as it had continued from his birth, his parents had presumed it was a natural defect, that was beyond the reach of medicine, and had not spoken to me upon the subject, although I had been their family physician many years; nor had any other person ever been consulted. Possessing very delicate feelings, it was supposed his sense of shame might be addressed to some purpose, but it was in vain; and very moderate correction was resorted to without any advantage. Nothing further had been attempted by his parents, except restricting him somewhat in his drink, especially in the evening. He had arrived at a period of life when his deplorable state was obvious to him, and lamented bitterly his situation. He was strong, of a florid complexion, and had ever been remarkably healthy in other respects; his desire to make water had always been very frequent and urgent, and he discharged but a small quantity at a time. After he was four or five years old, he never wet himself in the day time, if he could retire immediately to a suitable place to void his urine, as soon as the desire occurred, for the urgency was always very great, and his powers of retention small and of short continuance. He passed very rarely a night without wetting his bed, and never two in succession, although great attention was paid to his making water when he went to bed, again when the family retired, most commonly once during the night, and always very early in the morning. After being made acquainted with the whole case, I told his mother, as no medical means had been employed, it ought not to be considered incurable, and should every attempt to give relief fail, he would not be in a worse situation than at present; that he might be essentially benefited, but should there be a want of success, she would have the consolation of having used such remedies as were supposed best calculated to cure him. She seemed much gratified on learning there was still some reason to hope, and placed him immediately under my care. I directed an ounce of the leaves of the uva ursi to be simmered in a pint of boiling water five minutes, of which he was to take a wine glass full four times a day; and in order that the virtues of the medicine should be principally extracted, it was to be prepared twenty-four hours before giving it, and decanted as used. He was likewise to take fifteen drops of the muriated

tincture of iron three times a day, in a sufficient quantity of water, and to have a gallon of cold water dashed on the perinæum and nates morning and evening. He improved rapidly under the treatment, having wet his bed for the last time on the 18th of October, not having done it for the previous eleven nights. The cold water, on which I had placed some reliance as a tonic, was not used at all; it was omitted at first from causes that were not satisfactory to me, and as he had become so much better when I was informed of it, the employment of it was not pressed. The urgency of making water gradually lessened, and the power of retention improved, so as to become natural in both respects. Although he was entirely restored in so short a time, the treatment was continued three months altogether, as the incontinence was congenital, and he has remained ever since free from his distressing malady.

The author has related four similar cases, in which in addition to the above treatment, a blister to the sacrum and a decoction of the rhus glabrum or sumach, an ounce of the leaves to the pint of water, the dose half an ounce three times a day, afforded great relief, and almost cured the disease. His object was to give tone to the urinary system. Should this plan succeed in other hands, it will be a great improvement in therapeutics.

SURGERY.

6. *Treatment of Ununited Fractures by Setons.*—Dr. Hays, one of the talented editors of our much esteemed contemporary, the American Journal of the Medical Sciences, comments in his number for Nov. on a sentence in one of Mr. Lawrence's Surgical Lectures, extracted from our valued contemporary the Medical Gazette, which is as follows:—"I believe it may be said that there are two or three instances recorded, in which, after some weeks and months confinement, with a good deal of pain and danger, the union has been effected in this way, but in other cases the introduction of the seton has failed."

"We confess ourselves at a loss how to notice this summary and contemptuous dismissal of a method of treating ununited fractures, and one which, contrasted with the *painful*, and sometimes *fatal* operation for which it was proposed as a substitute, it appears to us, can hardly be too highly extolled.

The apparent accuracy with which the lectures are given in the Gazette, seems to forbid our ascribing so material a mis-statement to an error of the reporter—the high character Mr. Lawrence has hitherto sustained for fairness and candour, equally prohibits the imputation of intentional misrepresentation on his part, and yet it is impossible to suppose that Mr. L. who is distinguished for extensive erudition, should be ignorant of cases published in the Medico-Chirurgical Transactions of London, the Edinburgh Medical and Surgical Journal, the London Medical Repository, the Medico-Chirurgical Review, the London Medical and Physical Journal, the London

Medical and Surgical Journal, the Dublin Hospital Reports, Charles Bell's Operative Surgery, and Cooper's Surgical Dictionary, in which no less than THIRTEEN different cases of ununited fractures *successfully treated by the seton* are related. Be the case, however, as it may, the statement has been put forth as coming from Mr. Lawrence, and until disavowed, subjects him to the charge of ignorance or want of candour; we therefore think we are performing an act of kindness to him in calling his attention to this subject, that it may be explained; and at the same time as an act of justice to the eminent surgeon who devised the method of cure under consideration, we shall give a brief summary of such cases of ununited fracture successfully treated by the seton, as we find in the works in our private library, not having time at the present moment to have recourse to more extensive sources of information.'

7. *Case of Excision of the elbow joint.*—Mrs. Rogers, æt. 46, November, 20, 1829. The left elbow-joint is increased in size, and the integuments have a soft and puffy feel. There are four distinct openings discharging matter, through each of which the bone can be felt bare. Two of these openings are situate over the inner condyle of the humerus, the third over the external, and the fourth over the anterior part of the joint, besides the tendon of the biceps muscle. The motion of the joint is exceedingly limited, and she cannot move it, or attempt to shut the hand without great pain. Her health has fallen much off within the last six weeks, and she was troubled very recently with a severe bowel complaint. This complaint began in March, with severe shooting pain in the region of the joint, generally increased during the night, and always aggravated by motion. After the pain had continued for some time, swelling took place, and afterwards the sinuses formed, and have continued to discharge matter constantly for nearly two months. Various remedies have been tried, but without any relief.

As her general health had always been good till the beginning of this complaint; as the soft parts were not much diseased; and as the caries appeared confined to the extremities of the bones, I thought it a fair case to try excision of the elbow-joint, and was happy to find that Sir George Ballingall had the same opinion.

On the 26th November, the operation was performed in the following manner:—An incision was begun on the back of the arm, about three inches above the joint, and carried in a straight line to about two inches below it, over the point of the olecranon process to the edge of the ulna, taking care to avoid the ulnar nerve. At each extremity of this incision a transverse one was made about two inches long, and the flap on the radial side was dissected back, exposing part of the humerus, radius, and ulna. The flap on the inside was next made, taking care not to cut the ulnar nerve. The olecranon process was found carious at its upper part, and slightly adhering to the humerus. It was easily removed by the cutting pliers, as also a small piece on the back of the ulna, that did not appear sound. The insertion of the *brachialis* muscle was not

disturbed. The humerus was much diseased on its radial side, both in the joint and shaft of the bone. As about one-fourth of the articulation of the humerus on the ulnar side was sound, an oblique incision was made by the saw, so as to include three-fourths of the articulation, and extend about two inches up the shaft of the bone, and include all the diseased parts. The cartilage was removed from the sound part of the humerus, as also from the top of the radius, which was not in the least diseased. No artery required to be tied. The parts were secured by stitches, and the arm put in a slightly bent position. The greater part of the wound healed by the first intention, and in three weeks she could move her fingers without any pain, which she had not done for nine months before. By the end of December, the wound was entirely whole, and she was walking about, and moving slightly the joint, without any pain.

At this time, however, her general health began to suffer from repeated attacks of bowel complaint, and several abscesses formed in different parts of the cellular substance of the fore-arm, which prevented her from moving either the hand or the elbow-joint without considerable pain. These abscesses continued to trouble her constantly for nearly three months, notwithstanding a variety of constitutional treatment; but at the end of March her health began to improve, and she has continued free from any complaint since that time. Her arm remains now in a slightly bent position, and cannot be put in a straight line with the shoulder; but she can bring her hand to her mouth, and is in the daily habit of using the arm in all her domestic duties, and can carry with it a large iron fender without any pain. She says she is very sensible that the strength of the joint has increased within the last three months, and that it is still improving. The connection of the radius with the humerus does not appear so firm as that of the ulna.

To Sir George Ballingall, I feel myself under many obligations, not merely for his attention in this case, but for his valuable advice and assistance in a great many others.—*Edin. Medical and Surgical Journal.*

8. *Cases of Lithotrity, or examples of the stone cured without incision, followed by a description of the first symptoms of the disease.* By Baron Heurteloup. London. 1831. 8vo. pp. 54. G. Underwood.

Since the introduction of lithotrity into England, by Mr. Costello, the colleague and pupil of its justly celebrated discoverer, Dr. Civiale of Paris, we have watched its progress with keen anxiety, so that full justice should be done to its merits. We accordingly read with attention, the different documents of the controversy which arose on the occasion of its introduction, between our countryman Mr. Costello and a foreigner, styling himself the Baron Heurteloup. This controversy, which was most ably and victoriously maintained by the former, exhibited in the clearest light, the claims of Dr Civiale to this truly valuable invention, the admirable simplicity and efficacy of the instruments which this gentleman, and his really scientific pupil, employ with such signal success, and the emptiness of the pretensions

to improvement of the lithotritic instruments and operation which M. Heurteloup so pertinaciously asserts. As we have sufficiently shewn in our views of medical Ethics, we shall at all times set our faces against every attempt at conferring for covert views of private advantage, upon any therapeutical instrument or agent, a reputation of superiority to which it has no just claim. As honest journalists, it is our duty to expose such attempts, as have for their object an undeserved popularity, acquired at the expense of truth, justice, and the true interests of science. Lithotrity, which, in the hands of Civiale and Costello, has restored to health upwards of two hundred sufferers, stands in no need of equivocal auxiliaries. It requires no air *ad captandum* to be thrown over it. It possesses sufficient intrinsic merit to spurn all charlatannic efforts to fix its footing as triumphantly in England as it has done in France. We thought that the clear and able statements made by Mr. Costello, about eighteen months ago, had fully and satisfactorily proved the futility of the pretended improvements of M. Heurteloup; and thinking so, we are at a loss to conceive the obstinacy which again obtrudes these pretensions upon public notice, when the same overwhelming refutation awaits them. We confess, however, that we do not regret this, seeing that this refutation cannot be withheld, and that it must be now ample, complete and final, indeed we are aware, that the subject has been already taken up.

The subject of our present criticism is a thin pamphlet, the more ready and convenient for a publication, for the lucubrations of the numerous herd of pretenders to public notoriety, and the easy resource of persons of a certain stamp. It contains a series of cases, twelve or fourteen in number, the details, purposely or otherwise, are considered of too little importance to science to be given, and it terminates with *an expose* of the symptoms of the calculous affection. Now and then we are told that the three-branched instrument of Civiale and Costello was employed for the operation, and that failing, the author's own instruments are employed, and these in their turn failing, Civiale's instrument is again employed, and both these failing, his brisecoque is employed, the ne plus ultra of *instrumental* perfection; follow these, an artillery of pincers, forceps, virgules, scoops and sounds, surrounded by which, M. Heurteloup revels in his arsenal of machines, enjoying the pure beatitude of lithotritic eclectism. Thus armed cap a pee, he knows no difficulty, or if he should meet any, that will not yield, "he proceeds incontinent to discover a new machine." But, amongst all his apparatus, the brisecoque is his most distinguished favourite. Civiale's instrument, he thinks, may now and then be useful in pulverising spherical calculi, but he finds, that it is altogether useless in cases of flat stone, and this he takes the liberty of proving, by his want of success when he employs it in such cases. "Four, five, six times, nay oftener in the same person, says he, I employ Civiale's instrument to break down a flat stone; but, alas! no result. Now, let us ask, have Civiale or Costello had no

cases of flat calculi, occurring in the vast number of patients whom they have relieved? Have all the flat calculi been reserved for M. Heurteloup? Oh, fortunate brisecoque, thus to have your triumphs blazoned! Neither Civiale nor Costello can meet with one, in failing to destroy which, they might at last open their eyes to the silliness of adhering to the use of a simple and safe instrument. We pity these men. All the flat stones are for Heurteloup and his brisecoque.

But, supposing, as M. Heurteloup will have it, that flat calculi are refractory to comminution by any other instrument than the brisecoque, still the whole question, with regard to the invention of this piece of mechanism, presents itself again. M. Heurteloup very quietly, and with becoming modesty, asserts in his pamphlet, that he is the sole inventor of it. Now, however much our confidence in his statements may have been shaken, we might, on account of the boldness with which he has persisted in this claim, have admitted it, but that we find in a work published on Lithotrity, pp. 41-42, by Dr. Civiale, ere yet M. Heurteloup was a lithotritist, the parent idea of this instrument. Speaking of fragments and small calculi, Dr. Civiale describes this instrument as follows:—"It was for cases of this sort, that I had made at the same time (1822) several forceps with two branches, of different sizes and forms, and an instrument, which may be called a *brise-pierre*, This instrument consists of two blades of steel, rounded on one side, and flat on the other, slightly curved by an extremity which terminates in the form of a serpent's head, and presenting at the other extremity, two rows of teeth, those of the upper blade destined to receive a cogged wheel, by which the movement of this blade was regulated, those of the lower blade, to render it immoveable, by means of a clavette or stop. These two blades are received separately, first the upper, then the lower blade, into a canula of the same length and diameter as the ordinary lithotrite. This canula serves as a sheath, and bears at one of its extremities, the wheel destined to move the blades together or separately, according to the effect intended to be produced." Here, then, is a brisepierre, with which M. Heurteloup must have been acquainted before he made his own, and differing in no essential from any of the dozen brisecoques that have been constructed by Amussat, Rigal, Colombat, &c. M. Civiale, whom we presume to be as good a judge of the value of such an instrument as any man living, used this instrument; and as he affirms from experience, that it has no advantages over the ordinary or three-branched lithotrite; and further, that from the absence of a central piece, he could not accurately ascertain the nature of the substance seized within the bladder, we are content to adopt his reasons for abandoning the use of it.

In one of the cases contained in this pamphlet, that of Mr. Castle, he admits, that five operations or applications of Civiale's instrument, were made without any result. Five fruitless sittings!!! We find nothing like this in Costello's or Civiale's numerous cases. Now, in

perfect seriousness, we would ask, does this arise from M. Heurteloup's want of tact, or, are we to consider these five sittings as so many attacks made on the calculus, with the view of preparing easy work for his favourite brisecoque, and thus giving it the merit of a triumph, more the result of calculation than skill? This case is given to shew the superiority of the brisecoque over Civiale's three-branched instrument; and here his coolness, in taking the conclusion, is admirable, "for, let it be remarked," he says, "that this instrument was only employed when we discovered the almost utter impossibility of curing the patient with the perce-pierre;" he then says, "in future I shall be more on my guard against those flat stones, and shall begin the operation at once with the brisecoque, and thus spare my patients "the slow and useless attempts made with the perce-pierre;" slow and useless in M. Heurteloup's hands, if you please, but far different in the hands of the creator of lithotrity, Dr. Civiale, or in those of his pupil, Mr. Costello!!!

In another case, that of a Greenwich pensioner, a considerable number of operations were performed, and almost at each of them a new instrument was employed. We recollect very well, when the improvements in the lithotritic instruments were first spoken of by this gentleman, nay, even eighteen months since, he assured the world, that his modifications were so vastly superior to every thing of the sort that had yet appeared, that a large stone, instead of being reduced by successive perforations, according to Civiale's plan, would be pulverized in one sitting. Now, how has this promise been kept to the sufferers, or to the world? His first attempt to cure in one sitting was unsuccessful; for we find, that it required ten very long sittings to effect a cure, which, after all, was due to Civiale's instrument Now, here was a fine opportunity to redeem his pledge. Yet how many sittings took place? We are not told; but we know they were wofully many; we are sorry that want of space prevents our giving any lengthened extract from this case. This one must suffice. "In a word, this case (the poor pensioner's) was converted into a sort of study, by which all the medical gentlemen who were present at the different operations, were enabled to form an idea of the means now existing in science for curing patients of the stone without incision." Here we have realized the "*fiat experimentum in corpore vili.*" Yes, poor fellow, he served M. Heurteloup's purpose, to inculcate on the minds of the medical gentlemen whatever opinions he thought proper. He served to shew his fertility as a modifier and borrower, without acknowledgment of Civiale's instruments; but he did not serve to prove that M. Heurteloup possessed the tact of Civiale. We shall terminate our reflections on this case, by observing, that M. Heurteloup himself, as it were, *vi veritatis victus*, here makes an admission, which, considering his opinions elsewhere expressed, we must look upon as involuntary, namely, that the perce pierre is on some occasions, a tolerably good instrument.

There are scattered through this pamphlet, here and there, assertions which force a smile from us Reviewers. This, however, may

be very wrong, seeing that the whole performance is addressed more to the world at large, than to men of science. For instance, it is stated, that stones of a certain size, are seldom destroyed by means of Civiale's instrument, and that, in flat smooth stones, it can never effect a cure. To this, the two hundred cases of Messrs. Civiale and Costello give an overwhelming answer. In another place, the composition and shape of the calculus is pretended to be ascertained by simple catheterism. A flat stone is thus distinguished from one of any other shape, unerringly. But, really the flat stones and the brisecoque are M. Heurteloup's hobbies. In fourteen cases, four of the calculi are flat shaped, nearly one-third of the whole. Now, if it be true, that the three-branched instrument cannot destroy this refractory calculus, and that this form of calculus had presented itself with the same frequency to Messrs. Civiale and Costello, nearly sixty patients must have submitted to the operations of these gentlemen in vain, and subsequently sought relief from the brisecoque. What a pretty round number this would have made for M. Heurteloup? It is asserted, that it is for this kind of calculus, he invented the brisecoque. This has been said so often, that we must pass it by *propter nauseam*. Why, we know more of his powers of invention than we choose to state now, but we may yet enforce the maxim, *suum cuique*. These assertions prove abundantly, that this performance was not intended to throw any additional light upon the subject of lithotrity, for the benefit of medical men. Its destination lays quite another way. We shall mention the *naive* manner in which its real end and purpose is manifested. The symptoms of the calculous disease are detailed, the right of authorship is renounced, and the Society for the Diffusion of Useful Knowledge is invited to take advantage of so much disinterestedness, and to publish this invaluable premonition for the use and benefit of all those whom it may concern. This really oversteps every thing of its kind, with which we happen to be acquainted. What is it after all, but an emendation of the old version, try Dr. Eady. One proof more, that this work is beneath the level of science, and we have done. In speaking of the inflammatory affection of the testis, in the last case detailed, it is stated that the testis had inflamed before the operation was performed, and that this inflammation never re-appeared, during or between the applications of the instrument. "This circumstance, it is added, is a convincing proof, that when lithotrity is well performed, it will never produce inflammation of these organs." This sentence exhibits proof of ignorance of the structure of the kidneys, ureters, bladder, vasa deferentia, and urethra. Is there not communication between all these parts, by means of the mucous membrane which lines them, and are they not further connected by sympathies, by which the irritation existing in one part, may be rapidly transferred to another? If this phrase is not uttered in ignorance, then it is dictated by a disposition to attribute to his own great tact, the avoidance of unfavourable consequences whenever they happen not to occur. From the exhibition of such vanity, we turn away with feelings bordering on disgust, and we call

on Mr. Costello, the pupil of Civiale, and the partner of his immortal labours, to put an end to this silliness, by stating the truth on this subject, for we now see that it is vain to expect any information upon which we may rely, on the subject of this valuable operation, from such a quarter.

MISCELLANIES.

9. *London College of Medicine.*—Many of our readers are aware that a numerous meeting of surgeon apothecaries, with a few pure surgeons, has taken place within a few days, for the purpose of organizing a society, to be entitled the New London College of Medicine. Joseph Hume, Esq. M. P. presided as Chairman.—It was resolved, that the institution was to be founded upon the principle of admitting all legally qualified physicians, surgeons, and apothecaries, who are to enjoy the same rights and privileges, and to be entitled Doctors. According to this arrangement, there would be an annihilation of the Universities and Colleges of Physicians and Surgeons, and Society of Apothecaries in England, which obviously cannot be accomplished.

We are as sincere friends to medical reform as any member of the profession, but cannot agree to the plan before us; because, it appears to us that it cannot be carried into effect. The proposers of this measure should have confined themselves to their own branch of their profession, and should have adopted the sensible and only practical course recommended them by Mr. Hume, to endeavour to improve and reform the present College of Surgeons, but not to propose a new one. We regret that this advice was not adopted and acted upon, and that instead of proposing a new institution, the meeting did not petition both houses of Parliament against existing abuses, and seek redress in the only way in which it is to be obtained.

They cannot seriously suppose that the government or legislature of this country would commence reform, and destroy the rights of the universities and corporations, without first consulting or remonstrating with the distinguished and influential heads of these establishments, the result of which must be a death blow to the scheme of the reformers, as ample and repeated experience very fully attests.

Neither would the nobility and upper ranks of society, even consent to the union of the three branches of the profession, or employ the same individual as physician, surgeon, apothecary and obstetrician. In no country in the world is such a union tolerated, nor cannot in this, where our literary and scientific institutions are esteemed and almost venerated. It ought to be recollected that the members of both houses of Parliament, and the Government, are men who received their education in the universities, and who cannot consent to the suppression of a single right possessed by these establishments. This is well exemplified by the difficulty which exists, from the hostility of these bodies, in obtaining a

charter for that great and splendid institution, the London University. When we consider that the Lord Chancellor, and of course the present ministry, are the patrons and best friends of that establishment, and find it difficult to incorporate it, from the opposition of rival institutions, what chance can the proposed college have of success in obtaining the like privilege? Besides, it must not only encounter this opposition, but the hostility of all the medical corporations.

Were the prospects of the intended college in the most favourable position, the influence of the medical corporations alone must blight them; and we are convinced that the great majority of all classes of the profession must be against them. The indiscriminate admission of all legally qualified apothecaries could not be tolerated by physicians and surgeons, as the largest proportion of them in this section of the empire, are druggists and oilmen, who were in practice before 1815, who received neither a good general education, nor any medical education whatever. These men are surely not entitled to rank with licentiates in pharmacy, or with regularly educated physicians or surgeons. Such a union would be objected to by all, and can never be effected. No doubt it would be very agreeable to the surgeon apothecaries, or, as they are unclassically termed, general practitioners, pure apothecaries, pure surgeons, the druggists and oilmen who rank as apothecaries, and medical students, all of whom could have no objection to enjoy the rights and title of those who consumed their time and talents in universities, and complied with the regulations of the medical corporations, and whose general and scientific acquirements are infinitely superior to those of the above classes of medical men. No man who has studied in the medical and surgical schools of Scotland and Ireland, but must coincide in our opinion. Every man who has taken a surgical diploma in Dublin or Edinburgh, must acknowledge that the examinations are much more minute and severe in these places than in London, and it is well known that candidates who are rejected by the Dublin College, immediately proceed to Lincoln's-inn Fields, and procure the diploma as a matter of course. Hence it is, that the members of the London College, who practise in Ireland, and they are a numerous body, are looked on with contempt by members of the Irish College, who will not meet them in consultation, and who will exclude them from hospitals, dispensaries, and all public institutions. The course of education required by the Edinburgh College of Surgeons, is also more extensive than that of the London College, and the course of education for the degree in medicine, is much more extensive than that for the diploma in Surgery, and yet the New College proposes to admit all members of the profession upon the same terms, and to include pure apothecaries, who know little or nothing of medicine or surgery. We might adduce many other objections, but enough have been advanced to convince any member of the profession, who will only reflect upon the subject, that the proposed College cannot pos-

sibly succeed. It has opponents, who never will allow it a legal foundation. Let its friends follow the judicious advice of the Chairman, to endeavour to reform the old institution, but let them not indulge in the vain hope of demolishing all the medical institutions in the country. The idea is Utopian. Let it not be said, that we are enemies to reform, we triumphantly refer to the pages of this Journal in proof of our sincere advocacy in its favour, in which will be seen, we proceeded to the lengths in exposing corporate monopoly and abuse, which no other physician in this kingdom had courage to attempt; but in which reform or improvement in existing institutions, and not their suppression was defended. In offering these remarks, and declaring our opinions, we may incur the displeasure of the friends of the proposed institution, but in common, with the privileges of British subjects, we claim the right of freely expressing our opinions. We are not the advocates of any of the existing Medical Corporations, we have repeatedly proved all of them defective, and requiring reform. Having acquired the highest honours from four of the most respectable of them, we may, we think, offer an opinion upon their rules, regulations and constitutions, which affect us individually, much more than any one who advocates the new measure.

10. *Medico Botanical Society.*—The gold medal of the Society is offered for the best essay in the English, French, German, or Latin language on the question, "What is the vegetable substance which could be employed with success in the cure of hydrophobia?" And that the silver medal of the society should be offered for the best essay "on the medical qualities and uses of any indigenous plant which is not yet sufficiently known, or on new uses and applications of any other indigenous plants," provided that such essay possesses sufficient merit; and that they should be received till the close of the year, and that the medals should be bestowed at the next anniversary.

That each essay shall be accompanied by a sealed paper, containing the names and address of the author, and marked in the same manner as the essay; and that each essay to which a medal is not awarded, shall, according to the wish of the author, be restored to him or submitted to the council, in order to its being read at a general meeting.

11. *London University.*—We are happy to inform our readers upon the best authority, that the Government has determined to advise and recommend his Majesty to confer a charter on the London University. The power of granting degrees in medicine and surgery on the plan of the University of France, will be given, and thus that salutary change or reform in the medical profession so long and so justly called for, will be established. Much opposition was given by the other Universities, but we need scarcely remind our readers that the present excellent and unequalled Ministry will not be deterred from reforming whatever is found defective in the Institutions of the Country.

LITERARY INTELLIGENCE.

12. Dr. Uwins is preparing for the press a treatise on MENTAL DERANGEMENT, in which the subject of insanity will be considered in all its bearings, Statistical, pathological, preventive and curative. In this work Dr, U. will treat generally on nervous ailments and their connexion with disorders of the stomach and other organs.

BOOKS RECEIVED DURING THE MONTH.

1 Lecture, introductory to the Course of Medical Jurisprudence, delivered in the London University, on Friday, Jan. 7th, 1831. By A. T. Thomson, M.D. F. L. S. Professor of Therapeutics, &c. &c. London. Taylor.

2. Address of Earl Stanhope, President of the Medico-Botanical Society, for the Anniversary Meeting, Jan. 10th, 1831, 8vo. London. Wilson.

3. Explanation of the Anatomical Atlas of Dr. M. I. Weber, Professor at the Royal Prussian University, Frederick William, at Bonn, 8vo. 1831. London. A. Schloss.

4. Anatomical Demonstrations, or Colossal Illustrations of Human Anatomy. By Professor Seerig. Translated from the German, Part 2, 8vo. 1831. London. A. Schloss.

5. Lecture, introductory to a Course of Clinical Surgery, delivered to the Students of the Glasgow Royal Infirmary. By M. S. Buchanan, M. D. Member of the Faculty of Physicians and Surgeons, Glasgow, and one of the Surgeons to the Royal Infirmary, &c.

6. Professional Morality in 1831, or the Lawyer's Defence of Medical Quackery, in which John St. John Long's Discoveries are examined, and his claims to the confidence of the British Public, are criticised. By a Graduate of the University of Edinburgh, and a Master of Surgery and Arts, 8vo. 1831. Wilson. London.

7. Proceedings at the Twelfth Anniversary Meeting of the Hunterian Society, held on the 16th of February, 1830, with the Report and List of Officers and Members, &c. &c.

8. We beg to acknowledge the Receipts of Dr. Kennedy's Tracts on the state of the Profession in India, which we shall notice in our next Number.

Books Received in Exchange.

The American Journal of the Medical Sciences, for Nov. 1830

The North American Medical and Surgical Journal, for Oct. 1830.

The Medico Chirurgical Review.

The Edinburgh Medical and Surgical Journal, for January, 1831.

The London Medical Gazette.

The Glasgow Medical Journal for Feb.

The Midland Medical and Surgical Rep.

We have received the National and Foreign Journals, with the exception of some of the French, which perhaps, may be accounted for by the state of Politics of our Contemporaries.

9. The best Surgical Plates we can recommend to Tyro, are the excellent illustrations of Cooper's Surgical Dictionary, now in course of Publication by Mr. Cocks.

All Communications and Works for Review are to be addressed to the care of Messrs. Underwood, 32, Fleet Street; or to the Editor, at his Residence, 61 Hatton Garden.

THE LONDON

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CRITICAL REVIEW.

I.—*Physiology of the Fœtus, Liver and Spleen.* By George Calvert Holland, M. D. Bachelor of Letters of the University of Paris, Lecturer on Physiology, and Joint Lecturer on Practice of Physic in the Sheffield Medical Institution. London, 1831, 8vo. pp. 229. Longman and Co.—*(continued.)*

Dr. Holland commences his physiology of the fœtus with "an account of the various opinions concerning its nourishment;" but a few, of these however, are detailed. He gives extracts from the works of Hippocrates, Galen, Harvey, Darwin and Bonetus, which prove that these writers supported the theory of fœtal nutrition by means of the mouth and umbilical vessels. He notices the opinion of Hoffman and Monro, *primus*, that the placenta was the chief source of nutrition, and then that of Mayow, Abernethy and Bostock, which is, "the placenta was to the fœtus what the lungs are to the adult." Wilson Phillip's hypothesis is next adduced, that the uterus generates a fluid similar to galvanism. He next quotes the views of Geoffroy-St.-Hilaire, from the series of this Journal in 1824; next the doctrine of Buffon and Van-den-Bosch, which teaches the absorption of the amniotic fluid by the skin of the fœtus, and lastly, the hypothesis of Dr. Lee, which will be noticed more fully in a subsequent article. Such are the writers referred to by our author; but they are only few who have discussed the subject. This remark is verified by the following quotation from a work not expressly devoted to the physiology of the fœtus.

" Of all the questions of physiology, this has been the most disputed. Some have placed the source of nutrition in the water of the amnios, more than in the placenta, some in the vesicula umbilicalis and allantoides, others in the gelatin of the cord, and some in the decidua or epichorion.

" Harvey and Diemerbroeck considered the water of the amnios highly nutritive and lacteous: and with Rudbeck, Haller, Darwin, La Courve, maintained it passed by the mouth to the stomach; while Alcmeon, Boheraave, Buffon, and Van-den-Bosch alleged it was absorbed by the skin. These opinions are refuted by the fact, that in cases of imperforation of the œsophagus, in acephalous monsters, and when the infant is born with all the outlets impervious, it is fully developed. It is foreign to the nature of this manual to notice all the physiological reveries upon this and other parts of my subject: but I cannot help inserting a few more upon this point. Lobstein held the fluid was partly absorbed by the genitals; Osiander, Oken, and Muller, that it was absorbed and modified by the mammæ, then conveyed to the thymus gland, and finally to the thoracic duct: while Schurigius, David, Rœderer, Scheele, Winslow, Heroldt, Beclard, and Geoffroy-Saint-Hilaire believe it to enter the trachea and bronchi, and to be there elaborated for the purpose of nutrition. The general and received opinion of almost all physiologists is, that the placenta is the source of nutrition to the fœtus. It has been said that the placenta is a respiratory organ to the fœtus, and supplies it with oxygen.

" During the early period of intra-uterine life, the embryo is nourished by the umbilical vesicle, which is continuous with the intestinal tube, which absorbs the fluid, which is carried by the omphalo-mesenteric vein to the heart of the embryo. The analogy of these vessels to the yolk of the egg renders this opinion probable. The absence of the meconium in acephalous cases (Elben), which, according to others, was the residuum of digestion, was considered an argument in favour of the passage of the amniotic fluid into the stomach. This fluid does depend upon the bile, and is absent when the liver is wanting. (Tiedemann.) The female nourishes her offspring with her blood, through the medium of the placenta; while the fœtus possesses an organ for the further depuration of the blood, and the liver is that organ. (Bichat and others.) Tiedeman and Gmelin considered it the same in the adult. The researches of Dr. Stoker of Dublin, in his Pathology upon this point, are exceedingly interesting and satisfactory.—p. 82.

" It has long been supposed that the great size of the liver in the fœtus served some purpose, and, it is said is the organ which effects certain changes in the blood. Lobstein thinks it the organ which effects certain colour of the blood (hematose): Fourcroy, that it causes a decarbonization and a deshydro-genisition: and Stoker, a change in the hydro-carbonous principle of the blood; Prevost and Dumas, that it forms the globules of blood in the fœtus; Geoffroy-Saint-Hilaire, that it secretes a large quantity of bile, which passes

into the small intestines, and there determines the formation of an abundant quantity of mucus, which the fœtus digests, and on which its developement depends. Dr. Robert Lee has endeavoured to prove, that the liver secretes an albuminous nutritive matter, which he found in the hepatic duct, duodenum, and small intestines; while he found an acid fluid in the stomach, and meconium in the large intestines. All these theories require further corroboration before they can be admitted."—p. 86. *Dr. Ryan's Manual of Midwifery or Compendium of Gynæcology, Third Edition*, 1831.

Notwithstanding our author's omissions, he evidently possesses an intimate acquaintance with recent works on embryology, as appears by the following remarks :—

" The striking difference that exists between the circumstances in which the human embryo is placed, as well as the degree of developement it attains during the first few weeks after conception, and those of the completely organized fœtus, are of sufficient importance to form an essential distinction between embryotic and fœtal life.—The term embryo is employed here to designate a being yet so imperfectly constituted that few of its organs are formed, whereas, fœtus is a denomination given to a being possessed of the principal organs which the animal exhibits when arrived at a state of maturity.—To a neglect of this distinction must be attributed the discrepant opinions which have, from time to time, been adopted to explain the nutrition of the fœtus.

" Those, who endeavoured to shew that it is entirely supported by the maternal blood, found a difficulty in accounting for its nourishment and growth during the time previous to a connexion being established between the uterus and the chorion; others, who advanced a different opinion, were inclined to think that the fœtus is altogether indebted for its nutrition to the fluids in which it is immersed. In support of the latter supposition it is stated, that these exist at a period when it cannot possibly have other means of sustenance."—p. 68.

" The ovum which is found in the uterus immediately after impregnation, possesses within itself not only the principles of vitality, but fluids which are appropriated to the purposes of organization. The way in which these are modified, so as to assume a determinate form, is one of the secrets of nature, with which we are, and probably shall ever be unacquainted, but it cannot be denied that the diversified forms they assume are the result of vital operations. A vascular connexion, at this time, with the uterus, would be of no service to the embryo, because there are no internal organs sufficiently developed to receive and distribute the blood, until the rudiments of a circulatory system exist; the sanguineous or any other fluid which might be derived from the uterus could not be applied to the formation of the embryo, but the warmth and moisture which

the uterus possesses are perhaps as essential to its growth as the warmth communicated to the egg during incubation. When the vital actions have proceeded so far in the organization of the fœtus, as to create, although imperfectly, the heart, the vena porta and the aorta, the umbilical cord may be distinctly perceived, and it very soon establishes a connexion between the chorion and the uterus.* When this union is fully established the embryotic is changed into fœtal life, and the latter is exclusively nourished by the arterial blood of the mother"—p. 70.

This explanation of fœtal life is not sufficiently clear or satisfactory, or accordant with recent opinions. The impregnated ovum does not immediately descend into the uterus; for it was found three days after conception in the uterine tube of rabbits, by Cruickshank and De Graafe; and, about the sixth or eighth day, in bitches, by Prevost and Dumas. Besides, it was held by W. Hunter, Chaussier, and almost all physiologists, that the decidua is formed immediately after conception, and becomes united to the chorion after the descent of the ovum into the uterus, about the fifth day after impregnation, according to Meckel, and the eighth according to Sir E. Home. The amnios has been injected from the mother by Monro and Weisberg, and from the fœtus by Chaussier. Our author has also forgotten the existence of the vesicula umbilicalis, between the chorion and amnios. (Wolff, W. Hunter, Oken, Bojanus, Meckel, Pockels, Tiedemann, Duges and Velpeau, with its arteries and veins (the ompholo-mesenteric), a vesicle which nourishes the embryo for the first two months, by the albuminous fluid it contains. Professor Velpeau contends that the placenta is formed as soon as the ovule descends into the uterus. Elem. des Accouch. 1829. According to this ample evidence, there is a vascular connexion between the uterus and embryo, before the organs of the latter are sufficiently developed to receive and distribute the blood.

Dr. Holland proceeds to disprove the opinion that the amniotic fluid, which he very strangely denominates the amnios, nourishes the fœtus, and he occupies too much space in refuting an opinion which nobody of the present age maintains, neither need he take the trouble of exposing the fanciful hypothesis of Geoffroy-St.-Hilaire, that the aminios evolved respirable gas, which was absorbed by the

* Adelon, Physiologie del 'Homme, vol. IV. p. 345.

cutaneous veins of the fœtus. This was also the opinion of Lassaigne, which was long since satisfactorily refuted by Chevreul. Our author observes—

"That the amniotic fluid contains a respirable gas, is a fact proved, according to the statement of Geoffroy-Saint-Hilaire, by experiment. Is it not more than probable, that analytical processes to ascertain the exact composition of a fluid, discover not only what it possesses in its natural condition, but likewise disengage gases that were previously in combination with its different chemical principles? If it were even allowed, that the amnios contains a respirable gas, insuperable difficulties are connected with its production and mode of action. It is imagined to be taken up by the pores of the skin, which act like so many tracheæ. If these have sufficient energy to absorb, the skin must also be able to secrete: the two functions must coexist. What becomes of the secretions? As they are necessarily poured into the amniotic membrane, they must continue to accumulate from the commencement of fœtal life to its completion; and therefore, it is improbable to suppose, that a pure oxygenating principle could exert any influence under such circumstances."—p. 83.

The next point upon which our author comments, is the universal opinion that the placenta is capable of oxygenating the blood it receives. This is the opinion of Bostock, and almost all physiologists. Objections are urged against this doctrine.

"The placenta does not exhibit one single property which can justify the physiologist in comparing it with the lungs. Its texture is widely different, and its situation and relations are as dissimilar, as it is possible for those of any two organs to be. Is an extraordinary galvanic or nervous influence connected with the placenta, and exercised in a mysterious manner during gestation? Unless we believe in the existence of such an influence, it is absurd to suppose that the placenta is capable of aërating the sanguineous fluid. It may be stated, as a universal law, that whenever venous becomes arterial blood, air is received directly from without, and whatever is excrementitious is expelled directly from within. If venous blood be placed in a bladder, it becomes florid in appearance. In this case, oxygen disappears, and carbonic acid is formed. But how can the placenta improve the qualities of blood, without oxygen, and the concurrence of those organic adaptations which characterize the respiratory organs throughout the animal and vegetable kingdoms! Can the blood act upon itself and cause such an effect? If the placenta oxygenate the blood, whence does it derive the necessary power, and how does it remove the excrementitious product? If it be acquired from the arterial fluid circulating in the uterus, whence does it derive the properties of nutrition? The observation of Sir E. Home seems

to imply, that air only is received from the mother. "The fœtal blood," he says, is close enough to that in the vessels of the uterus, to have the air communicated to it." It has been remarked, in the preceding pages, that venous does not become arterial blood, merely from the influence of oxygen, but from its qualities being continually renewed by chyle."—p. 86.

There is a good deal of force in this reasoning, but we must bear in mind how very superficially the function of the placenta is described in this extract, and how very questionable both the author's premises and conclusions must appear on a minute consideration of the subject.

"The circulation of the placenta is also differently explained. Some say, the fœtal arteries deposit the blood in the cells of the placenta, whence it is absorbed by the maternal veins, is carried to the maternal lungs to be vivified, and afterwards brought by the arteries to the placenta. Others maintain, that a portion of the blood deposited by the umbilical arteries is absorbed by the veins of that name, and returns to the fœtus. M. Velpeau raises a formidable objection to the first opinion. He says, if the blood of the umbilical arteries is deposited in the placental sinuses, it must evidently mix with that of the uterine arteries, which is effused in the same place; it is therefore necessary to suppose that the absorbent mouths of the umbilical vein have the faculty of choosing the arterial blood from this mixture, as the uterine veins do not take but the venous (arterial) blood. On the other hand, an injection will pass with the greatest facility from the arteries into the veins of the placenta, without effusing itself upon the uterine surface of that body; therefore the blood of the fœtus is not taken up by the uterus. The reader should refer to the remarks upon the placenta in a former page for solid objections against this reasoning, where he will find strong arguments against this conclusion. M. Velpeau is inclined to suppose that the arterial blood of the fœtus undergoes its changes by a molecular action in the placenta, which though inexplicable may be still correct. He thinks it may be compared to the capillary system after birth: to what takes place in secretory organs, and in the lung itself. The fluids of the ovum are in mediate contact with those of the woman; but a change may take place analogous to that in the lungs between the atmospheric air and the venous blood. However ingenious this hypothesis appears on paper, it is decidedly erroneous. It is only necessary to reflect upon the utter impossibility of supposing the fœtus to form its own blood, that is, to grow and daily increase in size without a supply from the mother. Again, every one at all conversant with obstetrics is aware of the innumerable vessels which pass from the uterus to the placenta, and the hæmorrhage consequent to their rupture. It is really astonishing that a physician so intimately acquainted with obstetrics, and every branch of medical

science, as Professor Velpeau is, could seriously suppose such a doctrine."—p. 86. *Dr. Ryan, ut supra.*

The last hypothesis noticed by our author is Dr. Lee's, which is "the liver of the fœtus secretes an albuminous fluid, which is absorbed by the smaller intestines, and contributes to the support of the system." Phil. Trans. Part I. 1829. Upon this hypothesis our author comments with great force and reason.

"In examining impartially the merits of this hypothesis, we shall find it as unphilosophical and untenable, as those opinions which have hitherto been entertained on the same subject. 1st. In regarding the liver as an organ secreting the albumen, Dr. Lee does not appear to take into consideration the absurdity of attributing to an organ, two such opposite functions, as the secretion of albumen one moment before birth, and of bile the next moment. The peculiar secretion of an organ is not regulated by the quantity of blood it receives, but by its structure. Every organ, throughout the animal economy, has an independent and exclusive function. The difference between the properties of albumen and those of bile, is as great as between any two secretions of the body; and to say that the liver can secrete both, is as absurd as to assert that there is no necessary connexion between the quality of a fluid, and the structure of an organ which determines the nature of it.

2dly. It is allowed by the first authorities in physiology, that the umbilical vein carries to the fœtus arterial blood: the silence of Dr. Lee on this point, and the importance which he attaches to the blood circulating in the liver, lead one to infer that he entertains the same opinion. If the blood received from the uterus is arterial, what occasion is there for its being converted into albumen, in order to nourish the fœtus? It might just as reasonably be supposed that the arterial blood of the adult, produced by digestion and oxygenation, cannot contribute to the nutrition of the body until it has been converted into albumen. If arterial blood, possessed of its ordinary properties, be communicated to the fœtus, it requires no further change to render it fit for the purposes of nutrition; if it be venous blood which is received, we have no evidence at all, that the system ever is or can be supported by it, and still less that an organ furnished with it can secrete albumen. As albumen exists in the blood, it would appear, if the ideas of Dr. Lee were correct, that nature is not very consistent in her operations, while she, at one moment, draws from the blood nutritious properties, and, at another, absorbs them to convey them into the same fluid.

3dly. If the liver secrete albumen, its presence, it may be further observed, ought to be indicated by the same general appearances that prove the secretion of bile; of the existence of the latter we have the strongest evidence. The gall-bladder and ducts contain, at all times a considerable quantity of it; but, during fœtal existence, the gall-

bladder is so far from being filled with albumen, or exhibiting the least appearance of it, that it contains bile; and instead of the hepatic and common ducts manifesting unequivocal traces of it, "in general," Dr. Lee says, "the hepatic and common ducts of the liver have been found empty, or have contained too minute a quantity of fluid to be collected for chemical investigation; but in the two instances above mentioned, it existed in unusual abundance, and was pressed out upon a plate of glass without mixing with the bile of the gall-bladder." Dr. Lee examined above twenty fœtuses, and yet, in two only, found a sufficient quantity to be pressed out upon a piece of glass!

"4thly. If the liver be an organ which secretes albumen for the support of the fœtus, how, I would further ask, is its nutrition to be explained in those cases of malconformation, in which the organ is entirely wanting? Many instances of this kind are on record. Mr. Brodie relates a case, in which no liver could be found;* others are mentioned by M. Mery,† Dr. Le Cat,‡ and Dr. Clark.§

Dr. Holland describes the functions of the placenta, and notices the opinions of Harvey, Fabricius, Prevost and Dumas, Magendie, Monro, primus, Adelon, Bostock, Brodie, Sir E. Home, and arrives at the following conclusions:—

"1st, The fœtus derives its blood exclusively from the mother.

"2dly, The placenta is an organ incapable of producing chemical changes in the blood.

"3dly, The fœtus has not in activity any organs that can in the least oxygenate the blood it receives.

"4thly, Venous blood cannot support organic life."—p. 95.

He agrees with the general opinion, that there is no direct communication between the uterus and fœtus. He holds the absorption of the maternal blood by the umbilical vein, and that of the fœtus by the uterine veins. In fact, he has not added a single new idea to this disputed point of physiology. He compensates for this deficiency by a most ingenious view of the causes "of the temperature of the fœtus."

"There are certain points connected with the consideration of the present subject, that have not as yet been fully explained, and which are intimately related to the views already proposed, concern-

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* Lond. Phil. Trans. Part I. 1809.
† Histoire de l'Academie Royale des Sciences, 1720.
‡ Ibid, 1740
§ Lond. Phil. Trans. 1793.

ing the nutrition of the fœtus. It has been proved by experiment, that the temperature of the fœtus is seldom above 92° or 95° Farh. It is said to be higher when the fœtus lies dead in the uterus. "If this fact is correct," observes Magendie, "the fœtus must possess some means of lessening the temperature that does not exist after birth." If according to the principles previously stated, we regard the fœtus as receiving arterial blood from the mother, we shall find few difficulties in attempting to render these phenomena more intelligible. It is satisfactorily ascertained that the sanguineous fluid loses a portion of its animal heat, as it recedes from the centre of circulation. The fœtus is supplied with blood from the spermatic and uterine arteries, and as this fluid in its passage to the placenta is considerably removed from the source of its oxygenation, it is reasonable to imagine that its temperature is slightly diminished, when it reaches this organ.

"It will indeed scarcely be denied, that such a change is likely to be produced, when it is absorbed and conveyed to the fœtus, which possesses no means of generating animal heat. Although the fœtus is incapable of contributing to its own support, by renewing the vital qualities of the blood, yet, as the process of assimilation is active, and as the excretory functions of the skin are carried on in a modified degree, those causes are in operation which must tend to diminish the temperature of blood circulating in the fœtus. There is undoubtedly a great difference in the state of the sanguineous fluid in one body, in which it is continually renewing its heat, and in another, in which no similar change takes place.

"There is another reason, which, in conjunction with the above, seems sufficient to account for the low temperature of the fœtus. The whole of the adult blood passes once, every two or three minutes through the lungs, and is, consequently, completely acted upon by atmospheric air, but when the foramen ovale continues open after birth, the temperature is several degrees less than natural. This difference arises evidently from the imperfect oxygenation of blood. The whole blood of the fœtus is not exactly renewed in the same time as that of the adult, and on this account, the temperature of the fœtus will be less. The arterial blood conveyed to the vena porta and the vena cava inferior, is mixed with the venous blood of the vena cava superior in the right auricle of the heart, and, therefore, the arterial blood of the fœtus is not so purely arterial as that of the adult. It is not difficult to explain why the temperature of a dead fœtus is higher than that of a living one. In the former, none of those functions are in action which diminish the heat of the blood, as circulation, assimilation, and excretion from the skin, all of which exist in the latter.

"If the dead fœtus be regarded as a mass of inorganic matter, the degree of its temperature will illustrate a common law in physics, that heat has a tendency to diffuse itself through contiguous bodies until an equality of temperature is established. The warmest give

out, and the coolest receive, until they have attained a uniform degree of heat. It is, therefore, manifest that as long as the dead fœtus remains in the uterus, it will be of the same temperature as the mother. If this explanation is considered satisfactory, it is obvious that the conclusion of Magendie is fallacious, viz. that "the fœtus must possess some means of lessening the temperature that does not exist after birth."—p. 128.

The remaining chapters are on "the origin of the liquor amnii and meconium;" "the nutrition and peculiarities of the fœtus;" "the brain, spinal cord, stomach, liver, pancreas, and intestines not essential to fœtal life;" "of the functions of the liver, supra-renal capsules, thymus and thyroid glands in the fœtus;" "the mode of nourishment in the oviparous and ovo-viviparous animals, and on the influence of the mother's imagination on the development and constitution of the fœtus."

The whole of these subjects are ably discussed, and the author is exceedingly powerful in his refutation of the erroneous notion of the influence of the mother's imagination upon the fœtus in utero. The work evinces much originality, extensive research and powerful reasoning, and will be highly interesting to the physiologist. It will add to the well-earned reputation of the author.

II.—*The Effects of the Principal Arts, Trades and Professions, and of Civic States and Habits of Living, on Health and Longevity.* By C. TURNER THACKRAH: London, 1831. Longman and Co. Leeds, Baines & Co.—*(continued.)*

WE resume our analysis of this very important and instructive little work, as its contents will be perused with advantage by young practitioners. The author observes—

"Colliers have considerable muscular labour, chiefly in the sitting or kneeling posture, and with the body bent over to the greatest degree. They work in an unnatural atmosphere, and with artificial light. They are exposed to changes of air, and occasionally they work with their feet in water. Perspiration at other times is so great as to cause them to be almost naked. They generally work from four a. m. to four or five p. m. and take little food while in the mine.—Colliers are generally spare men, the spine is almost always curved, and the legs are often bowed. The skin, of course, is loaded with

dirt; and when this is removed, the complexion seems sallow and unhealthy. Their eyes appear small, affected with chronic inflammation, and intolerant of full light. Colliers are subject to disorders of the head, muscular pains, particularly in the back, to rheumatism and asthma. They are well known to be liable to severe accidents from the fall of parts of the mine, and to much more dreadful effects from the explosion of the carburetted hydrogen. The air they commonly inspire is adulterated with hydrogen and other gases. That of carbonic acid has, in certain circumstances, been so largely developed by the accidental burning of the coal as to produce fatal or dangerous effects.*

"Boys enter the pits at the age of six or seven, and are employed in opening the trap-doors, driving the horses, propelling the trucks, &c. and finally, when of sufficient age, they become colliers. Sickness and vomiting sometimes affect persons at their commencing the employ; and many, after a few years' trial, are obliged, by the injury which their health has sustained, and especially by the weakness of their eyes, to leave the mines. Colliers are not habitually intemperate; but in this neighbourhood they have a periodical debauch, formerly once a fortnight, now once a month. They do not generally exceed the age of fifty, though many exceptions are to be found. We saw one asthmatic individual, seventy years of age, who had worked fifty years in the mine.

"The prevention of danger in coal-pits is so well known as to require no detail. I need only mention the use of the safety-lamp, the examination of the state of the air, especially in pits re-opened, and the practice of ventilation. If the overseers and workmen practised what they know, accidents would be comparatively rare.

"Well-sinkers have great labour, and are frequently obliged to respire carbonic acid and other gases found in wells. While working in such impure atmosphere, they feel dizziness and a sense of suffocation, and if the injurious agency be in great degree, animation is suspended, and sometimes destroyed. By a less degree, when continued for some time, health is affected. The men complain of headache, sickness, and loss of appetite, and are unable to work for days or weeks.

"The evils of the employ, care would in a great measure obviate. Every workman knows that a light will not burn in the foul air: yet the simple experiment is often neglected. The introduction of fresh air by bellows into wells, thus found to be dangerous, has but a partial effect. A more promising plan is recommended in Rees's Cyclopædia, Art. *Well.*—p. 29.

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* See in the *Edinburgh Medical Journal*, vol. 32, a short but interesting paper by Mr. Watson, of Wanlock Head, on a case of this kind. Headache, giddiness, tingling of the ears, vomiting, tremor, with extreme debility, succeeded to the partial or general insensibility, which the gas had produced. Three or four individuals appeared afterwards in a state of intoxication.

Mr. Thackrah next considers "*employments which produce dust, odour, or gaseous exhalations.*" He adverts to operatives whose employments connect them with animal and vegetable substances, who are all subject to atmospheric impurity. The effects of animal substances are not deemed important enough to require consideration, and the odours, exhalations and dust, produced by vegetable matters, are then noticed.

"Starch-makers are exposed to a fetid acetous odour, which rises from the fermenting wheat, or rather from the water in which the wheat has been steeped. The rooms are wet and cold. The men do not apparently suffer from the employ.*

Rectifiers of spirit, and men engaged in wine and spirit vaults, are subjected to a vapour which, though it sensibly affects those who are not accustomed to it, does no evident injury to those who inhale it daily.

"Bricklayers, and particularly their labourers, are exposed to lime dust. This frequently excites ophthalmia and cutaneous eruptions, but not internal disease†.

"The remark applies also to lime-workers and leaders of lime.

"Plasterers and whitewashers, who are also of course exposed to lime-dust, suffer from it no sensible injury. They are, however, more pallid and less robust than the men last noticed. They complain of the ammoniacal gas evolved from the glue; but I doubt its injurious effects.

"Woolsorters are occasionally annoyed with dust from the lime, which in some kinds of wool is employed for separating the fleece from the skin. No sensible effect is produced on health.

"Turners, when employed on bone, receive into the throat and air passages a considerable portion of dust. This, however, is said to be rather grateful than noxious.

"Tobacco-manufacturers are exposed to a strong narcotic odour, and in the stoving department to an increase of temperature. Yet the men appear healthy. Here, as well as in several other employments, we admire the agency of that conservative principle, to which I lately referred. Men breathe an atmosphere strongly impregnated with a poisonous substance, yet become insensible to its influence. The only ill effect we can find is from the heat of the stoving department, which all men cannot bear.

"Snuff-making is more pernicious. The fine dust of the tobacco, combined with muriate of ammonia, and other substances, produces disorders of the head, the air-tube, and the stomach."—p. 33.

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* I state of course what we observed: but the number of starch-makers in Leeds is comparatively small. Merat says that if the odours be in great quantity, they produce cough, difficulty of breathing, paleness, and emaciation.

† We hear an adage in the mouth of the workmen, that "bricklayers and plasterers' labourers, like asses, never die."

Our author next describes employments in which the substances or odours evolved, are generally or partially beneficial; and these he illustrates by the following examples:—

"Rape and mustard-crushers inhale a peculiar odour from the seeds which they grind. This seems to act as a stimulant on the nervous and circulatory systems: for men fresh to the employ find their appetite and vigour increased. The heat of the room is considerable, often reaching 80° in summer. Though addicted to intemperence, the men employed in oil-mills are generally healthy.* We remarked one man between 70 and 80 years of age, who had been all his life at the employ, and was remarkably strong and robust.

"Brush-makers have a sedentary occupation, but their arms are actively exerted. Some dust arises from the bristles; and sometimes carbonic acid gas is rather freely evolved from the charcoal fire which heats the pitch. But the chief peculiarity of the employ is the vapour of the pitch. This has a sanative effect in bronchial affections, as chronic catarrh, and in some forms of asthma. The workmen are generally free from disease. Several in Leeds have been at the employ for thirty years; and instances are mentioned of brush-makers reaching the ages of 80 and 90.

"Grooms and hostlers daily inhale a large quantity of ammoniacal gas generated in the stables. This appears beneficial rather than injurious. They have, moreover, full and varied muscular exertion; and if they took a more moderate diet, would be almost universally robust. Hostlers, porters, and under-male servants at inns, are generally sickly, and labour under congestion of the vessels in the abdomen and head. Their state evidently results from the ale and spirits they take so frequently.

"Glue and size-boilers are exposed to strong putrid and ammoniacal exhalations from the decomposition of animal refuse. The stench of the boiling and drying rooms is indeed well known to be highly offensive, even to the neighbourhood. Yet the men declare it agrees well with them—nay, many assert that on entering this employ, they experienced a great increase of appetite and health. All the glue and size boilers we saw, were remarkably fresh-looking and robust. Though exposed to frequent and considerable changes of temperature, to sudden changes also from an atmosphere of hot vapour to the dry cold air, they are not subject to rheumatism, pulmonary inflammation or catarrh. The only complaints we could hear of, were occasional pains in the loins and limbs, attributable to posture and exertion.

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* At one mill we were informed that rheumatic affections are frequent, and that men a day or two absent from work are particularly subject to pains in the joints, but we did not find this observation confirmed at other places.

"Buckram-manufacturers are exposed to the odour of the glue. This is well known to be so great as to offend the neighbourhood of the manufacture. Yet the men make no complaint of ill-health, and reach considerable age. Of the seven men employed at the Buckram-house, in Water-lane, one is 51, another 58, a third 68, and the fourth 76; and these individuals have been at the employ from an early age.

"Tallow-chandlers, subjected to an offensive animal odour, enjoy health, and attain a considerable age. During the plague in London it was remarked that this class of men suffered much less than others.

"Tanners, it is well known, are subject to disagreeable odours. They work in an atmosphere largely impregnated with the vapour of putrifying skins, and this combined with the smell of lime in one place, and of tan in another. They are exposed constantly to wet and cold. Their feet are scarcely ever dry. Yet they are remarkably robust; the countenance florid; and disease almost unknown. Tanners are said to be exempt from consumption; and the subject has of late been repeatedly discussed in one of the medical societies of London. We have carefully inquired at several tan-yards, and could not hear of a single example of this formidable disease. We do not find *old* men actually in the employ; and the reason assigned is, not the decline of health, but the inferiority of men past middle age, in undergoing the labour of the process. Persons, however, in advanced life, yet healthy, are found in other occupations, who have before been for many years in the tan-yards, and have not apparently suffered from the long continued exposure to their offensive odour. Hence we may infer that this employ, while it invigorates the constitution in youth and middle age, does not sensibly shorten life; does not, in other words, give temporary health at the expense of premature decline.

"Ramazzini tells us that at Padua the tan-yards were permitted only in the suburbs. Here also, as the stench would be considered a nuisance, tan-yards are at the outskirts. As a matter of medical police, however, we see no occasion for their exclusion from the town.

"The observations under this head apply also to slaughter-men, but their employ was mentioned with that of the butchers."—p. 37.

"*Employments producing a dust or vapour, decidedly injurious*"

"Corn-millers, breathing an atmosphere loaded with the particles of flour, suffer considerably. The mills indeed are necessarily exposed to the air,—the number of men is comparatively small, and the labour is good. Yet millers are generally pale and sickly; most have the appetite defective, or labour under indigestion; many are annoyed with morning cough and expectoration; and some are asthmatic at an early age. The average circumference of the chest

in ten men, whom we measured, was 36 2-5th inches; and the quantity of air thrown out by a full expiration was somewhat less than seven pints. Though we found several who had borne the employ from boyhood to the age of 50 or 60, the individuals were by no means robust; and we could not find an instance of an aged and healthy miller. The preceding statements do not apply to the men who drive the corn and flour carts, nor to the porters who unload the grain. These persons are little exposed to dust, labour chiefly in the open air, and are generally selected for their muscular power. They are, however, like other men who carry great weights, subject to hernia."—p. 37.

"Maltsters are exposed to much dust, particularly in the grinding and screening departments, and to sulphurous fumes from the coke. The heat of the kiln is of course great. We have found the atmosphere in the drying-room above 80°, and the malt on the floor 140°. The men are frequently affected with bronchial inflammation, and many become asthmatic for life. The exertion is so great that it obliges some to leave the employ at an early age, and it is much too severe for the old. Hence we find no labouring maltster advanced in years.

"Tea-men, in removing tea from the chest, are much affected by the dust, especially by that from the green. But as this annoyance is occasional only, we can scarcely suppose it capable of producing permanent injury either to the nervous system or the lungs.

"Coffee-roasters are affected by the odour, which the heat eliminates from the berry. And those who have been thus employed for years, are said to become asthmatic. The vapour is greatest when the coffee is stirred or shaken during the time of cooling. The heat of the process is of course great, and leads often to immoderate potation. Men, when they enter the employ, complain of oppression at the chest, difficulty of breathing and cough,—of headache and indigestion."—p. 39.

Snuff-makers, rag sorters, paper makers, willyers in cloth mills, and workers of flax, suffer severely from dust, and are liable to bronchial affections. Our author makes many ingenious suggestions for substituting machinery for the performances of the work in many of these trades.

"Cabinet-makers suffer from the dust, when they saw African, cam, rosewood, and Spanish mahogany. The first of these is most injurious. Its dust produces sneezing, headache, sickness and sometimes vomiting. This wood, however, is rarely used. The other kinds are more frequently worked. They occasion indigestion, and sometimes diarrhœa.

"Turners of wood suffer from the dust of the species just mentioned, but are not annoyed by that of common timber. The

removal of wood-dust would not, I conceive, be difficult. A current of air might be made to take it out of the building. See the plan suggested for the expulsion of flax dust.

"Masons inhale particles of sand and dust, which arise from chipping the stone. They often use great muscular exertion in lifting weights; they are exposed also to vicissitudes of the weather; they are addicted to intemperance. We promptly find the effects of these circumstances on their physical state. From their exertion in the open air, their face has colour, and the figure is muscular and robust: inhaling dust, the bronchial membrane is often in a state of chronic inflammation: dissipated in their habits, they become susceptible of atmospheric changes, and hence are frequently affected with pains in the limbs: finally, from the combination of these injurious agents, dust and dissipation, and the mutual reaction of morbid states thus induced, masons are short-lived, dying generally before they attain the age of 40."—p. 48.

III.—*An Introduction to the Study of Human Anatomy.* By James Paxton, Member of the Royal College of Surgeons, Author of the Notes and Illustrations of Paley's Natural Theology, with Illustrations. London, 1831, 8vo. pp. 414. Sherwood, Gilbert and Piper; and J. Vincent, Oxford.

This work contains a clear and concise demonstration of the human body, and embraces graphic and descriptive anatomy on the same page. The author's object is to furnish the student with sufficient directions for cultivating this branch of science in the shortest and most successful manner; and for this purpose, a correct drawing, and an exact description of the parts, are given on the same page. The work is ably executed, and affords the student the greatest facility in acquiring information on anatomy. It contains two hundred and eight drawings, all of which are most faithfully executed. It is a work of great utility to the medical student and all scientific persons, as it illustrates human anatomy with great accuracy and fidelity. It has a great sale, and it well deserves it. It is a beautiful specimen of typography; the wood-cuts are executed in a superior style; the descriptions are simple and scientific; and the work, upon the whole, is interesting to the general and medical reader.

IV.—*Introductory Lecture, delivered at the Hull General Infirmary, Nov.* 12, 1830. By JAMES ALDERSON, M.D. Fellow of the Royal College of Physicians, London, &c. Hull, 1831: Wilson.

IN this lecture the author gives a popular account of the physiology of the animal and vegetable kingdoms, and such as need not be inserted here, as it is familiar to our readers. He illustrates his positions by several well-executed wood cuts, and affords much interesting information to the general reader. He then concludes his lecture by making some excellent remarks on the ethics of our profession, which are well worthy of attention.

"I here conclude my brief outline of one of the branches of physiology, which I have entered upon only slightly, rather as a specimen of the fund of beauty and interest which may be drawn from a closer investigation, than to furnish you with an entire view of the subject, for which the space of many lectures would be insufficient. The young medical student will see, by this introductory sketch, that he is not entering into a dry and uninteresting course of study, but one replete with evidences of the most perfect design, and objects calculated at every step to call forth feelings of gratitude and admiration, and to impress his mind with the great truth, that the Creator of nature does all things wisely and for the best. So far we may rather consider his progress through this branch of study as a delightful recreation. In the pleasure attending his pursuit, he must not, however, lose sight of the object he has to attain, In the words of Locke, I may remind him that "the end of study is knowledge, and the end of knowledge practice or communication." It is not merely in the light of a profession, considered as a means of living, that the practice of medicine ought to be regarded, but as a happy means of benefiting his fellow creatures, of administering comfort, and of prolonging life. And in the long and laborious process of qualifying for the performance of its duties, there are many branches of tedious and difficult study to be encountered, many where doubt and obscurity might almost discourage him, had he a less important object in view.

"The value of medical science, even as a branch of general education, is strikingly set forth by one of our first moral philosophers, who, in speaking of the early studies of a still greater man, bears this testimony to its importance:—"No science," says Dugald Stewart, "could have been chosen more happily calculated than medicine, to prepare such a mind as that of Locke, for the prosecution of those speculations which have immortalized his name; the complicated, fugitive, and often equivocal phenomena of disease,

requiring in the observer a far greater portion of discriminating sagacity than those of physics, strictly so called; resembling, in this respect, much more nearly, the phenomena about which metaphysics, ethics and politics are conversant."

"The primary principle which influences the conduct of the upright medical man is, a desire to benefit his fellow-creatures by his profession; unremitting diligence to attain the utmost height of scientific truth and practical information, is the means by which he acquires power to pursue this purpose; and a careful cultivation of all the charities and courtesies of life enables him to give full value to his power of relieving, and to render his exertions not only salutary but soothing and gratifying. I believe that I have here comprehended all that comes under the head of Medical Ethics.

"Zeal, and activity, and an entire devotion of time and intellect may reasonably be required for a profession which is not to be easily learned, or carelessly practised. When we consider that one error may never be retrieved, and may involve the life of a patient, an awful responsibility presents itself, and we may perceive an imperative obligation to bring every energy we possess to bear upon the duties of our calling.

"There is no qualification more valuable to the medical man than the power of coming to a prompt and rapid, though not hurried, decision. In many cases, indecision is as dangerous as bad practice; for while hesitating about the course to be pursued, the time for acting with effect may pass, never to be regained. He should therefore cultivate a habit of concentrating his reasoning faculties and his store of acquired knowledge, so as to apply them as promptly as possible to the exigencies of the case before him.

"Obstinacy and prejudice are the attributes rather of a weak than of a vigorous intellect; and consequently the man who is most active in drawing from the resources he already possesses, will also be most ready to receive and work upon any new suggestion from others, which his candid judgment will acknowledge to be valuable. The quack and the half-learned are alone averse to receive information, whether it proceed from their own brethren or from others; and the plain good sense of the patient, and not unfrequently of the anxious and devoted friend who watches him, will sometimes suggest hints which the ablest physician may not disdain to improve.

"It is of the first importance to the medical man that, in his intercourse with society, he should preserve a character of unblemished purity. Moral obligations are in reality equally binding upon all, but to those in most other situations, the penalty of infringing them is comparatively remote, while to the medical man, reputation may be considered as a means of existence. He is placed in a situation of the utmost trust and confidence, and there is a peculiar delicacy attached to his character, which makes the breath of slander as dangerous to him as to the dearly-prized reputation of woman.

"Indulgence and excess are known to be detrimental to intellectual as well as to bodily strength—they not only draw largely

on the time which should belong to better things, but deprive the medical man of the power of always preserving that gentlemanly and appropriate demeanour which ought to distinguish him. He should always be at his post; always in a fit state to attend to the responsible duties of his station. There is a delicacy both of sentiment and of manner, which the sensualist never can preserve, and without which no man is fit to be admitted into the confidence of his patient.

"The medical man, whose darling object is popularity, and who seeks from the hands of the public the reward of his labours, will often be disappointed. With him, patience is a lesson which will have to be frequently studied; for the ignorance, the caprices, and the prejudices of society will all unite to destroy his equanimity. Every person conceives himself capable of giving an opinion on medical subjects, and of canvassing the merits of the practitioner; and as we are sometimes made indignant by ignorant and unjust censure, we are, at others, no less humbled by blind and misplaced eulogium. But I shall not dwell upon the trials of our profession. Though we have all difficult and distressing parts to act occasionally, we have also many delightful and gratifying circumstances attending the practice of our calling;—and, besides the happiness of being the means of restoring health and comfort, we have, in most cases, the satisfaction of meeting with the best feelings of kindness and gratitude.

"The last requisites that I shall mention are gentleness—benevolence—sympathy. In a sick room, rough and noisy manners are peculiarly inappropriate; mildness and tranquillity should alone presume to enter there. It has been asserted, though I hope unjustly, that constant familiarity with disease renders the medical man less alive than he would naturally be, to feelings of compassion; the contrary ought to be the case, When the spirits of the patient are weakened by disease and anxiety, the feelings are acutely sensible of the value of kindness and sympathy,—of

> "The graceful tear that streams from others' woe."
>
> AKENSIDE.

A manner which indicates benevolent concern for the sufferings of the patient, is sure not only to give consolation, but, by strengthening the physician's influence, to increase his power of being useful. Benevolence, like mercy, is "twice blessed,—it blesseth him that gives and him that takes;" and we may be thankful that we belong to a profession which affords such constant opportunities for its exercise.

"I here cannot refrain from giving you one more quotation, because it contains the most perfect, and I hope well-deserved, compliment to those already in the profession; and, at the same time, affords the strongest encouragement to those who are about to enter it.

" ' And here," says the elegant and moral author of De Vere, " let us not refuse to pay a tribute to this most amiable profession, which it deserves beyond all others; that it contributes (and indeed cannot be exercised in perfection without it) to the moral happiness as well as the bodily sanity of mankind. Other professions have their evident importance; and from requiring all the great virtues, are rewarded with wealth and honour. But none like this, winds itself into an intimacy with the secret heart of man, and thus obtains his confidence and acquires his love. Indeed it must be so, since half our diseases spring from mind; and the cure of these depends more upon benevolence, kindness, and discretion, than upon medicine itself. Hence we may, I think, observe, that while the distinguished in other professions are more outwardly honoured, the friend of the sick room is most personally loved.' "—p. 30.

V.—*Du Degré de Competence des Medecins dans les questions judicaires relatives aux Alienations Mentales, et des Theories Physiolgiques sur la Monomanie Homicide, etc.* Par ELIAS REGNAULT, Avocat a la Cour Royale de Paris. Paris and London, 1830, 8vo. pp. 361. J. B. Bailliere.

On the Competency of Physicians in Judiciary Questions, concerning Mental Alienation, and also the Physiological Theories on Homicidal Monomania, &c. By ELIAS REGNAULT, Advocate of the Royal Court at Paris, &c. &c.

THE author of this work is editor of the Journal Hebdomedaire, from which we have repeatedly made extracts during the last year. He adduces all the contradictory opinions of his countrymen on mania, and concludes that physicians know nothing of mania until delirium appears; and even then, that ordinary persons can form as accurate an opinion. He quotes M. Costa in support of this conclusion, who says, " any man of sound judgment is as competent as M. Pinel and M. Esquirol, and has, moreover, an advantage over them, being a stranger to all scientific prejudice. Unfortunately physicians have taken too seriously the civility of the courts; and, in examining questions submitted to them, they too often substitute the ambitious ignorance of the schools for the natural light of reason"—Journ. Univer. des sc, Med. t. xl. m. Juillet, 1826. " This passage," says our author, " full of force and truth, would dispense with my entering further into the question, if

several physicians had not believed that this concession attacked their right and skill. M. Georget, however, opposed this doctrine in very strong terms, and is in turn attacked by our author. "The sophistical reasoning," says the former, "of M. Costa will deceive no one, who will believe that a person who is perfectly acquainted with an object, is less capable than another, who has never seen it, of recognizing it, and of distinguishing it from those with which it may be confounded."—Arch. Gen. de Med. t. xxiii. M. Costa was also condemned by the profession in America as appears by our northern contemporary." — Amer. Med. and Sur. Journ. 1828. M. Regnault replies, that this is affirming what he ought to prove; but what is M. Costa's dictum—is it not the most gratuitous assertion which cannot be proved? Have not the most eminent medical jurists of all countries opposed it? Our author, however, is not dismayed, but proceeds to examine "if madness presents any special and particular symptom so distinct, that the physician can determine the existence of this disease when it is still concealed to every one else; for it is in this case only, that his presence is necessary in the courts. When madness is evident, we have no need of a savant, the physician is only needed when there is doubt, and he comes to dissipate it."

Our author, when he penned this passage, forgot that there was such a thing as *malingering*; and that all diseases, madness not excepted, may be so feigned that unprofessional persons may be readily deceived, and even medical men themselves.

He divides the symptoms of madness into classes. 1st. The disorders of the mind, of the thought, which constitutes *delirium* (DELIRE). 2d. The disorders which supervene on the *organic functions*, such as cerebral irritation, increased action of the heart, disorders of the alimentary canal, heat of the skin, &c. Of these two classes he leaves the last only to the doctors, because they alone can recognise it.

In regard to the symptoms of the first class, every man, even the least instructed, can discover them. Who cannot discover the disease of an unhappy peasant, who, in the insulation of misery, should discourse of his armies and courtiers, and who should count imaginary treasures on a mattress? So that every time that there is general or partial delirium, it is useless to have it declared by a physician, as every sensible man can discover it as well as himself.

We have now remaining the symptoms of the second class. If there is a single one which belongs exclusively or

especially to madness, so as to indicate it infallibly, then we must have recourse to the physician, who, as we have already observed, can alone recognise and judge the symptoms. I appeal to every physician of good faith. Let him tell me, if he dare, before the delirium has shewn itself, decide that madness exists because the pulse is *vibrating*; the tongue white or slightly yellowed, the skin dry, because there is present insomnia, head-ache, because the patient is losing his *embonpoint*, or in woman, suppression of the menstrua. Let him assemble all these symptoms, or let him isolate them, there is not a single one which does not accompany numerous other affections. So that the physician must wait before he can pronounce *his fiat*; and as soon as the delirium appears, we can discover as speedily as himself. Still more, not only are not these symptoms characteristic of madness, but they often do not accompany it; and their absence does not prevent the existence of the disease.

What need have we of physicians to discover the disorders of the mind? If madness is evident, every man can recognise it by its extravagance and by its fury. If there is a doubt, this doubt exists equally for the physician.

If the physicians could indicate to us the precise seat of madness, they would then claim with more justice the right of interfering in criminal cases, where doubt existed on the moral state of the accused. Let us examine rapidly the opinions given as to the nature and seat of madness. This will suffice for us to appreciate the point to which medical science has reached.

The humoral physicians, such as Galen, Boerhaave, Van Swieten, Stoll, (*les animistes*) with Stahl, Vanhelmont, have each raised their systems according to the ruling ideas; some in the bile, the blood *(the black bile, clots of blood from piles)*, or the mucous pituite; some in the soul, in the vis naturæ or archeus of Van Helmont, the vital principle or animal spirit.

Chrichton pretends that it is a disease of the nervous fluid. Pinel expresses himself thus: " the prelude of the invasion and of the return of the attacks of madness may be very various; but it seems that in general, the first seat of madness is in the stomach and intestines, and it is from this centre that is propagated, as by a kind of radiation, the disorder of the mind. M. Esquirol says, " sometimes the extremities of the nervous system, and of the seat of sensibility in different regions, sometimes the digestive

apparatus, sometimes the liver and its dependancies are the first seat of the mischief.

M. Foderé considers the vital principle as the seat of the disease; the blood he regards as the vehicle of this vital principle, and hence of madness.

M. Georget assures us that madness is an affection of the brain; acknowledging at the same time, that the nature of the organic lesion is unknown to us; finally, M. Voisin says that it is an affection proper to the brain.

Here are surely a sufficiency of contradictions to authorize us to repulse the especial competency of physicians. But two works which have appeared lately, confirm this opinion by the singular contrast they present. M. M. Bayle and Calmeil, after having studied the disease under the same masters, in the same places, and perhaps on the same patients, have published the result of their observations. They write on that kind of alienation which is preceded, accompanied or terminated by paralysis; and they have arrived at different conclusions.

M. Bayle—this alienation depends on chronic meningitis. M. Calmiel contends it is caused by encephalitis; according to M. B— the paralysis depends on the confusion exercised on the encephalon, at first by the injection of the pia mater and its sanguineous congestion, and afterwards by the secretion of serum, which takes place.

According to M. C. the paralysis depends on an especial disease of the brain; it is absolutely distinct from the paralysis, sanguineous congestion, or effusion, from acute ramollessement, or any other known alteration.

Bayle says, that the species of madness, of chronic meningitis, is the ambitious delirium, that is the first symptom; the second is the general or partial paralysis.

M. C. asserts that in the madness of palsy, it has not always the same form or character; in the greater part it presents the characters of ambition or noisy joy; but, in others, it offers that of grief, melancholy, and the most sombre thoughts. Finally, M. Guèrin de Mamers has published a treatise on mental alienation, in which, uniting metaphysics to physiology, attributes madness to the disorder of thought, followed speedily by disorder of the organ of thought; and it is only lately, that by the continuance of the madness, those profound lesions, which we discover on opening the bodies of lunatics, are formed. According to him, when we think there is an excitement of the brain when madness appears, a super-excitation; when the lesions are

formed irritation; this being the effect of madness, whilst all physicians have regarded it as the cause of the disease. Let us apply these reconciliations to other affections depending on madness. Many physicians have considered suicide as a variety of mental alienation; admitting for an instant that it is really a disease, I would ask the physicians, which organ is injured, since there is no disease without lesion of organs? It is evident M. Regnault is ignorant of the distinction between disorder and disease. Some will reply that its seat is in the abdomen, without fixing any thing precisely; others in the spleen; a third in the biliary organs. Betz attributes it to a bilious plethora. M. Falret thinks it has its seat only in the brain; M. Esquirol says, we must not expect one seat only for suicide, since this phenomenon is found in very opposite circumstances, and that it is more often secondary than idiopathic."

I could continue thus for each of the other species of alienation; hypochondriasis is to the person a disease of the abdomen; with another, a gastritis; with a third, a disease of the encephalon; for a fourth, a bilious plethora; Sydenham says it depends on an ataxia, or disorder of the animal spirits.

Stoll ascribes it to an increase of the irritability of nerves and muscles; and to a rarefaction of the mass of humours.

Hoffmann places its seat in the stomach and intestinal canal. From this diversity of opinion, our author determines that all is darkness, and that medical men are lost in conjecture.

Our author having determined that *le delire* is the only evident sign of madness, attacks first the name formerly given to monomania or partial madness, of madnes without delirium (manie sans délire), or the other name of reasoning madness (folie raisonnante). How can we form an idea of reasoning madness when madness is only the absence of reason?

"M. Esquirol," he says, "appears to have perceived the ridicule of this term, when he proposed the word monomania." This writer says the species of monomania take their name from the object *du delire*. Thus we say hypochondriacal monomania when the delirium has for object the health of the patient; religious monomania when the delirium is on religious subjects; erratic monomania for the amorous passions; suicidial or homicidal monomania, according to the ruling passions.

Thus M. Esquirol proceeds, although the first definition

refused delirium to the madness; and attributes all to delirium, or rather he *mistakes* delirium of the passions for that of madness.

According to this system, every weakness, every vice, every bad action will become *monomania.* Where then is the delire of a man, who pushing too far the fear of suffering, of disease, or of death, takes extreme care of his health, and views himself with continual precautions, and combats diseases which do not exist by anticipated remedies. "I see in this conduct that of a weak and pusillanimous spirit. In vain I seek for traces of madness." The Brachmans who passed entire days standing on one foot, in the burning sands, with eyes turned to heaven, were not madmen, but ignorant fanatics, who believed that they merited heaven by tortures. The excess of these sentiments may perhaps cause such a disturbance in the intellectual faculties, that madness may declare itself, but it will itself by other acts; it will proceed further than merely taking care of their health, &c.: it will shew itself in other acts, and very frequently the impression which caused it is lost, and the acts of extravagance are on entirely different subjects. We can then see no longer in them monomaniacs, since monomania is madness on one point. So that they are monomaniacs so long only as we have occasion to reproach them with pushing a taste or a passion too far. It may indeed happen, that this madness being on one idea only, seems to be exclusively occupied by that one idea; but M. Esquirol's definition is not more exact for that. Thus a man, given up to extreme devotion, owing to communicating with heaven in his thoughts continually, may imagine himself to be an angel, an aerial breath. His delirium will be no longer on religious objects, but on his own nature. His madness will no longer be a religious monomania.

M. Esquirol says that homicidal monomania occurs from a lesion of the will—une lésion de la volonte. Our author denies this, and says it is because the desire of destroying, overcomes the desire of obeying the laws. But, say they, the monomaniac has no interest in destroying his victim, it is an idea which governs him, a desire which draws him along. Is pecuniary interest then the first or the only interest? He who slays to have money, does it to satisfy his need or his passions. He, who slays for the pleasure of slaying, is satisfied immediately by his action: the enjoyment is direct.

The publication of the murder committed by Henriette Cornier, caused several other women to commit similar crimes. This power of imitation, says M. Esquirol, is a frequent cause of madness. This M. Regnault cannot allow. Every action which is beyond the ordinary, even crime, excites man to imitation, because he is the friend of the marvellous, in evil as well as in good, but this imitation is not madness. The aspect of a bold criminal inspires frequently more curiosity than horror, more respect than hate, sometimes even admiration, and this admiration is not far from imitation, which will speedily act on a weak mind, though it will only glide on a powerful spirit.

This influence of the extraordinary is so powerful, that in religious sects, those which speak most to the imagination, either by extravagant practices, or by torture, gain most proselytes. If Mahomet had not been epileptic he would not have acted so powerfully on the minds of his contemporaries. And the Quakers (Trembleurs) would be less numerous in England, if their religious ceremonies were not a *rite* of *inordinate motions, shrieks and convulsions.*

From these reasonings, our author will not admit even monomonia sans delire. As there is not delire, there is a knowledge of evil; if there be this knowledge, there is the power of choosing between the homicidal idea which draws him along, and that of duty which retains him—and this power is nothing else but liberty. He who placed between good and evil, can distinguish one from the other, and chooses the last, can find no excuse in the violence of the motive or the desire.

Our author allows of monomania avec delire, or with extravagance of word or deed, but not otherwise. Surely medical men need desire no more.

Georget reckons nostalgia monomania, on which our author exclaims, "a man, who, far from his native country, abandons himself to grief, shall be designated by the same name as a man who believes himself to be a cock." Evidently, all ought to be confusion in a science where such different manners of being are comprehended under the same denomination.

It would not be difficult to fix what monomania is. A man thinks he carries his valet de chambre in his elbow, and finds him a very inconvenient weight. Another thinks himself composed of ice, and dares not expose himself to heat, for fear of melting: yet they reason perfectly well on every

other subject. These are real monomaniacs—their madness is concentrated on a single point.

M. Regnault arrives at the following conclusions:—Physicians have improperly given the name monomania to excess of the passions. But there is no monomania without delirium. When there is knowledge there is liberty; liberty excludes madness. Homicidal monomonia can scarcely exist in nature; 1, where delirium consists in many erroneous ideas, and then it is not monomania; 2, where it consists of one idea anterior to murder, but this obviously depends on a pre-existing erroneous idea; the idea of homicide does not constitute the disease, it is only a symptom and a consequence; 3, when the dilirium manifests itself in the act of homicide, and was hidden previously.

The author again extracts from M. Urbain Costa, having previously written several pages to prove that suicide is a religious, not a *legal* crime.

M. Costa says, "suicide is often the effects of a disease." If it always be the effect of disease, it would be pleasing for society to think so, and most persons, deceived by their own love of life, bear this judgment.

M. Costa appears reviewing, or at *least* attacking M. Falret. He thus quotes him.

M. F. tells us that the word suicide does not regard those maniacs who destroy themselves intentionally, as well as without knowledge of what they do; those are only accidents from mental alienation, and he only recognizes suicide when there is a knowledge of the action, and that it is the result of the will.

This distinction (says M. C.) is, without doubt, well founded, but in spite of it, M. F. considers suicide as the effects of mental alienation; so that suicide from mental alienation is not the one of which he treats, and yet the suicide of which he speaks takes its origin from alienation. I know not, if he can easily prove, to save this apparent contradiction, that in the species of alienation which causes suicide, the will survives the reason. I think alienation and the will are two irreconcileable ideas. Certainly M. F. underrates the absence of all moral liberty, when he says, some maniacs destroy themselves without a conscience of their action, and without this action being the result of the operation of the will.

The faculties of a maniac obey a blind cause, as the muscles of one who is attacked by chorea, obey an irresistible impulse; *alienation is the chorea of the mind.*

From this reasoning, M. Costa thinks he has reason to propose the following dilemma to M. Falret:—

Either your suicide is the effect of disease, and in consequence an effect as necessary as fever, or else it is voluntary, and constitutes as such an act of liberty. But you cannot sustain that your suicide is at once the result of alienation, that is to say, of the alienation of the will itself, and also the result of the will.

In case of hallucination of one or more senses, the will is deceived by false motives, but it is not less free, and it is not the will itself which suffers. Pascal did not become mad after his accident at the Bridge de Neuilly; but he thought he beheld continually an abyss open at his side. If Pascal had preferred a voluntary death to the torture of such a life, could we have said that his suicide was the catastrophe of alienation, of a disease? Would he not have immolated himself for certain motives, and after deliberation?

The hallucination of these senses is then completely distinct from the alienation of the mind, although it may induce this alienation.

The most reasonable and most tranquil man may feel a desire, I might say almost the necessity, of ending with the evils of life—such a thought may occupy his mind for a long time, without his being mad. This idea of suicide is not less familiar with madness; but there is this difference, the madman is sick, a being who dreams in a state of waking, and immolates himself to his visions. Suicide is then most frequently a free act of notions, which however, does not prevent its being frequently also an act of madness, and that the penchant to suicide may not be frequently the ruling idea of a madman. I content myself with observing, that when there is knowledge of the action, and this action is the result of the will, it is no longer, it can be no longer the phenomenon of disease, the effect of a physical and necessary force.

M. Regnault agrees perfectly with M. C. and proceeds that a man, who kills another, in order to die by the hands of the executioner, deserves his death doubly—much more so than any other murderer, as it requires some courage to destroy life for a few crowns, or for the love of vengence, having the scaffold before his eyes, while the other is doubly a coward, for, not daring to face death, he arrives by tortuous paths and strikes another, because he dare not strike himself: he fears to live, and dare not die.

V.—*Prevalence of Dysentery in Scotland.* From the Glasgow Medical Journal, Feb. 1831.

THOUGH much has been written on the etiology of dysentery and cholera, it must be admitted that the conclusions arrived at by the profession are far from being satisfactory; and therefore we are induced to reprint the following interesting article from the pen of Dr. Buchanan, one of the editors of our esteemed contemporary. We regret that want of space prevents us from inserting the whole essay.

"We regard dysentery, cholera, and the numerous varieties of intermittent and remittent fever, many of them frequently verging into the continued type, as diseases belonging to one great family, being the products of the same morbific agent, variously modified by the circumstances we are about to indicate. The same evidence by which we infer any one of those diseases to be occasioned by exhalations from the soil, is alike applicable to all of them. As they come on and again subside at certain fixed periods in the course of the year, it is clear that they are connected, in some way or other, with the vicissitude of the seasons. The first idea which this coincidence naturally suggests, is, that the diseases in question are the effect of the peculiar physical states of the atmosphere, which follow with more or less regularity in the train of the seasons. The probability of this opinion with respect to dysentery, we have already discussed, and we need only further say, that our objections to it are tenfold greater when it is brought forward to explain the origin of the whole diseases mentioned above. Considering, therefore, the physical states of the atmosphere as only of secondary importance, we turn our attention to the revolutions in the vegetable kingdom, which accompany the seasons with still more invariable certainty. As regularly as the spring returns, the principles of vegetable life are awakened from their torpor and rise into activity; as the year advances the process of vegetation goes on till it is completed by the maturation of the seed destined to perpetuate the species; vegetable life is then again suspended, and the herbage and foliage, the products of the completed year, are resolved by the reaction of their own elements into the soil from which they sprung. Now, it is the last part of this series of events that demands our particular attention —the spontaneous decomposition of vegetable substances. By this process of decomposition, to which chemists have applied the name of *putrefactive fermentation*, the more fixed parts of the substance decomposed are converted into vegetable mould, while those of a volatile kind are diffused through the atmosphere, constituting what physicians have named *miasmata*, and have in almost every age, although with views more or less distinct, regarded as the causes ef epidemic disease.

"Like every other fermentative process, that of which we here speak is regulated by the nature of the substances decomposed, and by the degrees of heat and moisture under the influence of which it is carried on. According to these circumstances, the volatile products differ in nature, just as spirits and vinegar differ, although produced by processes that are perfectly analogous, and only modified by circumstances which we have learned by experience to adjust, and can thus regulate the products at pleasure. It is true, that the difference of the volatile products here in question is not equally palpable. We are not only unable to discriminate them by chemical tests, but we are even unable to demonstrate by such tests the existence of any one of them. It unfortunately happens that the delicate organization of the human body is the only reagent which we yet know of sufficient nicety to be capable of being affected by these subtle exhalations, and thus detecting and discriminating them. It was by the observation of certain effects on the body, and the application of the general reasoning employed above, that physicians were first led to recognise the existence of such invisible morbific agents.

"Now, if that reasoning be admitted as legitimate, the diversity of the observed effects must in like manner be admitted to prove a difference in the nature of those agents. The diseases which physicians believe to be engendered by exhalations from the soil being infinitely diversified in character, that difference can only be attributed to a corresponding difference in the causes from which they flow.

"If the principles just stated be admitted as correct, and we believe few physicians of the present day will be disposed to contest them, it is easy to deduce an explanation of many of the laws by which this interesting class of diseases is regulated. It will be easily understood, for instance, how every different climate and country, and frequently even different districts of the same country, should be infested with diseases differing in kind, or at least marked by a peculiar physiognomy. In such cases we have a difference in the nature of the soil, or of the vegetation, or of both: and what is still more important, the degrees of heat and moisture are different, under which the process of decomposition is carried on. In such different circumstances, different morbific exhalations are evolved, and there is necessarily a corresponding diversity in the diseases which they engender. Perhaps of all such morbific exhalations, those inducing dysentery are the most generally diffused and the least apt to vary, the disease being the common scourge of every quarter of the world, varying rather in degree of severity than in more essential characters. The range of cholera is also extensive, but there is less uniformity in the nature of its exciting causes, as we are entitled to infer from the greater diversity of the aspects which it assumes. The exhalations inducing fever are most apt to vary. Widely diffused over the globe, they differ in almost every region where their influence is observed. Hence the great diversity of character in the disease which they excite —mild, intermittent, and protracted, among the fens of Lincoln— remittent and continued in its course, and more violent in its symp-

toms, in Holland and Italy—still more rapid and intractable along the shores of Africa, at Batavia, and the mouths of the Ganges—and attaining its maximum of virulence and destructiveness in the yellow fever of the West Indies and America.

" The same principles serve also to explain, how in a country subject to the visitation of this class of diseases, they should vary in character at different periods of the same year. The dryness of the atmosphere and intense heat at the end of summer, invaribly generate the poison of cholera. The presence of moisture in the atmosphere seems essentially necessary to the generation of the poison of dysentery, and hence that disease generally begins to prevail when cholera is on the decline, after rain has fallen, or after the commencement of the wet season in countries subject to periodical rains. During the winter, the process of decomposition is suspended: it recommences, however, in the spring, and continues during the summer, and being now carried on under different circumstances, the diseases generated differ in character from those that prevailed in the fall of the preceding year, as in the well known instance of the vernal and autumnal intermittents. It is exceedingly difficult to determine, how long the decomposing vegetable matter retains the power of generating noxious exhalations. It is well known, that, in warm countries, the vegetable mould itself is far from being innoxious, and that, in consequence, the turning up of the soil is one of the most dangerous of all employments. Among ourselves, again, from the less degree of heat, such exhalations are unknown, and the profession of a husbandman is looked upon as highly salubrious.

" We come, now, to a subject more intimately connected with our present inquiry. The principles here assumed serve to explain, how the diseases occurring in any particular country, although they preserve for the most part a unity of character corresponding to the more usual qualities of the climate, should nevertheless vary, more or less, according as particular seasons, remarkable for the predominance of heat, moisture, or other physical states of the atmosphere, may impress a corresponding peculiarity of character upon the vegetation of the country, and upon the process of vegetable decomposition. Such deviations from the usual course of disease are observed in all countries: diseases of an unusual kind taking the place of those more generally prevalent. It is thus that the yellow fever is observed, from time to time, in the place of the bilious remittents of Spain, and that dysentery, in our own country, takes the place of the more usual autumnal affections. The diseases, that thus spring up unexpectedly, are regarded, as anomalous, by persons ignorant of the history of the country, where they appear. It will, however, be generally found, on investigation, that they have had their antetypes, at periods more or less remote, and, most probably, that they return at certain intervals, according to the usual rotation of the seasons. The reality of this *rotation of the seasons* has been long believed in by practical meteorologists. Their observations have not

indeed afforded results so certain as to be subject of calculation, but they are generally admitted to be founded in fact, and if so, there must also be a corresponding *rotation of diseases*. This idea was suggested by Sydenham, who professes himself, however, unable to determine its accuracy. "Haud equidem satis scio, an diligentius examen (quali rite instituendo vix unius hominis brevis ætas par esse videatur) nos edoceret, epidemicorum alios continui quâdam serie, ceu facto circulo, alios semper excipere." It may appear presumptuous in us to offer any opinion as to a point, which this greatest of all medical philosophers, upon a field of discussion pre-eminently his own, has left undecided; we do, however, think it probable, that the reality of the rotation of diseases suggested by Sydenham, would be established by observations continued during a long series of years, in a country not at the time undergoing any remarkable physical revoulution."—p. 12.

"From the same considerations, which lead us to believe that any disease which has once appeared will return at some period more or less remote, if the face of the country undergo no remarkable change, we infer, also, that no disease, belonging to this family, will appear, which is totally new, and unheard of at any preceding period. We must, therefore, beg to express our dissent from the opinion, lately promulgated by the learned gentlemen of the Medical Society of Westminster, that there is reason to expect we are, in this country, to receive a visit from the Indian cholera, which, after having travelled over land from Hindostan, is now approaching the shores of the Baltic. Such a disease was never heard of in these kingdoms, and if we may trust to the constancy of nature, there is no reason to apprehend so terrible a visitation. We believe cholera to be no new disease in the countries where it now prevails. It was at first described as altogether new even in India, but more accurate researches have shown that opinion to be erroneous, and we have no doubt, similar researches, if there are documents on which to found them, will establish that the disease has also prevailed, at former periods, in all the countries, which have been the theatre of its late devastations. We extract, from the Scottish Register, an account of the disease, as it occurred at Astrachan, from which our readers will perceive, that this is not the first occasion on which it has visited the shores of the Caspian. We believe the Indian cholera, like every other disease depending on exhalations from the soil, to have fixed limits, which it will not pass. Whatever diseases have prevailed at any former period, in this country, we believe may return. That the livid face of plague may be again seen in the land, we hold to be perfectly possible, and if from the ravages of war, or any other cause, the country were to relapse into its primitive state of rudeness, we should look upon that event as reasonably to be expected; but that we are to be visited by the Indian cholera, we entertain no apprehension, as we consider such an opinion to be inconsistent with the observed analogy of nature in our western hemisphere.

ORIGINAL COMMUNICATIONS.

I.—Dr. Malins's *Introductory Lecture.*

(Concluded from page 328.*)*

The last and greatest Arabian author is Albucasis, a distinguished practitioner, who lived in the eleventh or twelfth century. He has particularly described and illustrated by figures numerous obstetric instruments for every imaginable purpose. The most interesting of these are two kinds of forceps, about which, from their being differently represented in different editions of his works, a discrepancy of opinion exists. They are called *misdach* and *almisdach*, and according to some are both of a circular shape and filled with teeth, while others say the *misdach* is straight and armed with teeth, but that the *almisdach* is circular, and calculated to extract without injuring the fœtal head. The former opinion is the better supported, and therefore the more probable, and successfully impugns the notion that the Arabians were acquainted with any instruments designed to bring living children into the world.

From the greater strictness with which the oriental nations have ever preserved their women, it is probable that the Arabian accoucheurs were allowed to interfere still less frequently than those of Greece and Rome, in the management of parturition. It would seem that they only gave counsels and directions, and that females, to whom all the precepts contained in their works are addressed, always officiated manually. And this exclusion was not limited to the obstetric branch of surgery—it extended to all the operations connected with the sexual apparatus, and hence Albucasis notes, that one of the greatest obstacles to the success of lithotomy in the female, is the difficulty of finding a *medical woman*, who is competent to perform it. When such is the case, he says that a chaste and prudent medical man should be procured, in whose presence, and by whose directions, the incisions should be made. Surgery in general was held in discredit and contempt by the Arabians, and the operations were left to be performed by slaves, so that a kind of dishonour attached to its exercise—a mis-estimation of which Rhazes in particular bitterly and justly complains.

Though during the period that elapsed from the fall of the western empire to the revival of letters in Europe, the progress of human cultivation was impaired, and knowledge stood still, the communications of the Saracens with the northern shores of the Mediterranean, and their conquests in Spain, could not fail to disseminate what little information they possessed. The Arabian doctrines of medicine were taught in those schools which then existed, and some glimmerings of knowledge were occasionally discernible in the midst

of the general obscurity which overspread the earth. The chief of these colleges was that of Salernum, in the south of Italy, founded by Charlemagne, about the year 802, but no writing on midwifery emanated from its precincts at all deserving of notice, excepting a book, "De Arte Obstetricia," by a celebrated female, Trotula, who lived some time in the thirteenth century. A book on the diseases of women, dedicated by its author, Priscian, to an eminent midwife named Salviana, appeared in the eighth century, and these two are the only works relating to our subject, which appeared in Europe during the middle ages. From them, in combination with the circumstance recorded by Marcellinus, that an empress once bribed a midwife to slay, by some negative means, the child of a detested rival, we infer that females, during the dismal period referred to, were, as in former times, the principal obstetric practitioners.

On the capture of Constantinople, and the extinction of the eastern empire by the Turks in 1453, learning took its flight back into Europe—the ancient manuscripts were conveyed to their original birth-places, and from the discovery about the same time of the art of printing, a new impulse was given to the minds of men, and facilities were afforded for the acquisition and spread of information, which operated favourably on every branch of knowledge, and on none more than the manual division of the medical art. Like authors on every other subject, these on midwifery now began to increase and multiply, and are so numerous from that period to the present, that it will be possible only to mention the most distinguished—those who by their talents or discoveries, or some peculiarity of circumstance, have an especial claim to be noticed in this sketch of the history of the art.

It was at this early period that, according to the authority of Haller, the Cæsarian operation was first and successfully performed since its reputed origination; but there are no details given by which to judge of the accuracy or inaccuracy of the report.

Ambrose Paré was born in 1509, and is to be considered one of the first and greatest improvers of the practice of midwifery. He taught that the head presentation alone was natural, and that in every other case the child, after being when necessary turned, should be brought into the world by the feet. The credit, however, of being the first to lay down this valuable precept belongs to Pietro Trauco, the original proposer of the high operation for stone, who distinctly indicates its propriety in all cases of transverse presentation. In many respects the practice of Paré was not different to that recommended by the ancients, whose errors he either had not sufficient discernment to detect, or what is more likely, sufficient courage to expose; for at the time he wrote the prevalent notions, which, like error in general, were adhered to with a tenacity proportioned to their absurdity, were those of Hippocrates and Galen. Even the judicious, but imperfect modifications of practice proposed by Celsus and Moschion were, it is probable, but little attended to, since, in the work of Eucharius Rhodion, published at Frankfort, in

1548, it is stated that when the feet present, attempts should always be made to bring down the head in the natural position, and what is still worse and more gross, this natural position is affirmed to be with the face of the child towards the ossa pubis and abdomen of the mother. The work of Rhodion is otherwise remarkable, as it afforded materials for the first book published in the English language on midwifery, which was by Dr. Raynalde, in the year 1565. He translated from the Latin copy, but informs us that the original of Rhodion was written in Dutch, and had been besides converted into French and Spanish, from which it would appear that it was a book in considerable repute, notwithstanding its disfigurement by the dangerous absurdities before mentioned. In the latter part of the sixteenth century, much discussion was excited in France by the publication of the work of Rousset, on the operation then for the first time called Cæsarean. Rousset advocates its performance in an ingenious and scientific manner, and relates many cases where it succeeded, but the weight of authority was opposed to him and Paré. Guillemeau, and at a later period, Mauriceau hesitated, from experience of its fatality, to sanction its recommendation.

Guillemeau was born in 1560, and was a disciple of Paré, whose erroneous views he rejected, and whose improvements he adopted, extended, and confirmed. Thus, he directs turning to be performed where there is profuse uterine hæmorrhage, though the labour is natural as far as the infant is concerned, and also when convulsions supervene. Guillemeau was strongly averse to using the crotchet before the death of the fœtus, and was a no less sound than conscientious practitioner; but he seems to have been endued with fastidious delicacy, in wishing to confine the practice of midwifery as much as possible to the *sage femmes*.

The name of the distinguished practitioner in midwifery, which occurs next in the progress of our descent towards the present time, ought never to be pronounced without the profoundest veneration—nor by an Englishman without feelings of pride: it is that of Harvey, who lived, and lived for so many noble purposes, during the first half of the seventeenth century. Of his peculiar opinions on points connected with our present subject, the most singular relates to the cause of parturition. During the whole course of gestation he considers the fœtus to be continually swimming about in the liquor amnii, which at the end of the ninth month, is supposed to acquire some vicious irritating quality, urging and stimulating it to escape from the contact, and compelling it at length to quit its tenement and seek some other abode. It is this attempt at departure, and the resulting movements of progression, which constitute the process of labour. If the fœtus were not an active agent, how, he asks, could it be born during a fit of coma or hysteria, or, as it is sometimes known to be, after the death of the mother? The position is supported by reference to the analogy offered by the young of birds, who break the shells in which they are confined with their beaks, and to the tediousness of those labours in which the infant is

expelled dead. In the latter instance, however, cause and effect are confounded, for the death of the child rather results from, than produces, the unnatural duration of the process. Harvey believed likewise that super-fœtation was possible, and that utero-gestation might be protracted beyond the term of nine months; and is the first medical man of distinction who practised midwifery in this country.

Between 1650 and 1700, lived several eminent accoucheurs, both at home and abroad. In France, Mauriceau, Clement and Peu were the principal.

Mauriceau's writings were fuller than any which had previously appeared, especially on the diseases of females, and contain many excellent suggestions and observations. He invented an instrument to extract the head of the fœtus after it had been opened and emptied, called a "tire-tête," but was ignorant of the forceps. He erred too, in denouncing the Cæsarean operation as an inevitably fatal one, but on the whole is to be deemed an illustrious master in the obstetric art.

Clément was employed secretly to attend the mistresses of Louis the Fourteenth in their accouchemens; to the first of which he was conducted blind-fold, while the king was concealed among the bed curtains, and the face of the lady enveloped in a net-work of lace. The circumstance of these ladies employing Clément, principally contributed to bring male practitioners into fashion—the court hastened to imitate the examples of those who presided over it—the rest of the nobility and gentry were swayed by a practice that came so powerfully recommended to them, and the bourgeois or citizens could be but too happy in adopting or humbly copying any of the usages of their betters. The name of *Accoucheur* was now invented to designate this class of practitioners, whom it became so universally the mode to employ. The contagion of the example soon spread into neighbouring countries, and the custom, however whimsical or trifling in its origin, or resisted and opposed in its progress, is now generally established, conferring, beyond all doubt, great and daily benefits on the community.

Peu, who comes last in order of the French practitioners of the 17th century, is notable for his aversion to too frequent digital interference during parturition—for his opposition to obstetric operations in general, and for his just discrimination of spurious from real uterine pains.

In England during the latter half of the 17th century, the most famous and successful obstetricians were the Chamberlins, father and three sons, who enjoyed very extensive practice in London, from being in possession of a secret method of expediting delivery in difficult cases, which afterwards turned out to be the forceps. One of the brothers translated Mauriceau's work, and in a note appended to the latter's description of his "tire-tete," declares that his family possessed a better contrivance for the purpose of supplying the suspension of the natural efforts in the expulsion of the head, but what this was, remained unknown till Chapman described the forceps

in 1733. Dr. Denman thought their instrument rather a lever than the forceps; but the discovery of the original models about fifteen years since, in a chest concealed beneath the floor of a closet in a mansion were Chamberlin resided in Essex, has shown his supposition to be incorrect. It may be remarked that male practitioners were employed as early in England as in France, and that therefore the usage did not come to us recommended as a foreign novelty, as has been observed in ridicule and depreciation. The introduction of French manners and customs in his court, by Charles the second, in consequence of a partiality derived from long residence on the continent, may have had some influence in causing its adoption; but a more efficient reason must be assigned in the extension of luxury and the progress of refinement and intelligence, which, by rendering females more sensible and susceptible of the precarious and hazardous condition, in which parturition and its sequences place them, would render them at the same time naturally desirous of securing such assistance as would be competent to avert or remove danger.

The other British authors and practitioners who figured during the epoch under consideration were Culpepper, who published a "Directory for Midwives;" Woolveridge, the title alone of whose work I have been able to find, which is "Specalum Matricis Libernicum;" a Dr. Salmon, who had a share in the composition of the infamous work now so generally known and circulated among the lower order as Aristotle's: Willoughby, one of whose customs was to affect to liberate an impacted foetal head, by pressing outwards the os coccygis and manœuvring with two fingers on the back of the pelvis; Thomson; and Jerman, physician to Charles the second.

The chief practitioner of this period on the continent, not French, was the celebrated Dutch anatomist, Ruysch, who expresses himself severely on the conduct of those midwives who precipitately extracted the placenta. He advises that its expulsion should almost always be left to nature.

In briefly mentioning the authors on midwifery after the periods already considered, I will confine myself still more closely to the distinguished among them, rejecting those of ordinary eminence, in order that the tediousness of the recital may be as much as possible diminished.

In 1701, appeared at Leyden, the work of Deventer, exhibiting, as its title page informs us, "a new light to midwives." However that may be, he has so admirably described the causes, consequences, and means of remedying obliquities in the position of the uterus, of which he has likewise given numerous plates, that although allusions to such pathological states are scattered in the writings of the ancient authors, he is come to be considered the earliest as well as best authority on the subject, and that in despite of the sneers of the experienced Smellie.

Lamotte was a French country practitioner of great modesty and excellent judgment, who was largely engaged in midwifery practice during forty years, and published in 1718. He turned in difficult

cases of head presentation when practicable, and so averse was he to the use of instruments, that for thirty years he had recourse to the crotchet but twice. Of the existence of the forceps he does not seem to have been aware.

A new, and since generally adopted method of exerting compression on the uterus, when it refuses to contract, and there is hæmorrhage after delivery, was contained in a pamphlet published in 1722 (but never extensively known), by Dassé, a surgeon-accoucheur of Paris. The method alluded to consists in rolling the abdominal parietes with a due degree of force, in different directions over the uterine surface, so as to bring all the fibres under the stimulus of the pressure.

The first teacher of midwifery in this country lectured in Bond-street, and was a Dr. Maubray, who lived about the year 1723, and wrote two books, both of which were plentifully and justly abused by the critics of the day. He opposed the use of the forceps, and wished to rectify all malpresentations and accelerate all lingering cases solely by manual means.

De Gorter, who wrote in 1731, deserves notice, as having particularly insisted on the necessity of sufficiently and uniformly supporting the abdomen after the expulsion of the child. He invented and described an under garment proper for the purpose.

The second British teacher of midwifery was Chapman, whose observations were published in 1735. He is the first who depicted and presented to the public the short forceps invented by Chamberlin, and was very partial to their employment, though aware of their inapplicability when the head is situated high in the pelvis. He exclaims strongly and in unmeasured terms against the crotchet, by which many children were, according to his knowledge, murdered. Haller says of Chapman, that he was "vir bonus, candidus, qui neque nimis sibi tribuit."

A Mr. Giffard, whose cases in midwifery were about this time given to the world by Dr. Hody, had been in the habit of using forceps before the invention of Chamberlin was publicly promulgated, and if we do not suppose that he obtained private information of its nature, a point to the unravelling of which no clue exists, he must participate in the honor of having been among the first to devise and apply that description of instrument.

Sir Fielding Oulde, of Dublin, gave, in 1742, the first description of the mode of passage of the child's head through the pelvis, and was inventor of a perforating instrument called "terrebra occulta," the disqualifying qualities of which are smallness and weakness.

In 1747, a Dutch surgeon-accoucheur communicated to the profession the account of an instrument very famed in Holland, which had been secretly used, and never divulged by its inventor, Roonhuysen. It had however long been in the hands of some other practitioners, though it was known, even after its publication, by the name of "the Roonhuysian secret." This instrument was a simple lever, though of very different construction and dimensions to that now in use.

Levret, who is perhaps the greatest French obstetrician, wrote about this time. He illustrated in a scientific manner the mechanism of parturition, gave ample details on every thing relating to the placenta, the implantation of which over or near the os uteri he was the first to teach, would inevitably produce hæmorrhage, described and distinguished uterine polypi, and invented the long forceps, and other less useful instruments. He is a prolix though valuable writer, and was continually engaged in controversy and dispute.

Röderer, professor of medicine at Gottingen, published the first of numerous obstetric works in 1750. We are indebted to him for a series of good plates of the gravid uterus, and for confirmation of many points of practice of previous doubtful propriety, but he is to be condemned for too great a partiality to the use of instruments, and it is singular, that after all his labours and researches, he should have arrived at the conclusion that the ligature of the umbilical cord was not a necessary measure.

An important era in the history of midwifery is that of Smellie, who joined to very extensive experience, in his time a rare event, an eminent degree of sagacity and solidity of understanding, rare at all times. The first volume of his work was published in 1751, when he had been many years in practice, both in Scotland and London, and, as he himself informs us, had had more than nine hundred pupils to his lectures, exclusive of females. But he does not mention what Dr. Douglas opprobriously charged him with—the crime of suspending a paper lantern over his door, having legibly inscribed upon it this announcement, "Midwifery taught here for five shillings." Smellie's chief merit consists in his having applied the laws of mechanics to the relation between the osseous excavation of the pelvis and the form and mode of passage of the fœtal head. From considerations of this kind he deduced improved and safer rules for the application and use of the forceps, which before his time were attached in any way that was possible or most convenient to the operator, and then used forcibly and quite at random. He considerably modified the form and dimensions of Chapman's forceps, and brought them very near to the common straight short forceps of the present day; and likewise altered advantageously the perforating scissors used in craniotomy, by giving them a projecting rest, calculated to limit the extent of their introduction. The plates he published have served as models for all that have appeared since, either in this or foreign countries.

Contemporary with Smellie was Dr. Burton of York, the original of Sterne's Dr. Slop. He was a skilful accoucheur, tainted with the foible common to many of his predecessors as well as successors, of being too fond of employing instruments. Besides a treatise on midwifery, Burton published a virulent letter, criticising and condemning most of Smellie's opinions and directions, which was answered by Dr. Watt, in his "Reflections on Slow and Painful Labours." It is worth remarking of this latter publication, that the cause of tedious labour is held to be want of irritation in

the orifice of the uterus—an idea that in our own times has been assumed as original and propounded so ostentatiously by Dr. Power.

Smellie's opponents were not limited to his medical brethren, for, in 1760, a most violent diatribe against him and all other accoucheurs, was issued by a Mrs. Nicol, the follies and impertinencies of which proved a complete antidote to the effect intended to be produced; and though at the time the book was extolled as prodigiously clever, and was translated into French, it is now unheard of, and unknown.

As the practice of midwifery since the time of Smellie, has been principally in the hands of the medical profession, writings on it after this date, become more numerous and frequent. To enumerate these, would be a tiresome task; but to indicate the new suggestions they contain, to point out their merits and defects, and to give even the succinct account of them that has been presented, of the older writers on the art, of those who assisted it in its infancy, and laboured by their assiduity, and from their conviction of its importance to the good of mankind, to enlarge its narrow boundaries, and extend the sphere of its operations and benefits, when these were circumscribed by prejudice and ignorance, and restricted by a spurious and even cruel moral code; to lay before you, gentlemen, equally brief particulars of the improvements of more recent and living authors, would be, as well as an unwarrantable trespass on your patience and time, to exceed the limits of my present design, whose object has been to trace the steps by which midwifery has risen from a neglected, to the state of a cultivated art, and has emerged from a degraded to the level of an ennobling, because an inestimably useful pursuit. Having brought the account of it down to the period of its admission among the legitimate objects of preliminary pursuit, and of its practice having become to many members of the profession an affair of primary attention and care, I am not solicitous to continue its history up to the present moment. A reference, however, to the existing condition, and some of the more recent triumphs of the art, and a slight demonstration of its dignity and utility, will be neither superfluous nor misplaced.

Passing, then, over the names of the illustrious and judicious William Hunter, of whose discernment and industry we possess such splendid relics; of the sophistical and ingenious, but misjudging Osborne; of the benevolent, candid, and cautious Denman; of Rigby, whom fruitful experience and well-directed labour enabled to worthily fill up an important void in obstetric literature; and lastly, of the morbidly sensitive and eminently intellectual Gooch, whose premature loss science must ever deplore; passing over, I say, this array of bright and honoured names, and arriving in the midst of the living, coming to consider the art as it actually is known and taught, what is the spectacle this branch of medical science exhibits? What are its claims on the philanthropist's applause, the legislature's protection, the possession of public esteem? It may be unhesitatingly affirmed,

that he who is merely a well-wisher to the progress of human improvement, will be as gratified and delighted as the cultivator of science, when he looks around him and contemplates, though cursorily, the approaches to perfection which it has attained; and that on every rightly constituted mind, it has as powerful claims for regard, and as just a title to consideration, as it has on legislative and corporate bodies for fostering and support. Connected, as a discharge of its duties is, with the most sacred earthly interests of society, and the nearest ties of domestic attachment, can there be a doubt that its cultivation should be recommended, urged, nay enforced? And yet so far from this having been the case, it is well known, that until within a few months previous to the urgent remonstrances and forcible representations of the obstetric society formed in London, none of the corporate medical bodies of this kingdom exacted any knowledge of its principles from their candidates. While, in other countries, no person, either male or female, can undertake the practice of midwifery without examination and licence, in this there is no law or restriction to prevent the most ignorant from assuming it. Two of the chartered institutions of the metropolis do certainly now require certificates, but to this equivocal demand the guarantees to society, that unqualified and improper persons shall not be let loose upon them are limited; no inquiry into the proficiency of the candidate is instituted, and the consequence is, that the study, not being compulsory, is too often either totally neglected, or but very carelessly and indifferently pursued. When so lamentable a state of things is considered; and that it is lamentable, must surely force itself on the conviction of any one who looks at the question without bias or prejudice, and examines it solely on the broad principle of general utility and public expediency; it is almost impossible to suppress our rising feelings of indignation at the supine conduct of those privileged and dignified bodies, who have been entrusted with so much power, but have exerted their control to the effecting only of such partial good. But I must request your excuse, gentlemen, of this digression, while I intreat you to allow the importance of the subject to justify the irrelevancy of its introduction in this place.

The existing condition of midwifery in this country, was about to be glanced at. The achievements of modern obstetricians have unquestionably been rather of a negative than a positive kind, but they are not on that account the less worthy of admiration, the less indicative of ability, or the less momentous to the welfare of the community. To remove the accumulated rubbish of ages, flanked and fortified by hereditary and almost intuitive prejudices, and by clearing it away, to reduce the practice of an art to clear and definite rules, requires no ordinary merit and no common capacity. The efforts and labours of most of the professors of midwifery, during the last half century, have been directed to the simplification of its practice; to the abolition of absurd and pernicious customs; and to the diminution of necessity for instrumental aid. They have comprehended

nature, whose intentions, when salutary and beneficial, the older practitioners did but too frequently thwart and oppose; they have inculcated that knowledge, and by precept as well as example, recommended a close study of the natural operations, injudiciously disregarded, because they *were* natural and simple, not only as the surest means of understanding and appreciating deviations from them, but also as affording the best lessons against that officiousness and meddlesome intrusion, which are so often practised, and as generally resented by some untoward and harassing occurrence. If, as is universally agreed upon among the reflecting and honest, the production of reform in other sciences and on other subjects, involves numerous points of difficult and delicate consideration, and requires to be approached on the one hand without rashness or presumption, and on the other, with uncompromising vigour and resolution; why should the merit of having effected a salutary change in the practice of midwifery be depreciated? Why should the honour of having judiciously rejected, cautiously but decidedly deviated, not unsparingly nor yet unreasonably condemned, be denied to the teachers of its doctrines and rules? It would be neither invidious with respect to others, nor adulatory with respect to the individual, to assert that the precepts of the eminent professor of midwifery in the University of Edinburgh, have contributed in an especial degree to induce this revolution. That patriarchal practitioner has most certainly exerted an important influence by means of his admirable prælections on the modes of practice throughout the empire, and has assisted, not in a secondary manner, in maintaining the lustre and upholding the high character of the renowned institution to which he belongs.

The sound opinions, the results of mature reflection and personal observation, which characterize the writings of professor Burns, are to be estimated in a no less valuable light, as bearing the impress of that diligence in observing, and care in weighing facts, and that sobriety in forming deductions from them, which every disciple of our art should study, assiduously and unceasingly to imitate.

Nor should the quaint and plain-spoken Dewees be forgotten, in an enumeration of living men of eminence. The vein of strong original good sense which runs through his works, and the independent, unprejudiced spirit of observation which has dictated his effusions, and guided his pen, render his works prominent and honorable specimens of the improved state of practice which now prevails.

But let it not be inferred, that the results of the zealous labours and active ingenuity of modern practitioners, have induced none but negative improvements; for the reverse obtains, and the fact is far otherwise. Physiology and surgery have shed two of the most brilliant rays on obstetric subjects, and have supplied, from their fertile and constantly enlarging sources, remedial means which it has been the office of the obstetrician to apply successfully to the alleviation of human suffering and distress. Through the assistance of one, by which I would allude to the revived operation of transfusion, effects the most marvellous and gladdening have been produced. By its aid,

the tottering and flickering spark of vitality, ready finally to depart from the frame which it animated, has been restored to stability and permanence; its flight has been arrested, and its faint expiring glow at first gently supported, and afterwards fanned by degrees, into the full flame of life, and vigour, and joy. When all has seemed desperate, and death was apparently on the point of receiving his victim, when the powers of life have been drained, and its energies were about to succumb, by the influence of this wonderful remedy, the whole scene has been changed, the almost vanquished sufferer has been snatched from the jaws of death, to which she seemed inevitably doomed, and rescued from the brink of destruction, on whose verge she was trembling; distressed relatives, spared the infliction of the pangs and wretchedness hovering around and threatening them, have been brought back to consolation and hope, and the house of mourning has suddenly been transformed into the house of gratitude and delight. Such is an outline of the benefits promised and afforded by timely recourse to transfusion; how illustrious, then, ought its second inventor to be considered; how distinguished his name among those of the benefactors of mankind; how proud may not that science justly be, which numbers a Blundell among her votaries, and can claim him for her own.

The other important suggestion flowing from an enlightened surgery, and adapted to the relief of one of the most distressing maladies to which human nature is liable, is the removal, either totally or in part, of the womb. The honour of the origination of this great and terrible operation is not due to any of our countrymen, neither to any of our rival neighbours, but to the distinguished German, Osiander; and though the question of its expediency has been somewhat acrimoniously discussed, and by many its performance is considered unjustifiable under any circumstances, there is on record in the annals of medicine, both at home and in other countries, a sufficient number of successful cases to render it a feasible, and sometimes even an imperative step, on the part of the practitioner. Indiscriminately performed, it would deserve the strongest reprehension, and prove a greater bane and curse than the formidable disease, whose ravages it is intended to stay; but resorted to in select instances, it is capable of answering the desired end of relief, which, previous to its introduction, was never attained, and, from the utter inefficiency of all known remedies, had come to be considered hopeless and unattainable. Surely it is better to make an attempt to rescue a sufferer from a state of misery, than to rest satisfied with fruitlessly lamenting and idly deploring the inadequacy of the resources of art; and as surely must it be preferable to submit to a temporary increase of pain, with the prospect of future exemption and a chance of recovery, than to linger slowly onwards with accumulating distress to a certainly fatal and deplorable termination.

II.—*Remarks on Obstinate Intermittent.* By Medicus.

Joseph Graves, aged 21 years, was admitted on the first of September into the hospital at Antwerp, with intermittent fever; he states the treatment followed was the application of ten leeches behind the ears, which caused great hemorrhage for sixty hours, and induced much debility; a blister was applied to the left hypochondrium, and kept discharging twenty-eight days; the bowels were regulated by castor oil, and he took white powders, which were tasteless; the fever was quotidian, and he had twenty-one accessions after his admission. Two days after the application of the leeches, and while suffering from great debility, he was seized with a fit; his body was much convulsed and his intellect disturbed. The attendants put him in a strait jacket, and confined him in his bed during two days. In five days he had a second fit similar, and was subjected to the same restraint; at unequal periods after, he had eight more fits; his stay in hospital was about eighty days, which he left much emaciated, and feeling very ill; but he was obliged to make way for more urgent cases. He remained in Antwerp three weeks, during which time he had no return of fits, and he regained strength. He has had since the first fit troublesome cramps, and a heavy pain over the forehead. He applied to me on the 13th January, complaining of headache, pain in his limbs, loss of appetite, and general debility. His pulse was natural, rather slow, there was a marked wildness of manner; his bowels were irregular in their action, but generally constipated. I ordered him ℥ii compound infusion of gentian, with ℥ij infus sennæ, to be taken at two draughts during the day. On the next evening he was attacked with fever, and when I saw him in the morning he was very desponding, fearing, as he said, such a spell as he had at Antwerp. I directed he should take, just as the cold fit was coming on, a draught, composed of five grains of camphor, one drachm of T. opii, and ℥ij. Aq. cinnam; and should obviate constipation the following morning by taking as many pills, at intervals of an hour, as would answer the purpose; he had to this end two drops of the croton tiglium oil, divided into six pills. The draught had the effect of producing re-action very quickly, and he slept well, but rose with great pain across his forehead; he took during the morning five of the pills, and had a free evacuation of the bowels. At six o'clock p. m. of the 16th, he fell

down in a fit, his body was greatly convulsed. I did not see him till ten p. m., he was then quiet, his pulse was full, not above eighty, his face suffused, head very hot, and he looked exceedingly wild; his tongue was rather white, breathing oppressed. He endeavoured to give a rational account of his feelings, but had great difficulty in collecting himself, and said he felt crazed.

I considered this case at this moment requiring active treatment, but the previous debility and the first accession of these fits having come on while labouring under the effects of hæmorrhage, I was disinclined to abstract blood; I also had thought the continued pain in the head and unequal distribution of nervous influence, might have arisen from effused fluid, or a diseased state of the membranes of the brain; and intended, if relieving the alimentary canal was unproductive of benefit to mercurealize the system, but the accession of the fever and the recurrence of the fit, which I consider brought on by the narcotic, obliged me to modify my plan; I therefore desired to produce a diversion by depletion through the mucous surface of the bowels, and for this purpose ordered two drops of the croton tiglium oil to be given immediately, and repeated in two hours; and directed the whole vertebral column to be rubbed for half an hour with two drams of the ung. hyd. fort. in which was incorporated ten drops of croton tiglium oil. The medicine had produced eleven or twelve copious watery stools. He complained of great pain along the spine, pain in the head relieved; I directed two other doses of the oil as yesterday, to be taken in the course of the day, and the inunction to be repeated at night. 10 a. m. 18th, medicine has kept him in motion all yesterday and during the night; has had no return of fever or fit, complains of bad taste in his mouth; on examination found the gums inflamed, head-ache slight, mental faculties improved, feels himself altogether better. 20th, has no complaint but that induced by mercury; appetite good but cannot masticate; health generally improved; he has only taken a few aloetic pills since the 18th. My object in sending to you this case is not from any value I attach to it "per se," but to prove the system may be brought under the influence of mercury, "malgre," very active evacuation taking place from the bowels. Where it is desirable to bring the system quickly under the influence of mercury, as in the yellow fever, and it is of equal moment to evacuate the alimentary canal of the vitiated secretions, so abundantly formed in that malady, might not such a practice lead to a favourable

termination? Cynanche trachealis is also a disease, in which the use of mercury has been ably advocated, and I think justly, if there was time to carry its powers into the system; indeed the arguments brought by its opponents are chiefly relative to the period necessary to bring the system under its influence; a powerful one in its favour in this disease, its property of preventing the formation of fibrine, its use in this disease need not preclude general blood-letting and evacuations from the bowels; and admitting it did not affect the system, I am confident rubbed on the part three or four times in twelve hours, a better effect than a vesicatory will be produced, therefore nothing could be lost by its trial in this disease, and benefit might rationally be expected to accrue. A fear of rendering this paper too prolix has prevented my enlarging on many parts, but I trust enough is advanced to excite the attention of practical readers.

III.—Mr. Mitchell *on Stricture of the Urethra and Gall Ducts.*

To the Editor of the London Medical and Surgical Journal.

Sir,—By inserting the enclosed observations on stricture in your valuable periodical, if of sufficient importance, you will oblige, your most obedient servant,

Charles Mitchell, Surgeon.

March, 1831.

As much controversy still exists regarding the possible production of permanent stricture from spasmodic contraction, I shall detail two cases illustrative of its sequence, or at least what I have viewed as a consequence of the frequent repetition of that action.

Case I.—August, 1827, a man applied on account of difficulty in voiding his urine, which required some time and effort to accomplish; he considered the impaired state to have been approaching for the seven previous months, during the course of which and for some time prior, had suffered immediately upon evacuation of the urine, severe grasping and painful contraction in the perineum: he was of a costive habit, and troubled occasionally with irritation in the neighbourhood of the anus; when constipated pain in

going to stool, the stream of urine was considerably diminished. The prostate was suspected, but upon examination it did not seem to be materially affected. A bougie, as large as the orifice of the urethra would admit, was introduced, but its progress was arrested upon approaching the bulb; some degree of force was employed, but it became more impeded and impacted with some difficulty experienced in its removal.

He was put into a warm hip-bath, took two grains of opium, and had administered an emollient enema, rest was at the same time strictly enjoined. The next morning he took one ounce of castor oil, it operated mildly. In the evening a small white bougie was introduced without encountering any obstacle; while it remained he complained of pain, which greatly subsided before it was withdrawn. The part of the bougie placed towards the floor or inferior part of the canal was marked longitudinally, apparently by irregular protuberances, a circumstance noticed by the celebrated Mr. J. Hunter. The bougie was introduced daily, and its size gradually increased, which effected rapid absorption of the callous deposition, aided by aperients, the bath, and horizontal posture. Nothing appears, therefore, more probable than that the longitudinal muscular fibres (which have been observed) should, from some irritating cause, contract spasmodically consequent upon their great sensibility and irritability. The man attributed the spasms to the imperfect expulsion of the urine from the urethra; nothing in fact appears more plausible than the lodgment of a small quantity at the bulb, exciting irritation and consequent contraction to which I have been repeatedly subject, more particularly when the muscles of the perænеum have been extended (resulting from posture), although they did not seem to participate in the contractility, for the perineal portion of the urethra was reduced to the consistence of a cord of considerable solidity, rendering me unable to move until its subsidence.

I examined the body of an old man about a year ago, who died of jaundice. He had suffered from repeated attacks, which were subdued by emetics, purgatives, opiates, emollients, local depletion and blistering. The whole body was deeply tinged yellow, the marrow as well as the cancelled structure of the bones. The ductus communus choledochus, throughout its whole course, was almost obliterated and reduced to a white cartilaginous cord; the canal admitted with some difficulty a delicate needle. From this analagous circumstance, therefore, we are naturally led to infer that

spasmodic action must have been primary, and the deposition secondary, of course not produced by any contractile power of the contingent parts, consequently we must be excused for assigning constriction of the vesical fourth of the urethra, to be independant of the neighbouring muscles, unless we from hypothesis, deduce as a natural consequence of rough particles of calcareous concretion, lacerating, irritating and inflaming the delicate lining of the duct, thereby inducing the deposition.

Case II. A man applied nine months ago, had been subject to spasm in the perineum, without being able to assign any cause, excepting the imperfect expulsion of the urine; the stream at the commencement was forked, but as it flowed the division coalesced. The introduction of a large sized bougie was once attempted, but with no satisfactory result. A regular succession of sizes produced no better effect, for the first had excited a resistance not to be immediately overcome. He was allowed to remain quietly in bed for two days, took a purgative, and had administered three hours before the next attempt, three grains of opium. I commenced by attempting the introduction of one above the middle size, after retrograding, one entered with some difficulty; and with as much, removed in consequence of a slight degree of spasmodic contraction. The impression was broad and distinct, involving the whole calibre. The daily introduction of a bougie for one month, rest, and occasional aperients *effected* the salutary removal of the impediment. Caustic, I have every reason to believe, has of late become too frequent an application in the treatment of stricture; indeed it appears to have been a great and obvious error in the practice of Mr. J. Hunter, but more so in that of Sir E. Home, for he details a case where it was had recourse to nearly five hundred times, a case which might have soon yielded to judicious management by dilatation. If Sir E. had properly ascertained the extent and form of the stricture, by means of a graduated white bougie, he would have been better enabled to establish a more efficient and less dangerous course of practice than that produced in many instances, besides the uncertainty of its application, severe febrile paroxyms, false passages, ulcerative action, retention of urine, independant of the eschar, hæmorrhage, corrosion, and inflammation of the sensible lining of the urethra, fistulæ, and exquisite pain. I must confess, however, that I have found and seen its application indispensably necessary, after leeches to the perineum the administration of opiates

and the warm bath to allay inordinate and excessive irritability, spasm, and pain in the bladder, with inclination but inability to pass urine. The alleviation of these by one or two applications of the caustic, rendered practicable the introduction of a metallic instrument or bougie, a safer and more successful course, adopted with more propriety and with less detriment to the constitution.

The basis of strictures are considerably broader than their organized productions, and of course less influenced by escharotics, therefore it becomes absolutely necessary in many instances to have recourse to the sound or bougie after the caustic, to aid in removing the organized and callous base.

Lamb's Conduit-street,
March, 1831.

IV.—*Homicide by Poisoning.* By M. Ryan.

The name of poison is given to all substances, which, when applied to the organs of the body, cause death. In order to give judgment in cases of poisoning, the medical jurist should be acquainted with the different poisons, their physical and chemical characters, their effects on the animal economy, the means of distinguishing them from all matters with which they may be confounded or obscured, or in their combinations with the various tissues. These studies are indispensable to medical men, so that they may act with honour and conscience in accomplishing the exigencies of science and justice. We shall, therefore, consider the various bearings of this subject as concisely as possible, but yet as comprehensively, as the present state of science permits.

Mode of Action of Poison on the Economy.—Every poison possesses peculiar effects upon the body, and is characterised by peculiarities which indicate the species to which it belongs. It may be employed in various ways, by being introduced into the stomach or bowels by the anus, or it may be applied to the mucous surfaces of the various outlets, to the serous and cellular tissues, to the lungs by respiration, as in cases of asphyxia, or it may be inserted under the skin by inoculation, or injected into the

veins. It is scarcely necessary to mention, that all poisons do not act in the same doses, or through the same tissue. It was long held by physiologists that poisons were absorbed by the veins or lymphatics; but there is every reason to conclude, that all act in the first instance on the nerves, as incontrovertibly proved by Morgan and Addison.—(*Essay on the Action of Poisons, &c.* 1829.) These experimenters admit with Fodéré, Tiedemann, Gmelin, Magendie, Brodie, Wilson Philip, Barry, Laissaigne, and others, that absorption takes place, but that death may be produced by the same poisons solely through the nerves; and that this occurred when they divided all the tissues in a limb, except the nerves. The presence of poisons in the fluids of the body as repeatedly observed in the blood, urine, &c. does not invalidate the opinion, that their fatal results took place through the medium of the nerves of the vessels which contained them.

General Indications of the means of detecting poisonous substances.—There is no subject which requires such minute precautions as the discovery or detection of poisons, from their varied combinations with the fluids and solids of the body. Hence the process for detecting them are exceedingly numerous. This will appear from a reference to the works of Orfila, Christison, and of other toxicologists. To the first illustrious professor we are indebted for a classification of poisons which is now generally received, and is as follows:—

1, Irritants; 2, narcotics; 3, narcotico-acrids; and, 4, septic or putrefiants. This arrangement is adopted by Christison, and differs from those proposed by Paris and Beck, and is decidedly the best.

Class I. *Irritant Poisons.*—The poisons comprised in this class belong to the three kingdoms of nature. The symptoms produced by irritant poisons, when taken into the stomach, are violent irritation and inflammation in one or more divisions of the alimentary canal.

There is a sense of heat and burning in the tongue, mouth, throat, gullet and stomach, the pain is acute and extends to the abdomen; it is increased by drinks and the respiratory movements, the heat is acrid and corrosive, the breath is fœtid, nausea is often an early symptom, there is vomiting of a tough mucous or of a brown, blackish, sanguilent matter, or clots of pure blood, which cause a sense of bitterness and acridity in the mouth; the smallest quantity of drink is rejected; sometimes the bowels

are constipated, but generally there are copious, fœtid and bloody alvine dejections; there is hiccup; the skin is pale, cold, and bedewed with a cold, clammy perspiration; the extremities become cold; painful eruptions appear; the face is pale, or leaden coloured, affected with convulsive contractions; great prostration occurs; the pulse is small, irregular and weak; the agony and anxiety are extreme; there is a desire to pass urine, which cannot be gratified; sometimes the intellectual faculties are unimpaired, and the sufferer is conscious of his horrible pains and approaching fate; or the nervous system is stupified, and death occurs without much agony. In some cases the stomach is affected without the mischief extending to the intestinal canal, but generally both are implicated; in bad cases, the whole tube from the mouth to the anus is affected at the same time. In some instances there is irritation in the windpipe and lungs, and urinary organs.

When poisons are applied externally they cause redness, or blistering, or sloughing, by corroding the tissues chemically, and some of them induce inflammation of the cellular membrane, which may be diffused between the muscles. Others are absorbed, especially if applied to a wound or ulcer, causing lesions of the nervous system, the lungs, heart and digestive tube. Hydrophobia, syphilis, smallpox, poisoning by narcotics, are examples of the last mode of action.

Lesions of Tissue. Autopsy.—There will be inflammation of the mucous membrane, of the cheeks, throat, gullet, stomach and intestinal tube; sometimes there will be only congestion, but generally there will be black spots on the stomach, caused by effusion of blood between its membranes; at other times there will be ramollisement or softening of its mucous, or muscular, or serous tunic, or complete perforation of the three coats. In some cases the small intestines are untouched, while the stomach and large intestines, especially the rectum, are highly inflamed. These phenomena are explained by the rapidity with which the poison passes through this part of the digestive tube, while it is delayed longer in the stomach and rectum. It is to be remembered that the effects of many natural diseases are easily mistaken for those of poisons; and these are distention and rupture of the stomach, inflammations of the stomach and bowels, spontaneous rupture of the stomach and duodenum, bilious vomiting and cholera, effects of drinking cold water, hernia or rupture, melæna hæmatemosis,

colic, iliac passion, and inflammation of the peritonæum. The diagnosis in these cases is often extremely difficult, and is often exceedingly doubtful. Distention and rupture of the stomach may be caused by gluttony, and produce sudden death from congestive apoplexy, or from an impression on the stomach itself. The appearances on dissection will, according to Christison, enable us to form a correct conclusion in such cases, and in simple rupture of the organ.

Drinking cold water, when the body is over heated, has caused sudden death from the compression on the nerves of the stomach (Duncan), or from inflammation of the organ, followed by gangrene (Haller.) Ices or iced water in hot summers, produce similar effects. (Bull. des se Med. v. 6.)

The symptoms of cholera are exceedingly like those produced by the poisons under notice. In some cases it is impossible to distinguish them. Dr. Christison offers the following diagnosis in cholera:—the sense of acridity in the throat never precedes the vomiting; there is no sanguinolent vomiting, and in this country "death within three days is very rare indeed." Death from irritant poisons is seldom delayed beyond two days and a half. Dr. Mackintosh and Mr. Tatham have known cholera fatal in a less period than that above mentioned; the latter in twelve hours. Edinb. Med. and Surg. Journ. v. xxviii. Dr. Christison concludes that cholera in this country very rarely proves fatal, as early as irritant poisoning (work 1829), that is within two days and a half; while Dr. Mackintosh states (in his Practice of Physic, 1828,) that several fatal cases within this period have been reported to him. Idiopathic gastritis may perhaps exist, but inflammation of the stomach is usually caused by poisons, and the burning in the throat, if present at all, does not precede the vomiting. The symptoms and morbid appearances in enteritis and peritonitis are widely different from those induced by poisons. Spontaneous perforation of the stomach has been often confounded with effects of poisoning; but it occurs after scirrhus, simple ulceration, and softening, or ramollisement, or gelatenization (Christison.) The last form is ascribed by John Hunter and most British pathologists to the gastric fluid after death; but the last author named as well as Andral (pathology) questions this conclusion. Mr. Allan Burns however found a perforation in the stomach of a girl who died of diseased mesenteric glands; he sewed up the body, and after two days he discovered another opening. Edin. Med. and Sur. v. vi.

It appears from the testimony of Christison, that perfora-

tion of the alimentary canal by worms, colic, melæna, ileus and obstructed hernia, can scarcely be confounded with effects of poisoning.

Irritant Mineral poisons.—The poisons of this class are sulphuric acid *(vitriolic acid, vitriol, and oil of vitriol.)* Nitric acid *(aqua fortis)* hydrochloric acid (muriatic acid, and spirit of salt,) phosphorus cadine, liquid chlorine, potassa with lime, oxalic acid, nitrate of potas, soda, lime, barytes, liquid ammonia.

Mineral Poisons.—It has happened of late years that infants have been destroyed by the barbarous practice of pouring sulphuric acid into the mouth; and the countenance has been disfigured, vision destroyed, by throwing this acid upon the face. The latter crime is a felony.

When mineral acids (especially the nitric acid) are applied to the skin, they produce irritation, inflammation, and corrosion. They act by the transmission along the nerves of their local impression. The inside of the mouth is generally shrivelled, white, yellow, if from nitric acid; brownish from sulphuric, and often more or less corroded; there is intense burning pain in the throat, œsophagus, and stomach, which is followed by eructations of gases evolved by the chemical decomposition of the coats of the stomach, and the pain is much more intense than in ordinary gastritis.

The matter vomited is brownish, black, or mixed with shreds of membrane, or consists of coagulated mucus; the patient is affected with tenesmus and urgent desire to evacuate his bladder; the breathing is laborious, as the movements of the chest increase the pain in the stomach. The pulse is generally weak, but may be natural; and sometimes there is no uneasiness or torture produced even after a large quantity of the poison. In some cases there is an eruption all over the body. The fatal effect from poisoning by acids occurs between half a day and two or three days, it has happened in two hours, and has been prolonged to fifteen days. The patient may linger for eight months; there may be imperfect or perfect recovery. Christison thinks that death may occur from inflammation and spasm of the glottis and larynx without the poison reaching the stomach or the gullet. In these cases the clothes shew red or yellow spots, when nitric or sulphuric acid has been taken.

Autopsy.—The lips, fingers, and other parts of the skin will be spotted or streaked from disorganization of the cuticle by the acid; these marks are brownish or yellowish brown, and present, after death, the appearance of old

parchment, or of a burn, or of vesication. The mucous membrane of the mouth is generally hardened, whitish or yellowish; the pharynx is in the same state or very red, the gullet is often lined with a dense yellow membrane, the subjacent tissue is brown or red. The muscular coat of the mouth, throat, and epiglottis is sometimes exposed, and occasionally the gullet is unaffected, though the mouth and stomach are severely injured; the peritonæum is generally inflamed, but not always. The stomach, if not ruptured, is commonly distended with gases, and contains a quantity of yellowish brown or black matter, and is lined with a thick paste of disorganized tissue, blood, and mucous. The pylorus is contracted, the mucous membrane is not always corroded. When the acid is diluted, the coats of the stomach may escape corrosion; but there will be excessive injection, gorging and blackness of the mucous membrane with or without softening. Again, there may be perforation of the stomach; the duodenum is affected with the other appearances of the stomach. In the second or chronic variety the stomach and intestines are greatly contracted, the latter to the size of a quill. The pylorus is so contracted as barely to admit a probe. There are red spots on the surface of the stomach, and its coats may be attenuated, especially where adherent to surrounding organs, on separating which perforations become apparent. When sulphuric or nitric acid is injected into the anus after death, there is no sign of inflammatory redness, the mucous membrane is yellowish and brittle, the muscular and peritoneal coats are white, as if blanched.—(Orfila). When all the appearances already described exist, Dr. Christison is of opinion that we may conclude without chemical evidence, that poisoning has been caused by mineral acids.

Treatment of Poisoning by the Mineral Acids.—The immediate exhibition of chalk or magnesia, or if these cannot be had, of any mild fluid, milk or oleagenous matters, and then a free use of diluents to facilitate vomiting should be employed. Should inflammation commence, it is to be treated as ordinary gastritis

Tests for Mineral Acids.—Under this head we shall merely describe the tests which interest the jurist, taking it for granted he is informed on the physical and chemical properties of the acids in a pure and diluted state. Thus the jurist has to determine whether sulphuric acid exists in the vomited matter, and when it is supposed to cause stains on the clothes.

Sulphuric Acid.—The process is simple, for the detection of the acid in alimentary matter. The suspected matter is to be boiled for a few minutes, and after filtration, sub-carbonate of lime added; the mixture agitated when sulphate of lime is obtained, which is to be dissolved in boiling water, and tested by a salt of baryta, the product is to be calcined with charcoal, and this gives a sulphur, from which sulphuretted hydrogen will be evolved by a few drops of nitric or hydrochloric acid. (Sedillot, 1830.) Dr. Christison describes this process more minutely when diluted.

When diluted, it is to be tested with litmus and tasted. An acid having thus been proved to be present, a little nitric acid is to be added, and subsequently a solution of the nitrate of baryta. If a heavy white precipitate falls down, it can be nothing else than sulphate of baryta, because no acid but the sulphuric, forms with the barytic salts a white precipitate insoluble in nitric acid. The phosphate and carbonate of baryta are both soluble in nitric acid. In applying this test care must be taken to employ nitric acid entirely free of sulphuric,—an admixture which the common nitric acid of the shops almost always contains.

The test now mentioned is alone sufficient to indicate the presence of sulphuric acid, combined or uncombined. But as the duty of the medical jurist is to supply not only satisfactory evidence, but also the best evidence which his science affords, it is advisable in a criminal case to establish the nature of the precipitate still farther by the following process:—

"Collect the precipitate on a filter, wash, dry, and remove it. Then mix a little of it (not more than two grains) with a small proportion of dry charcoal powder; and subject the mixture for two or three minutes, in a covered platinum spoon or in a fold of platinum foil, to the flame of a spirit-lamp enlivened with the blow pipe. A portion at least of the sulphate is thus converted into sulphuret of baryta. To prove this, put the powder with a little water in the bottom of a small glass tube, add a little hydrochloric acid, and then hold within the tube, without touching the matter below, a slip of white paper moistened with acetate or nitrate of lead. Sulphuretted hydrogen gas is disengaged, which will darken the paper, and likewise often betray itself by its singular odour."—(Christison.)

This process is to be applied for the detection of stains, the cloth or other solids being boiled, &c.

Nitric acid.—The process proposed by Christison for

detection of nitric acid when mixed with food, consists of neutralizing the acid with potass, evaporating to dryness, and ascertaining by the addition of sulphuric acid and the application of heat, whether nitrous fumes are evolved. Sedillot, who is one of the latest and best French writers, recommends a different plan, namely, saturate the suspected mixture of animal substance and acid, with saturated carbonate of potass, filter and evaporate the fluid, and crystals of nitrate of potass will be obtained. Dr. O'Shaughnesy, an able analysist and jurist, objects to these tests, and after a satisfactory exposure of their fallacy, proposes an entirely new re-agent, namely, morphine, which, when brought into contact with nitric acid, in the minutest quantity, immediately produces a brilliant vermillion colour. The mode of experimenting requires attention. "A capillary tube should be used to absorb the minutest drop of the suspected liquid, which should then be gently expelled on a particle of morphine, placed on a white porcelain surface, when the characteristic tint is instantly produced." (Practical Commentaries on Dr. Christison's Processes for detecting Poisons. Lancet, 1831, vol. I.)

Muriatic or hydrochlòric acid, seldom comes under the cognizance of the medical jurist as a poison. No chemical evidence can be valuable when applied to the contents of the stomach; since free acid and muriates have been detected in the secretions of that organ, by Prout, Tiedemann, Gmelin and Greaves. This acid is known by its peculiar vapour, and by the white fumes formed by its mixture with ammoniacal gas, on the approach of the open mouths of two bottles containing these substances. The precipitate caused by nitrate of silver is to be filtered, dried and heated in a tube. "It fuses at the point of redness, is not decomposed at a red heat, and on cooling forms a translucent mass, which cuts like horn." (Christison.)

Dr. O'Shaughnesy objects to the test of ammoniacal gas, as he says it will produce a similar result, though of a less degree, by exposing strong, nitric, sulphuric or acetic acids to it. He says a portion of the acid should be diluted, and to one part nitrate of silver, and to another nitrate of baryta is to be added: if a precipitate occurs in the former and not in the latter, the evidence of muriatic acid cannot be disputed. The former writer says that a similar precipitate is caused by the same test with many other acids and their salts. Work on Poisons, p. 121.

Phosphoric Acid.—The plan for detecting this is by eva-

porating the suspected solution to dryness, saturating with ammonia and precipitating it by hydrochlorate of lime; in treating the phosphate of lime with a little charcoal in a glass tube, phosphorus will be obtained. Poisoning by phosphoric acid is exceedingly rare, and is the only case recorded by Christison, in which there was no aphrodisiac effect produced.

Liquid Chlorine.—This substance is detected by its green yellow colour, and a peculiar odour, which can scarcely be mistaken; it discolours all vegetable substances, evolves gaseous chlorine by elevation of temperature, and with nitrate of silver a white curdy precipitate, insoluble in nitric acid and soluble in ammonia, is produced.

Iodine.—When urged too far, is a violent poison, as it may accumulate in the system like digitalis and operate suddenly. The symptoms which follow it in ordinate use, are loss of appetite, pain in the stomach, vomiting, purging, rapid and extreme emaciation, absorption of the breasts and testicles, small frequent pulse, great constitutional disturbance and violent spasms. Orfila found small yellow patches and ulcers on the mucous membrane of the stomach of a dog. In one case there was intense peritonitis, adhesions of the intestines, enlargement and pale rose red colouration of the liver. There was effusion into the peritoneal cavity and chest. (Christison.) Dr. O'S. comments upon this account, and says, "we believe that wherever death occurs later than sixty hours after poisoning by iodine, it will be sought in vain in the alimentary canal, while it may have been readily detected during life in the urine.

"Iodine, when taken into the alimentary canal, remains there but a very short time in a free condition. If the poisoned animal have recently eaten bread, potatoes, or other amylaceous matters, the iodine is almost immediately converted into the iodide of starch, and this again is, by some inexplicable digestive process, transformed into the hydriodic acid. So rapidly do these changes take place, that in one instance in which we administered a drachm of solid iodine to a dog, though vomiting took place in fifteen minutes, yet not a trace of free iodine could be detected by starch in the rejected matters, though hydriodic acid was found in large quantities.

"Again, the hydriodic acid once formed, is rapidly eliminated through the several excretory channels. In forty minutes we have found it in the urine, in which, in the dog just alluded to, it was detected occasionally for five days;

viz., on the first and second, and on the fourth and fifth, when he died. Strange to say, though the same process was performed with every precaution on the third day, it gave no indications whatever of any compound of iodine. We found it, however, in the saliva, which was secreted in immense quantities on that day. After death not a trace existed in the contents of the alimentary canal. It is also worth recording that in this instance and four others, no trace of inflammation existed in the intestines, with the exception of a few ulcerations of the glands of Peyer and Brunner; but the air-cells of both lungs were infiltrated with pus, and their substance was preternaturally soft."

In Dr. Christison's observations on the iodine poisons, these facts are entirely omitted as far as the analysis is concerned, and a mode of detecting the hydriodates is proposed, which would inevitably lead to total failure if applied to any complicated mineral fluid, such as the urinary excretion.

He sets out in his chemical examination, on the supposition that some combination of iodine has been taken. In order therefore to ascertain whether any *free* iodine is present, the contents of the alimentary canal are triturated with a little cold solution of starch, which would immediately cause the mixture to assume a blue colour. If the blue colour appear, the mixture is, if necessary, diluted with water, and exposed to a current of sulphuretted hydrogen, by which the iodide of starch is decolorised and converted into hydriodic acid. If no blue colour have been produced, the mixture is merely boiled with water and filtered. If the filtered fluid redden litmus paper, it should be neutralised with caustic potassa, and then reacidulated with acetic acid. He next adds the solution of the chloride of platinum, which with the most minute quantities of hydriodic acid, either causes a dark-red precipitate, or changes the fluid to a port-wine colour. It is then to be agitated with an ounce of ether, which dissolves the iodide of platinum, and separates it from the other fluids swimming on their surface, from which it may be removed by a suction tube. The ethereal solution is, finally, to be evaporated to dryness, and the iodide of platinum heated by the spirit-lamp flame in a small glass tube, when the iodine is disengaged in its characteristic violet vapour, and condenses on the sides of the tube in dark dendritic crystals.

The above process we have found to be extremely delicate and easy of execution. It is especially applicable to the urine or saliva. Occasionally in the urine, the simple addi-

tion of cold solution of starch and sulphuric acid will strike the peculiar blue colour, which may be considered sufficient evidence. This experiment, however, is by no means so delicate as that just detailed, and it is, moreover, exceedingly liable to be interfered with by the animal matters which the urine contains."—*Ut supra.*

Hydriodate of potass is preferred to iodine, as less injurious to the stomach and constitution as a medicine, but as yet no case of poisoning by it has been recorded.

Oxalic acid.—This substance, when mixed with lime, gives a white precipitate, which is with difficulty soluble in hydrochloric acid, though very soluble in nitric acid; the oxalate of copper, of a whitish blue colour, is also insoluble in the first named acid. The nitrate of silver causes a white precipitate of oxalate of silver; if dried and heated on the point of a spatula, it burnishes its edges—it fulminates with a white fume.

Dr. Christison's process is as follows:—

"In determining the medico-legal tests for oxalic acid, it will be sufficient to consider it in two states,—dissolved in water, and mixed with the contents of the stomach and intestines or vomited matter. If the substance submitted to examination is in a solid state, the first step is to convert it into a solution. In the form of solution its nature may be satisfactorily determined by the following process:—The acidity of the fluid is first to be established by its effect on litmus paper. This being done, the re-agents might be applied at once. But it is better to neutralize the acid previously with any alkali, for then they act with greater delicacy. The remainder of the process consequently applies not only to oxalic acid itself, but also the soluble oxalates, which will presently be proved to be likewise active poisons. The tests are the hydrochlorate (muriate) of lime, sulphate of copper, and nitrate of silver.

"Hydrochlorate of lime causes a white precipitate, the oxalate of lime, which is dissolved on the addition of a drop or two of nitric acid, and is not dissolved when similarly treated with hydrochloric acid, unless the acid is used in very large proportions. The solubility of the oxalate of lime in nitric acid, distinguishes the precipitate from the sulphate of lime, which the present test might throw down from the solutions of the sulphates. The insolubility of the oxalate of lime in hydrochloric acid, on the other hand, distinguishes the precipitate from the tartrate, citrate, carbonate, and phosphate of lime, which the test might throw

down from any solution containing a salt of these acids. The last four precipitates are re-dissolved by a drop or two of hydrochloric acid; but the oxalate is not taken up till a larger quantity of that acid is added.

"*Sulphate of copper* causes a bluish-white precipitate, which is not re-dissolved on the addition of a few drops of hydrochloric acid. The precipitate is the oxalate of copper; it is re-dissolved by a large proportion of hydrochloric acid. This test does not precipitate the sulphates, hydrochlorates, nitrates, tartrates, citrates; but with the carbonates and phosphates it forms precipitates, resembling the oxalate of copper. The oxalate, however, is distinguished from the carbonate and phosphate of copper, by not being re-dissolved on the addition of a few drops of hydrochloric acid.

"*Nitrate of silver* causes a dense white precipitate; the oxalate of silver, which, when collected on a filter, dried and heated, becomes brown on the edge, then fulminates faintly, and is dispersed. The object of the supplementary test of fulmination, is to distinguish the oxalate of silver from the numberless other white precipitates, which are thrown down by the nitrate of silver from solutions of other salts. The property of fulmination, which is very characteristic, requires, for security's sake, a word or two of explanation in regard to the effect of heat on the citrate and tartrate of silver. The citrate, when heated, becomes altogether brown, froths up, and then deflagrates, discharging white fumes, and leaving an abundant ash-grey, coarsely fibrous, crumbly residue, which on the further application of heat, becomes pure white, being then pure silver. The citrate also becomes brown and froths up, but does not even deflagrate, white fumes are discharged, and there is left behind a botryoidal mass, which, like the residue from the citrate, becomes pure silver when heated to redness. Another distinction between the oxalate and tartrate is, that the former is permanent at the temperature of ebullition, while the latter becomes brown. The preceding process or combination of tests will be amply sufficient for proving the presence of oxalic acid, free or combined, in any fluid which does not contain animal or vegetable principles.

"Of the modifications which are rendered necessary by the admixture of such principles, none are of any consequence, except those acquired in the case of an analysis of the contents of the alimentary canal or matters of vomiting. Here a word or two must be premised on the changes which the poison may undergo, in consequence of being mingled

with other substances in the stomach or intestines. There may either be organic principles contained in the body, or substances introduced into the body as antidotes.

"As to animal principles, Dr. Coindet and I have proved that oxalic acid has not any chemical action with any of the common animal principles, except gelatine, which it rapidly dissolves, and that this solution is a peculiar kind, not being accompanied with any decomposition either of the acid or the gelatine. Consequently oxalic acid, so far as it concerns the tissues of the stomach or its ordinary contents, is not altered in chemical form, and remains soluble in water. In such a solution, however, a variety of soluble principles are contained, which would cause abundant precipitates with two of the tests of the process—sulphate of copper and nitrate of silver; so that the oxalates of these metals could not possibly be exhibited in their characteristic forms. The process for a pure solution, therefore, is inapplicable to the mixtures under consideration; but changes of still greater consequence are effected in the poison by exhibiting antidotes during life. It is now, I believe, generally known, since the researches of Dr. Thomson, and those of Dr. Coindet and myself, that the proper antidotes for oxalic acid are magnesia and chalk. Each of these forms an insoluble oxalate, so that if either had been given in sufficient quantity, no oxalic acid will remain in solution, and the proof of the presence of the poison must be sought for in the solid contents of the stomach, or solid matters of vomiting. The following process for detecting the poison will apply to all the alterations which it may thus have undergone:—

"The first object is to procure a solution. If an antidote has not been given, the contents and tissues, or vomited matter, are to be boiled, distilled water being added if required; the acid is then to be neutralized with potass, and the whole filtered. If magnesia or chalk has been given as an antidote, the insoluble matter is to be separated by filtration, and boiled for twenty minutes in a solution of carbonate of potass, in eighteen or twenty parts of water. A double interchange of elements takes place between a part of the carbonate of potass, and a part of the oxalate of lime or magnesia, and in consequence, some carbonate of lime or magnesia is thrown down, while some oxalate of potass will be found in solution. The fluid after filtration is to be acidulated with pure nitric acid, oxalic acid being now in solution, whatever may have been its original state; the next step is to separate it from the animal and vegetable

matter dissolved along with it. I have tried various plans for this purpose, but have found none to answer so well as precipitation with the muriate of lime, so as to procure an oxalate of lime, which, after being well washed, is to be decomposed by boiling it in a solution of carbonate of potass, as before. An oxalate of potass will again be found in solution. The excess of alkali is finally to be neutralized with nitric acid. The fluid is now to be tested with the three re-agents for the pure solution of oxalic acid."

The other vegetable acids, tartaric, citric, malic and acetic, are seldom or never used as poisons, and consequently do not require further notice.

Fused potass, subcarbonate of potass.—These substances attract moisture from the atmosphere and deliquesce; they turn the syrup of violet green, and litmus paper blue, and are saturated by acids. Watery solutions of them are not decomposed by subcarbonates of soda and ammonia; hydrochlorate of platina causes a yellow precipitate, composed of potass, oxide of platina and hydrochloric acid.

Nitrate of potass, nitre, salt petre.—When this substance is thrown on burning fuel, it ignites with a crackling noise. If concentrated sulphuric acid is poured upon this salt nitric acid, vapour is disengaged. The indigo test proposed by Liebeg, is not decisive. Orfila proposed to mix some particles with water and copper filings, and add a few drops of sulphuric acid, when the orange fumes of nitrous acid will be evolved. The morphine test mentioned, when speaking of nitric acid, is the last that has been proposed, and perhaps the most certain.

Soda, lime and baryta, are seldom, if ever, used as poisons, and need not be further noticed.

Ammonia and its salts are discoverable by a peculiar odour, and by tests known to every medical practitioner.

Preparations of mercury. The oxymuriate of mercury, deutochloride, bichloride corrosive sublimate, is the commonest preparation of mercury employed as a poison. The mode of detection laid down by Dr. Christison, is considered almost infallible. The suspected substance is to be boiled in distilled water, and a small portion filtered for the trial. On addition of protochloride of tin, a pretty deep ash-grey, or greyish black colour is effected. This preparation of tin is prepared by boiling tin powder in strong muriatic acid, until the metal ceases to be dissolved; the liquid should then be preserved in a closely stoppered bottle. The chemical changes effected in this experiment are as follow:—

The protochloride of tin strongly attracts more chlorine, hereby removing one atom of it from mercury, and reducing he latter to a protochloride (calomel) which is also deprived f its one remaining atom, metallic mercury, being precipitated in the form of a dark minutely divided powder.

Corrosive sublimate, when thrown on burning coals, is olatised in the form of thick irritating fumes, which tarnish opper. If the mercury, mixed with potass, in a glass tube, hut at one end, and sublimed, the mercury will appear in he form of globules on the sides of the tube. If a watery olution of the corrosive sublimate is mixed with potass or ime water, a yellow precipitate occurs, a white one by iquid ammonia, a black one by the soluble hydrosulphates, nd finally, the ferruginous hydrocyanate of potass causes a hite deposit, which soon becomes yellow, then more or ess blue, from the formation of Prussian blue. If a plate f copper is immersed in a mercurial solution, it becomes overed with a slight coat of the metal, when oxymuriate f mercury is mixed with animal or vegetable substances in olution, and the re-agents produce no effect; ether should e added, the mixture agitated, filtered and distilled with entle heat, when a residue will be obtained, which, mixed ith water, affords a pure concentrated solution. A fourth art of ether should be added, which has the power of bstracting the salt from its aqueous solution. After agitaion for a few minutes, and allowed to rest for thirty seconds r more, the etherial solution rises to the surface and may e removed; it is then to be filtered, evaporated to dryness, nd the residue treated with boiling water, which afforded he evidence already mentioned, on being tested with prochloride of tin. This preparation of mercury may be deected in vomited matters, by drying them in a sand bath, nixing them with a solution of potass in alcohol, and calining them at a red heat, when the metal will appear in globules in the neck of the tube.

The following mercurial preparations—the sulphate, subitrate, red precipitate, acetate and cyanuret, when mixed ith organic matter, may be decomposed, and the mercury eparated by boiling with fused or caustic potass for an our, an excess of nitric acid is to be added, which precipitates caseous and albuminous matter; filtration is then to e concentrated by evaporation. If a slip of gold, bound ound with a harpsicord wire, be plunged into the fluid, an malgam of gold and mercury will be formed; this is to be craped off and sublimed in a glass tube, when globules f mercury will appear.

When the corrosive sublimate is applied to a wound or ulcer, it is absorbed, and causes inflammation of the heart, inducing brownish black patches on its internal membrane, as well as on that of the intestinal canal. When taken into the stomach, it produces greyish white patches, which do not result from any other poison. The best antidote is white of egg, which reduces the salt to calomel. The ordinary symptoms of irritant poisoning will be present, and they have been already described. If the nitrate be the poison, the best antidotes are muriate of soda and carbonate of ammonia. The various oxides of mercury are less virulent poisons than the sublimate. The sulphate and cyanuret have induced death, but are seldom employed. Dr. Christison's chapter on poisoning by mercury, and of the effects of that medicine on the body, is one of the best ever written, and ought to be maturely considered by every medical practitioner.

Compounds of arsenic.—Metallic arsenic has an iron-grey colour, is fragile and brilliant, when recently broken. It oxidates in air, water or alcohol. When exposed to air, it becomes rapidly tarnished, and forms a black powder. It sublimes at 356°. Farh. and in close vessels it condenses unchanged; but in open air it rises in white fumes, with an alliaceous odour, and becomes white oxide, which consists of one atom of metal and two of oxygen, or of thirty-eight parts of the former, and sixteen of the latter. Metallic arsenic has a strong affinity for oxygen, which it rapidly extracts; when two acids are formed, the arsenious and arsenic, the former appears in brilliant octohedral crystals.

The principal compounds which are formed by arsenic, are the arsenious acid or white oxide of arsenic, the arsenite of copper or mineral green, the arsenite of silver, the arsenite of potass, the arsenic acid, the arseniate of potass, the yellow sulphuret or orpiment, the red sulphuret or realgar, and the impure sulphuret termed king's yellow; there is moreover a black compound termed fly powder, little known in this country, composed of the metal and arsenious acid.

"The arsenious acid, when newly prepared, exists in the form of white transparent, vitreous lumps, which gradually become opaque by keeping. It is usually sold as a white powder; when heated to 380° Fahr. it is sublimed, and condenses unchanged in minute octahadres. The taste of arsenic has been disputed, but Dr. Christison inclines to the belief that it is entirely insipid, and that the peculiar taste sometimes attributed to it, depends on the irritation which

t quickly causes in the part. In this opinion we altogether coincide. The arsenious acid of the shops is soluble in boiling water in the proportion of 115 to 1000 parts, and twenty-nine parts are retained on cooling; temperate water again takes up, in thirty-six hours, 12-5. The solubility of the acid in water is impaired considerably by the presence of various organic materials, such as mucous, albumen, or astringent matter.

" The arsenious acid forms salts with the various salifiable bases, of which the most remarkable are the arsenites of silver, copper, lead, lime, potass and ammonia, all of which may be prepared either by bringing the arsenic acid into direct contact with the base, or by decomposing a salt of the base (such as the muriate of lime, nitrate of silver, acetate of lead or sulphate of copper), by means of a soluble neutral arsenite. Arsenious acid, added by itself to one of these salts, produces no decomposition, since its affinity for the base is weaker than that of the acid with which the base was previously associated. This fact is of the utmost importance, and deserves to be attentively studied.

" The arsenite of copper is a green compound, formed by adding the arsenite of potass, soda or ammonia, to the sulphate of copper. The arsenite of silver is yellow, and formed with the nitrate of silver in the same way. The arsenite of lead and lime are both white.

" The arsenic acid never comes under the notice of the toxicologist in its free state, but it frequently occurs in combination with potass, as the arsenite of that alkali. This compound is formed by deflagrating arsenious acid with nitrate of potass, by which it obtains another atom of oxygen. Arsenic acid is produced, which unites with part of the potass, forming a neutral salt; the nitrate of silver added to the salt (both in solution), causes the precipitate of a brown-red arseniate of silver.

" Of the sulphurets of arsenic, two only are of toxicological importance, namely, the pure orpiment and the impure king's yellow, the former occurs abundantly as a natural product, and is artificially produced when sulphur is treated with arsenious acid, or when sulphuretted hydrogen is passed through a solution of that substance. Both these sulphurets of arsenic are exceedingly soluble in alkaline solutions."—(O'Shaughnesy, op. supra cit.)

Treated with potass and charcoal, in the manner hereafter mentioned, metallic arsenic will be produced. Arsenious acid is dissolved in boiling hydrochloric acid, and precipi-

tates on cooling. It is very soluble in water, and an addition of hydrosulphuric acid, which causes a precipitate of yellow sulphur of arsenic, which is entirely soluble in ammonia. The ammoniacal deuto-sulphate of copper, causes a green precipitate. On boiling this acid with potass, a yellow precipitate takes place by nitrate of silver. When white oxide of arsenic is mixed with vegetable and animal matters, the following processes are recommended for its detection:—

A small quantity of these substances is to be boiled for fifteen or twenty minutes, filtered and tested with the various re-agents already mentioned. The hydrosulphuric acid or soluble hydrosulphates, to which a few drops of nitric acid are added, are the best tests, as the yellow sulphate of arsenic is detected with difficulty; when such suspected matter is much coloured, it will not be easy to recognise the precipitates; and then a concentrated solution of chlorine should be added, and by this means the arsenious will be converted into arsenic acid, which is very soluble. On filtering the liquor, we are to observe if it give a white precipitate with lime water or baryta, a whitish blue with acetate of copper, a brick red with nitrate of silver. If this liquor is boiled with hydrosulphuric acid, the yellow sulphur of arsenic is formed.

When the liquor obtained by the first operation contains animal matter, which prevents the deposition of precipitates, it is to be evaporated, an excess of nitric acid is to be added and carried to the boiling point, which will destroy the animal matter; the excess of acid is to be saturated with potass, a few drops of hydrosulphuric acid gives a precipitate of yellow sulphur of arsenic.

The contents of the stomach may contain arsenious acid in a solid or fluid state; when solid it may be mechanically mixed, and subside on simple decantation. If the quantity amount to a grain, it is said to be large, and is to be divided into three portions; the first is to be mixed with charcoal or black flux, prepared by deflagrating one part of nitrate of potass with two of supertartrate of potass, and sublimed in the manner mentioned by Dr. Christison in the subsequent extract; the second part should be boiled in distilled water until dissolved, and a drop or two of the solution placed on three different watch crystals; nitrate of silver should be added to one, when a yellow precipitate takes place; sulphate of copper and ammonia to the second, when a deep green deposit occurs; and sulphuretted hydrogen

should be brought in contact with the third, when a yellow precipitate or stain will be produced.

Dr. Christison examines the tenth of a grain in the following manner:—

"The only instrument which should be used by the inexperienced, and the instrument which the chemist will always prefer when it is at hand, is a glass tube. When the quantity of the oxide is very small, it should not exceed an eighth of an inch in diameter.

"The proper material for reducing the oxide of arsenic is freshly-ignited charcoal. With this substance the whole metal of the oxide of arsenic is disengaged. The black flux, which is usually recommended, is ineligible, if the quantity of oxide is very small; for only a part of the metal is disengaged, the remainder continuing in the flux, probably in the form of arseniuret of potassium. If the quantity operated on is large, it should be mixed with the charcoal or flux before it is introduced into the tube; if on the other hand it is small, a better plan is to drop it into the tube and cover it over with charcoal. The materials are to be introduced along a little triangular gutter of stiff paper, if the tube is large; but with a small tube it is preferable to use a little brass funnel, to which a brass or silver wire is previously fitted, for pushing the matter down when it adheres. In either of these ways the side of the tube is kept quite clean, which is a point of great consequence, especially when the black flux is used. In delicate experiments the material should not be closely impacted in the tube. By far the best method of applying heat is with the spirit lamp, at first suggested by Mr. Phillips. The upper part of the material ought to be heated first, and with a very small flame. Afterwards the heat should be applied to the bottom of the tube, the flame being previously enlarged by drawing out the wick with a pair of forceps. A little water, disengaged in the first instance, should be removed with a roll of filtering paper, before a sufficient heat is applied to sublime the metal. Whenever the dark crust begins to form, the tube should be held quite steady, and in the same part of the flame. By these precautions a well-defined crust will be procured with facility, even by a mere tyro in practical chemistry, as I have ascertained by repeated trials."

BIBLIOGRAPHY.

ANATOMY.

1. *On preserving Anatomical Preparations in Spirits.* By Alexander Watson, Esq. M.R.C.S.E., &c. &c.—After enumerating the various causes by which an evaporation of the spirit employed takes place, Mr. Watson proposes, in order to obviate these inconveniences, to have glass-stoppers accurately ground to fit the preparation-bottles; the stopple itself being hollow, with a rod across it, to which the threads, suspending the preparations, are to be attached, thus removing the inconvenience of the threads being brought over the neck of the bottle, in which case they frequently act as a syphon, and always cause a small crevice, which materially aids in the evaporation of the spirit. The mouths of the bottles should be as small as possible. Mr. W. also employs a weaker spirit than the one in common use for preparations, as, "after the preparation has been properly macerated and prepared by repeated changes of water and spirits, a much weaker spirit than is commonly used is not only sufficient, but is in reality much better for preserving it by being less subject to evaporation." The stopper is to be rubbed with lard before it is inserted, and melted wax poured over it afterwards; it likewise appears a cheaper method than the one at present employed.—*Edinburgh Med. and Sur. Journ. April.*

SURGERY.

2. *Sixth Report of the Edinburgh Surgical Hospital, from August* 1830 *to February*, 1831. By James Syme, Esq. Fellow of the Royal College of Surgeons, London and Edinburgh, and Lecturer on Surgery, Edinburgh.

Fractures.—It appears that, altogether, since the hospital was opened in May, 1829, upwards of 140 cases of fracture have come under treatment.

From observation, and from some dissections which tend to throw light on the mysterious process of the re-union of bone, Mr. Syme has formed some opinions on that process, which are, we believe, somewhat different from those entertained by the generality of surgeons.

Breschet, from his experiments on dogs and pigeons, concludes, that the formation of callus consists in the following steps:—"1st. In effusion into the surrounding soft parts, and gradual ossification of a layer of these exterior to the bones. 2d. In effusion into the medullary canal, and subsequent ossification of it. 3d. The formation of an intermediate substance between the fractured surfaces, which, in course of time, it might not be until months had elapsed, became converted into perfect bone.

Mr. Syme proves that the bones are not merely united by the ossification of their periosteum, "by cutting them through longi-

tudinally when the ends are found firmly united together, and even the medullary canal filled with osseous matter." He states, however, that at an early period the fractured surfaces are ununited; and hence Duhamel, whose observations did not extend beyond the fifteenth day, was confirmed in his error.

Mr. S. formerly believed, "that the new bone or callus resulted entirely from the old one; being first, a gelatinous effusion becoming more and more firm, then cartilaginous, and at last identical with the tissue from whence it proceeded.

He acknowledges that analogy and the appearances of bone, some time after the fracture, tend to prove this, but he thinks that some facts afford unquestionable evidence against its truth.

In treating fractures of long bones, we find the mobility continues, generally for the best part of three weeks, during which period the crepitation is quite distinct; it usually ceases *very suddenly*, and the limb *all at once* gains a degree of firmness sufficient to support its own weight: when such fractures are dissected within the first two or three weeks, the ends of the bones are found quite separate. These facts, Mr. S. thinks, are quite opposed to the idea that the process consists *entirely* in a deposit between the broken portions, in which case the mobility should cease *gradually*.

He gives two dissections of fractures in the early stage.

Case 1. Catherine Adam, æt 52, oblique fracture of the right thigh, at its lower third. She died in about a fortnight, with symptoms of œdema of the glottis.

On dissection, the fracture was found to extend obliquely from near the middle of the bone down to the external condyle. The muscular fibres and cellular substance in the neighbourhood of the injury were altered in colour as well as in consistence, by the effusion of gelatinous matter into their texture. A kind of bag or capsule was there formed, embracing the whole extent of broken surfaces, and containing two or three ounces of fluid blood. The parietes composing it were in some parts connected with the very edge of the bone, but in others they became adherent to it at a distance of an inch or more from the extremity, leaving a space to this extent uncovered, and apparently denuded of periosteum. When carefully examined, this exposed portion was ascertained to be covered by a thin layer of gelatinous substance, which did not possess the toughness or other characters of a membrane; and the respective surfaces of the bone had a covering of the same kind. The medullary membrane was very vascular, and more distended than usual.

In examining the structure of this bag, I endeavoured to ascertain which of the natural tissues entered into its formation, and in what parts of it, if any, ossification had commenced. On tracing the periosteum from the sound bone, I found that where the bag adhered, that membrane became thick and evidently continuous within its walls. It seemed probable that where the membrane had been stripped off the bone, as already mentioned, it might assist to form, in some

small part, the sac in question; the great extent of which, however, was evidently constituted by the neighbouring tissues, whatever they happened to be, muscle, tendon, fat, or cellular substance, all being reduced to the same appearance internally, by vascularity of the surface, and the same consistence, by the interstitial effusion of organizable matter.

On introducing my finger into the bag, so as to feel if there were any indications of ossification, I perceived some small grains or specks of bone, which, when minutely examined, presented a stellated appearance, and were ascertained to be in the substance of the capsular membrane. When examined in the same way near its connexion with the bone, it was found to contain much larger masses possessing osseous firmness. In order to ascertain the precise seat and origin of which, I carefully dissected the membrane where they existed, and then found that they lay completely imbedded within it, having a covering from it on both sides; also that they did not adhere to the bone, being separated from it by a thin layer of the membrane, so as to admit of a slight degree of motion; but at these parts, the shaft itself had begun to shoot out a growth of new bone."

It would appear from this, that not only arteries supplying the periosteum and the bone itself, can take on that action, but likewise the arteries of the surrounding parts. This dissection is a most important and highly interesting one, and has been described and performed with Mr. S.'s well known skill and attention.

As we have devoted so much space to this case, we can only give an extract of the case which follows:—Mary Donaldson, æt 70. A compound and comminuted fracture of the left leg, close to the ancle. The patient was admitted on the 27th September, on the 25th of October the cure appeared complete, and on the 5th of November she was discharged cured. About ten days afterwards she died, and Mr. S. procured permission to examine the leg. The bones on being freed from the muscles appeared nearly natural, but after maceration the tibia appeared composed of thirteen pieces, which constituted merely a skeleton, the central cavity remaining vacant. On examining the internal surface, ossification was observed to have been going on all over it, and Mr. S. has no doubt it would have become solid in time. The fibula presented similar appearances.

Mr. S. promises to return to the subject again at the first opportunity. We expect it with impatience, as every fact of such a nature is of great value, to determine this point.

Four additional cases of excision of elbow joint are added, making fourteen in all; three were successful: in the fourth, the disease for which it was performed was very extensive. Amputation was finally done, but the patient died the day after.

Urinary Calculus.—The next subject treated of, of consequence, is this disease.

In Mr. S.'s last report, he mentioned a case of stone that occurred in private practice, in which he extracted two large stones from the

urethra. Some uneasiness remained after the operation, supposed to be caused by a stricture of the urethra which existed, more especially as great relief was experienced by the use of bougies. When the stricture was cured, however, the uneasiness still remained, and in consequence an instrument was passed into the bladder, and a calculus detected. The stricture being situate in the anterior part of the urethra, the bougies were never passed beyond it, for fear of disturbing the healing process in the wound, through which the calculi were extracted. Mr. S. proposed its removal, but met with great opposition from one parent; it has since been extracted.

This case shews, in the first place, how careful one ought to be in removing stones from the urethra, near the neck of the bladder, to ascertain at the time whether or no there are any in the bladder itself. Otherwise the patient will have all the horrors of two operations, and be ready to listen to any suggestions against the skill of the surgeon.

As it is impossible to ascertain the existence of the calculus previous to the operation, and as it frequently happens that the first time of passing the sound, the stone is not felt, it would be better to divide the prostate so as to admit the finger, and make a complete scrutiny over the whole of the bladder.

A very curious case of stone follows; in which, owing to the extreme suffering of the patient from the stone, he had been accustomed to take about sixty-two grains of opium daily.

The operation of lithotomy was performed with considerable facility, and a small oval stone about the size of a pigeon's egg extracted. The question of what quantity of opium should be allowed him was then mooted? If the quantity previously taken, danger was to be feared from it, the cause of the irritation requiring it being removed. On the other hand, a sudden discontinuance of his natural stimulus was likely to do considerable harm. In this dilemma, the patient's feelings were allowed to be the guide, (by far the best that could be chosen) and he took in each of the first six days, from six to eight hundred drops of laudanum; his bowels were opened by injections, which were and *had been for some time indispensable.*

On the 6th Sir G. Ballingall and Mr. S. thought the opium might be diminished. In the evening, he complained of exhaustion and general uneasiness, pulse had risen, tongue was dry. Laudanum was given in large doses, but he gradually sunk, with symptoms of chest affection. The day before his death, he complained of violent, incessant, and excruciating pain in the left lumbar region, which continued until he died. On dissection, the lungs were gorged with mucus; in the abdomen the only morbid appearance was an extreme contraction of the colon, exactly at that part where the agonizing pain was felt; all the parts concerned in the operation were in a most satisfactory state.

Mr. S. ascribes the patient's death to suddenly removing a source of irritation in a very irritable system. In ordinary cases this diminution of irritation counterbalances the irritation of the operation.

But the previous irritation was excessive, while that from the operation was comparatively mild, from the facility with which it was performed; and hence the function might be thrown into disorder, and produce death. He is not, however, certain of this, and leaves it to the practical reader to explain as best pleases him.

Cancerous Sores of the Face.—When they can be eradicated, should be removed freely with the knife, as owing to the looseness of the surrounding integuments, cicatrization readily occurs. Some cases are given in point. A case of lacerated wound of the vagina is detailed, but from our long extract, it is impossible to do justice to it.

An attack of peritonitis ensued, which was combated by bleeding and tartar-emetic. The patient was cured in about three weeks.—*Op. cit.*

We cannot take leave of Mr. Syme without returning him our sincere thanks for the excellent paper we have just perused.

3. *New operation for stricture.*—Mr. Stafford observes:—"I have myself now operated on upwards of forty cases of permanent stricture of the worst description, without a single failure. In no instance, has there been a false passage made, nor has the cutting through the contracted part either caused pain, haemorrhage, inflammation, or any other unfavourable symptom; the hardened structure which composed the stricture has always been absorbed; and I have never as yet heard of a return of the complaint after this treatment. In addition to the unvaried success in the use of these instruments in stricture, I have on two different occasions divided through an enlarged third lobe of the prostate gland, which in the one had caused total, and in the other, partial retention of urine. In both of these cases the disease subsided, and the patients recovered the complete power of the bladder.

It cannot but be gratifying to the profession to know, that although the employment of these instruments is not necessary in every case of stricture, yet when such cases do occur, and there appears to be but little hope left to the patient from any other remedy, he may be relieved, not merely without danger, but with very *trifling* inconvenience. I say *trifling* inconvenience, because I have not always found it necessary, as I formerly recommended, to confine my patients, to apply leeches, or to leave the catheter after the operation in the urethra. They have, on the following day, usually gone about their occupations, and it has only been necessary to pass a bougie daily for a short time, and afterwards three times a week, until the cure has been completed.—*Appendix to Work on Stricture.*

4. *Browne on Tracheotomy, in cases where a foreign body lies in one or other bronchus.*—In the greater number of cases, the foreign body is in the right bronchus, which according to Cloquet, is more a continuation of the trachea than the left, and is also larger, and a little more forward.

From Mr. Key's experiments, which have been repeated by Dr. Browne, it would appear, first, "that a shilling could be forced, for

the distance of an inch, into the right bronchus, but *not at all* into the left: while a sixpence passed freely into either bronchus, but farther within the right: secondly, if a long slender forceps was passed into the trachea, without giving it any particular direction, it went invariably into the left bronchus: and lastly, that bones, sixpences, &c. could be extracted with equal facility from either of these tubes: as by inclining the handle of the forceps towards the left side, the transverse direction of the right *bronchus* was, in a great measure, counter-acted."

The irritation produced by these foreign bodies most frequently caused pulmonary consumption, and the patient's death: though occasionally cases have been recorded, in which, after suffering for years from *apparent* disease of the chest, the patients have expelled the irritating cause: but these must be regarded as exceptions to the general rule, and though the operation is not unattended with danger, yet it offers the best chance of safety for the patient, more especially if performed early.

Dr. Browne draws these conclusions from his observations.

1. That the existence of foreign bodies in one or other *bronchus* can be ascertained by the use of the stethescope: by the seat of the pain, and other uneasy sensations: and by the previous history of the case.

2. That since by producing irritation, etc. they most commonly cause death, sooner or later, it is incumbent on us to attempt their extraction with the least possible delay.

3. That small round bodies move freely from the bronchus to the trachea, and the best way of promoting their expulsion, is by an opening in the trachea.

4. That sharp, angular substances generally become fixed, but may be extracted by forceps or other suitable instruments, passed through an opening in the trachea.

5. The sooner the operation is performed, the greater the chance of success.

This most interesting paper is followed by the description of a case of pulmonary abscess, caused by a chicken bone in one of the bronchi, by Dr. Gilroy; this case exemplified Dr. B's paper, and in fact, caused the researches of the learned doctor to be directed to that particular branch of surgery, in exploring which Mr. Key has led the way.

On examination after death, the bone was found in the *right* bronchus, close to the bifurcation.

In the present number, there are several cases illustrating the use of acupuncturation: one of that painful affection termed *tic douloureux*, or by our continental neighbours, *neuralgia faciei*; if this remedy, which Dr. Banks, the narrator, says causes little pain, should prove successful in other hands in that most distressing complaint, it will prove an invaluable addition to our means of treating that disease.—*Edinb. Med. and Surg. Journ. April.*

MATERIA MEDICA.

5. *Observations and reflections on the employment of strychnine in the treatment of paralysis.* By E. Geddings, M. D. Charleston, S. Carolina, &c.—The able author has paid a just compliment to the talents of that distinguished physician Fouquier, for the use of strychnine in paralysis, "a disease, which, under all circumstances is exceedingly difficult to manage, and too often baffled the best directed efforts." The first case that the author used it in was one of hemiplegia of the whole of the left side. The patient was a male, aged 50. He was placed under Dr. G's care in July 1829, and it appeared that he had been suddenly attacked, a month previously, while cutting wood, with violent pain in the head, the left arm and leg were insensible, to which succeeded loss of sensation and motion and double vision. The treatment principally consisted of active cathartics combined with jalap, head shaved and blistered, and sinapisms to the legs, cups to the nape of the neck, and to be covered by a blister stimulating friction to the paralytic members, and the strychnine was actively and judiciously employed. The first day he gave vi grains of the medicine in ʒi. of alcohol, six drops morning and evening; second day, he increased it to ten drops; fourth, to fifteen drops; ninth, to eighteen drops, three times a day; tenth, to twenty four drops; at the expiration of which, his leg was quite cured, but his arm remained diseased. The author has employed strychnine successfully in several similar cases, which are narrated; and in chronic irritation of the alimentary canal, and in habitual constipation with success.—*Amer. Journ. of the Med. Sciences, Feb.*

CHEMISTRY.

6. *On the Analysis of Elaterium.* By Mr. Morries.—Having made an infusion of fifty grains of good elaterium, Mr. M. found that eleven grains had disappeared. From the remaining quantity, ten grains were removed by alcohol; this tincture being evaporated to the consistence of oil, and allowed to cool, numerous masses of small spicular crystals were observed, these were washed with sulphuric ether, and dried. The rest of the extract was boiled in aqua potassæ, to free it from the *elatine* or colouring matter, which Mr. M. considers as synonymous. After a few minutes, a small quantity of white crystalline matter fell down, this was likewise washed with sulphuric ether.

It may be obtained in greater purity, by evaporating the alcoholic tincture to the consistence of a thin oil, and then while warm, throwing it into boiling water, when a copious white precipitate ensues, increases as it cools. This is the *elaterine*: it is extremely bitter and styptic, insoluble in water and alkalies, soluble in alcohol, ether, and in hot olive oil, sparingly in dilute acids; it is decomposed by the strong acids; it is by no means distinctly ascertained to be alkaloid. By experiments it appears not to exert any purgative effect on animals, but in doses of a tenth, twelfth, or even of a sixteenth of a

grain (when acidulated) has been found to exert a powerful effect on the human system.

Mr. M's formula is as follows:

℞ Elaterinæ gr j., alcohol ʒi. acid nitrici gtt. iv.
Solve: sumat a ʒ ss. ad gtt xl. in aquæ cinnamomi ʒss.

From Edinburgh Med. and Surg. Journ. April.

MIDWIFERY.

7. *Observations on Tetanus Infantum, or Lock-jaw of Infants.* By John Hancock, M. D.—This disease happens to infants under nine days, seldom later. It appears to be very fatal in the West Indies.

Dr. Hancock attributes this disease to an "irritative impression made on the *nervous system* by the compression of the umbilical chord, caused by the ligature which is applied to it at birth, a custom which, to say nothing of its *destructive tendency*, is *entirely unnecessary and uncalled for*. It is one of those *useless customs* which has arisen from the doing of old women, or *officious accoucheurs*, who fancy that nothing can be well done unless they put their hands to it; and most practitioners treading in their steps follow their example to the destruction of thousands." From this specimen, it is evident Dr. H. is neither an *obstetrician nor a jurist*. *An irritative impression on the nervous system by tying the umbilical chord;* surely the learned Doctor must have made a mistake, and in those cases he alluded to, the *spermatic* chord must have been cut down on, and tied.

Joking apart, how is it possible for the nervous system to be irritated by the tying of a chord, in which it is universally acknowledged no nerves exist? In fact, if nerves did exist, so far from being confined to the warmer climates, the disease must pervade the whole world, wherever the tying of the chord is practised; and, we think, that Dr. Hancock will not assert that such is the case. Besides, the tying of the chord NEVER produces pain in either the mother or the infant.

We would like also to ask Dr. Hancock on what he grounds his assertion, that the ligature is unnecessary: not surely on the certain consequence, namely, fatal hæmorrhage.

In all probability the disease arises from that which Dr. H. considers merely as one of the efficient causes, namely, the purging plan so commonly pursued, especially as in those warm climates, the constitutions are so much debilitated. In fact, infants when not too much fed, require little or no medicine, and the irritation produced by the free employment of calomel and castor oil may readily cause this disease; in which opinion, we are confirmed by the remedy employed to cure, namely, laudanum, which Dr. H., going on the rule that "prevention is better than cure," recommends should be given from the second day, gradually increasing its dose until the day of

danger is past. Dr. H. proposes, instead of a ligature, the application of the actual cautery. This, we presume, would cause as much irritation; and besides burn down half the houses in London, according to the present practice of dividing the chord; and, of course, searing it (unless we wished the child to die of hæmorrhage) under the bed-clothes. In concluding, we advise the Doctor to "tak tent."—*Edinb. Med. and Surg. Journ. April.*

8. *Ergot in Menorrhagia.*—Dr. John Ballinger, of Charleston S. C. informs us that he has tried the ergot in one case of menorrhagia, as recommended by Marshall Hall, and that the hæmorrhage was increased, and the sufferings of the patient greatly aggravated by the treatment.—*Amer. Jour. of Med. Sci. Nov.* 1830.

9. *Case of Cæsarean Section.* By Dr. Mc.Kibbin.—Annie M. æt. 26, apparently well formed, seized with labour pains for the first time, on the evening of Sunday the 27th September 1829. On examination on Monday, the left side of the pelvis was found to be occupied by a large exostosis, filling up the hollow of the sacrum, and extending forwards to within a quarter of an inch of the left ramus of the pubis, on the right side, the diameter at the widest part was from 1½ to 1¾ of an inch, and the long diameter from pubis to right sacro iliac synchondrosis, was calculated at from 3½ to 4 inches. The patient entered the Belfast Lying-in-Hospital, on the Tuesday evening, when on consultation, the Cæsarean section was decided on, as it was evident, that *embryulcia* would prove as dangerous to the mother as the Cæsarean section, while by this last operation there was a chance of saving the child, of whose death doubts were entertained: accordingly the operation was performed by Dr. M'Kibbin at a quarter to eleven p. m. the same night. The child was dead; in spite of the greatest attention and skill, this unfortunate woman gradually sunk, and died the next day, seventeen hours after the operation.—*Edin. Med. and Sur. Journ. April.*

Thus adding another to the list of unsuccessful cases of this operation by British practitioners; its unsuccessful termination is evidently owing to delay, when the patient has been so far exhausted by the continuance of labour, as to be incapable of withstanding such a severe operation: in the present instance, however, the delay was attributable to the friends, and not to the medical men.

MISCELLANIES.

PROFESSOR PATTISON.

10. *To the Editor of the London Medical Gazette.*—Sir, I have read from time to time with no little surprise, and not without incredulity, the accounts you have given of disturbances in the Anatomical Theatre of the London University. I suppose, however, it is best to be surprised at nothing. It will only be fair if I admit, at once, that I am in some degree interested in the reputation of the professor of anatomy, from having been his pupil in Glasgow fifteen

or sixteen years ago. As I have always considered him to be an accomplished anatomist, I am necessarily slow in my belief of his recently discovered incompetency.

It was in 1812, if I am not mistaken, that Mr. Pattison, on the death of Allan Burns, whose demonstrator he had been and intimate friend, succeeded to the vacant chair in College Street. I am able to speak with confidence respecting the estimation in which he was held during three successive courses of lectures, of six months each, which he delivered in the winters of 1814, 15, and 16. His class-room accommodated, but with some difficulty, 128 pupils. I well remember that there never was one seat unoccupied in a single lecture. My impression is, that he was regarded by the students generally as being by far the best teacher of anatomy in Glasgow: at a period, too, when, besides the University professor, Dr. Jeffrey, he had the late Dr. George Monteith as a competitor. He was particularly noted for minute and accurate acquaintance with anatomy, and especially for his surgical anatomy. His demonstrations on the neck and face are not likely to be forgotten by those who had then the privilege of witnessing them.

Mr. Pattison's manner as a lecturer was inferior to that of his opponents. Monteith was a handsome man, with a graceful delivery; while the other, professor Jeffrey, is (or was) one of the best looking men I have seen, and remarkable in his physiological discourses—a branch to which he devoted too much of his course—for dignified and most attractive eloquence. Pattison spoke with a lisp, and his delivery was peculiar and somewhat monotonous, but, I speak in the past tense, for I have not seen him for more than fourteen years—his language was sufficiently fluent, distinct, and impressive: and those who were attentive to the *matter* which he so zealously uttered, as all the students I believe were, had no fault to find with the *manner*.

Mr. Pattison is still a young man, in the full vigour of his days. Of course I cannot pretend to say that he *may* not be changed from what he was when he so honourably filled the chair of Allan Burns. Years, it has been said, teach wisdom. It is strange if he have indeed gone backward in attainments, when the young gentlemen, his auditors, few of whom, perhaps, are half his age, are so forward in knowledge. This is a mystery too profound for me to solve. Perhaps, but I speak with the greatest diffidence, there is one way of accounting for his recent incompetency as a lecturer. Sixteen years ago students were less precocious and enlightened than they are now. They were modest, diligent, and many of them ardent, in the pursuit of professional knowledge. They formed themselves into clubs, it is true, but it was for literary and scientific purposes. They were then too simple to think of forming "Committees," in order to control and manage the affairs of their teachers. It certainly, at that period did not occur to them that they knew as much as their instructors. On the contrary, there were very many who lamented their

ignorance, and who trimmed the midnight lamp that they might satiate their thirst for that honourable knowledge, which, in the case of several, with whom I am proud to claim acquaintance, has conducted them to eminence in their profession, and no less to deserved estimation as members of society. This simplicity of theirs—this dawn of intellect, in comparison of the noon-day intelligence of our present illuminated order of students—is doubtless the reason why, in 1815, those who had sat at the feet of Allan Burns could, when he was removed, still listen with deep interest to the accurate anatomical instructions of his friend and successor.

Believe me, Sir, to be, with humility,

Yours,

Manchester, March 31, 1831. S.

12. *King's College.*—The following professors have been appointed. Head Master, Rev. J. K. Major, A.M. Professor of Chemistry, J. F. Daniel, F.R.S. Of Mathematics, Rev. T. G. Hall, A.M. Natural and Experimental Philosophy, Rev. H. Mosely, A.M. Natural History, James Rennie, A.M. Political Economy, N. W. Senior, Esq. Jurisprudence, J. J. Park, Esq. Principles and Practice of Commerce. Joseph Lowe, Esq. Anatomy, Herbert Mayo, Esq. F.R.S. Surgery, J. H. Green, F.R.S. Theory of Physic. B. Hawkins, M.D. Practice of Physic, F. Hawkins, M.D. Midwifery, R. Fergusson, M.D. Botany, G. T. Turner, Esq.

13. *Longevity.*—Russia is the country for wonderful longevity. In the year 1827, there died in Russia 947 persons above a hundred years old, 202 above 110, 98 above 115, 52 above 120, 21 above 125, and 1 above 135!

14. *Prize Medal.*—The Hunterian Society offer their medal of ten guineas value for the best "essay on unnatural growths and depositions of bone." Dissertations must be sent to the Secretaries on or before the 14th of Dec. They must not be in the handwriting of the author, and his name must be contained in a sealed packet. Candidates need not be members of the society. Unsuccessful papers will be returned if required.

15. *Statistical Medicine.*—The Rev. Charles Oxendon, Bishopbourn near Canterbury, has evinced great zeal, taken great trouble and incurred considerable expense in arranging a statistical report of the principal provincial hospitals in England computed to the latest annual returns of the respective Institutions. He has generously circulated the result of his labours among the medical officers of the establishments to which they refer: and afforded much valuable information free of expense. He solicits reports from all quarters, and hopes the love of humanity and science will stimulate the medical

ıttendants on hospitals to transmit him regular reports, which he will ırrange and publish annually; great praise is due to this benevolent gentleman for his good intentions, but we fear his wishes will not be gratified. He must not feel disappointed, for we must inform him that ɔur hospital physicians and surgeons, are too indolent and lazy to give annual reports even of disease, much less of the various pecuıiary matters relative to the management of the institutions with which they are connected.

NECROLOGY.

16. *Death of Mr. Abernethy.*—It is with unfeigned feelings of regret that we record the death of the justly celebrated and renowned ıurgeon, J. Abernethy esq.; of whose talents and important contribuıions to science, as well as of his great popularity, it is obviously ıuperfluous to speak. We trust that some of his eminent disciples will place his character in a just light before the profession and pubic. He expired at Enfield on the 18th ult.

17. *Library of the Royal College of Surgeons.*—This splendid ibrary is now open to the members from 10 a. m. to 5 p. m. except ɔn Saturdays, when it closes at 1 p. m. Catalogues may be had by nembers or articled pupils at the cost price. The council have ıcted wisely in affording every facility to the best collection of medi-al literature in this empire; they also have it in contemplation to establish conversations two or three times a week.

18. *Resignation of the Warden of the London University.*—It has ɔeen rumoured, that Mr. Horner resigned in consequence of reducıion of his salary. This is incorrect. He has voluntarily relinquished £200 a year of his salary, and resigned, as he was deprived ɔf that influence and authority which were deemed necessary to a lue and efficient exercise of the duties of Warden, and the maintenance of proper discipline.

19. *National Vaccine Establishment.*—Copy of the last report from he National Vaccine Establishment to the secretary of state for the ıome department.

To the Lord Viscount Melbourne, secretary of state for the home lepartment, &c. &c. &c.—My Lord, it has required all our industry nd zeal to supply the numerous demands which have been made ıpon us for vaccine matter from all quarters of the Empire since our ast report.

We have furnished the means of protection to the army and navy, o every county in England and Scotland, to Ireland, to the colonies, nd moreover to several of the capitals of Europe; and nearly 12,000 f the poor of the metropolis and its immediate neighbourhood have een vaccinated in the course of the last year.

Whilst this affords an undeniable proof of the great diffusion of accination, and is a strong argument for the value of this institution,

it diminishes our satisfaction to be obliged to confess, that, if Parliament should determine that enough had now been done to establish the superior merit of vaccination above every other security against the danger of small pox, and that it should be left henceforward to the discretion and good sense of the nation to continue the practice from the resources of individuals, such a determination would find the country unprepared and unprovided with the means of defence, and that a great mortality from small pox would be an early consequence of the breaking up of this establishment.

It is our constant care to admonish those to whom we send Lymph, of the propriety of taking advantage of the opportunity of providing a further supply for themselves. But it would seem, from the incessant applications which continue to be made to us, either that our warnings are not sufficiently attended to, or what we believe to be the fact, from the replies constantly made to us, it is impracticable to keep up a continued supply any where but in the capital, where numerous appointed vaccinators assist and support each other.

The result of another year's experience is a confirmation of the value of vaccination. We have evidence before us of persons being exposed to the severest trials of its power of protection in the midst of the contagion of the small pox, with impunity; and though some constitutions do admit a secondary disease, yet this is almost always a safe one, though severe in some instances in first attack, and it is not so common as the chicken pox used to be after small pox given by inoculation.

We have the honour to be, my Lord, your Lordship's obedient servants,

(Signed) HENRY HALFORD,
President of the Royal Coll. of Physicians.
Robert Bree, M. D. Censor.
George L. Tuthill, M. D. Censor.
ROBT. KEATE,
President of the Royal Coll. of Surgeons.
JOHN P. VINCENT,
Vice President of the Royal Coll. of Surgeons.
Clemt. Hue, M. D. Registrar.

National Vaccine Establishment,
14th March, 1831.

20. *The March of Intellect.*—A respectable correspondent assures us, that at the corner of Percival-street, Wellington-street, Islington, is the following pithy inscription; "John Sutton, dealer in tea, coffee, pepper, &c. and is also a midwife;" and on a brass plate in large letters, "Mr. Sutton man midwife and accoucheur." This worthy amateur sells fruit in the streets, and has actually received a certificate from a respectable midwifery lecturer in this city, who admitted him to his lectures on the usual terms. Well may we exclaim; *O Lucina, fave! novus ingreditur tua templa sacerdos.*

22. *Defence of the professional skill of Mr. St. John Long, convicted felon and illiterate quack.*—By Francis H. Ramadge, M. D. Oxon. Fellow of the Royal College of Physicians, Lecturer on Medicine, &c. &c.

It affords us much satisfaction that a Fellow of the College of Physicians, should become the defender of one of the most illiterate and incorrigible empirics that ever figured in this country of quacks, and that no licentiate, none of the *minus docti*, the *alieni homines*, could be found to disgrace the dignity of our profession by such a disreputable line of conduct. No, it is a fellow who, *par excellence*, is of a superior caste, one of the elect, one of the by-legal heads of the faculty, who has achieved this great event. Shades of Linacre, of Sydenham, of Mead, of Baillie, what say you of this? Here is a convincing proof of the utter absurdity, the consummate folly, and gross injustice of placing fellows above licentiates, above men, who are with few exceptions their superiors, in talent, in science, and in public estimation. If proof were required of the truth of this statement, it is only necessary to refer to the list of fellows and licentiates, where we find there is scarcely a fellow, Paris and Elliotson excepted, whose name is known in the annals of medical science, while the fame of the medical literature of this empire is almost entirely maintained by the licentiates—by the aforesaid *minus docti* and *alieni homines*, who are not allowed to enter their own college without special invitation from the illustrious and renowned fellows. But the licentiates have to blame themselves for the arrogance, haughtiness and insolent disdain with which they are treated; for had they shewn proper resentment, and petitioned the legislature against the assumed and illegal usurpations of their rivals, they might have obtained redress; and never was there a more auspicious period than the present, when a wise, and magnanimous, and really popular Monarch, with a real representative Parliament, governs a grateful people, and is sensitively alive to the wishes and wants of his subjects. The age of humbug has passed—never to return, the welfare of the people is the sovereign law, and why should the conservators of public health be degraded? Let the licentiates and all regularly qualified graduates unite, and AN OPPORTUNITY WILL BE SPEEDILY AFFORDED THEM; and petition the new parliament against the imbecility of the College of Physicians, and the unlimited ravages of quackery, and medical reform must keep pace with the universal progress of reform in this country. We have been imperceptibly led into this digression by the perusal of the extraordinary production before us, which roused our indignant feelings against the corrupt and illegal code of by-laws, which destroys all friendly feelings and close connexion between the members of the college; and according to a late legal writer, the division into fellows and licentiates is contrary to the charters and statutes relating to this institution, and the College has full power to suppress quackery. See Willcock on the Laws relating to the Medical Profession, London, 1830.

We cannot express our surprize at the defence of Long, by any respectable or scientific physician or surgeon, of a man who has been proved, beyond all possibility of doubt, to be utterly ignorant of a single ray of medical science, to be a rash and desperate person, whose very opinions are contrary to those of the principles and practice of medicine; a man who publishes to the world—he cannot only cure, but prevent the most incurable diseases. See his humbug Discoveries in the Art and Science of Healing, passim. And this is the man defended by a fellow of the college, and in a common newspaper! "I know you, says Dr. R. to be far from the ignorant and illiterate person whom your illiberal and invidious traducers wished the public to believe— * * * — and to my knowledge having in an anatomical school where I lectured four years ago (without any personal acquaintance with you at the period) purchased dead bodies, at a considerable expense, for the purpose, as I believe, of dissection, and study of visceral anatomy in particular." Now, it is passing strange that this evidence, which could of course be corroborated by the anatomical teacher, was not produced on either of the trials for manslaughter; and now comes before the public for the first time. Again, if "this guiltless and cruelly persecuted individual," possess the slightest knowledge of anatomy, how, we beg to ask, could he have published a tissue of the grossest nonsense, when he declares he can cure and prevent the most fatal diseases? He knows as much about the structure and diseases of the human body, as he does of the logic of the man in the moon. We are totally unable to account for the preposterous conduct of Dr. Ramadge, in his publishing his advocacy in favour of such a person, more especially as he stands alone, the opponent of the whole profession. Doubtless he is right, and the faculty are in error.

The origin of his defence arose from a letter addressed to our author by the scientific and infallible Mr. Long, requesting his opinion on the practice of that enlightened personage in the cases of the unfortunate Miss Cashin, and the infatuated Mrs. Lloyd. This epistle bears date March 26th, and the Dr. replies through the medium of a newspaper, called the Sunday Times, March 31st, where he not only defends his correspondent, but exposes the mistakes, of ancients and moderns, more especially of Mr. Brodie, whom he grossly misrepresents, but also of Sir Astley Cooper, Sir Henry Halford, the fellows of the college, and divers other hospital physicians and surgeons, in a manner the most unprofessional and unjustifiable on such an occasion. He has the modesty and good sense to compare the practice of these with Mr. Long's, and argues that one is just as good as the other. Was there ever such unprofessional conduct as this displayed by a respectable member of any of the medical corporations in these kingdoms? Is such conduct to be tolerated by the profession, or sanctioned by the college? Should the college tolerate such a gross insult to the dignity and honour of the profession, it richly deserves the contempt of every respectable physician, not only in the empire, but in the world.

In justification of these remarks, we request the reader's attention to the following defence of the opinions and practice of Long in the case of Miss Cashin. But first, we must premise that Drs. Johnson, Thomson, Mr. Brodie, Mr. King, Mr. Hogg and others, swore at the inquest and trial, that there was no disease of the lungs; that there was intense inflammation, mortification and sloughing on the back, which caused death. Our author, who was not present at the autopsy, and who perhaps forgets that the body was that of a person destroyed in rude health, thus proceeds:—

"The *post mortem* examination of Miss Cashin satisfactorily proves to me the correctness of your judgment, as to the existence of pulmonary disease, and which, in my opinion, fully justified you in the steps you took, in the hope of suspending or removing an affection of such a fatal tendency; and, whilst she was without fever or marked local uneasiness, to employ counter-irritation, as well as inhalation. I cannot possibly conceive how the same remedial agents, after having been used by numerous individuals, without their sustaining the least injury, can in any degree be assigned as a cause of what afterwards took place. Most ample experience in medicine has shewn me, how easily effects may be attributed to inadequate causes. For among all the months in the year, August is noted for those affections of the stomach and alimentary canal, which often appear spontaneously, and in females particularly, inasmuch as we find the former organ in them to be a great sympathiser. And I do in truth assert, that in some cases, owing to the continued irritability of the stomach, the vital powers have failed, and unexpected death has followed; leaving, upon the most minute dissection, nothing satisfactory for the fatal change.

"Since such may take place, can we not easily imagine that a case of this kind might unfortunately occur in your's, or any other person's hands? But when we find, on perusing the evidence against you, the great quantity of plums and purple grapes, eaten by the lady alluded to, and presuming that she had a great and natural solicitude for her sister's sufferings, our surprise lessens whilst there existed such causes for local and general irritation—namely, that a high state of fever should supervene, and that what, without it, would have remained a trifling insignificant sore upon her back (it being merely an abrasion of the cuticle or scarf-skin), should give origin to so much pain, and subsequently assume those appearances, respecting which such a strange diversity of opinion was exhibited by the professional witnesses against you, and which I fear will contribute more than any thing in modern times, to shew the unstable grounds upon which, unfortunately, the art or science of medicine is founded.

"Whilst the stomachic irritability kindled up constitutional fever, a sore of the most harmless nature might become highly inflamed, and even be the cause through sympathy for those violent retchings that took place afterwards, and might impair the vitality of that

organ, through a diminution of which deaths occasionally occur, examples of which are at times seen in cases of spasm occurring through gout seizing the stomach, a violent blow upon the organ, &c.

"To me, who have had for more than eleven years past, unequalled opportunities of treating, and where death has taken place of investigating, numerous affections of the chest, I do not exaggerate when I say that I have opened more than a thousand bodies of consumptive persons alone. It has always appeared to me, and the same opinion has been entertained by the principal modern continental pathologists, that the imperfectly formed cicatrices, one of which was found in the summit of each lung in Miss Cashin (though contrary to the statements made by some medical men who examined the body of the deceased), had been formed from tuberculous matter (the presence of which constitutes consumption), which having undergone a softened state, and in this way being expectorated, allowed the cysts which remained to heal up like any ordinary abscess. I have numerous specimens in my museum, shewing the progressive changes which tubercles undergo, until their place becomes supplied with condensed cellular membrane.

"With an observation or two more, I shall conclude my remarks upon the morbid appearances which were found at the expiration of six days from the time of Miss Cashin's death, by which means her disease was attempted to be satisfactorily ascertained.

"The appearances in the chest, abdomen, and about the spine, might easily be met with in any individual, who had died of very little or no *apparent* injury whatsoever. The deep-seated muscles of the back, as every person who has had the treatment of fever, particularly in neglected cases, can bear testimony, are susceptible of undergoing more extensive disease, by gangrene and actual mortification, than the medical witnesses against you wished the public to believe, and yet in this case these might not have been the proximate cause of this young lady's death, nor have been followed by fatal injuries of the spinal marrow, or its investing membranes. Hence it follows that even if the symptoms of the patient had been of a more aggravated nature than they are described to have been, still, in my opinion, she might have lived. The natural gravitation of the fluids to the back, combined with a trivial previous irritation, would produce most of those which were regarded as signs of most extensive mischief. In common fairness, a much greater stress ought to have been laid upon the rapid decomposition which was every where going on. In fact, had I had as an impartial person a share in the post mortem examination, it would have been my bounden duty to have warned the friends of the deceased, to have placed, under existing circumstances, but a very moderate reliance on the expected results of such an investigation. Under any diminution of health for some time, no matter from what cause produced, I have every reason to believe that new crops of tubercles would have

ppeared, and most probably, sooner or later have terminated her xistence."

It appears by this extract that the above named practitioners, very one of whom is much better known to the medical public han their critic (for all have contributed more or less to science), o not know sloughing or gangrene from abrasion of the cuticle. gain, this is the first time that plums and purple grapes have been iscovered, which is rather singular, when Mr. Long is so well cquainted with the causes of disease. We refer to our report f the trial for the most incontrovertible evidence of the fact, that he practice of Long, in treating the eschar on the back, was the nost injudicious, dangerous and fatal. The gravitation of the blood o the back, might cause cadaverous lividity, but not ecchymosis, r abrasion of the cuticle, which could only be induced by putre-action, which had not taken place. We challenge our author to ddduce the authority of one medico-legal writer in opposition to this pinion. If there was merely abrasion of the cuticle, why take so nuch trouble to explain the signs of the most extensive mischief?

We must pass over the unequalled opportunities of opening dead odies, by merely observing, that it is certainly marvellous such hould have occurred in a city where the aid of Mr. Long was to e procured, which could infallibly prevent such a tremendous mor-ality. Our author disposes of Mrs. Lloyd's case, by making it ill-nanaged erysipelas: here again he contradicts Mr. Brodie and Mr. Vance. The following piece of ethics deserves attentive perusal:—

"A few years ago some of my pupils informed me, that high operations for the stone were performed at St. George's Hos-pital, by Mr. Brodie; the events were most unfortunate; and, I believe, commented upon pretty freely, by more than one anato-nical lecturer in this metropolis, and the failures were ascribed to he want of necessary precautions in guarding the cellular membrane at the summit of the bladder from destructive urinous infiltration, by naking a counter opening inferiorly, as advised by that successful operator, for the same disease, Mr. Carpue. The precocious deduc-ions of Mr. Brodie on points of experimental physiology, are, many of them, as I have myself ascertained, quite fallacious; and the few recently published facts, by a Physician and Surgeon of Guy's Hospital, shew clearly, at all events, how much mistaken he has been on the action and effects of morbid poisons in the animal œconomy."

Mr. Brodie never performed the high operation for lithotomy, and never recommended it.—*Letter in the Sunday Times, 24th ult.*

Passing over a case which was supposed to be similar to that of the late king, and mistaken by two royal physicians and a Univer-sity professor, and its real nature discovered by our author, we are next favoured with the following fraternal and benevolent exposure of medical abuses:—

" Judging from a conversation I had with you, for the first time after the inquest upon Miss Cashin, you induced me to think that a professional merit, under the present corrupt system of patronage, witnessed in the various responsible appointments to our universities, colleges, court, hospitals, infirmaries, &c. was overlooked, you had no chance of fair competition; and as nearly one-half the medical profession are unlicensed, and practise under the names of surgeons, accoucheurs, chemists, &c. you saw no reason why you should not act as a medical practitioner, having early had a taste for medicine, and also, to my knowledge, having, in an anatomical school, where I lectured some four years ago (without any personal acquaintance with you at that period), purchased dead bodies, at a considerable expense, for the purpose as I believe of dissection, and of studying visceral anatomy in particular. You seemed perfectly aware of the low condition of medical practice in this country; for a man ninety years of age, or in a state of dotage, might, in London, be a surgeon to a public hospital. You seemed perfectly to understand that a titled surgeon publicly stated, that wherever he turned his eyes in two adjoining hospitals, he saw nothing but the abusive exhibition of mercury, even in cases where it is now universally admitted by medical men to be perfectly useless. To the best of my recollection, I replied, that about two years ago, I formed one of a dinner party with two physicians (besides myself), and more than double that number of surgeons, and that one of them (himself a surgeon to an hospital), stated, I believe with a view to exonerate himself, that his relative (the accuser), rarely visited his own wards for a particular class of diseases, and that the nurses thereby being uncontrolled, regularly salivated each patient in order to entitle themselves to an additional gratuity of sixpence.

" You complained to me much of the persecution you had endured from the medical profession, and you seemed to think, as I do myself, that had you not been very fortunate in gaining the confidence of the public, you never would have been the victim of their envy and malignity, however great your want of success might have been; and you said, that if they did not prefer their own private advantage to the public, they would have long since turned their attention to the defective state of our hospitals, and other eleemosynary institutions, where frequently men without any apparent ability, provided they are near relatives or intimate friends of some influential medical officer, obtain appointments (some of them having been bargained for previously by bonds in heavy penalties); and also if the public health lay so heavy at their hearts, they would have recommended that more than one day in the week should be appointed by themselves for seeing their unfortunate *out-patients*, and also more than one day in the same space of time for the admission of *in-patients*, accidents excepted. The value of medical opinion you spoke very lightly of, for you mentioned Dr. Brown of Edinburgh, who never practised himself, yet he wrote a work in favour of injurious stimulant agents, and that almost the whole profession eagerly embraced, for many

years, his doctrines, which generally led to the death of thousands and even tens of thousands.

"To shew the value of the concurrent testimony of medical men, you stated that a few years ago some medicines, and particularly the antimonial powder, and its prototype, that of the late Dr. James, were universally believed to be sovereign remedies in the cure of febrile and various other affections, and that there are numerous cases published of the efficacy of these medicines, which almost every practitioner of an unbiassed judgment now-a-days confidently believes to have never been otherwise than inert agents. To shew still further the value of medical opinion, you stated, that had you been old enough to have commenced practice twenty years ago, without completely salivating in particular disorders, after the fashion of the times, you most likely would have been persecuted as now, although your patients would have escaped many painful secondary affections, or perhaps the complete ruin of their health.

"You know that the late Dr. Armstrong was rejected by the College of Physicians in London as an incompetent practitioner, yet he was supported by the public, and hardly half a dozen years elapsed, before he realized a larger annual income than the resident, or any of the fellows who had rejected him, or in fact any physician attached to our metropolitan hospitals or dispensaries; to add to which, he was enabled to boast of having the largest class of medical students in the metropolis.

"If you are accused by the profession of ignorance, you may without difficulty comprehend what degree of anatomical information is necessary to be a distinguished physician attached to one of our hospitals, and the adulatory protégé of an old influential medical man, when I state that three medical friends of mine examined not long ago the body of a person supposed to have been destroyed by poison, who after removing the stomach and sewing up the body, it was re-examined, at the wish of some of the deceased's friends, by the physician I allude to, who pronounced that death was not occasioned through poison, but that the stomach was ulcerated sufficient to cause the decease. However, I must add that this organ was in the possession of one of the previous examiners, and that the learned Doctor mistook a portion of large intestine which he opened for that viscus."

In these extracts we have the quack consulted upon medical abuses, and his opinions held in high estimation. Now, is it not the highest presumption, in such a man as this, to presume to offer an opinion on the subject? But he thinks very differently, for he has just published a half guinea octavo, in which he reviews the whole theories of physic, in past and present ages, or rather they are reviewed for him, for he knows nothing about them; abuses Sir Astley Cooper, Mr. Brodie, indeed, the whole profession, and winds up the whole with Dr. Ramadge's letter. This production, which has just appeared, is entitled "A Critical Exposure of the Ignorance and Malpractice of certain Medical Practitioners," in which we have

an account of the "monopoly of the faculty, their too extensive and improper employment of poisonous medicines, the size of the irritation, (! ! !) erroneously and unjustly called a wound." Mr. Brodie's unscientific treatment of Miss Cashin, disgraceful prejudice of the faculty, fatal operation by Mr. Brodie, abuse of Mr. Lawrence, and Mr. Copland Hutchinson, for enormous scarifications in erysipelas, abuse of the medical attendants of the Duke of York, with other examples; and lastly, Dr. Ramadge's Letter.

It grieves us to see a respectable physician connected with such a production as this, which must inevitably ruin his character with all ranks of the profession.

Had Dr. Ramadge boldly exposed medical abuses in a legitimate manner, he would have acquired much popularity in the profession; but his doing so now, will be of little use to him, as it will be said he is influenced by personal feelings, more especially should the College enforce their obsolete moral statutes, and deprive him of his fellowship. Imbecile and lethargic as this body is, it cannot overlook this conduct, and should it do so, another proof will be afforded of the gross partiality and insolent behaviour of the managers of this Institution.

23. *Apothecaries Company* v. *Ryan.*—The report of this tyrannical prosecution reached us too late for notice this month. We are delighted that the partial conduct of these insolent pharmacopolists were censured by the Judge, and their verdict set aside by the King's Bench.

LITERARY INTELLIGENCE.

In the Press.—A Manual of State and Forensic Medicine, compiled from the best medical and legal works; comprising,—I, The ethics of the medical profession, ancient and modern, moral statutes of the British universities and colleges;—II, The charters and statutes relating to physicians, surgeons, apothecaries, obstetricians, chemists, druggists, and empirics in the British dominions;—III. The rights, privileges, and immunities of the faculty;—IV. The civil and criminal cases in which medical evidence is required; V, All medico-legal questions, with the latest decisions; being an Analysis of a Course of Lectures on Medical Jurisprudence, annually delivered in London, and intended as a compendium for the use of barristers, solicitors, magistrates, coroners, and medical practitioners. By MICHAEL RYAN, M. D. Member of the Royal College of Physicians in London; Lecturer on Practice of Medicine and Medical Jurisprudence, at the Medical Theatre, Hatton Garden, near St. Bartholomew's Hospital, &c. &c.

Mr. Wallace, Surgeon to the Charitable Infirmary, and to the Infirmary for Diseases of the Skin, Dublin, will shortly publish the History and Treatment of Venereal Diseases of the Skin, including the Primary Symptoms and Eruptions; illustrated by Delineations as large as life, and coloured after nature.

All Communications and Works for Review are to be addressed to the care of G. Underwood, 32, Fleet Street; or to the Editor, at his residence, 61, Hatton Garden.

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CRITICAL REVIEW.

I.—*Elements of Medical Jurisprudence.* By Theodoric Romeyn Beck, M.D. Professor of the Institutes of Medicine, and Lecturer on Medical Jurisprudence in the College of the Western District of the State of New York, &c. &c. Third Edition, brought down to the present time. By John Darwall, M.D., London, 1829. 8vo. pp. 640. Longman and Co.

II.—*Manuel Complet de Medecine Legale Considérée dans ses Rapports avec la Legislation Actuelle, ouvrage particulierement destinè a MM. les Medicins, Avocats, et Jurès.* Par C. Sedillot, Docteur en Medicine de la Faculté de Paris, 1830. 18mo. pp. 511. Crochard, Rue de Sorbonne, No. 3.

A Complete Manual of Legal Medicine, considered in its relations with Actual Legislation; a work particularly intended for Physicians, Advocates, and Juries. By C. Sedillot, M.D. of Paris. Paris, 1830, 18mo. pp. 511. Crochard, Rue de Sorbonne. London, J. B. Bailliere.

There can be no second opinion on the value of Beck's Jurisprudence, it is decidedly the best work in our language. It stands a splendid monument of learning, industry, and talent; and is unequalled in the annals of our literature. The present edition, however, scarcely differs from its predecessors, the annotations of its editor are exceedingly few and of little importance. Dr. Darwall has by no means brought down the work to the present time, and has taken

very little trouble indeed in the execution of his task. We deem it right to give this information to those who possess the second edition by Dunlop, which we may say has been merely reprinted. This work ought to be in the possession of every man engaged in the practice of the healing art, for the period has now arrived when a knowledge of forensic medicine is indispensable to all classes of the profession.

M. Sedillot has condensed all the facts in legal medicine into the smallest compass, and has embodied every recent opinion, more especially of his countrymen. He has evinced great tact in selecting from all sources, but in many places he is much too concise, and not sufficiently explicit. He prefixes the law to each article, in imitation of M. Briand, in his more diffuse and excellent Manual of Legal Medicine, 1828, and has divided his work into the following chapters:—Part I. Legal dispositions relating to the practice of medical men—judiciary and administrative reports—reports of estimation or on professional etiquette—certificates—medico-legal consultations. Part II. Of marriage, disqualifications for, nullity of, divorce—of pregnancy—delivery, viability of infants—slow births—abortion—exposure, desertion—substitution of infants—of infanticide—outrages against decency—examination of spermatic stains—of mental affections, somnambulism, inebriation, delirium, epilepsy, idiocy, dementia, mania, monomania—deafness and dumbness—simulated and dissimulated diseases. Part III. Of inhumations, medico-legal autopsy, putrefaction—of age and identity—asphyxia—spontaneous combustion—death by inanition—medico-legal history of wounds—detection of blood stains—medico-legal history of poisoning—classification of poisons—Class 1. irritant poisons, their action on the animal economy. Class 2, narcotic poisons. Class 3, narcotico-acrid poisons. Class 4, septic and putrifiant poisons—adulteration of alimentary matter. Part IV. Certificates in all medico-legal cases—certificates in medical police for exemption from juries and various other civil offices.

It must surprise the reader that so many subjects can be discussed with any success in a single 18mo, when ponderous volumes are devoted to the elucidation of even a few of them. We can state with truth, however, that M. Sedillot has amassed a great deal of information, indeed all that exists upon every topic introduced, and we should illustrate this statement by extracts, had not the greater part of the matter been published in this Journal during the last and present year. We strongly recommend this Manual to

every class of our readers, as its conciseness and brevity will save them much trouble in sudden cases, in which little time is allowed for reference to the more voluminous works. We have long thought that a manual of this kind would be a valuable addition to the medical library, and under this impression we have arranged one which will speedily appear. It was arranged in 1829, and almost on the plan of that before us, but the introduction of Medical ethics, and of all the laws relating to the medical profession in this empire will be a new, and it is hoped a valuable addition to legal medicine. In this country the medical corporations are exceedingly slow in adopting improvements in science; and this is well exemplified by the inattention they have paid to the study of medical jurisprudence. This branch of medicine which, in fact, comprises the whole circle of the medical sciences, and embraces an immense variety of important facts, which are never taught by lecturers on medicine, surgery or obstetricy, and so indispensably necessary to modern medical practitioners, is not as yet required by the Royal College of Surgeons in London, though required by the Colleges of Edinburgh and Dublin, and only a three month's course is enforced by the Apothecaries' Company. Why really one would think that these bodies are ignorant of the nature and extent of the subject, which every one knows, would require at least two six months' courses to comprehend it; and had not that noble institution, the University of London, appointed a professor of medical jurisprudence, we have every reason to believe it would not have been required at all.

III.—*Manual of Operative Surgery; translated from the Third Edition of the French of J. Coster, M.D.* By George Fife, M.D. Surgeon to the Northern Public Dispensary, Edinburgh, &c. &c. Edinburgh, 1831, 12mo. pp. 408, Maclachan and Stewart, and Baldwin and Craddock, London.

The translation of M. Coster's Manual would have been a great boon to students and young surgeons, as it contains a concise description of all surgical operations as performed in Paris, had not the works we shall immediately notice appeared. This valuable work has gone through three editions in a few years, and cannot be spoken of but in

terms of the highest respect, still it is superseded by the productions of Averill and Hargrave. The last is the best compendium of practical surgery in the English language; it contains every fact in either of its predecessors, besides the relative anatomy of all parts concerned in surgical operations. It must have been arranged at the time Dr. Fife was engaged on the production before us; and this coincidence affords strong evidence of the want of works of this kind. Though Coster's Manual is concisely and graphically written, and well deserving of patronage, yet it is deficient in one very important particular, that the methods of operating by British and American surgeons are omitted. The other works under notice, have a decided advantage in containing such valuable information. Coster's Manual of Surgery founds its claims to approbation upon the grounds of brevity, accuracy, and portability. It contains a great deal of instructive matter in a small space.

IV.—*An Essay on the Influence of Temperament in modifying Dyspepsia or Indigestion.* By THOMAS MAYO, M.D. Physician in Ordinary to His Royal Highness the Duke of Sussex, Fellow of the College of Physicians, &c. &c. London, 1831, pp. 144. Fellows, Ludgate-street.

THE author of this essay very ably proves that no single plan of treating dyspepsia can indiscriminately succeed. He censures the gastromania of the moderns, and indirectly alludes to the puffing of some eminent writers on indigestion. He proceeds to shew, that temperament has been almost entirely forgotten by many writers on this subject. He first considers temperament, then the symptoms of indigestion; thirdly, the influence of the former upon the latter. In describing the common symptoms of indigestion, Dr. Mayo examines the opinions of Paris, Philip, Johnson, Abernethy, and Hamilton, and concludes that many of them are untenable. This part of the work deserves quotation on many accounts.

"There is a remarkable diversity in the methods in which medical writers have respectively undertaken the history of indigestion. In the three able writers, whose works justly enjoy the highest present reputation on this subject, Dr. Paris, Dr. Wilson Philip, and Dr. Johnson, I find but little reference to temperament or constitution, as any ground of pathological distinctions. Dr. Wilson Philip

furnishes a very masterly description of the disease. He has looked at his subject analytically, and he places his reader in full possession of *his* view of it. But this view is, in fact, just such a one as might be expected to occur to a clear medical eye, after a careful abstraction of those differences which a consideration of temperament would suggest. It will, I trust, appear in another part of this Essay, how necessary it is that such distinctions should be *entertained* and *admitted*, with a view to the complete development of Dr. Philip's subject. It is indeed curious, that he should not have applied such distinctions to indigestion, considering the avowed object of his treatise, 'to give arrangement to the affections termed nervous and bilious, and to ascertain the nature of the disease on which they depend.'

"Without establishing any such division of the subject, Dr. Johnson's admirable work furnishes a much larger stock of materials for it, than that of Dr. Philip. The principal difference between the views of these two writers is, that Dr. Philip places before us a definite complaint,—Dr. Johnson describes a morbid habit. The first delineates an attack of dyspepsia, and follows this to its termination; the second draws from the life many characteristic features of a dyspeptic person.

"Now it will be expedient to consider the ordinary form of the dyspeptic disease, as given by Philip, and the ordinary features of the dyspeptic patient, as pourtrayed by Dr. Johnson. This will form a useful basis for the more immediate subject of this Essay, the inquiry into those influences, by which temperament modifies the common phenomena of indigestion."—p. 38.

The symptoms of indigestion are next minutely detailed, chiefly from the works of Drs. Philip and Johnson; and our author inclines to agree with Dr. P. and argues against Dr. Johnson's statement, that there is pain on pressure of the epigastrium. Here we must remind our author, that Dr. Johnson's work is universally allowed by the profession in all countries to be one of the best ever written. Indeed, it alone is now sought for by the profession and the public, which is a strong proof of the high estimation in which it is held. On the other hand it is to be recollected, that a very small portion of the profession assent to the divisions of dyspepsia, maintained by Dr. Philip. Dr. Johnson holds that purgation and mercury, without withdrawing the cause of irritation from the stomach, will not prevent indigestion; and here he happily exposes the opinions of Hamilton and Abernethy, which are in fact seldom adopted to the extent advised by these talented individuals. As Dr. Johnson's formula for an habitual aperient may not be generally known to our junior readers, we shall insert it.

℞ Ext. colocynth, comp.
—— rhei aa gr. xv,
Pil. hydrargyri ℈ss,
Pulv. ipecacuanhæ gr. ij,
Saponis Venetianæ gr. iij,
Olei caryophyllor gts. iij,
M. ft. pil. x. capiat i. ij. vel iij. horâ somni vel statim ante prandium.

After alluding to the influence of the liver on digestion, our author remarks, that persons biliously predisposed will have the influence of this organ proportionately augmented.

"On the other hand, the inconveniences which indigestion produces to the phlegmatic and the sanguine, are far milder than those occurring to the biliously constituted. And the symptoms of the nervous form of the disorder, though intensely severe, are in their apparent position often distant from the place really affected, and thus either lose entirely their character *as* symptoms of indigestion, or are traced with difficulty to that source. But in *bilious* indigestion, every bodily symptom is either an abdominal sensation, or so closely linked with, so immediately springing out of, one, that its connexion with processes of the digestive organs cannot for an instant be doubted. Few again, who have ever felt the moral and intellectual symptoms of bilious indigestion, are long in discovering by their sensations the strict alliance in which these symptoms are placed with some morbid state of the digestive organs.

"The extreme importance of these moral symptoms would of itself justify my present principle of division. For they are connected with indigestion, not simply *as* indigestion, but as the indigestion of the bilious temperament; and are accordingly liable to receive very inappropriate treatment, if this distinction is not kept in view; or in other words, if they are associated with a form of the disorder, with which in truth they have no alliance.

"Nor is this indeed a groundless precaution. No mistake is more common, than that of imputing to bilious melancholia the tendencies and corresponding treatment of the nervous temperament, and thus *improperly* subjecting the patient to nervous medicines, antispasmodics and stimulants.

"The question, to what extent moral defects may be subjected to medical as well as moral discipline, has a most immediate reference to the above distinctions. Thus, when such defects coexist with an arrested or vitiated state of the bile in *any one*, much more in the *biliously predisposed*, they claim, on their own account, the fullest and most careful application of those medical agents, which tend to restore the free passage, and the healthy state of the secretion; otherwise, the intellectual powers want the *material* condition requisite to their healthy operation."—p. 57.

Our author very properly maintains that the treatment, of what he terms bilious and nervous indigestion, or rather indigestion in persons of a bilious and nervous temperament, should be widely different. Every experienced and sensible practitioner must agree with this opinion.

"Bilious indigestion may perhaps be most usefully contrasted with the nervous. In the *latter* class of cases, it will be observed, that stimulants, stomachics, and tonics, are generally useful; that aperients are only valuable as they are unavoidable; or rather that the good which they confer must generally be measured against some corresponding evil. It would appear, that in removing *nervous* indigestion, the stomach itself, in its sympathies and antipathies, must be primarily consulted. But in the bilious temperament, both the sympathies of the stomach, and also its antipathies, must occasionally be disregarded in the treatment of indigestion. Thus, instead of the direct application of strengthening and soothing medicines, we are here obliged often to exclude them. While, in managing *nervous* indigestion, we avoid irritation, sometimes at the expense of allowing constipation, by withholding aperients, on the other hand, in controlling *bilious* indigestion, we must assume, that the immediate comfort which may be derived to the stomach from cordials and stimulants, will be overbalanced by the mischief ultimately accruing to the whole system, from an over-stimulated liver. Thus dinner pills have given a dangerous and deceitful comfort to many a bilious sensualist.

"Again, in nervous indigestion we shall have occasion to observe, that the question of local congestion is of very secondary importance. The fact of its occurrence is rare. The circulation in this temperament is over-active, rather than sluggish. But in bilious indigestion, we have, at every point, to defend our patient against local congestion. Here, indeed, the diagnostic of Dr. Philip, namely, tenderness in the epigastric region, is extremely indicative of the practice which he recommends, when congestion is verging upon inflammatory action. Whereas, if we should apply leeches to the epigastric region of the nervous dyspeptic every time that *he* expresses slight or even acute tenderness at that point, we shall be inflicting constant mischief.

"But of all the measures by which the bilious dyspeptic may obtain both immediate relief and protection against the severer symptoms of his disorder, the frequent use of mild aperients is the most important. A very ill-founded prejudice is entertained against the continuous use of aperients. It is assumed that this practice implies an unnatural and artificial procedure, calculated as such to end in mischief. Those who hold this doctrine forget what are the principles on which the action of the bowels is maintained, where *no* medicine is used. In such cases, it is the daily food which excites the peristaltic movements, and elicits the secretions of the intestines, and thus occasions their requisite action. Now aperients do precisely

the same thing; and it will be difficult, by any reasoning, to make good the supposition, that small portions of aloes, of rhubarb, of ipecacuanha, or of compound extract of colocynth, have generally a more unwholesome purgative effect, than cabbages, potatoes, and turnips. Of this point I feel certain, that the state of the intestinal canal in many nervous persons, who are so far from requiring aperients, that a tendency to irritation is constantly besetting them, possesses a more morbid character than the opposed condition of the bilious temperament. In the latter case, digestion may be very well performed, provided the aperients are well selected. In the former, or nervous case, it must frequently be hurried."—p. 63.

The admirable work of M. Lorry, "De Melancholia et Morbis Melancholicis," is quoted in illustration. Melancholy, combined with the formidable class of symptoms, attendant on bilious dyspepsia. Lorry's semeiology is certainly good, but his humoralism must of course be discarded. It would be a useless task to insert this author's words, as they would have little weight with modern readers. Dr. Mayo cannot agree with Dr. Johnson, that "indigestion is by no means essential to hypochondriasis. He thinks the *onus probandi* lies with Dr. Johnson. In describing the treatment of melancholy, combined with bilious indigestion, Dr. Mayo gives our modern mercurialists of the intestinal school, a very important lesson, when he details his experience of the indiscriminate use of their favourite panacea.

"With regard to the treatment of melancholia, viewed as an advanced stage of bilious indigestion, it must from the outset of that treatment, be remembered, that the state of the patient has by that time become a very debilitated one.

"The bilious temperament is not essentially a feeble one, but he, in whom the mental disease has supervened upon dyspepsia, has *become* asthenic. If his powers of *receiving food* are not greatly impaired, his powers of *obtaining nourishment* certainly are. Food, except when taken in the smallest quantities, generally oppresses him from the moment at which he has taken it, until some rapid aperient has freed him from it; and this state has, in most cases, continued long before the mind obtains attention as a seat of disease.

"The risk of depletory measures, as tending to convert this secondary affection into an almost incurable state, the *demence* of the French writers, has accordingly become extreme. The lancet has no place here. The use of mercurials requires perseverance indeed, but caution and moderation. I have seen them, when pushed to salivation, change perversion of intellect into hopeless fatuity. This caution is the more required, in regard to our present subject, because melancholia or hypochondriasis, when a primary disease, and not the sequel or advanced stage of dyspepsia, bears on the whole more

active depletion, than that acute and noisy form of insanity which belongs to the nervous temperament."—p. 73.

Our author confesses a serious error into which he fell in a former publication, when he inculcated the necessity of depletory measures in certain forms of mental derangement. Experience has long since convinced him of the danger of this practice.

The following case will be read with interest, though its comment is to us unintelligible :—

"A gentleman of a highly nervous temperament, placed in a situation of continued mental exertion, and much responsibility, in a West India island, was subjected, for some bilious symptoms, which were viewed without any reference to the predominant character of his constitution, to a severe mercurial treatment. He, at the same time, suffered from hemorrhoids, occasioning profuse discharges. His strength broken; his circulation so disturbed that apoplexy at one moment, heart affection at another, seemed closely to impend; his skin constantly arid and giving no relief by perspiration to these last symptoms, he returned to this country. It is not my present purpose to detail the subsequent treatment of this case; I wish to call my reader's attention to the fact, that it was found necessary, in the course of his treatment, to allow a far longer suspension of the action of the bowels than accorded with the general principles of practice, or than was comfortable to his own feelings, rather than expose him to the intense nervous excitement and exhaustion, which was occasioned by the process of fæcal evacuation, even when conducted in the mildest way. The relief, indeed, from feelings of obstruction, which purgatives were calculated to give him, his bowels being always in a confined state, was completely overborne by the attendant aggravation of *all* his other symptoms, such as flatulence, violent palpitation at the heart, with sense of approaching syncope, and vertiginous feelings in the head. All these sensations ensued upon the action of aperients so mild and so carefully chosen, as to imitate strictly the operations of nature, and yet to unload the bowels completely. Time, a patient endurance *on his part* of symptoms of which it was hazardous to attempt the complete relief, and a persevering abstinence *on the part of his physician* from such measures as might relieve present symptoms, and yet increase exhaustion; and, finally, a very cautious use of bark, ultimately restored him to health. The decisive and complete evidence of his recovery was, according to his own remark, the power of perspiring freely.

"Now I do not adduce this case as an instance of dyspepsia, but as remarkably illustrating the effect of the nervous temperament in occasioning the ordinary functions of digestion, those indeed which we are usually compelled to excite and encourage in obviating morbid

states of the digestive organs, to become, even in their moderate performance, a source of mischief through exhaustion."—p. 78.

We are totally unable to comprehend the last paragraph, and must leave the reader to draw his own inference. The treatment of nervous and bilious dyspepsia deserves attention.

"If a nervous person bring on an attack of dyspepsia by excess, a diarrhœa often supervenes, or a very mild aperient achieves the same purposes; the peccant matter is hurried away, and the disorder is far more easily pacified than in the bilious indigestion. But though the disorder is itself removable on far easier terms, and more promptly in the nervous than in the bilious subject, the severity of the shock, which it has inflicted upon the former constitution, is far greater. It is true that the bilious constitution may have required a severer and more prolonged discipline for the removal of its dyspeptic symptoms; but these measures leave the patient not only cured of his complaint, but in health; while the relief given by the spontaneous diarrhœa, or the aperient, to the nervous person, leaves *him* shaken enfeebled, and yet excited: so that it has been often found expedient, as in the case above quoted, to let the immediate dyspeptic symptoms linger, by delaying the process that would afford them relief.

"The relief of dyspepsia by spontaneous diarrhœa is not infrequent in the bilious any more than in the nervous habit; and in the first it is a source of immediate comfort. In each a deficiency of bile in the fæces often constitutes a sequel to this diarrhœa. And here a difference in the treatment required deserves to be noticed. In the bilious temperament it may be assumed as a principle, that, until the fæces have resumed their healthy hue, the use of purgative and mercurial medicines cannot be safely discontinued. But in the nervous, such a deficiency constitutes no necessary ground for a repetition of such medicines. The return of an adequate secretion may often be securely left to the irritability of the patient's system, which has more to fear from action than from torpor. Here indeed a purgative treatment might reproduce diarrhœa.

"The above remarks illustrate the general influence which an excitable state of the nervous system may exert over indigestion, modifying the symptoms of the disorder and influencing its treatment. Now, pursuing this line of investigation, we may classify the general symptoms by which the nervous temperament produces this effect, under six heads, in most of which it is strongly contrasted with the bilious temperament.

"First, The irritability of the nervous temperament renders it liable to diarrhœa, and at the same time renders this symptom a source of uneasiness and exhaustion. The relief is not wanted, as no excess of bile is supposed. On the other hand, bilious diarrhœa is a source both of benefit and of comfort to the bilious in temperate

climates, when the discharge is moderate. Accordingly purgatives do more good, and disagree less readily in bilious than in nervous cases.

" Secondly, Pains in the head in nervous indigestion are acute, pungent, and limited in the space which they occupy, often attended by a bursting sensation that seems to proceed from within outwards. Pains in the head are in the bilious a dull heavy sensation, accompanied with external tightness. A sense of heat is, I believe, common to both temperaments when the head suffers.

" Thirdly, Acute neuralgic pains are readily produced at various points by the dyspepsia of the nervous constitution.

" Fourthly, The symptom of flatulence, which exists nearly in an equal degree in the nervous and the bilious, in the former excites various forms of irregular action, besides the sensation of distended intestines, which is its *direct* result. This fact is indeed amply illustrated by the multitude of cases simulating organic affection of the heart, which are brought before the physician, and cured by him upon principles which his acquaintance with the nervous temperament has established.

" There is nothing inconsistent with this view in the fact that the medicines most applicable to the cure of these symptoms are often mercurials and aperients. The symptoms are, in fact, often the evidence of bilious obstruction or of simple constipation occurring in nervous constitution. The medicines, therefore, must be such as relieve obstruction, allowance being made for the character of the temperament in the mildness of the quantities administered.

" Fifthly, It may be presumed that the various forms of hysteria must attend upon nervous dyspepsia. On this point, a wide field of useful information is laid open by the researches of Dr. Whytt, on the subject of nervous affections.

" Sixthly, The inappetency, or even aversion, in regard to food which belongs to nervous dyspepsia in its more aggravated forms, and into which in all cases it seems liable to lead the patient, if it once gain ground in his constitution. But I shall reserve the subject of nervous atrophy until I shall have occasion to compare it with another class of symptoms equally deserving the generic term of atrophy, which I shall have to consider under the head of serous or phlegmatic indigestion. The inappetency of *the bilious* differs from the above in this material point, that it strictly accords with the other phenomena of the case. The bilious person loses his appetite for food, because he is generally ill, and only so far as he is so. The nervous person drops into this state out of vigorous health, and without any definite cause.

" The above remarks, on the subject of nervous indigestion, apply to that branch of the temperament to which I have given the name, physical nervousness. They presume the existence of that bodily state, which Dr. Johnson terms a morbid sensibility of the stomach and bowels, as the basis of the disease. The other two forms, under which the nervous temperament may display itself, now deserve some

consideration. I allude to what I have termed, moral nervousness and intellectual nervousness."—p. 86.

Dyspepsia in the sanguine temperament is next alluded to, and our author dwells more upon the nature of constitution, and the inattention of physicians to it, than upon any plan of treatment. There is nothing worthy of notice in this chapter. The next chapter is entitled, "Indigestion of the Serous or Phlegmatic Temperament." He considers there are two forms of this habit, one characterised by relaxation, the other by feebleness, having in common a liability to disorders of congestion and a freedom from feverishness; the former is capable of great indurance, while the asthenic is easily exhaustible.

"Now these two forms of the serous, or phlegmatic temperament differ remarkably in the treatment, which their incidental disorders require. Very active purgation, and at the same time very active stimulation, are generally found to suit the relaxed habit. It can bear, indeed it can profit by, profuse serous discharges. To the feeble temperament this, or any other lowering treatment, is absolutely inappropriate.

"In bearing with advantage copious purgation under dyspepsia, the relaxed branch of the serous temperament has much affinity to the bilious, with, however, one remarkable distinction, namely, that the immediate union of tonics and aperients is highly suitable in the relaxed constitution; whereas the more bilious his temperament, the less readily can the dyspeptic bear the constrictive effects of tonic medicines. This distinction is remarkably applicable to the use of steel. Mercurial medicines, used temperately, both relieve and excite the relaxed habit: in either effect they are beneficial.

"All that class of applications, which promote activity of circulation on the surface of the body, are applicable to this temperament; such as friction with liniments, or the flesh-brush, and cold affusion, or the shower-bath. The feeble or asthenic are sometimes depressed by these remedies; the sanguine may be over-stimulated, the nervous may be irritated by them: but the relaxed habit is simply braced and invigorated by their use.

"That persons thus predisposed should be moderate in their diet, so as not to overload sluggish organs of digestion, is a point of obvious importance. But I have had occasion to observe, that the system of dividing the allowance of food into small meals, with brief intervals, is, in this class of cases, an extremely bad one. The most wholesome of stimulants, namely hunger, is thus withdrawn, where it is most wanted, and a substitute must be found in an increased quantity of wine and cayenne pepper. Besides, I have reason to believe, that the relaxed stomach, when roused by a meal as large as it will bear, is in a much more efficient and vigorous state, than the same stomach, when inadequately supplied. Let the patient, however, in order that

this rule may not be *abused*, keep one other constantly in his mind; namely, that he should always rise from his meal with an appetite.

It is with persons of the relaxed temperament, that a cautious economy of liquid food under dyspepsia has been found so valuable, as to have given to such abstinence the authority of fashion, in a very mischievous degree. The dry stimulating food thus supplied to the mucous membrane of the stomach, compelling it to secrete its juices freely, and to perform its contractions forcibly, may well be conceived to suit the state of atony, which I impute to it. On the other hand, this dry stimulating food is calculated to inflict the severest mischief on a stomach differently constituted; one, for instance, in which the phenomena of indigestion coexist with a nervous irritability of membrane in the intestinal canal.

The same remark applies forcibly to the childish extension of the use of the white mustard seed. If this remedy be efficacious in any case, it must also be mischievous in those cases to which it is inapplicable, namely, in the same class of cases as would be injured by the dry system of diet.

Patients labouring under a tendency to scirrhous disease of the stomach, treated with this kind of diet, and this of stimulants for dyspepsia, have rapidly proceeded into the ulcerative stage of their disease."—p. 101.

We have now given a fair specimen of this work, and think it proves the author to be a physician of sound judgment and great discernment. Had he described the treatment of the different forms of dyspepsia more minutely, his work would be much more valuable. Still the work will be perused with interest by the scientific physician, though by no means sufficiently explicit for the student or young practitioner. It is a sharp commentary upon the standard works on indigestion.

V.—*La Manœuvre de tous les Accouchemens contre Nature reduite à la plus grande simplicite, et precedee du Mechanisme de l'Accouchement natural.* 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.

THE object of M. Hatin is to describe the management of preternatural labours, and to this duty he has chiefly confined himself. He has extracted from all the standard obstetric works of France, and enriched his production by

copious original observations. We need scarcely state that the French practice differs very materially from our own; and we think we shall render the medical student or junior surgeon a service by placing it before him.

M. Hatin commences with a description of natural labour, in order that the management of preternatural cases may be better understood. The reader must bear in mind that our Gallic contemporaries include breech or natal, knee and pedal presentations, under the term natural labour. This manual is so concise that we must quote it at length. The reader will not be a loser, though we are convinced that the British practice is by far the better. To the intelligent and experienced surgeon, we say, *utrum horum magis accipe.*

Of the Management of Preternatural Labours.

The management of preternatural labours, has for its object the extraction of the fœtus from without the parts of generation. This extraction is performed sometimes by the aid of blunt instruments; lastly, at other times by means of operations performed on the mother or child. After this simple exposition, it is clear that preternatural labours should be divided into three classes, according to their manner of termination.

In the two first classes, the parts are generally well formed; and the obstacle to the termination of delivery depends often on the want of proportion between the diameters of the pelvis of the mother and those of the fœtus. It is therefore highly important, in order to distinguish this kind of impediment, and to obtain a suitable remedy for it, to know in detail the mechanism of natural labour.

To understand perfectly this mechanism, it is necessary to have a complete knowledge of the kind of bony canal which the pelvis of the mother presents on its interior parts, and the principal parts of the fœtus at birth, such as the head, the shoulders and the breech. It is, in fact, on the relation of these numerous different parts to each other that the mechanism of natural labour depends.

PART THE FIRST.

Of the Pelvis of the Mother.

The pelvis is a kind of bony canal, situated at the base of the trunk, between the vertebral column, which it supports on its posterior and middle part, and the thigh bones, which are articulated with its middle, lateral, and anterior parts.

It is divided into an external and internal surface, a base and a summit.

We shall here simply treat of the internal part, since a knowledge of it alone is sufficient for explaining the process of natural labour.

The internal surface of the pelvis, comprehends the brim, the superior strait, the cavity of the pelvis, and the inferior strait.

Brim.—The brim is divided into four regions, an anterior, a posterior, and two lateral.

Anterior region.—It exists only in the fresh subject, and is formed entirely by the abdominal parietes.

Posterior region.—It presents in its middle, the end of the vertebral column, and on its sides, the mark of sacro-iliac symphisis.

Lateral regions.—They are formed by the internal iliac fossæ, which are filled in the recent subject by the psoas and iliacus muscles.

Dimensions of the Brim.

Width.—From the middle of one iliac crest to that of the other, is about ten inches; from the anterior superior iliac spine to the other, about nine inches; from the anterior inferior iliac spine to that of the opposite side, about eight inches.

Depth.—About three inches and a half from the middle of the crest of the ilium to the superior strait; about three inches to the level of the anterior superior iliac spine.

Size, from before backwards.—The size of the brim cannot be determined in this sense, on account of the capability of the abdominal parietes being extended more or less considerably.

Superior strait.—It is formed by that bony ridge which separates the brim from the outlet.

Shape.—Its shape is various, more generally it is eliptical.

Dimensions.—The superior strait is measured by four diameters, viz. an *antero-posterior,* which extends from the sacro-vertebral angle to the symphisis pubis: a *transverse,* which extends from one side of the pelvis to the other, and *two oblique,* which extend from the sacro-iliac symphisis of one side to the linea ileo-pectinea of the opposite.

The *antero-posterior* diameter measures four inches. The *transverse* in the skeleton five inches; but in the fresh sub-

ject it is about half an inch less, on account of the situation of the psoas and iliacus muscles; so that in reality it presents to the obstetrician a diameter of four inches. The *oblique diameters* are about four inches and a half.

Inclination.—When the woman is standing, the superior strait is not situated horizontally, but its posterior part is much more elevated than the anterior; so that it is directed obliquely from above downwards, and from behind forwards. The inclination which it then presents, is from about thirty-five to forty degrees.

Axis—The axis of the superior strait may be represented by an imaginary line, commencing at the umbilicus of the woman, and directed towards the inferior part of the sacrum, passing through the centre of that strait.

Cavity of the Pelvis.—The hollow of the pelvis is divided into four regions, an anterior, a posterior, and two lateral.

Anterior region.—It is slightly concave on each side, it presents the posterior part of the symphisis and of the body of the pubis, more externally and on each side; the infra pubic opening filled by the internal obturator muscle.

Posterior region.—The posterior region is formed by the anterior part of the sacrum and coccyx. It is concave, and presents transverse lines which mark the points of union of the different pieces of which the sacrum and coccyx are composed. It also presents the anterior sacral foramina, which give passage to the nerves of the same name.

Lateral regions.—The lateral regions are almost smooth, inclining from above downwards, and present the sciatic hollows, converted into foramina by ligaments of the same name; a square surface which answers to the cotyloid cavity; and higher the ischiatic spine, which, projecting further into the interior of the pelvis than the parts situated anterior and posterior to it, forms by this disposition on each side two inclined planes, an anterior and posterior one. These are the inclined planes which give to the head the rotatory motion necessary to place its anterio-posterior diameter in apposition with the largest diameter of the inferior strait. The anterior plane of the one side, causes that part of the head which is directed forward to glide under the arch of the pubis, and the posterior one of the opposite side, causes that part directed backwards to slip into the hollow of the sacrum.

Dimensions of the Cavity of the Pelvis.

Antero-posterior diameter.—From the middle of the symphisis pubis to the middle of the sacrum, measures about five

inches; caused by the curve of this last bone, which presents a depth of one inch.

Transverse diameter.—At the top of the hollow about four inches and a half.

This extent diminishes in proportion as we approach the inferior part of the pelvis.

Depth.—The anterior partition about eighteen lines, the posterior four inches and a half, without following its curve; the lateral three inches and a half.

Direction.—The hollow of the pelvis represents a canal very much curved anteriorly, and perpendicularly divided by its axis at its extremities.

Axis.—The axis of the hollow of the pelvis may be represented by a curved line, which, passing through the middle of the canal, follows almost the direction of the curve of the sacrum.

Inferior strait.—The inferior opening of the pelvis is thus named. Its appearance is bony before and on its sides, whilst posteriorly it is almost completely ligamentous.

Form.—Very irregularly round.

Dimensions.—The inferior strait, like the superior one, is measured by four diameters. An antero-posterior, which extends from the point of the coccyx to the inferior part of the symphisis pubis; a transverse which extends from one ischiatic tuberosity to the other; two oblique, which extend from the ischiatic tuberosity of one side, to the middle of the sacro-sciatic ligament of the opposite; all these diameters are generally four inches in extent; but the antero-posterior may be increased even to five inches by the retrocession of the coccyx.

Direction of the inferior strait—Its posterior part, even to the tuberosities of the ischium, is inclined backwards and forwards, whilst its anterior part is directed downwards and forwards. This last part constitutes the arch of the pubis.

Dimensions of the Arch of the Pubis.

Breadth.—Above, from fifteen to twenty lines; in the middle, two inches and a half; below, four inches.

Depth.—About two inches.

Axis of the inferior strait.—The axis of the inferior strait may be represented by an imaginary line drawn from the sacro-vertebral angle to the centre of the strait.

Of the Principal Parts of the Fœtus.

The principal parts of the fœtus, connected with parturition, are the head, the shoulders, and the breech. But the

intimate knowledge of these different parts not being necessary for the explanation of the mechanism of natural labour, we shall therefore at present confine ourselves to that which relates to their form and size.

Of the Head of the Fœtus.

The head of the fœtus, when separated from the trunk, is of an oval form, slightly flattened in different parts.

Division.—We generally divide it into five regions and two extremities.

The regions are, the vertex or summit, the base, the face properly so called, and the temporal regions.

The two extremities are represented, the one by the occipital tubercle, and the other by the chin. The summit of the head presents parts with which it is important for the obstetrician to be acquainted.

The principal are the anterior fontanel, the sagittal suture and the posterior fontanel. The basis of the cranium never presents, unless the head be separated from the trunk.*

The face offers characters so striking, that it is difficult not to recognise it.

The temporal regions offer the sutures and fontanels; but when they themselves present, they are to be distinguished by the presence of the ear.

Dimensions of the Fœtal Head.

The fœtal head has five diameters and two circumferences.

Of the Five Diameters.

The first extends from the occiput to the chin, and is called occipito-mental or oblique. Its extent is four inches and a quarter.

The second extends from the occiput to the forehead, and is named occipito-frontal. Its extent is four inches and a quarter.

The third extends from one parietal protuberance to the other. Its extent is three inches and a half.

The fourth extends from the summit of the head to the basis of the cranium. Its extent is three inches and a half.

The fifth extends from the mastoid process of one side to that of the other, and thus measures the breadth of the

* The author should have added—or in pedal presentations.—Ed.

basis of the cranium. Its extent is from two inches and a half to three inches.

Of the two Circumferences.

The first divides the head perpendicularly into two lateral hemispheres. Its extent is from fourteen to fifteen inches.

The second divides the head perpendicularly into two halves, the one anterior, the other posterior. The extent of these circumferences is from ten to eleven inches. The fœtal head is composed of two very distinct parts; the one superior, which is named the arch of the cranium; the other inferior, and is named its basis.

The first of these parts is formed by bony pieces, separated from each other by intervening membranes, which are called fontanels and sutures.

This disposition causes the arch of the cranium, when it is compressed, to diminish in size, by the approaching or overlapping of the different bones which compose it.

The basis of the cranium is incapable of diminution.

Movements of the Head on the Trunk.

The head of the fœtus may be bent forwards upon the superior part of the chest, backwards on the back, inclined on the one or the other shoulder. It may also describe a fourth of the rotation.

Of the Shoulders of the Fœtus.

The shoulders of the fœtus, considered relatively as to labour, present nothing worthy of interest but their size.

Measured transversely, they present a diameter of four inches and a half; but their structure permits a considerable reduction, and it has been remarked, that by simple pressure, the extent of this diameter can be diminished one inch.

The breech of the fœtus, similar to the shoulders, is destitute of interest, except as relates to its dimensions, yet its size never presents a real obstacle to the termination of labour, even when it is double the natural volume. It is moreover composed of fourteen bony pieces, separated by cartilages, the yielding of which may facilitate labour.

Conclusions deduced.

1st. From the comparison of the diameters of the pelvis of the mother, with those of the principal parts of the fœtus; 2d, from the different direction of the axis of the pelvis of

the mother; 3d, from the difference of the length of its anterior and posterior walls.

1st. The largest diameters of the fœtus exceed the extent of the smallest diameters of the pelvis of the mother; but the greatest diameters of this last, exceed the extent of the greatest diameters of the fœtus; from whence we must necessarily conclude, that to obtain a natural termination to labour, it is indispensable that the largest diameters of the fœtus always correspond to the largest diameters of the pelvis of the mother.

2d. The largest diameters for delivery, at the superior strait, are the oblique; whilst at the inferior strait, the greatest is the antero-posterior; it follows, therefore, that the largest parts of the fœtus, placed obliquely at the superior strait, must undergo a rotatory movement, in order to be suitably placed at the inferior strait.

3d. The three axes of the pelvis represent a curved line, the concavity of which answers to the pubis, the convexity to the sacrum; the fœtus, in disengaging itself, must necessarily follow this direction.

4th. The posterior part of the cavity of the pelvis is five inches in extent, whilst its anterior part is but 18 lines. This difference of length explains why the occiput escapes first in labour by the summit of the head; the two first positions are much more favorable than the two last; since in the first case, the occiput to escape has to traverse but eighteen lines, whilst in the second it must follow an extent of nearly five inches.

Of the Mechanism of Natural Labour.

Labour may terminate naturally by presentation, of either the head, of the feet, of the knees, or of the breech.

Of Natural Labour by the Head.

Natural labour by the head may take place in the four positions, which correspond to the oblique diameters of the pelvis; the position of the woman on the back.

First Position. Principal Relations.—The occiput answers to the left cotyloid cavity, or acetabulum, and the forehead to the right sacro-iliac symphisis. The posterior surface of the fœtus looks forwards, and to the left, the anterior looks backwards and to the right—the feet are towards the fundus of the uterus.

Mechanism.—Pressed by the contractions of the uterus, the head is bent forward on the chest, and its occipito-

mental diameter becomes parallel to the axis of the superior strait. It thus traverses the whole hollow of the pelvis; but arrived near its inferior strait, it meets with the inclined planes, which give to it the rotatory motion, by means of which the occiput is at length placed under the arch of the pubis, and the face in the hollow of the sacrum. Then the largest diameter of the head is in conformity with the largest diameter of the inferior strait, and there is no opposition to the escape of this part of the child, but the resistance from the external parts of generation. Continually pressed by the contractions of the uterus, the head advances further and further, and thus gradually effects the dilatation of the vulva; but after each pain it re-ascends more or less into the cavity of the pelvis.

At length, after a labour more or less protracted, the resistance from the external parts of generation being overcome, the head escapes through the genital fissure. At this moment the occiput ascends under the arch of the pubis, and the different points of the face appear in front of the posterior commissure. Having become free, the head resumes its natural relations with the trunk; the occiput is directed towards the groin of the left side, and the face towards the posterior and internal part of the right thigh. This movement of replacement has nothing in it surprising, since the trunk has not participated in the movement of rotation which the head has experienced in order to escape the inferior strait.

The shoulders, obliquely engaged at the superior strait, traverse the cavity of the pelvis, and when they are arrived at the inferior strait, they meet with the inclined planes which give to them the same rotatory motion as to the head. The right shoulder is brought under the arch of the pubis, and the left into the concavity of the sacrum. At the same time the head changes its relations; the face gradually turning to the middle and internal part of the right thigh, and the occiput to the middle and internal part of the left thigh. The shoulder, which is behind, constantly receiving the contractions of the uterus, soon appears at the vulva, which it passes, whilst that which is under the pubis serves as a point of support.

When once the shoulders are without, the rest of the body is expelled with great rapidity, which is easily explained, since the parts of the fœtus become smaller, and as the passage has been dilated by more voluminous parts.

Second Position. Principal Relations.

The occiput answers to the right cotyloid cavity, and the face to the left sacro-iliac symphisis. The posterior surface of the fœtus looks forwards and to the right, and the anterior backwards and to the left; the feet are to the fundus of the womb.

Mechanism.—The mechanism of the second position is completely the same as that of the first, with the exception of the movements of rotation being in an inverse sense.

Third Position. Principal Relations.

The occiput answers to the right sacro-iliac symphisis, and the forehead to the left cotyloid cavity. The posterior part of the infant is directed backwards and to the right, and the anterior forwards and to the left. The feet are to the fundus of the uterus.

Mechanism.—The mechanism of natural labour in this third position, differs but little from the mechanism of the first, since the same diameters of the fœtus are found to correspond to the same diameters of the pelvis of the mother.

Thus, at the superior strait, the head is bent on the chest, the occiput escapes first into the pelvic cavity. Arrived near the inferior strait, the head meets the inclined planes, which give to it the rotatory motion; the occiput glides on the posterior and right lateral inclined plane, in order to place itself in the hollow of the sacrum, whilst the face slides on the anterior and left lateral plane, to place itself under the arch of the pubis. The occiput then receiving all the contractions of the womb, traverses the hollow of the sacrum, of the coccyx and perineum, at the same time that the face re-ascends into the pelvis, and is bent further forwards on the chest. The occiput soon appears at the vulva, which it gradually dilates; after each pain it re-ascends more or less into the hollow of the pelvis.

At length the resistance offered by the external parts of generation being overcome, the occipital region of the head escapes through the genital fissure, the forehead resting on the posterior commissure, and the different points of the face disengage themselves from beneath the symphisis pubis.

Having become free, the head of the fœtus resumes its natural relations with the trunk; the occiput answering to the posterior and internal part of the right thigh, and the face to the groin of the left side.

The shoulders obliquely engaged at the superior strait, traverse the cavity of the pelvis. Arrived near the inferior

strait, they meet with the inclined planes, which give to them a rotatory motion. The right shoulder is placed in the curve of the sacrum, and the left shoulder under the arch of the pubis. The head, at the same time changes its relations; the face looking directly towards the middle part of the left thigh, and the occiput to that of the right thigh.

The shoulder, which is behind, receiving all the contractions of the womb, escapes the first, whilst that situated under the pubis serves to it as a point of support.

The shoulders being without, the rest of the fœtus follows without difficulty.

Note.—This third position is sometimes naturally changed into the second; this favourable change takes place when the rotatory motion, impressed on the fœtus, is suitably directed.

Fourth Position.—Principal Relations.

The occiput answers to the left sacro-iliac symphisis, and the face to the right cotyloid cavity. The posterior part of the fœtus is directed backwards, and to the left and anterior part forwards, and to the right. The feet are to the fundus of the womb.

Mechanism.—The mechanism of the fourth position is entirely the same as that of the third, if it does not happen that the rotatory movements are made in an inverse sense.

Note.—This position may naturally change itself into the first.

Of the natural Labour by the Abdominal Extremities of the Fœtus.

Positions of the Feet.—The feet present in four principal positions, which correspond to the oblique diameters of the pelvis. In these positions, the fœtus is disposed in such a manner that the thighs are bent on the pelvis, and the legs on the thighs, the heels applied to the breech.

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

The posterior part of the fœtus is directed forwards, and to the left, and the anterior backwards and to the right. The head is to the fundus of the womb.

Mechanism.—Pressed on by the contractions of the womb, the feet escape without difficulty through the hollow of the pelvis and inferior strait. The breech is not long in encountering the inclined planes, and undergoing the rotatory motion, by which the left hip is soon placed under the pubis

and the right in the hollow of the sacrum. (This rotatory motion does not take place when the pelvis of the mother is of a certain size, and in that case the breech goes out obliquely).

The hip, which is behind, receiving the whole contractions of the womb, comes out first, whilst that which is in front serves to it as a point of support. The *breech*, after having escaped, resumes insensibly the position which it occupied before meeting with the inclined planes.

The shoulders are engaged obliquely at the superior strait, at the same time that the arms caught in a manner by this strait, ascend on the lateral parts of the head. Arrived at the inferior strait, the shoulders are placed perpendicularly, and that which is behind escapes first.

The head is engaged obliquely at the superior strait, the chin is bent on the chest. Arrived at the inferior strait, it experiences its rotatory motion; the face being placed in the curve of the sacrum, and the occiput under the arch of the pubis.

The chin then traverses the whole extent of the curve of the sacrum, of the coccyx, and of the perinæum, and soon presents itself at the vulva. The different points of the face disengage themselves at the front of the posterior commissure, and the occiput escapes at the same place.

Second Position of the Feet—Principal Relations.

The heels correspond to the right cotyloid cavity, and the toes to the left sacro-iliac symphisis. The posterior region of the child is directed forwards, and to the right and the anterior backwards, and to the left. The head is to the bottom of the womb.

Mechanism.—The mechanism of the second position of the feet is completely the same as that of the first position, with the exception that the movements of rotation take place inversely.

Third Position of the Feet—Principal Relations.

The heels correspond to the right sacro iliac symphisis, and the toes to the left cotyloid cavity. The posterior part of the child is directed forwards and to the right, and the anterior forwards and to the left. The head is to the fundus of the uterus.

Mechanism.—The mechanism of natural labour in this third position, differs but little from the mechanism of the first, since the same diameters of the fœtus are found to correspond to the same diameters of the pelvis of the mother.

Thus the feet pressed on by the contractions of the uterus, burst without difficulty through the hollow and inferior strait of the pelvis.

The breech arrived at the inclined planes, is placed straight, or else it escapes obliquely, if the pelvis of the mother is very large.

The shoulders break through in an oblique direction at the superior strait, and are placed in a straight line at the inferior one.

The head is engaged obliquely at the superior strait, the chin is bent on the chest; arrived at the inferior strait it experiences the movements of rotation, by means of which the occiput is placed in the curve of the sacrum, whilst the face arrives under the arch of the pubis.

The occiput then traverses the whole hollow of the sacrum of the coccyx and perinæum, whilst the face re-ascends into the pelvis; but after a short time the neck deriving support from the posterior commissure, is turned backwards, and the face disengages itself from beneath the pubis. The occiput escapes last.

Note.—The spiral movement impressed on the breech of the fœtus, when it arrives at the inferior strait, may be sufficiently strong to convert this third position into the second. This change is favourable to the termination of labour.

Fourth Position of the Feet—Principal Relations.

The heels correspond to the left sacro-iliac symphisis, and the toes to the right cotyloid cavity. The posterior region of the fœtus looks backwards and to the left, and the anterior forwards and to the right. The head is to the fundus of the womb.

Mechanism.—The same as in the third position, except that the rotatory movements take place in an inverse sense.

Note.—This fourth position may change itself naturally into the first.

Positions of the Knees.

The knees, like the feet, may present themselves in four principal positions, which correspond to the oblique diameters of the pelvis. The fœtus is disposed in such a manner, that the legs are bent on the thighs, and these stretched over the pelvis.

First Position. Principal Relations.

The anterior part of the legs corresponds to the left cotyloid cavity, and the anterior part of the thighs to the right sacro-iliac symphisis. The posterior region of the fœtus looks forwards and to the left, and the anterior backwards and to the right.

Second Position. Principal Relations.

The anterior part of the legs answers to the right cotyloid cavity, and the anterior part of the thighs to the left sacro-iliac symphisis. The posterior part of the fœtus looks forwards and to the right, and the anterior backwards and to the left.

Third Position. 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. The posterior part of the fœtus looks backwards and to the right, and the anterior forwards and to the left.

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. The posterior part of the fœtus looks backwards and to the left, and the anterior forwards and to the right.

Mechanism of the Four Positions of the Knees.

The mechanism of natural labour in the four positions of the knees is altogether the same as in the corresponding positions of the feet, with the exception that the knees present first.

Positions of the Breech.

The breech, in the same manner as the feet and knees, presents in four different positions. The fœtus is disposed in such a manner that the thighs and the legs are raised, and placed on the anterior surface of the trunk.

First Position. Principal Relations.

The posterior part of the sacrum corresponds to the left cotyloid cavity, and the posterior part of the thighs to the right sacro-iliac symphisis. The posterior region of the fœtus is directed forwards and to the left, and the anterior backwards and to the right. The head is to the fundus of uterus.

Second Position. Principal Relations.

The posterior part of the sacrum corresponds to the right cotyloid cavity, and the posterior part of the thighs to the left sacro-iliac symphisis. The posterior part of the fœtus is directed forwards and to the right, and the anterior backwards and to the left. The head is to the bottom of the womb.

Third Position. Principal Relations.

The posterior part of the sacrum corresponds to the right sacro-iliac symphisis, and the posterior part of the thighs to the left cotyloid cavity. The posterior part of the fœtus is directed backwards and to the right, and the anterior forwards and to the left. The head is to the fundus of the uterus.

Fourth Position. Principal Relations.

The posterior part of the sacrum corresponds to the left sacro-iliac symphisis, and the posterior of the thighs to the right cotyloid cavity. The posterior part of the fœtus is directed backwards and to the left, and the anterior forwards and to the right. The head is to the fundus of the uterus.

Mechanism of the Four Positions of the Breech.

The breech is engaged obliquely at the superior strait of the pelvis. Arrived at the inferior strait, it experiences a rotatory movement, by means of which one of the hips is placed in the hollow of the sacrum, whilst the other is placed under the arch of the pubis. The hip which is behind escapes first, whilst that which is under the pubis serves to it as a point of support. The trunk bursts through without difficulty, although the abdominal extremities be bent on its anterior region; at length the axillæ obliquely present at the superior strait, the arms are raised upon the sides of the head, and the labour terminates in the same manner as in the corresponding position of the feet.

[Here we shall pause for the present, and allow our junior readers a little time to digest the very able directions inculcated by M. Hatin in the preceding pages. The doctrines inculcated are correct, though somewhat different from those of our countrymen. Obstetricy is now a science, and must be studied as such.—Ed.]

V.—*Distinction without Separation. In a Letter to the President of the College of Surgeons on the present State of the Profession.* By JOSEPH HENRY GREEN, F. R. S. F. G. S. Professor of Anatomy to the Royal Academy, Professor of Surgery at King's College, London, one of the Surgeons of St. Thomas's Hospital, &c. London, 1831, 8vo. pp. 47. Hurst, Chance & Co.

THIS is rather a singular title; it certainly leaves the reader to surmise its meaning. Mr. Green means that the distinction between physicians and surgeons does not and cannot really subsist, and argues, that the disunion of the departments of the profession has been highly injurious. He rapidly glances at the origin and purpose of the medical corporations in this part of the empire, examines the grievances of the members of the College of Surgeons, defends "the powers that be," considers objections to these, delusive and fallacious, points out the evils of popular elections, admits a want of sympathy between the Council of the College and the general practitioners, proposes a remedy, and offers suggestions for the constitution of ONE medical faculty for uniting all the departments of the profession; and finally, he describes the conduct and character of medical men in society. Such are the contents of this production. Mr. Green argues strongly in favour of the present state of management of the College of Surgeons, and has zealously endeavoured to prove his case; he then suddenly turns round, and advocates in the strongest terms, the necessity of a complete reform in that body, and absolutely suggests a most obnoxious plan for the purpose. We are greatly surprised that a surgeon of Mr. Green's standing and talents should treat the matter in this way. If he be a sincere advocate of the present state of things at the College, how can he with any consistency propose a thorough reform? This kind of pleading reminds one of Mr. Serjeant Eitherside, or rather of Mr. Serjeant Bothsides; but we must take leave to inform Mr. Green, he most probably will discover that he has pleased neither side.

"We are gravely told that the general practitioner has no equitable grounds of complaint; yet as exclusion, even where it is not reasonable, is too natural a source of dissatisfaction, it might perhaps be possible so to modify the charter, as to satisfy the excluded, and thereby strengthen the college without interfering with the principle of its foundation.

"It is in this spirit, then, and solely with this view, that I would propose for consideration the following modifications of the charter, in regulating the administration of the affairs, and suggestions for the improvement of the regulations of the College of Surgeons.—p. 38.

Before we insert the proposed modifications, we beg to inquire, "has the general practitioner no equitable ground of complaint against the College?" We answer in the affirmative, and ask Mr. Green, can any member of the College who is excluded from all place in the institution, be said to have no reason to complain? What privileges or rights have the general practitioners received? Is there any class of medical men so badly treated, so unprotected, so infringed upon, as this? No equitable ground for complaint indeed! Are they not fleeced by chemists, druggists and empirics? Verily they should immediately convene, and confer some signal mark of their estimation on the author before us. But we hasten to insert his *exclusive* and *insulting* panacea for the general practitioner.

"1. That the Government of the College should be vested in a President, a Supreme Council, and a General Council.

"2. That the Supreme Council should consist of the President and twenty members, who should have the entire management of the affairs of the College, and the conducting of examinations.

"3. That the members of the Supreme Council should appoint its own members from the General Council, and consist only of those who do not practise midwifery, nor dispense medicines.

"4. That the General Council should consist of the members of the Supreme Council, and of forty additional members, twenty of whom should be under the obligation not to practise midwifery nor dispense medicines, and the remaining twenty of general practitioners —making the total number of the General Council sixty-one.

"5. That the General Council should appoint its own members.

"6. That the General Council should choose auditors of the accounts, and might suggest to the Supreme Council at their meetings any measures for the benefit of the profession. And further, that all public acts of the Supreme Council should be communicated to them.

"7. That the eligibility of that class of members of the General Council, under the obligation of not practising midwifery, nor dispensing medicines, should be further determined by proofs of a longer course of study, and of superior capability, evinced by severe examinations. 1. On entering the profession, they should produce certificates at the College of having been instructed and undergone examinations in Latin, Greek, Mathematics and Logic. 2. That they should have devoted at least five years to the study of their profession, and

produce certificates of having attended lectures on anatomy, physiology, chemistry, materia medica, botany, practice of medicine, medical jurisprudence, comparative anatomy, midwifery, and that during that time they have attended a public hospital. 3. That they undergo three distinct examinations; the first on anatomy and physiology, the second on pathology and therapeutics, and the third on surgery; and that they write a thesis on a given subject, in a closed chamber, without the aid of books.

" 8. There should be a class of honorary members of the General Council, men of distinguished merit in provincial towns, the army, navy, or colonies.

" 9. That general practitioners who have given up the practice of midwifery and the dispensing of medicines, should be eligible to the first class of the General Council.

" 10. That teachers of anatomy and surgery should not only have undergone the examinations of the first class, but should have given public proofs of their capability to teach by delivering a lecture, the preparation for which should not occupy more than twenty minutes.

" 11. That effectual means should be taken of enforcing the duties of masters to their apprentices or articled students, by a prescribed and definite course of instruction.

" 12. In the provisions of a new charter, it should be imperative that no one should be allowed to practise surgery who was not a member of the College. Since without this check upon ignorance and empiricism, it is impossible that the College can exercise one of its most important functions—that of protecting the public from the arts and practices of dishonest, unskilful, and incompetent pretenders.

" 13. And lastly, that the charter should distinctly define, express, and declare, the power of expelling all those who, by dishonourable practices, have rendered themselves unworthy the characters of members of a liberal profession, whether it be by the use of secret remedies, by advertising, by partnerships in trading concerns, by calumnious reports of their professional brethren, breaches of professional confidence, or whatever else may be considered derogatory to a professional character."—p. 40.

There is scarcely one proposition in this extract which is not highly objectionable, as must be obvious to any man acquainted with the feelings of the profession. The author even admits, that were he a minister of state, he would pause before he granted such an enlarged charter.

" For I should be led to reflect on the state of the whole medical profession, and considering its vital importance to the state, its objects and purposes, I should come to the conclusion, that however desirable it may be for its practical administration, that its departments should be distinguished, yet that from the unity of its cha-

racter and purposes, they could not be divided. Instead, therefore, of any partial alteration or regulation, I should advise that one faculty of medicine be constituted, with such powers and administrative regulations as would render it efficient in promoting the science, and controlling the practice of medicine in all its branches, as a great interest of the state. Of this faculty, the colleges of physicians and surgeons, as representing the great leading distinctions of the profession, would naturally form the co-ordinates. In order to the admission of candidates to either, it might be required that they should have passed through the same course of study, which should be upon the most extended plan of a liberal and professional education, and that the examinations for ascertaining their proficiency, should be conducted by both; and that then from the candidate expressing his wish to enrol himself in either, as intending to devote himself practically to one or other branch pre-eminently, whether medicine or surgery, such additional proofs of competency might be required, as might shew that he was entitled to the desired privilege, and thus the practical distinction between medicine and surgery would be acknowledged, whilst their scientific unity would be preserved.

"Out of both would then naturally arise a third department, partaking of the character of each,—that of midwifery. This might have its separate board or institute, and the candidates for admission having the same basis of general education, would follow a similar rule for the enrolment of its members, by requiring a special skill and knowledge in this department of the profession.

"Next, as conjoining the functions of all three, the class of general practitioners would find its place: their institute forming a department of the faculty, which would in like manner regulate the admission of candidates, their education and qualifications, and watch over the affairs of their particular branch of the profession.

"Lastly, from the colleges or institutes of medicine, surgery, midwifery, and general practice, might be formed a medical convocation, for the purpose of deliberating on all matters relating to the profession at large. And thus a body would be constituted in the service of the state, with whom the government might consult, and to whom the country would look for advice and assistance in all matters appertaining to the health of the community, and to whom all questions relating to epidemics, laws of quarantine, the health of the army and navy, the building of hospitals and prisons, punishments, drainage, sewers, nuisances,—in fine, all questions of medical jurisprudence and police might be referred. And to a faculty of medicine so constituted, might be entrusted the government and supervision of the practical departments of the profession, and that not only should none practice medicine, surgery, or midwifery, without their sanction, but that all keepers of houses of reception for lunatics, all druggists and chemists, dentists, cuppers, should be obliged to have their licence for their several callings. And if the government would render the benefit complete and national, they

would root up the detestable upas-tree of quack and patent medicines. And thus, Sir, we might at length see a profession flourishing in this country, the motto of which would be Distinction *without* Separation."—p. 44.

We fully assent to these views, and ardently hope that the day is not far distant when this UNION OF THE FACULTY will take place.

This desirable event may soon arrive, because it is utterly impossible that the present defective anomalous and antiquated condition of the medical corporations in this empire can be longer tolerated. Reform must take place, but those who live by monopoly and corruption, will, like the fallen and despicable Tories, oppose it to the last. An auspicious period for medical reform now exists. The London University will have a charter, and in this the union of the faculty might be easily accomplished. Why not make the Colleges of Physicians and Surgeons departments of this Institution? Why not imitate the University of France, and have the various corporations under a national institute? That, London pre-eminent in wealth and splendour, and in all the advantages which the commerce of the world confers upon her, the Queen of cities, the emporium of the world, the chief seat of civil and religious liberty, should not have a university, while our minor towns and cities possess such institutions, is a defect—is an anomaly, which any man of scientific or literary attainments must desire to have removed. Yes, the time has arrived when an enlightened and wise government has forcibly and successfully assailed every form of corruption, and achieved inestimable benefits for the people, and will not stop in the middle of its splendid career, but will proceed prosperously to reform every thing that needs it, and the medical institutions must be included. The last part of this essay is powerfully arranged, and the whole a good example of a bold nervous style.

VI.—*The Effects of the Principal Arts, Trades and Professions, and of Civic States and Habits of Living, on Health and Longevity.* By C. TURNER THACKRAH: London, 1831. Longman and Co. Leeds, Baines and Co. —(*continued.*)

THE information contained in this volume, is so instructive and valuable that we cannot refrain from placing more of it before our readers.

The subject which succeeds that noticed in our last, is the condition of miners. These persons, we are told, rarely work more than six hours a day, yet they seldom attain the age of forty. They take immense quantities of ardent spirits, to drown the distressing idea that they are doomed to premature disease. In the village of Arkendale, during the last year, there were not less than thirty widows under thirty years of age.

"A parallel case to that of the miners occurs in the grinders of Sheffield. Dr. Knight, in the North-of-England Medical Journal, states that the fork-grinders, who use a *dry* grindstone, die at the ages of 28 or 32, while the table-knife grinders, who work on *wet* stones, survive to between 40 and 50.

"Machine-makers are divided into several departments. The founding produces only the slight and temporary annoyance of dust from the charcoal sprinkled on the mould. The men, in Leeds at at least, are generally healthy. Dressing the iron, technically called "fetling," seems to be equally innoxious.

"*Turning, boring, and grooving wrought iron* present nothing remarkable. But the *turning of cast iron* is so laborious, that the men can scarcely bear it for the whole of the day. The particles of iron cast off in the process are large, and do not consequently affect the lungs in a sensible and great degree.

"*Draw-filing cast iron* is a very injurious occupation. The dust is much more abundant, and the metallic particles much more minute, than in the filing of *wrought* iron. Does this difference arise from the texture, the degree in which the particles are united in wrought and cast iron; or does it arise from the manganese and magnesia contained in the latter? The particles rise so copiously as to blacken the mouth and nose. The men first feel the annoyance in the nostrils. The lining membrane discharges copiously for some time, and then becomes præternaturally dry. The airtube is next affected. Respiration is difficult on any increase of exertion; and an habitual cough is at length produced. At the same time, the digestive organs become impaired; and morning vomiting, or an ejection of mucus on first rising, is not infrequent. The disorder varies of course with the constitution of the individual; but the common termination, when men pursue the employment for years, is bronchial or tubercular consumption. The frequency of these fatal diseases is easily explained. The sensitive membrane lining the airtube and airoells is irritated by the particles of iron inhaled at every breath: chronic inflammation becomes established; the constitution is seriously injured by the quantity of muco-purulent matter which is discharged, by the want of a full purification of the blood, and by the exhaustion which habitual cough produces: hectic fever and emaciation succeed. More certainly fatal is the case, where there exists in the constitution

a predisposition to the tubercular form of the disease. The researches of the French pathologists, as well as our own observations, prove the cartilaginous bodies, called tubercles, to be very frequent in the human lungs, to be slow in assuming a destructive character, and often to remain crude or latent for an indefinite period. The subject of the present paper scarcely requires a detail of the progress of these bodies, as affected by external agents and internal excitement, their augmentation, coalescence, change of hue, softening, the final purulent expectoration, by which successive masses are removed, and the effects produced on the lungs, the airtube, and the constitution. Suffice it to urge, that a great proportion of our population is born with tubercles, or a disposition to the formation of these bodies; that various agents in civil life tend powerfully to excite their development, and none more than irritation of the bronchial membrane. This membrane is affected by gaseous agents; but much more by palpable substances. Dust of every kind irritates, but not in an equal degree. Much, I conceive, depends on the size and figure of the particles which enter the airtube. The dust from the roads produces no apparent mischief, while the mason's chippings from the stone occasion serious and often fatal injury to his lungs. The dust from old iron, which is thrown off so copiously as to deposit a thick brown layer on the dress of the dealers in this article, produces no inconvenience; while the less apparent detachment of particles by the file, is decidedly baneful to the workers in iron. It is then the *form* rather than the material, the spiculæ, the angular, or pointed figure of the particles detached, which we conceive the chief cause of injury. The bronchial membrane is mechanically irritated or wounded; and from the daily repetition of this injury, the lungs at length become seriously diseased.

"On examining the chest of 17 machine-makers, we found the average circumference 38-5-three-fourth inches, and the average quantity of air expired at an effort 7-13-six-eighth pints. The figure of the chest, and the power of its muscles, do not therefore appear to suffer from the employ. Machine-makers seem to suffer only from the *dust* they inhale, and the consequent bronchial irritation.

"The filers are almost all unhealthy men and remarkably short-lived. One instance only in this neighbourhood can we find, of a man's following the employ for 20 years. At two of the principal machine-manufactories of Leeds, there are only two filers of the age of 48; and in neither case, I believe, has the individual pursued the labour uninterruptedly from boyhood. The mortality among machine-makers is not the result of intemperance; for the men, in this neighbourhood at least, are generally steady. It is not the result of error in diet, clothing, or exercise. It can be ascribed only to the nature of the employ, and the train of baneful effects to which I have adverted.

"What can be done to prevent this lamentable waste of life?

Magnetic mouth-pieces, which attract the particles of iron inhaled in respiration, and thus greatly diminish the quantity which would enter the air-tube, were many years ago introduced in Sheffield, and ought ere this to have been tried in Leeds. But there is a strange apathy, both among the men and the masters. Though very intelligent, and conversant not only with the science of their manufacture, but often also with knowledge in general, they are remarkably thoughtless on a subject which most deeply concerns them. Man after man dies of decay in the prime of life, and no warning is taken by the survivors. Machine-makers, indeed, are generally unwilling to admit the fact of excessive mortality. They naturally dislike the idea of being more subject than their neighbours, to disease and death. They will rarely admit that they labour under disorder, till consumption is established, and its effects apparent to every observer. To our general questions they reply, "We are all pretty healthy." And it is only by examining each workman that we find the deception. Had they the providence and the courage fairly to examine this important subject, some measures would be devised for correcting the evil. Magnetic mouth-pieces, or some contrivance still more effectual, would be speedily adopted. Though their own knowledge is much more likely to avail than any suggestion of mine, I would ask, if a change can be made in the smelting of iron, or advantage obtained by further purification? The working of wrought iron we find to be much less injurious to health, than that of the cast. Could wrought iron be used for *all* purposes? It is well known to be most suitable for common implements. Would it serve for large wheels, cannon, and the like? Does the comparative softness of this substance present an objection? The expense, however, I apprehend to be the great obstacle.

"The grindstone used by machine-makers produces much dust. This, though it occasions little inconvenience to the young and healthy, greatly affects the aged and asthmatic. Some cover the face with a handkerchief, but a more effectual plan might probably be adopted, viz. that suggested for the flax-spinners. A channel might be made under the floor, with one end opening beneath the grindstone, and the other outside the room, and through this channel the dust be conveyed.

"The preceding remarks apply chiefly to the iron-work in the making of machines. The *brass* work must also be noticed. The founders suffer from the inhalation of the volatalized metal. In the founding of *yellow* brass in particular, the evolution of oxide of zinc is very great. It immediately affects respiration; it less directly affects the digestive organs. The men suffer from difficulty of breathing, cough, pain at the stomach, and sometimes morning vomiting. We did not find one brass founder more than 40 years of age; though we have since been informed that there are two brass-founders in the neighbourhood, of the ages of 60 and 70, who have continued at the employ from boyhood. The turners, filers, and dressers of brass do not seem to be more unhealthy than the

generality of our townsmen. We observe among the filers the hair of the head changed to green."—p. 55.

Braziers are subject to noxious exhalations from the solder, but their employments are so varied as to preclude injurious effects, as they are not exposed for a considerable time at once.

Coppersmiths are injured by the fine scales which arise from the imperfectly volatized metal, and by the fumes of the spelter or solder of brass. They are liable to the same diseases as brass founders.

Tin plate-workers are annoyed by the fumes of muriate of ammonia and sulphurous exhalations from coke, which they burn. Tinners are subject to inconvenience from the fumes of soldering.

Plumbers are exposed to the fumes of volatized oxide of lead, which frequently induce vomiting. These artisans are pale and sickly, and very seldom exceed the age of forty.

House painters are affected as the plumbers, and suffer during the process of "flatting," or finishing dead colours with turpentine. The usual symptoms are dizziness, colic and palsy. "Are the effects," says our author, "produced by an impression on the cutaneous nerves, and through them on the nerves in general? Many painters imagine there would be no danger were it not for the turpentine. If this be true, some other article ought to be substituted for it. We have known painters in this metropolis who suffered severely from the effects of lead, and afterwards obviated its bad effects by admitting free currents of air into the rooms in which they worked, and by observance of cleanliness, more especially in manual ablution.

"Chemists and druggists are exposed to various odours, and the evolution of gases, many of which are injurious. Hence the persons employed in laboratories are frequently sickly in appearance, and subject to serious affections of the lungs. They are often consumptive. Few old men are found in laboratories. Care on the part of the men, and ventilation practised as much as possible, would considerably diminish the effect of the baneful agents.

"The *men employed in the manufacture of gas for lights*, are not aware of any injury resulting from the process. Even the individuals engaged in the purifying department, and exposed consequently to abominable evolutions of sulphuretted hydrogen, say they are well and hearty. The manufacture, however, being of a comparatively recent origin, does not afford us the opportunity of seeing its full and ultimate effects.

"The *men employed in cleaning sewers* are often affected by the fetid gases, and sometimes so severely as to suffer suspended animation. They are not, however, as far as we could ascertain, subject to any serious disease: nor are they short-lived."—p. 57.

Our author next adverts to the principal occupations which affect the health through the medium of the skin.

Potters suffer from the lead used in "glazing." Their hands are immersed in a strong solution of this mineral, which produces constipation, colic and palsy. Intemperate men suffer most severely. The use of lead in glazing might be discontinued, or the process might be effected by a machine. It is well ascertained that the glaze of common earthenware is soluble in animal oil, and more copiously in acid fruits when assisted by heat; and there is every reason to think that visceral diseases of the poor are greatly to be attributed to this cause.

Hatters have their hands excoriated from constant immersion in a solution of sulphuric acid, which is employed in the process of "felting." Their nails and fingers are excoriated and sore.

Grocers are subject to eruptions, principally impetigo and eczema, from handling sugar. Lime produces the same diseases on the hands of bricklayers. Flour irritates the skin of bakers, and causes psoriasis.

Chimney-sweepers suffer from cancer scroti, inflammation of the eyes, and bronchial irritation. These diseases are aggravated by intemperance, and the subjects of them are craving liquor at every house in which they are employed. This unnatural and shocking occupation ought to be abolished.

Our author dwells with his usual ability on the necessity of cleanliness, by ablution and bathing, in all cases in which the skin suffers from dust.

He next describes the effects of *wet and steam* on the human body, and illustrates his remarks by describing these on the following artizans:—scourers of wool, dyers, brushers of cloth by steam, millers of cloth, giggers, hatters, brewers and paper makers. He also refers to men who are in the open air, and subjected to frequent and sudden transitions—as husbandmen, milkmen, cart-drivers, drovers, butchers, coachmen, postboys, &c.

"No men, however, exhibit more strongly the agency of wet in the open air, than brickmakers. We have adverted to their state under another head (page 11), as well as to that of husbandmen, coachmen, &c.

"Whether we examine the agency of moisture on men in the open air, or those under cover, we find it much less than common opinion would expect. In this country almost all our maladies are ascribed to the agency of wet, or to "taking cold." Medical men adopt this notion. It is constantly heard in their expressions; it constantly appears in their writings. The people of course have gradually adopted the medical doctrine, and carry it further than even its founders.* A reference, however, to the history of cases attributed to wet and cold, and an examination of the reasoning of the patients, are enough to expose the insufficiency of the evidence and the incorrectness of the inference. We might show, moreover, that persons most 'careful in avoiding cold,' protecting themselves with every variety of clothing, and shrinking at every change of weather, are not exempt from the evils which they fear. In fact, they are far more subject to catarrh, to pulmonary inflammation, and other disorders commonly attributed to 'cold,' than persons who habitually expose themselves. Finally, a reference to the situation and employment of several classes of society, decidedly shows that wet and cold, without other agencies, do not produce the disorders ascribed to them. Look at the brickmaker, who is subject neither to rheumatism nor catarrh, though his bare legs are immersed all day in a puddle,—at the dyer, on a wet floor, and subject to great atmospheric changes both of humidity and temperature almost every moment,—at the bricklayer, who is exposed to every vicissitude of weather, and is generally careless of protection,—at the paper-maker, one hour perspiring at the strong labour of the press, in an atmosphere of warm vapour, the next, standing in the same dress, in a room open on both sides to the wind, and merely putting up sheets of paper to dry,—at the wool scourer, the miller of cloth, and men in similar employments. Individuals, indeed in these departments, sometimes complain of pains, which they call rheumatic. But such complaints

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* If a man suffer to-day from headache and sickness, the effects of yesterday's debauch, he ascribes them to the cold he took in returning home. If his bowels be irritable from the annoyance of undigested aliment, he has "taken cold." If he suffer from an epidemic, he is sure it arose from "sitting with his back to an open window." If he have an attack of gout, it was from "going out in a hazy day." Nay, the unhappy victim of hereditary consumption, ascribes his illness to "sleeping in a damp bed." This subject is surely important in Preventive Medicine. If we err in the causes of disease—if we attribute our disorders to agencies which could not produce them, we overlook the agencies which do produce them. A man who believes his stomach-complaint to arise from cold, is not likely to correct that dietetic fault, which has occasioned the disorder. He who ascribes the affection of the head, which from its recurrence and severity threatens to produce at length serious disease, to his standing in the warehouse without his hat, or some such petty exposure daily committed with impunity, will not surely be disposed to forego that excessive application of mind, which is really the cause of the cerebral excitement.

Old Parr, we are informed, was in the habit of sleeping in wet sheets as his cure for a cold.

we find in all occupations and classes of men. The nature of these pains is obscure. They appear to be affections of the muscles. True rheumatic inflammation of joints is not frequent in any of the employments I have mentioned. Though we find instances, these are not more numerous than among corn-millers, and less than among croppers. In our examination of the several classes, we have particularly asked, 'Are the men, so much exposed to wet and cold, frequently laid up with rheumatic fever?' The answer has always been a negative. Of other acute diseases ascribed to cold, as inflammation of the lungs, pleurisy, &c. the men generally appear quite ignorant.

"I am far, however, from maintaining that vapour, wet, and cold never produce disorder. In certain circumstances, and when long continued, they certainly do. The re-action that ensues advances to fever or inflammation. But cases of this kind are rare. I contend that in the daily instances of common life, cold is not the great cause of disease, and that even in those which are considered as exhibiting indisputable evidence of its effects, a morbid predisposition has generally been formed by the person's habit of life, as influencing the state of the circulation and secretions. Rheumatism, I presume, is the malady which the believers in the common opinion would adduce as the strongest objection to my views, it is the malady which I most readily adduce as affording the strongest support to these views. The men who are subject to rheumatism, are not the active and temperate, heedless of wet ground, and out in all kinds of weather,—but the indolent, the comparatively sedentary, or men who habitually or frequently take more liquor than the constitution requires, and especially fermented liquor;—men with a large abdomen, and a feeble and sluggish circulation. Such persons are constantly predisposed to disease: they are constantly open to the influence of atmospheric changes. And wet or cold may excite in them, rheumatic inflammation of joints, as readily, perhaps more readily than catarrh or pulmonary inflammation. I conceive, therefore, that the state of the constitution is the *predisposing*,—wet, cold, or atmospheric vicissitude the *exciting* cause. The observation is probably applicable to a few other maladies besides rheumatism, but by no means to the bulk of diseases which are supposed to be the effect of wet or cold. I would urge my conviction, that in nine-tenths of these diseases, wet or cold is no more the cause, even the *exciting* cause, than Tenterden steeple of Goodwin sands.

"The inferences, then, from our examination of particular employments and classes of men, as well as those deduced from general practice, are 1st, that 'wet and cold,' as they occur in ordinary life, are rarely adequate to the production of disease. And 2nd, That in the few cases in which they have such agency, they are only the *exciting* causes of disease.

"In reference to the agency of mere aqueous vapour,—of steam, I mean, without frequent and considerable changes of temperature, our best subjects of observation are the men and boys employed in brushing cloth. See page 63. That this vapour should affect

principally the stomach and bowels, is a circumstance which we should not have expected."—p. 69,

Our author next examines the health of those exposed to *a high temperature, or to great variations of temperature.* His observations upon this subject are deeply interesting to medical men. In fact, there is not a medical practitioner, or a manufacturer in this empire, who should not possess this work. It is replete with information, equally valuable to the one as to the other. It reflects great credit on its author as a scientific, laborious, zealous and philanthropic individual. We trust the day is not far distant, when some other physician will investigate the Effects of the Principal Arts, and Professions, and of Civic States and Habits of Living on Health and Longevity, in this metropolis. To resume our analysis, we have to mention that our author next notices the health of bakers. These men are generally pale and unhealthy. The temperature to which they are exposed is seldom below 80°, and often as high as 100°. The heat of the oven is about 180°. These men are subject to disorder of the stomach, to cough, and rheumatism. The two former arise from dust, which is largely inhaled. It is supposed that as these persons reverse the order of nature, by working during night and sleeping by day, and thus injure their health. But watchmen, coachmen and others, do not suffer from this mode of life. Cooks and confectioners suffer from headache and indigestion.

Wool-combers are exposed to heat, but the lungs suffer from dust. They live to a good age. Men engaged in dry houses of cloth, are subjected to a hot dry atmosphere, ranging from 110° to 130°. They are half naked, and incessantly walking, carrying cloth from one room to another, and raising the iron tenter frames. They complain of languor, drowsiness, dizziness, perspiration, thirst and defect of appetite. Fresh men soon lose their colour, and their digestion soon becomes impaired. These persons, though incautiously, passing into the cold air, seldom suffer from it.

Glass-workers are affected with catarrh, but not with pleurisy and pneumonia. Our author does not mention that these men are subject to amaurosis, which is generally known.

The following summary of the effects of high temperature, concludes the author's observations on the labouring classes, and must terminate our present notice :—

"The high degree of temperature, which the human body can sustain without injury, is surprising. I scarcely need refer to the well-known experiments of Blagden and Fordyce, Tillet, &c.

"A part of the subject, of more practical importance, is an examination of the effects of heat long continued and alternated with cold: an examination of the state of men, who have for years been half the day in a temperature considerably above that of the atmosphere, and the rest of their time exposed, like other men, to the ordinary cold and vicissitudes of our climate. From my observations on persons thus situated in this neighbourhood, I may draw the following inferences:—

"1. That operatives habituated to high temperature, daily feel effects similar to those felt by persons who occasionally place themselves in this temperature. Habit seems to have little power in rendering the body insensible to heat. The men daily have an excitement of pulse,—perspiration proportionate to the degree and continuance of the heat, and its complication with muscular labour, thirst, and langour. The complexion is rendered pale; and the digestive functions are impaired.

"2. Persons exposed by their labour to great and frequent variations of temperature, are not more subject to inflammation of the lungs, or of the bronchial membrane, to pleurisy, or fever than other men. Even the founders and dryhouse-men, who many times a-day, make sudden transitions of temperature, equalling often 100°, or 120°, are neither sensible of inconvenience at the time, nor subject to pulmonic disorders.

"3. Affections termed rheumatic are, I think, frequent in this class. If the *exciting* cause of such complaints be referred to great and sudden changes of temperature, may not the *predisposing* cause be attributed to the unhealthy state of the abdominal viscera, induced by the excessive potation of fermented liquor?

"4. Though the digestive functions are impaired, and perhaps the muscular power reduced, organic disease does not speedily result. Men working in high temperature are not often incapacitated for work.

"5. Is life shortened by habitual exposure to great heat? I cannot yet form a decided opinion. Though the operatives of this section do not live as long as husbandmen, they do not, on the whole, appear to be shorter-lived than the bulk of townsmen.

"The remedies which may be suggested for the evils referred to in this section are,

"1. Diminution of the muscular labour, which is performed in hot rooms. Raising the iron tenter-frames in the dry-house ought to be effected, and the hot plates of the stuff-pressers conveyed, by machinery. These, and similar modes of relief, are more worthy of mechanic ingenuity, than most of the ends to which this ingenuity is devoted. The men, moreover, should be less active, and carry lighter weights. In other countries, heat is considered a sufficient cause for the reduction of labour; while in England, operatives employ all their strength, as well in a temperature equal to that of the tropics, as in the open air of our winters. 2. The drinking

lemonade, or other diluent during the time of labour, rather than the noxious compound called ale. 3. The use of stimulants with the food, after labour. 4. The reduction of the *period* of labour."—p. 81.

ORIGINAL COMMUNICATIONS.

1.—Dr. Short *on Cholera in Russia.*

To his Excellency Prince Lieven, &c. &c. &c.

Sir,

Having read in the *Lancet* of this day, of the rapid progress of the cholera morbus in Russia, and the similarity it bears to the Indian epidemic, I hasten to lay before you a few remarks on the nature and treatment of that formidable enemy to the human race, thinking, at the present crisis, a brief statement more valuable to the physician than a more elaborate treatise at a distant period. My acquaintance with the disease has resulted from a long residence in India, where I had frequent opportunities of closely observing the progress of the malady, of trying the various remedial agents, and of obtaining the opinions formed of it by the most experienced practitioners, and also from having suffered by the invasion of the disease in my own person. The conclusion I have drawn from these sources is, that the disease is produced by a peculiar state of the atmosphere, that the disease is not contagious; that it affects the nervous system primarily, producing collapse of the external capillary vessels, deranging the sanguiferous system, and inducing congestion of the internal organs. I beg to refer to pp. 50, 51, of the accompanying pamphlet, on the croton tiglium oil, published by me during this year, where I have alluded to this disease, when engaged on the subject of bilious cholera, a very different complaint, though bearing the same name. The indication of cure, is to relieve as early as possible the internal surface, and the vital organs of the oppression, which will be best effected by the cautious and slow abstraction of blood from a vein. The caution to be observed in drawing blood in this disease, is the immediate effect produced on the circulation; it will therefore be

requisite the operator keep his finger on the pulse, and if he finds it increase in fulness, he may fearlessly reduce the quantity of the circulating fluid. If, on the contrary, the pulse sinks after the loss of a few ounces, it is evidence against the further abstraction. When this operation has been performed, give four drachms of the following mixture every hour, or more frequently, according to the urgency of the symptoms. "Take four drachms of tincture of opium, made according to the London pharmacopœia, two ounces and half of compound tincture of cardamoms mix." The restoration of the capillary circulation should be aided, by either the hot vapour or water bath, assisted by friction, or where these are not to be procured, friction over the body with warmed flannels. The stomach is generally so irritable in this disease, that fluids in any large quantity will be rejected; even the above form of medicine will not always rest in the stomach sufficiently long to exert its beneficial influence. Opium, in its solid state, must then be had recourse to, and two grains may be given every hour during the urgency of the symptoms. Calomel has been found a valuable auxiliary in the hands of the practitioner, but to obtain its sedative influence over the irritable stomach in this alarming disease, it must be used boldly; if given in smaller doses than twenty grains, it had better be dispensed with altogether, as disappointment will be the result. Opiate enemata, and opium as a suppository, will be available in this disease. The urgent symptoms being abated, the cure will be perfected by the use of mercurial purgatives, assisted by a combination of rhubarb and the tartrate of potass, or other laxative; but as the peculiarities of constitution are almost infinite, the treatment must be various. In every case of epidemic cholera, the hepatic function is arrested, the use of mercurial purgatives is therefore forcibly indicated.

I have the honour to be, Sir,

Your obedient, humble Servant

M. J. Short, M. D.

Extract from letter addressed to Dr. Short, by G. Benkhausen, Esq. Russian Consul General at London.

March, 23, 1831.

"The Medical Board at St. Petersburgh, I am informed, have found in your pamphlet, besides the remedies therein

stated, different useful and new observations, which, in the opinion of said board, will deserve the attention of the medical men who will have to treat the cholera."

[It affords us much satisfaction to notice the flattering manner in which the Russian Medical Board has spoken of Dr. Short's Essay, a production of which we spoke in just terms of praise in a former number of this Journal. The testimony of a physician who has extensively observed the disease, and who has repeatedly suffered from its dreadful ravages in his own person, is entitled to great consideration. We strongly recommend the original Essay on the Croton Tiglium Oil to our readers, both for the very valuable evidence it contains on the nature and treatment of cholera, and on the varied therapeutical uses of the Croton Tiglium. —Ed.]

II.—Dr. Blake *on the Injurious Effects of Belts and Stays.*

A paper on the danger of the custom so generally adopted of compressing the abdomen, by means of a belt or stays, as tending to the production of Herniæ. 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.

The prevalence of the affection termed hernia, or rupture, among the inhabitants of all civilized nations, and the sufferings, as well as danger to life, which it entails on those who have the misfortune to be afflicted with it, are so familiar to medical men, as to render it unnecessary for me to offer an apology for calling their attention to one of its predisposing causes; namely, to a very general practice which prevails in almost all classes of society, and which, in my mind, disposes in an eminent degree to the production of this loathsome complaint; I mean the custom so generally adopted of compressing the abdomen by means of a belt or stays. The comparative ease with which persons are enabled to take violent exercise when assisted by this application, owing to the relief it affords to the lungs, by

the pressure of the abdominal contents against the diaphragm, and the consequent diminution of the thoracic space, at a moment when these organs are called upon by a quickened circulation to hurry their action, and make exceedingly short inspirations, may have first led to its adoption; and the idea that it must restrain the disposition to embonpoint in these parts, which is so frequently the consequence of advancing years, tended not a little to render its use still more universal, and a mistaken supposition that the support given by a belt to the abdomen diminishes the liability to rupture may likewise be numbered amongst the causes of its adoption. Thus we find individuals amongst all classes of society, from the fox hunter to the effeminate town dandy, alike endeavouring to rival the boarding school miss, in the degree of compression applied to the waist.

Cavalry soldiers are also constantly exposed to this cause of hernia, owing to their heavy sword being suspended from a broad leathern belt, which encircles the waist, and which they are obliged to tighten as much as possible, in order to preserve it in the horizontal position. It was this circumstance, and the prevalence of the affection alluded to, amongst even young dragoons, which directed my attention, as a cavalry surgeon, to the consideration of this subject.

The floating viscera of the abdomen, and the abdominal integuments or parietes, which retain them in their natural situation, may be compared to two forces. The one active and the other passive. Scarpa says, "In the healthy state, the abdomen, considered altogether, is submitted to two opposite forces, which reciprocally balance each other. One is the pressure of the viscera against the abdominal parietes; the other is the re-action of these same parietes upon the viscera which they contain. If these two forces were in perfect equilibrium in all individuals, and under all the circumstances of life, we should not be in the least subject to hernia. If, when the equilibrium has been broken, every point of the parietes of the belly were to yield equally to the impulse of the viscera, an increase of the volume of the whole abdomen would be the consequence; but a true hernia would never happen."*

* Vide translated quotations from Scarpa, in Cooper's Surgical Dictionary, Sixth Edition, p. 641.

In another part of his work on hernia, the same ingenious author says, "But there are certain points of the abdominal parietes which present much less resistance than others, and which re-act with much less power against the pressure made from within outwards by the abdominal viscera."

The points alluded to are too well known to require a particular description here. From what has been advanced, a very little consideration will, I trust, serve to explain, at least to all persons acquainted with the laws of natural philosophy, how much the application of a tight belt or stays, embracing the abdomen, must tend to destroy the equilibrium between the two forces already spoken of, and how, by preventing a large portion of the parietes of the abdomen from yielding equally to what may be termed the contre-coup from its contents. The conjoined forces will be directed to those points which are naturally weak, and at which hernia generally appear. The belt or stays act by compressing the superior regions of the abdomen, and, by preventing them from yielding, direct the entire impulse given to the viscera, against its naturally weak points, the rings, which are known to be situated at the lateral and inferior part of the abdomen, and to which points such artificial support does not extend.

The consequence of all violent exertion, such as leaping, &c. &c. under these circumstances will, in all probability, be the production of rupture; but should the impulse against the weak points not be sufficient to overcome the resistance offered by them, they must, at least, yield a little, and by frequent repetitions of the impulse, they will ultimately lose their tone, and allow the impelled viscera to protrude through them.

All persons who take much exercise on horseback, are in particular exposed to these consequences. I need scarcely advert to the repeated shocks experienced during the pleasures of the chase, in all of which the impulse given to the intestines, is directed by the pressure of the belt or stays towards the inferior and weaker points of the parietes of the abdomen. The cavalry soldier, whose constrained and almost perpendicular position on horseback, resting well on the perinæum, and oftentimes without the support of stirrups, must necessarily, while trotting, day after day, round a riding school, expose the rings to all the possible effects of gravitation, in addition to those arising from a tight, unyielding belt, placed round the waist just above these

points. Hence, although the strength and elasticity of fibre consequent to youth, will resist for a time the violent shocks to which dragoons are exposed, yet numbers of them are lost to the service from the gradual dilatation of the rings, and the ultimate formation of herniæ. "Gutta cavat lapidem non vi sed sæpe cadendo." On the same principle, while the parietes of the abdomen are prevented from yielding generally, by the pressure of the waist belt, the fibres entering into the formation of the rings, against which the whole weight of the viscera is propelled, gradually yield, and each succeeding jolt increases the breach, until, in a given time, sooner or later, according to the texture and construction of the parts concerned, it admits of the passage of the intestines, and the formation of the affection in question.

To prevent then, such consequences in all classes of persons, I would strongly recommend that the pernicious custom of compressing the abdomen should be altogether abandoned, a somewhat unsightly appearance from rotundity of the abdomen, is far preferable to the possibility of being afflicted with an artificial anus in the groin.

With regard to the cavalry soldier, I would take the liberty of submitting, for the consideration of the Commander-in-Chief, the propriety of substituting a sword belt, suspended across the right shoulder, instead of the unphilosophical and injurious waist belt at present in use. By doing so, the dragoon would have a more uniform appearance, as the pouch belt would cross it; and by such a change, I am thoroughly convinced, he would be rendered less liable to an affection, which, when it exists, incapacitates him from cavalry duty, and thereby deprives the country of the services of an individual, whose instruction alone is attended with very considerable expense.

Much has deservedly been said concerning the injurious effects of tight stays and lacing to the female frame, and were I disposed to lengthen the present paper, I might take advantage of such observations; but my object is to confine myself to the consideration only of their influence in the production of hernia, and should I have succeeded in explaining the danger attending the unnatural custom alluded to, and thereby have attained the object I contemplate, I shall feel highly gratified at having given publicity to my reflections on the subject, however incongruously they may be expressed.

Lenton, Nottingham, May, 1831.

[It is almost unnecessary to direct the attention of the Army Medical Board to the very important suggestion of our talented and experienced correspondent. We are perfectly satisfied that any hint which is valuable, for the prevention of disease among our invincible troops, will be duly estimated in the proper quarter; which is distinguished by an ardent desire, and the utmost readiness on the part of the Director General and his esteemed colleagues, to promote the comforts and welfare of that branch of the public service over which they preside. The opinion of such an able medical officer of the army as Dr. Blake, is entitled to attention and respect.—ED.]

III.—REPORT OF THE ROYAL WESTMINSTER OPHTHALMIC HOSPITAL. By MR. J. FOOTE, Jun.

Purulent Ophthalmia.

THIS disease (the evil effects of which, under the treatment at present pursued by medical men, are constantly exemplified by unhappy infants, who have lost one or both eyes, being brought to this hospital at a period of the complaint, when it is no longer in the power of surgery to afford them any relief) has never been known to resist the plan of treatment employed at this institution. This disease may attack the offspring of the most virtuous as well as of the most depraved: a simple weakness, as it is termed, in the mother, being as capable of producing it as the most virulent gonorrhœa; although the complaint, when arising from the latter cause is more dangerous, and more likely to run its course in spite of the remedies employed. This being the case, the disease, when unchecked, or, what is exactly the same, when treated by the simple and inefficient means *most* frequently employed by practitioners, more especially those of the old school, proving so fatal to the eyes, and causing our institutions for the blind to be crowded with unhappy objects of our compassion, depriving these unfortunates even from their infancy of the blessed light of heaven, debarring them from participating in the pleasure all mankind feel in beholding and admiring the wondrous works of the ALL-WISE, rendering them objects of the contempt and sometimes even of the *hate* of ignorant and foolish beings, making their lives a burden to themselves, and, if paupers, on every one else,

who partakes of the spirit of real charity; such being the case, is it not astonishing that in spite of the numerous cases published, attesting the signal benefits this peculiar mode of treatment ensures, that practitioners can be found, who disdain the new light thrown upon the darkness which has enveloped the study of ophthalmic medicine until lately, and determine to go on in the old routine way of practice, despite common sense and humanity, and careless of the injury they inflict. These remarks have been drawn forth from witnessing the numberless cases that attend this hospital, having lost one or both eyes from this complaint. The rationale of the treatment adopted is as follows:—The disease of the eyes, producing a purulent discharge, whence the name, is an unhealthy inflammation, first involving the conjunctiva, finally extending, by contiguity of substance, to the cornea, and other parts of the eye. The ung. argent. nitr. is applied, on the old principle, that no two diseases can exist at one and the same time: it, being a powerful stimulant, excites a *greater*, a more *healthy*, and at the same time a more *transitory* degree of inflammation than that already existing: and as the effect of one application is going off (which it generally does in a day or two, to be judged of by the recurrence of the previous symptoms), is to be repeated, so as to keep up the action, and, by this means, overcome the disease; the purulent discharge acting as an unhealthy stimulus to the eye, keeps up the irritation, and, consequently, the disease. This should be washed out every hour, or even more frequently, as it accumulates; and this is best done, by syringing it out from beneath the eyelids with an elastic syringe and a solution of alum; which clears away the discharge, while the alum tends to constringe the vessels: the solution generally employed is, a drachm to a pint.

Case I.—Purulent ophthalmia, dependant on gonorrhœa in the mother—both eyes lost. Lydia Alderwood, aged one month. Admitted June 22, 1830.

About three days after birth, the eyes became inflamed, but no discharge appeared until the 7th, when the lids became much tumefied, and the discharge appeared in considerable quantity, thick and yellow.

At present, the discharge is not so great, the lids are still extremely swollen, highly injected, and are easily everted.

Both eyes are lost: the cornea are much diseased, being ulcerated and ruptured.

Her medical attendant has *latterly* syringed the eyes four or five times a day, and has twice applied the ung. nigr.: in consequence of which the *discharge was lessened, and the eyes improved.* The previous treatment was very inert, consisting of *milk washes*, and so forth.

The child's health is pretty good, bowels open.

App. hirud. j. cantho extern. sing. oculi.
Lotio. aluminis ter quaterve die usurpand.
Pulv. alter. ss. nocte et mane sumend.

23rd. The leeches, applied last night, bled so freely, that they sent for a surgeon to stop the hæmorrhage.

The lids are less tumefied; but the nurse says the discharge is greater.

App. ung. argent. nitr. ocul. sing.
Rep. pulv.
Lotio aluminis 2 dâ horâ post applicationem ung. et tunc omni horâ utend.

The child opened her eyes last night, and kept them open for half an hour.

24th. The child opened her eyes last night, and kept them so for *two hours*. The discharge is still very great, but not so much as it was: the lids are by no means so tumefied.

Rep. pulv. et lotio aluminis.

25th. The child is considerably improved, and the discharge is much lessened—the lids are also considerably less tumefied. The eyes may now be examined without difficulty; they are both staphylomatous.

Rep. medic.

29th. Is going on well. Discharge lessened.

July 1st. The inflammation seems on the increase; the discharge is in greater quantity, and secreted more rapidly.

Rep. medic.

5th. The discharge is not great; the child is improving.

App. gutt. argent. nitr.
Rep. pulv. et lotio.

13th. Discharge very slight. Cont. omnia.

22d. Going on well.

℞ Quinæ. sulph. gr. ss.
Sacch. pur. gr. v.
Ft. pulv. bis die sumend.

Cured.

This case, which has chiefly prompted the remarks already made, exemplifies the use of this highly valuable remedy. It is very melancholy, that from the neglect of this complaint in the commencement, this unfortunate child should be doomed to a life of darkness, one who can feel the sun, but cannot behold its cheering rays, nor the wonderful effects it produces—whose future existence can be only a blank—a dark and dreary life, unblessed by hope, and rendered miserable by the physical if not moral darkness which surrounds her. It is mournful that all this, which might have been prevented at first by due and proper treatment, should have occurred by the negligence (not to call it by a harsher name) of her medical attendant to passing events.

Case II.—*Purulent Ophthalmia: from Leucorrhœa.* Henry Williams, aged nine weeks. Admitted June 8th, 1830.

Purulent ophthalmia, attacking both eyes, which appeared three days after birth.

His mother observed his eyes to be rather red on the second day: on the third, the lids were swollen, and a purulent discharge in great quantity took place: for this she consulted a surgeon, who gave her powders and lotions for the eyes. Under this treatment, the tumefaction and the discharge diminished.

At present there is a central opacity of the right cornea: the left is muddy, but not opake, attended with considerable discharge and chronic inflammation; bowels open, good appetite. The mother owned, though with reluctance, to having leucorrhœa.

The discharge was previously *well syringed out*, and then the ung. arg. nitr. applied, and freely diffused over the whole of the eye by rubbing the lids.

Pulv. alter. ss. nocte et mane sumend.

9th. Is going on well.

Habeat lotionem aluminis

10th. Discharge very slight. Is nearly well.

Rep. lotio.

12th. There is still some discharge from the right eye; the left eye is entirely free from it.

App. gutt. arg. nitr. ocul. dextr.
Rep. lotio,—et pulv.

14th. There is still some slight discharge.

App. ung. arg. nitr. ad dextr.

16th. Is well, with the exception of the opacity of the right eye. The left is quite bright.

This case strongly marks the benefit derived from the black ointment; the discharge from the right, it appeared, would not yield to the lotio aluminis alone, or in conjunction with the gutt. arg. nitr.; but when the ointment was applied, it effected a cure as if by magic.

The cases which follow are marked H, and were communicated to me by a highly intelligent and industrious student at the hospital, they having been under his own care.

Case III. Mary Piley, aged three weeks. Admitted April 26th, 1830.

Three days after birth, the child's eyes began to discharge purulent matter, which has continued ever since with great inflammation and thickening of the lids: the mother has a *gonorrhœa*, which she got from her husband in November last, and is not yet cured.

When admitted, there was a great cloudiness of cornea, with a large speck on that of the right eye, a thick and granulated state of the lids, with considerable discharge of matter.

App. ung. arg. nitr. ocul. dextr.
Lotion. alum. sinistr.
℞ Calom. gr. j
Sacch. gr. iij. m. ft. pulv. j. nocte et mane sumend.

28th. The right eye appears to have improved under the application of the ointment: discharge less: *no improvement in the left:* ordered to continue the treatment.

29th. No improvement *in the left* eye.

App. ung. arg. nitr.

May 1st. A large ulcer still appears in the cornea of the right, which is likewise very muddy, with much inflammation and swelling of lids.

Rep. ung.

6th. No great improvement in either eye: discharge great.

Rep. ung.

9th. There appears a gradual improvement in both eyes: cornea clearer: ulcer decreasing: inflammation lessened.

Rep.

27th. The child has been kept away for some time. When brought back to-day, the complaint was considerably aggravated.

The ointment was applied, and the use of the lotio aluminis directed; but the mother never brought it back. —H.

Case IV.—Gonorrhœal ophthalmia.

Ellen Nicholson, ætat. 34. Admitted June 17th, 1830.

Is a married woman, with one child. About a fortnight since felt some pain in the lower lid of the right eye, which in the course of a few hours swelled very much, with very great inflammation of the conjunctiva of the ball. She had previously enjoyed very good health; says she has never perceived any discharge from the vagina, or felt soreness about the genitals, though her husband has since told her that he had a gonorrhœa, of which he is still uncured.

When admitted to-day, there was great inflammation of the conjunctiva of the ball, with chemosis, some opacity of the cornea: ulceration round the edges of the lid: great discharge of purulent matter: no pain in the head, but little in the eye.

On examination there appeared some slight inflammation of the labia and round the vagina, and meatus urinarius; she has felt some slight burning on making water.

App. ung. nigr. lotio. aluminis.
Pil. cal. et opii. gr. ij. ter. in die.

22d. Discharge of purulent matter less: ulceration round the edges decreasing.

Rep. ung. lotio. et pil.

26th. Continues improving; chemosis gone; cornea clearer, sees quite well, no intolerance of light; mouth very sore from the calomel—ordered to discontinue it.

App. ung. nigr.

28th. Very great change for the better: ulcerations healed: mouth still sore.

Rep. ung.

This patient gradually got well, and was "discharged, cured."—H.

Case V.—Muco-purulent opthalmia, from accident to the right eye, the left soon becoming involved in the disease.

John Hawkins, ætat. four years. Admitted Nov. 9th, 1830.

On Saturday, the 6th instant, the child met with an accident, to which the mother attributes the complaint: a small piece of coal flying into the right eye whilst looking on at the breaking of some large coal: during the day the lids

became tumefied and discoloured; he complained of pain with great lachrymation. In the evening the bit of coal was removed, but he did not sleep well: on the morning of the 7th, a yellowish discharge was observed, and all the symptoms aggravated; in the evening the lids were highly tumefied, he could not open them, and he complained of great pain, attended with considerable discharge; the left eye became affected in the course of the evening. This state of the eyes has continued ever since with considerable aggravation of the symptoms.

At present the right eye is the worst: there is considerable yellow thick discharge, lids inflamed, highly injected, and tumefied; corneæ clear. The left eye is not quite so inflamed as the other; he sleeps badly; appetite failing since the commencement of the attack; tongue clean, pulse quick; bowels open.

App. ung. nigr. ocul. sing.
Warm fomentations to the eyes frequently during the day.
Pulv. alter. j. nocte et mane.

11th. The left eye is nearly well; the right very much better: there is no longer any tumefaction, and the pain has disappeared: discharge very slight from the right; none from the left.

App. ung. nigr. dextr. tantum.
Rep. pulv.

13th. Discharged, cured.

Case VI.—Pustular inflammation from injury.

Mary Kennedy, ætat. 14. Admitted 8th June, 1830.

About a fortnight since, while nursing, she received a blow from a piece of wood in the hands of the child, a small splinter entered the outer canthus, and penetrated nearly to the ball of the eye: it remained there neglected for some days, when severe inflammation having come on, it was extracted.

She presented, when admitted, very great inflammation of the conjunctiva of the ball and lids: very great pain in the eye: sight a good deal affected—intolerance of light: cornea quite clear: no pain in the head—several small pustules forming round the cornea: great lachrymation.

App. ung. nigr.
℞ pil. hyd. gr. iij. nocte: sulph. magn. ʒ ss. mane.

June 12th. No very great improvement: large red vessels running across the conjunctiva: great pain in the head.

Rep. ung. nigr.—Hirud. ij. nocte applic.
Pulv. cal. gr. iv.
Pulv. jalapæ. gr. x.—M. ft. pulv. statim sumend.

14th. Some improvement is manifest.

Rep. ung. et hirudines.—Pulv. jalap. c. ℈j. mane.

15th. Still continues to improve: vision much better: no pain in the eye or head.

Rep. hirud. et ung.

20th. Very nearly well: inflammation removed.

App. vin. opij.

Discharged, cured.—H.

Case VII.—Inflammation, with slight sloughing from the application of lime.

Thomas Clarke, ætat. 89. Admitted 8th June, 1830.

Whilst walking in the streets about five days ago, some mortar fell into the eye. He washed it well with warm water, and has fomented it frequently since.

There is an eschar formed on the edge of the lower lid, and on drawing the lid down, another, rather larger, may be perceived in the folds of the conjunctiva, where it commences the covering of the sclerotic. The cornea is perfectly clear; he does not suffer any pain; vision rather impaired.

Applic. ung. nigr.
℞ pulv. jalap c. ℈j. mane sumend ex aquâ.

10th. Is much better—the inflammation is lessened: he remains free from pain—the sloughs of the lid have separated.

Rep. ung. et pulv.

Complains of pain in the head and giddiness. The powder to be taken every morning.

12th. Is much better. Continue.

17th. Complains merely of an itching sensation in the eye.

Rep. ung: usurp. ung. flavum horâ somni.

22d. Rep.—Discharged, cured.

Case VIII.—Ophthalmia from lime.

Philip Thomas, ætat. 26. Admitted October 21. A plasterer by trade.

Whilst at work yesterday he received a blow upon the eye from a lath covered with mortar, a quantity of which got in

the eye; some of his companions washed out the eye, and got away all the lime that could be seen.

When he presented himself at the hospital, there was great chemosis of the eye, conjunctiva of the eye and lids in a high state of inflammation, extremely painful, great lachrymation, tears hot and scalding: lower lid enormously swollen; vision gone; no pain in the head: a poultice was applied last night.

C. C. ad ℥xiv. tempori
Pil. hydrargyri gr. v. nocte
Sulph. magn. ℥ ss. mane

22d. Eye free from pain this morning: chemosis has nearly disappeared: swelling of the lower lid much lessened.

℞ hyd. submur. gr. ij.
P. opij.—gr. ¼. ft. pil. ter. die sumend.

23d. Inflammation much lessened: pain in the eye entirely gone: vision still indistinct: very little lachrymation.

Rep. pil.

Of this case the notes were no longer taken; the mouth was rendered sore, and he gradually recovered, When he was dismissed, the cornea was clear and vision good.—H.

Case IX.—Albugo: cured by insufflation.

William Sanson, ætat. 53. Admitted May 6th, 1830, with a large albugo, covering nearly the whole of the cornea, of a milk white appearance, resembling lime.

Insufflatur pulv. sacch. c cal. in ocul.

11th. A great deal better.

Iteretur insufflatio.

13th. Improving; says he sees much better: the albugo does not cover one-third the space it did.

Rep. insufflatio omni die.

20th. The albugo has nearly disappeared. Rep.—Cured.

Case X.—For this case of amaurosis, cured by the antim. tart. & sulphate of magnesia, I am indebted to Mr. Nice, an intelligent student at this hospital.

Elizabeth Curman, ætat. 49. Admitted April 11th, 1831, suffering from an amaurotic affection of the right eye, which she considers to have arisen from a nervous attack, under which she has been labouring for some time previous.

This complaint (the amaurosis) commenced on Saturday week; she now complains of slight giddiness unattended with pain, but complains of the appearance of a web, as it were, floating over the eye; sight imperfect.

R. magn. sulph. ℥j.
ant. tart. gr. ij.—h. s. s.
The gutt. vin. opij. to be dropped in the eye directly.

13th. The emetic operated briskly, and the giddiness is much relieved; the web is still present.

18th. Much improved on the whole; but having caught cold, a slight catarrhal inflammation was the consequence; for which the ung. hyd. nitr. oxyd was directed to be used, and the other remedies still continued, as the dimness of vision was going off.

20th. Still improving; the ointment has lowered the inflammation. The drops were omitted, but the rest of the medicines still employed.

22d. The misty appearance returning again slightly; the drops and other medicines continued.

25th. Considerable improvement visible as well as felt; the drops were applied, but the ant. tart. diminished one grain.

27th. Still improving; the ant. tart. did not operate as an emetic, but combined with sulph. magn. acted very briskly as a purgative.

Rep. vin. opij. et ant. tart.

May 2d. Much better. Rep. medicament.

9th. Improving. Rep. ant. tart. The drops changed to a solution of the nitras argenti.

13th. Is rapidly improving.

16th. Discharged.

[We are much indebted to Mr. Foote, Jun. and his zealous colleagues for the narration of the above cases, which cannot fail to be instructive to our junior readers. The sentiments expressed on the great injury produced by inefficient treatment of purulent ophthalmia are just, and reflect much credit on our esteemed correspondent. It is a notorious fact that some public lecturers in London broadly assert, that no disorganization of the cornea follows the disease under notice; and some of the auditors of such teachers seemed quite astounded, when we referred them to the various ophthalmic institutions for melancholy proof of the fallacy of such an erroneous assertion.—Ed.]

IV.—Dr. Ryan *on Homicide by Poisoning.*

Observations on Arsenic.—(continued.)

The appearances of the arsenical crust, formed by the process stated in the concluding paragraph of the last article, are, according to Dr. Christison, imitated by no substance in nature. This is a most important conclusion, as Dr. Paris, Dr. Smith and Dr. Beck, have questioned the accuracy of the test by reduction. If any one persevere in denying the value of this test, the following process is considered certain—indeed, almost infallible. It consists of oxidation by heat, according to Dr. Christison:—

"The best method of applying this part of the test is to heat the ball containing its flux deprived of arsenic, to attach a bit of glass tube to the end, and to draw it gently off in the spirit flame, taking care to prevent the flux being driven forward on the crust. This being done, the whole crust, or, if it is large, a portion of it, is to be chased up and down the tube with a small spirit lamp flame till it is all converted into a white powder. In order to show the crystalline form of the powder distinctly, let the flame be reduced to the volume of a pea by drawing in the wick, and let the part of the tube containing the oxide be held half an inch or an inch above it. By repeated trials sparkling crystals will at length be formed, which are octahedres,—the crystalline form of arsenious acid. The triangular facettes of the octahedres may be sometimes seen with the naked eye, though the original crust was only a fiftieth of a grain or even less; and they may be always seen with a lens of four powers, the tube being held between the eye and a lighted candle, or a ray of sunshine, either of which is preferable to the diffuse daylight for making this observation. For the success of the oxidation test it is indispensable that the inside of the tube be not soiled with the flux, if the flux contained an alkali; because the alkali would unite with the oxide. It is also requisite not to heat the tube suddenly so as to redden it before the oxide is sublimed; because then the oxide unites with the glass, forming a white, opaque enamel.

"Such is the best and only process I should recommend for the detection of arsenic when in its solid form."

When arsenious acid is mixed with the contents of the stomach, we should remember that various animal and vegetable

principles are present, such as albumen, mucus, tannin, and caseum. To separate the acid, we must add silver, copper, lime or sulphur, which will form a compound, from which the poison can be subsequently disengaged. But Dr. Christison has proved the fallacy of these tests. He has shewn that nitrate of silver will cause a yellow precipitate with animal matter, similar to that produced when arsenic is present. A similar effect resulted from the sulphate of copper. He recommends the following experiment in preference to all liquid re-agents. His object is to procure sulphuret of arsenic, which he accomplishes by transmitting sulphuretted hydrogen through the solution. Acetic acid is to be first added in excess to the suspected liquor, for the purposes of neutralising any alkali that may be in the stomach, and of precipitating animal principles. The fluid is filtered, and a stream of sulphuretted hydrogen is passed through it for a quarter of an hour, when, if arsenic is present, a lemon coloured precipitate is thrown down; or if the quantity is small, it is suspended in the fluid; in both cases it is necessary to boil the fluid, in order to expel any excess of sulphuretted hydrogen, which would otherwise retain the sulphuret of arsenic in solution. This test discovers arsenious acid in one hundred thousand part in water. The sulphuret of arsenic is to be mixed with recently ignited charcoal and carbonate of soda, and reduced in a tube as already described. The following mode of deflagrating the sulphuret of arsenic is recommended, in preference to those proposed by Berzelius and Christison, by the Commentator, on the processes of the latter, in the *Lancet*:—

"About a scruple of powdered nitre should be melted by the heat of a spirit lamp in a green glass tube about six inches long and half an inch in diameter; the impure sulphuret of arsenic should then be dropped into it in minute particles, one by one; in this manner the decomposition of the organic matter usually takes place without flame, or at most with minute scintillations, and the sulphuret of arsenic is converted into the sulphate and arseniate of potass; the tube should then be allowed to cool, and boiling water added to dissolve the saline mass; the solution should then be filtered. Instead of lime water, we would now add the nitrate of silver, which causes a brown red precipitate of the arseniate and sulphate of silver, which is exceedingly insoluble in water. Finally, this precipitate should be dried,

mixed with recently ignited charcoal, and reduced in a tube.

"We feel confident that this method will succeed in experienced hands in many instances in which the complex precipitations of animal matter by the nitrate of silver, would frustrate the analyser's expectations."

The following information as to the detection of the other preparations of arsenic, by the same writer, are so valuable that I place them before the reader:—

"Such are the several modes of proceeding in our search for arsenious acid. As we before observed, however, there are many other arsenical poisons which would elude this mode of analysis: we may particularize the arsenite of copper (Scheele's green), and the yellow sulphate of arsenic, orpiment: or King's yellow. The two last, being entirely insoluble in water, remain undissolved in the solid contents of the stomach; it will be recollected also, that the arsenious acid, on the one hand, is liable to be converted into the yellow sulphuret by sulphuretted hydrogen in the stomach, or in the alimentary canal; and, on the other, that the orpiment of the shops almost invariably contains the arsenious acid.

"After the boiling and filtering, therefore, which constitute the first step in Dr. Christison's process for the arsenious acid, the solid matter should again be collected, introduced into a stoppered phial, and some weak ammonia added, which will take up either orpiment or Scheele's green. After a few hours the mixture should be filtered, and acetic acid added to the fluid which passes through, when, if it contain the arsenite of copper, a green precipitate is slowly formed; if it contain the sulphuret of arsenic, a yellow precipitate is soon deposited. If the precipitate be green, we have to seek for two metals in it, arsenic and copper. The first is recognised easily, by mixing the powder with charcoal and dried carbonate of soda, and heating it to redness in a tube, when the metal is reduced and sublimed, leaving behind it the copper, which may be detected by dissolving the residuum in dilute nitric acid, evaporating to dryness, mixing the dried mass with an equal quantity of borax, and acting on it with the blowpipe on charcoal. In the exterior flame, it forms a globule of beautiful green glass, which in the interior flame is coated with metallic copper, though the quantity be not more than the 500th part of one grain.

For directions on the use of the blowpipe, see the article on lead.

"If the deposition from the alkaline solution be yellow, it should be reduced in the manner already detailed, which it is superfluous now to repeat. It is here, however, necessary to re-dissolve the residuum in the tube, in water, and add a drop or two of a solution of the acetate of lead, which becomes blackened, both experiments indicating that the yellow precipitate is the SULPHURET of arsenic.

"The arsenical poison may also have been the arseniate of potass. Orfila has besides very recently asserted, that the arsenious acid is liable to be converted into the arseniate of ammonia, when the body in which it is contained has long been exposed to decay. A portion of the fluid prepared with acetic acid, according to Dr. Christison's plan, should, therefore, before transmission of sulphuretted hydrogen, be touched with nitrate of silver, which in any solution will show the presence of the arseniate. Should a brown precipitate occur, it is to be collected for reduction with charcoal. The remark, however, applied to Dr. Venables' proposal, must be remembered here. Great difficulty, arising from empyreuma, will occur in the reduction; a difficulty which, as yet, we have not been able to overcome.

"How far the additional step of examining the solids is actually necessary in this country, it may be difficult to determine. Dr. Duncan has seen one case of poisoning by Scheele's green, which he detected in pills, and a second of poisoning by orpiment, which had been mixed with tea. At any rate the additional experiment turns the solid substances to account, which in Dr. Christison's analysis are altogether neglected."—*Lancet*, 1831, vol i.

Sedillot informs us that there are two sulphurets of arsenic, the orpiment and realgar, from which, if heated with potass, metallic arsenic will be obtained by sublimation. MM. Geizer and Reiman, digest the mixture for some time with liquid ammonia, it is then filtered, and hydrochloric acid added in excess. If a yellow precipitate occurs, it is an indication of arsenic; but when there is no precipitate, we cannot pronounce negatively; the fluid is to be evaporated to dryness, more ammonia is added, and the admixture is saturated as before with hydrochloric acid; on adding a few drops of hydrosulphuric acid, a yellow precipitate takes place, if arsenic is present.

Arseniates of potass, soda and ammonia, when projected on live coals, volatilise in the form of arsenic acid. Mixed and heated with charcoal, metallic arsenic will be obtained.

Action of arsenic, and the symptoms it excites in man.—Arsenic acts in two ways, most commonly by inducing inflammation of the gastro-intestinal mucous membrane, or by lowering or arresting the action of the heart. Again, its effects may be purely narcotic. It may destroy life, and leave no mark of disease to account for death. It proves deleterious when applied to wounds, and sometimes even to ulcers, and when injected into the vagina or rectum.

To whatever part it is applied, unless death speedily follow, it almost always produces inflammation of the stomach; even this inflammation is in some instances more intense when the poison is applied to the external surface of the body. From the experiments of Morgan and Addison, all poisons appear to act through the nerves. Dr. Christison thinks farther experiments necessary to confirm this conclusion; but he has not offered a valid objection to this opinion.

Medical witnesses are often asked what is the smallest dose of arsenic which proves fatal? This question cannot be answered but vaguely. The quantity is not as yet determined; and of course a great deal must depend on the state of health, age, habit, diet, in a word, on concomitant circumstances. Hahnemann thinks four grains will prove fatal in twenty-four hours. Christison has related a fatal case of a child four years old, in which death took place in six hours, from four and a half grains in solution. The smallest fatal dose of solid arsenic he has read of was thirty grains. He thus describes the order of symptoms of poisoning with arsenic:—

"The symptoms of poisoning with arsenic may be advantageously considered under three heads. In one set of cases there are signs of violent irritation of the alimentary canal, and sometimes of the other mucous membranes also, accompanied with excessive general depression, but not with distinct disorder of the nervous system. When such cases prove fatal, which they generally do, they terminate for the most part in from twenty-four hours to three days. In a second and very singular set of cases there is little sign of irritation in any part of the alimentary canal; perhaps trivial vomiting or slight pain in the stomach, sometimes neither; the patient is chiefly or solely affected with excessive prostration of strength and frequent fainting; and death is seldom delayed beyond the fifth or sixth hour. In a third set of cases life is commonly prolonged at least six days, sometimes much longer, or recovery may even take place after a tedious illness; and the signs of inflammation in the ali-

mentary canal are succeeded or become accompanied about the second or fourth day or later by symptoms of irritation in the other mucous passages, and more particularly by symptoms indicating a derangement of the nervous system, such as palsy or epilepsy. The distinctions now laid down will be found in practice to be well defined, and useful for estimating in criminal cases the weight of the evidence from symptoms."

It is now ascertained that persons to whom arsenic is criminally administered, combined with food, do not experience that acrid burning taste in the mouth and throat, so long considered characteristic of this poison. The first symptoms are usually sickness and faintness, which generally commence in fifteen minutes, though in some cases they do not happen—indeed, no symptom has been observed for five hours (Orfila). The patient commonly survives twenty-four hours, seldom more than three days, but may be destroyed in three hours, or survive for weeks. The symptoms commence in a few minutes, and this is a point of great importance to the medical jurist, as it enables him to detect persons who allege they had not felt them for some hours after the supposed poison was exhibited. In general, we observe in a few minutes after the sickness has commenced, there is intense burning pain in the stomach, which is greatly aggravated by pressure. Retching and vomiting ensue, especially when drink is taken, there is often a sense of dryness, heat and tightness in the throat, exciting a desire to drink; but this train of symptoms may be absent. The powers of swallowing and speech are greatly diminished, and there is often a sense of suffocation. The fluid which is vomited is yellow or green, and sometimes streaked with blood. There is sometimes diarrhœa or bowel complaint, or a sense of burning heat, or actual inflammation along the digestive tube from the mouth to the anus. In other cases, the large intestines do not suffer. Again, the genito-urinary organs of both sexes may be irritated or inflamed, and of course their functions deranged. In consequence of the intense pain or inflammation in the stomach or bowels, the diaphragm cannot act freely, and the respiration will be more or less impeded. There are convulsive twitchings of the trunk and extremities, violent cramps of the legs, the pulse is small and soon imperceptible, the extremities cold, clammy and livid, the countenance is pale and sunk, the tongue and mouth are dry, and often covered with white ulcers or aphthæ, delirium supervenes, and death closes the scene. In some cases the person expires calmly, in others

with convulsions. When the sufferer survives for days or weeks, the body may be covered with eruptions of various kinds, sometimes resembling small-pox, petechiæ, miliaria, &c. In some cases a remission of all suffering takes place on the second day; but this is delusive, as all the bad symptoms usually return with increased force.

These are the chief symptoms of poisoning by arsenic, but it is to be always recollected, that many of them may be absent, others less violent, and that they are not all present in every case. In a former number of this Journal (*Med. Repository*, vol. ii.), Dr. Yelloly, of Norwich, related the case of a lad aged sixteen, who died in twenty hours from having taken half an ounce of the white oxide—he never complained of pain, though gastro-intestinal inflammation was indicated by sickness, vomiting and purging. Another extraordinary circumstance in this case was the slowness of the pulse, which was 40, and after some time only 30. Upon the whole, however, the symptoms of poisoning by arsenic are in general very uniform.

In some cases, when the patient dies within four or six hours, there is not sufficient time for the development of the symptoms related above. Here we have faintness amounting to syncope, stupor, coma or convulsions. There may be slight vomiting, but the symptoms of narcotism are prominent. In these cases, though half an ounce of arsenic may be found in the stomach, this organ will be healthy. Yet the patient has been destroyed in eight hours. The poison is supposed to act on remote organs, of course by nervous sympathy. Morgagni, Chaussier, Orfila and Christison cite examples of poisoning by arsenic, in which the stomach and bowels were healthy. Again, the inflammatory symptoms may disappear, or nearly so, and nervous symptoms supervene, as coma, palsy of the arms or legs, hysteria or mania. These occur when the patient has taken a small quantity, or from having vomited soon after, or when death takes place after a protracted illness. Delirium, tetanus, convulsions and coma, may be produced by the poison under notice. The preceding remarks contain, I believe, all that is absolutely determined of the effects of arsenic, when swallowed, on the human subject. I have drawn information from all sources, and very largely from Professor Christison, whose language I have often condensed. Every fact stated might be corroborated by authorities, many of which will be found in his erudite and standard work. The object of these essays is to inform the student and young practitioner of the exact state of science on all topics discussed, and not to load his memory by references.

BIBLIOGRAPHY.

PHYSIOLOGY.

1.—*On the Structure and Motions of the Heart, and on the Indications of the Pulse.* By Dr. Burne.—Dr. Burne premises a slight account of the anatomical structure of the heart, but combats the opinion of Behrands, that the muscular substance of the heart is not supplied with nerves; he asserts that though scantily supplied, and small in size, the nerves are fully sufficient, as they are not covered by neurilema, and hence their influence will be as great as many larger nerves, which are composed in a great measure of neurilema.

Of the Order of Contraction.—Dr. B. considers, from his own experiments of the rabbit, and from experiments by Haller, by Dr. Knox also, in the heart of the shark, that the general opinion, that first the auricles contract simultaneously, and are immediately succeeded by the ventricles, which contract simultaneously also, and then follows the period of repose, is not exactly right; as he thinks from his experiments, that the contraction of the auricles is not simultaneous, but a successive action of the muscular fibres, the contraction commencing in the sinus venosus, and ending in the appendix or proper auricle.

This order of contraction in the auricle is an additional example of the wonderful and wise provision of nature, in the mechanism of the human body; for by it, the mouths of the great veins are closed, and regurgitation prevented, so that the whole force of the action of the auricles is thus brought to bear on the propulsion of the blood into the ventricles. It will account, also, for the absence of pulsation in the large veins, when the heart has not been disabled by disease.

When speaking of the motions of the heart, Dr. B. writes thus:—"If the stethescope is applied to the cardiac region, the ear is slightly raised by the motion of the heart, and accompanying this is a sound somewhat dull, but distinct and gradual: immediately after, and without any interval, is heard a sound more sharp, and analogous to a valve raised, the crack of a whip, or the lapping of a dog; but no motion sensible to the ear accompanies this sound. During this second sound, or succussion, the heart is felt to retire suddenly deep within the chest, which accords with the retiring of the heart from a diminution of its volume, by the contraction of the ventricles."

Of the Indications of the Pulse.—Notwithstanding the pulse is mainly produced by the action of the heart, it does not always correspond with that action. The action of the heart will sometimes be impetuous and strong, while the pulse is small and weak; as in a narrowing of the orifice of the mitral valve from cartilaginous or osseous deposit.

The various characters of the pulse may be represented by the following designations:—It may be strong, weak, hard, soft, wiry, sharp, harsh, grating, jarring, vibrating, falling back, fleeting; or full, large, small, thready; or yielding, open, contracted, tight; or rapid, frequent, accelerated, slow; or it may be quick, free, equal, unequal, regular, irregular, hesitating, labouring, intermittent, fluttering.

Each of these terms designates some notable peculiarity of the pulse; and as they are numerous, and as most of them cannot be measured except by the sensation produced in the mind, it follows that the accuracy of this measurement must depend on the skill of individuals, and hence the difficulty of an acquaintance with the science of the pulse. But although the task is difficult, it may be accomplished by diligence and perseverance. The ready use of the stethescope, requires the ear to be educated; and an education of the touch is necessary to a correct judgment of the pulse.

If time can be profitably spent in acquiring a knowledge of mediate auscultation, much more may it be so spent in acquiring a knowledge of the pulse; because the pulse is one of the most prominent signs in disease, and one of the most certain indications in the treatment. Without the assistance of the pulse, we cannot advantageously, or even safely, employ blood-letting, which is the most powerful of all our remedial agents, the most beneficial when judiciously prescribed, the most fatal when prescribed in error.

The characters of the pulse are produced by three causes; the heart, the volume of blood, and the artery; and as these causes always operate, it follows that every given pulse must have several characters. Thus, the same pulse may be strong, full, and firm; the strength resulting from the heart, the fulness from the volume of blood, and the firmness from the tonicity of the artery.

Of the terms already specified, some belong to the heart, some to the volume of blood, some to the artery, and some to these causes combined.

Those which depend upon the heart are, strong, weak, sharp, jarring, rapid, frequent or accelerated, unfrequent, quick, slow, equal, unequal, regular, irregular, hesitating, labouring, intermittent, fluttering.

Those which depend upon the volume of blood are, full and small.

Those which depend upon the artery are, contracted, tight, yielding, open, harsh, grating.

Those which depend upon the above causes combined are, hard, soft, wiry, vibrating, falling back, fleeting, thready, large, compressible.

The pulse, in health, beats about 72 strokes in the minute, or thereabout, and the number varies a little in the course of the day and night, being rather more than 72 in the evening, and less than 72 before rising in the morning. Its natural character is, equal, regular, soft, and of moderate strength and volume.

The *pulse of irritation* is frequent, its stroke is quick, short, rather sharp, but not strong; the impression on the finger being rather smart, but not lasting. Its volume may be small or otherwise, but not full.

The pulse of pneumonia, pleurisy, apoplexy, compression, concussion, adhesion of pericardium, valvular disease of heart, after sudden hæmorrhage, &c. are diagnostic.

The hæmorrhagic pulse is frequent and open, and the stroke is quick and rather smart, but short and falling back, and leaves but a slight impression on the finger. This open character is sometimes mistaken for a full pulse, and the quick and rather smart stroke construed into strength, which may tempt a practitioner to extract blood, while the symptoms are already produced by the loss of blood; but the slight impression upon the finger, and the sensation of falling back after every stroke, will at once determine that there is a deficiency of strength and volume of blood.

In ascertaining the nature of the pulse, we must be circumspect, and take care that we are not led into error by any accident or idiosyncracy: for instance, any inflammation of the finger, or rheumatism of the wrist, will affect the pulse of the affected arm; or if one arm has been lying out of bed, while the other has been covered, the pulse in the two arms will differ exceedingly; or there may be a naturally vigorous stroke of the heart, which is usually attended with a thick strong artery, and so on.—*Midland Medical and Surgical Reporter, May.*

PRACTICE OF MEDICINE.

2. *On the Use of Tartar Emetic in large doses in Pneumonia.* By M. Lades, D.M. Escoupens, Tarn.

Dr. Lades has written a long paper, detailing several cases in illustration of the use of this medicine in inflammatory affections of the chest. He has administered it only after bleeding, either general or local has been employed, and sometimes in conjunction with it. He recommends that it should be tried alone, without any other medicine. We think this would hardly suit John Bull's temperament, he is rather too plethoric; yet we know a case in which an incipient pleurisy was stopped, by keeping the patient under the influence of the ant. tart. for several hours. The author thinks himself justified in concluding, from the cases he has narrated, that "the tartar emetic, in large doses, has a powerful action in the resolution of peripneumonia, that when there is no irritation existing in the gastro-intestinal canal, it does not cause any, and much less does it give rise to an attack of the "gastro-enterite," that its action is not due to its evacuant properties; that a great general excitement does not contra-indicate its use; that it sometimes acts as a real sedative; and that it is a highly useful remedy in the adynamic pneumonia, in which it is impossible to employ bleeding; and in those cases in which bleeding can be pushed no further, and the disease still continues, the practitioner may have recourse to this remedy, in the

full hope of rescuing at least some of his patients from an almost certain death."—*From the Revue Medicale, Francaise et Etrangere.*

We have lately used this medicine in the manner recommended by M. Laennec, in cases of pneumonia, with the greatest success. Venesection was first employed freely.—Ed.

3. *On the Operation of Physical Causes upon the Constitution, the Health, and Diseases of Man.* By Edward Florens Rivinus, M.D.

This is one of the most interesting papers we have perused for some time; but from its nature, does not admit of analysis. With one or two extracts we must, therefore, be content, and refer the inquiring reader to the Journal itself in which the paper appears. It shows great research and talents on the part of the learned writer.

"To the seasons correspond the zones of the earth, to each of which, by virtue of the same law of nature, its peculiar climate is allotted. The hot zone, where perpetual summer is modified only by periodical rains, generates bilious, nervous, and putrid disorders; proofs of which are the cholera morbus of south-western Asia, and the yellow fever of the West Indies, and the Spanish Main. In consequence of the prevailing heat, a more active determination to the skin is induced in the living system, and the fluids are carried in greater abundance to the extreme vessels on the surface of the body. These facts authorize the watchful practitioner to look upon hot climates as the cradle as it were, of the majority of all contagious, as well as of the most dreadful cutaneous diseases; hence lepra, elephantiasis, &c. are natives of tropical countries.

"The cold zone, where an almost perpetual winter produces a poor, dwarfish, and weakly construction of parts, invites the pathologist to look for diseases of a more lymphatic and cachectic type, such as dropsies, marasmus, atrophy, &c. It is only in the more moderate regions that man attains the highest degree of perfection, both as to his physical construction and intellectual powers. And here the climate of the hot and the cold zone being blended, the diseases peculiar to both seem to take leave of each other, and changing with the seasons, the changes themselves give rise to many other maladies of an intermediate character, such as catarrhal, rheumatic, and inflammatory affections."—p. 390.

"Numerous diseases depend upon particular occupations. Scurvy, for example, is most frequently met with amongst sailors; and the colica pictonum is peculiarly the inheritance of painters, glaziers, manufacturers of white lead, &c.; psoriasis diffusa occurs in different shapes, most frequently in bakers, grocers, and washerwomen; shoemakers have the psoriasis palmaria locally, from the irritation of the wax they so constantly employ. In braziers, tinmen, silversmiths, &c. it seems to be produced by handling cold metals; whilst flax-dressers, according to Morgagni, and manufacturers of muriatic acid are said to be particularly subject to phthisis pulmonalis."—p. 396.

Whilst speaking of the almost lethargic indifference of the Turks in respect to that scourge of their Eastern paradise, the plague, our author has these expressions,—

"The Turks, whilst displaying an unaccountable apathy in some points, are, however, not such thorough-going fatalists as to neglect every means of precaution. They are well aware of the facts, that meat, animal substances in general, fresh bread, silk, cotton, cat's hair, &c. are very apt conductors of the plague, while wood, water, and oil resist the infection. Oil is considered an antidote; and it has been observed, that the carriers and venders of oil are rarely, if ever, attacked. Nobody touches with impunity any coin which has been in circulation for a long time. Therefore, the waiters and attendants in coffee-houses and shops never take the money immediately out of the hands of their customers, but receive it first on a wooden plate, after which they put it in a vessel filled with water, from whence they pick it up without any further danger. In like manner is meat always immersed into water, before the inhabitants receive it inside of their houses. Silks and woollen commodities, such as shawls, which cannot be immersed, are always more or less exposed to the action of the air, especially the night air, in open sheds, erected on the tops of their dwellings."—p. 398.

These extracts will serve to shew the reader, that this paper will form an excellent addition to Thackrah on "Employment." It is, indeed, high time that the attention of the profession be directed to this interesting branch of "the healing art"—that "prevention is better than cure." We take leave of Dr. Rivinus with every sentiment of respect.—*American Journal of the Medical Sciences, Feb.*

4. *Pleuro-pneumonia without stethoscopic signs, discovered by mediate percussion.*—A young man was admitted into the Hotel Dieu with cough, hurried respiration without any râle, and with no particular resonance of the voice. Percussion, by means of the plessimetre, elicited a difference of sound to the left and behind. This partly disappeared when the patient lay on his belly, and was less sonorous on the left side. The disease was considered pneumonia, and was removed by the antiphlogistic treatment. M. Laherge is of opinion, that tubercles are discoverable by percussion when the stethoscope fails to afford aid.—*Journ. Univ. Hebd. de Med. et Chir. ut supra.*

5.—*Case of Tubero-Carunculoid Liver.* By Thomas H. Wright, M. D. &c. (From the American Journal of the Medical Sciences.) A man of large person, middle age, and vigorous constitution, was admitted into the Baltimore Alms-house Infirmary, in November last, with acute pneumonitis of twelve days standing. The diagnosis was suppuration in inferior lobe of right lung, probably participated by the liver. The patient lingered and died thirteenth day in Hospital.

Dissection.—Thorax. Left lung sound throughout. Right lung totally extinct. In place of lung texture, the right pulmo-pleural sac was completely filled with a light-coloured, cream-like, inodorous pus; no vestige of parenchyma. The cyst, (pleura) of this great abscess was entire every where, and its substance very much thickened.

The liver proved to be entirely free from decay. It was enlarged one third more than the usual bulk, but not sensibly morbid. The total surface of this viscus exhibited a group of eminences about the size of garden peas, individually distinct. On the concave surface they were more remarkable. They represented the small pox, in the first period of pustular maturation, they were regularly rounded, obtuse, and conoid. There was nothing palpably morbid in these elevations. They appeared to be healthy, and consist of the common pulp or parenchyma, and were all covered by the delicate, peritoneal, tunic of the liver. The colour of the liver and eminences was natural.

SURGERY.

6. *Remarks on Morbus Coxarius, with an account of Dr. P. S. Physick's method of treating this Disease.* By J. Randolph, M.D. &c. &c.

The author of this paper informs us, that Dr. Physick has succeeded in curing recent cases of morbus coxarius, where disorganization has not taken place. It is now decided that the cartilage of the hip-joint is the part primarily affected, and in ordinary cases, this is found to be in a state of ulceration. The author then notices the opinions of Messrs, Brodie and Ford, which we need not insert. The plan of treatment proposed by Dr. Physick consists of the recumbent posture, leeching and daily purgation, by means of the pulv. jalap comp.

"Having pursued the above treatment for a few weeks, and accustomed the patient to his confinement to bed, Dr. Physick next proceeds to the application of the remedy, which he considers to be the most important and efficacious one that has ever been employed in the treatment of morbus coxarius. This consists of a splint properly carved so as to be adapted to their regular size, shape, and position of the diseased hip-joint, thigh, knee, and leg. It must also be carved so as to fit the principal part of the same side of the trunk. The whole must be long enough to extend from the middle of the side of the thorax, nearly as far down as the external malleolus, and it should be wide enough to extend nearly half way round the parts to which it is applied. In those cases in which the thigh is bent upon the pelvis, and the leg upon the thigh at the knee-joint, the surgeon must by no means attempt to force the limb into a straight splint. On the contrary, the splint must be made angular at those parts so as to adapt itself to the exact position of the limb, however crooked it may be. After the patient has worn a splint of this shape for some time, the inflammation and swelling become so much relieved, that the limb can be placed in a much straighter position; and now it becomes necessary to have a second splint constructed which will adapt itself to the altered position of the parts. It seldom happens that more than two splints are required in the treatment; it has, however, occurred to Dr. Physick, to be obliged to have recourse to three and even four. The inside of the splint must

be carefully wadded, in order to prevent it from excoriating the skin, and it must be retained in its proper situation by means of two rollers, one of which should be attached to the upper end of the splint, so as to secure this part to the thorax and hips, whilst the other is applied to the splint and limb from the ankle to the top of the thigh.

"The length of time which may be required for the performance of a cure, varies in general from six months to two years, though the usual period is about twelve months. During all this time the splint should be kept steadily applied; the surgeon, in fact, should not remove it until sometime after all the symptoms and appearances of the disease have entirely subsided. As soon as there is sufficient reason for believing that the disease is completely cured, the exercise of the limb may be resumed in the most cautious and gradual manner.

"When the splint is first applied, the child in general is restless and uneasy, and frequently complains so much that it becomes necessary to remove it for a short time, in order to pacify him; after a few days, however, he gets completely accustomed to the splint, and experiences so much relief from pain, that he is extremely unwilling it should be taken off, even for a short time.

"It may be said that this treatment is not applicable to cases of morbus coxarius occurring in patients of a decidedly scrofulous constitution; so far from this being correct, however, in several instances complete cures have been effected in such patients."—p. 306.

7. *Cancer by Nævus twice excised, four times cauterized; and finally cured by methodic compression.*—M. Recamier, one of the editors of the Revue Med. Franc. et Etrang. relates a singular case of nævus, or what he has designated as above, which was finally cured by compression. He has succeeded in curing several cases of cancer by this method, and thinks it has failed in the Middlesex Hospital, from being injudiciously applied. He has proved that it cannot be used indiscriminately.

8. *Cure of Gonorrhœa and Leucorrhœa by Iodine.*—A man, aged 28 years, was treated in the ordinary way for a gonorrhœa without success. He was ordered 12 drops of tinct. iodinæ, m. n. and cured in eight days.

His wife took 8 drops twice a day in cold water, and was cured of leucorrhœa in ten days.—*M. Broglia in Annali Universali di Medicina Gennajo*, 1831.

9. *Treatment of Neuralgia.*—When this disease depends on the brain or spinal marrow, it will be relieved if not cured by tartarized antimony; but when it depends upon the nerves, mercury is the best remedy.—*Heldenbrand in same work.*

10.—*Dr. Buchanan's Surgical Report from the Glasgow Royal Infirmary, for the Summer of* 1830.—Among other cases, Dr. B. describes a case of change in the colour of the skin, from the internal use of the nitrate of silver. He conjectures the man used two ounces of this deadly poison in twenty months.

It is of very little consequence, for a bachelor of 39, by trade a steam engine moulder, and six days of the week, like his neighbours

as to complexion, to be thus changed; but reverse the portrait, only let the masculine, hard, and stern features of this blacksmith, be converted, by supposition, into the soft, feminine, and angelic smile of virgin beauty, whose bodily and mental constitution, it may be, has been in a similar condition to that of Hattrick, and who, incautiously, may have made use of the same medicine,—she by this means, it is true, has got rid of her disease, but I fear, that practitioner's credit, who counselled the use of the medicine in such a case, will cease the moment the negress is developed.

It is not my intention in the present communication to go into the subject of the cause, or seat of colour in the skin of the various tribes of human beings, so amusingly and eloquently detailed by Le Cat, nor do I mean to inquire (as Mr. B. Cooper has lately attempted to prove) whether the rete mucosum, the generally supposed seat of colour, is composed of congeries of right angular veins, or acute angular arteries, such disquisitions on the history of the species, and such microscopic anatomy, being foreign to the object which I have at present in view, of shortly stating what trials were made use of to change this patient's skin, and the result; and though I cannot refer to the Journals of the house for the details, my notes are equally to be relied on.

Amalgamation by means of quicksilver, exhibited in the form of blue pill, was my first empirical attempt, and this I proposed to myself, not only from its chemical action on the silver, but more particularly as a general stimulant to the whole absorbent system; for I am of opinion, that the rete mucosum is not the only texture influenced by the nitrate of silver, when internally administered, but that various internal organs and textures are permeated by it, either through the medium of the arterial or nervous systems. In this way alone, can we account for the marked effects produced by it in cases, like this, of epilepsy, or chorea, and mania; where often structural, as well as functional derangement is strongly indicated. I cannot, it is true, affirm, that it has been found in the interior of the body, on inspection, but neither has mercury, and yet, who would hesitate to say, that this medicine does not pervade every the most minute part of the animal machine? Again, it is no proof, in my opinion, that this medicine has not become generally diffused through the system, that the scalpel of the anatomist, or analysis of the chemist, has not detected it after death, for by neither manipulation could it be exhibited to the senses in the delicate and reticulated mucous tissue, unless light had, through the transparent cuticle, during life, displayed its decomposition.

Gentle salivation was in about eight days produced, and this was persevered in for a fortnight, but without producing the least change, or if any, the poor fellow thought to the worse. Iodine and chlorine were thereafter successively made use of, both externally and internally, but with the same result. I need scarcely say that their use was problematical, as was that also of large doses of sulphur, and the external application of nitric, muriatic, and nitro-muriatic

acids. These all, it may well be said, were empirical remedies; but what medicine exhibited for the removal of any internal disease, is not, in some measure, of this nature, from the most sovereign specifics for intermittents, as arsenic and quinia, to the heterogeneous and discordant nostrums for gout, phthisis, and dyspepsia, which have disgraced the pharmacopœas both of modern and ancient times.

In the West Indies, it is often remarked, that the skin of the negro, when blistered extensively and severely, assumes a dusky hue, and, in some instances, is even changed into a dirty white colour; following out this observation, I first tried, on his arm, the effect of powerful vesication by cantharides, and thereafter had a solution of chlorine applied to the vesicated surface; but still, after cicatrization was accomplished, there could not the slightest difference be detected, between the sound and lately blistered portion. The patient having become tired at so many successive failures to alter his outer man, resolved to submit to no more experiments, unless I could give him some better grounds to expect a change; this I at once declared I could not, entertaining, as I did, the opinion, that his black face would accompany him to the grave; but having heard from Dr. Thomson, that my friend Mr. Rainy had some *experience* in lunar caustic cases, I held out some hope to him, that what had benefited others, would be the most likely means in his case also. I found, however, that it was the external application of this metallic salt, upon which he had been experimenting, and that, like most of my other medical friends, he had never seen, far less treated, an artificial mulatto. He suggested at the same time, but with his usual caution, as to its probable want of success, the external application of ammonia, complete seclusion from light, and thereafter, that chlorine should be used to the vesicated parts. I felt anxious to give this last application a full and fair trial; for this purpose I dipped a thick piece of caddis in ammonia, and clapped it over the whole cheek; the patient bore it most manfully, and though vesication was extensively produced, the most complete *darkness visible* adopted, during the whole of next day, and the chlorine with the greatest assiduity applied—he remained in statu quo.—*Glasgow Medical Journal. May.*

11.—*On Old Dislocations; being an Essay read before the Glasgow Medical Society, 1st Feb.* 1831. By James Laurie, M.D. Professor of Surgery in the Andersonian University. From the Glasgow Medical Journal for May.—Dr. Laurie states, that when the primary effects of a dislocation have subsided, the separated extremities of the bone form new connections with the neighbouring parts. These connections are modified by various circumstances, by the nature of the joint. 1st. In hinge or ginglymoid joints. As an example of this let us take a complete dislocation of the radius and ulna backwards. The immediate injury done to the ligaments and muscles I need not specify: the ultimate connexions are nearly the following. Posteriorly, the ends of the ulna and radius form cellular connexions

with the posterior muscles of the arm, and anteriorly the condyles and articular surface of the humerus become intimately attached to the muscles of the forearm. Here each of the articulating surfaces forms connexions with the soft parts, and before such a dislocation can be reduced, both of their connexions must be destroyed. Besides this, from the nature of these joints there must always be more or less riding of the bones, and either from the first date of the injury, or soon afterwards, in consequence of the absorption of the intervening soft parts, the bones come into actual contact, and when so osseous matter is effused, and anchylosis is the result. Hence the well known fact, that joints of this description are very soon difficult to be reduced, and before long impossible.

2. In orbicular joints, the nature of the connexions varies according to the situation of the end of the dislocated bone. When it is thrown into a mass of cellular or muscular substance, the connexions are at first cellular, fibrin is effused and becomes organized, and the end of the bone forms for itself a bed in it, and the soft parts among which it has been thrown.

1st. When it comes in contact with a mere point of bone away from its original socket, the articular surface and the point on which it is thrown are changed. The former is altered in shape, its cartilage is absorbed, and new bony particles are secreted and organized. A somewhat similar change is effected on the point of the bone upon which it presses. It rarely happens in such cases, that permanent osseous union takes place between the approximated points. Of this kind of orbicular dislocation we have an instance in dislocation of the humerus inwards, under the coracoid process and clavicle. 2d. When thrown on a flat bony surface. Here great changes take place. As regards the flat surface, a portion of it is absorbed, new bony matter is effused round its edges, and a socket is formed, rude, no doubt, and imperfect, but still closely resembling the one from which the displaced bone was ejected. The head of the bone itself is changed, its cartilage is removed, and in consequence of new deposition, the natural appearance of the end of the bone is destroyed. It is obvious that the degree of motion which such new joints admit of, must depend on the shape of the new socket. In general, it cannot be great.

The muscles become changed in appearance, and in direction, and frequently lose all power. The arterial, nervous, and venous trunks have frequently their course changed.

Having thus premised, we come to the important question, at what distance of time do old dislocations admit of reduction?

Mr. B. Bell does not consider a dislocation "old, until the sixth month;" he has reduced them at four months. Desault never attempted them after the third month. Sir A. Cooper limits us to three months for the shoulder, and two for the hip. M. Marx relates the practice of the Hôtel Dieu during several years. The oldest dislocation he relates, as reduced, was at ninety-eight days, of the hip at seventy-eight; both were reduced with considerable ease;

out of twenty-seven cases, twenty-six were reduced without any permanent bad consequences, and one only was found irreducible. This argues well in favour of attempts at reduction.—Rep. Gen. 1829.

In attempting the reduction of old dislocations, we must be guided by the nature of the joint (ginglymoid joints sooner become anchylosed after dislocation than the orbicular), also by the condition of the joint. If it is easily moveable, it is favorable; it is also favorable, when the head of the bone dislocated, is thrown among soft parts, as the connexions formed are cellular, and may be overcome. Incomplete dislocations are unfavorable, from the end of the bone resting on the edge of the old socket, there exciting irritation, causing a new socket to be formed, and the old one to be destroyed, so that there is no cavity to receive the bone in, when reduced. In dislocations of the shoulder into the axilla, when the artery has followed the bone, and can be traced adherent to it, attempts at reduction may cause its rupture, or the formation of an aneurism.

Age, sex, and muscular energy exert great influence over these accidents, and must be particularly attended to, previous to attempts at reduction.

Manner of Reduction.—Position must vary with the different dislocations, but, as a general rule, for the upper extremities, the sitting, the recumbent posture for the lower extremities.

The patient should *not* lie on the floor, as it will be found inconvenient to the surgeon, requiring as it will, the bent posture. The chair or table must be immoveably fixed, nailed to the ground, and the patient's body should be firmly fixed on it. The counter-extending force must be so applied as to prevent the muscles which are to undergo extension being compressed.

In regard to the extending force, the English employ pullies, the French assistants. The use of assistants allows the axis of the extending power to be changed without relaxing it. We will here, however, allow Dr. L. to speak for himself.

I have bestowed some attention on the means of combining the power and steadiness of pullies with the mobility of assistants, and being no great mechanician, I have called in the assistance of my friend and pupil, Mr. Graham. Each of us has proposed a method applicable to hospital practice, in which its employment is principally required. Mine appears simple; its efficacy remains to be proved.

Let a table be fixed in the centre of any room, round part of which the segment of a circular rod of iron is passed on the same plain with the table. Care must be taken that the centre of the table be the centre of the circle of which the rod is a segment. To prevent the rod from yielding to the extending power, it must be attached to the wall by short rods so curved, that the point of attachment be on its outside. The hook of the pulley will thus pass without interruption along the rod.

By this simple and cheap contrivance the direction of the limb

may be changed while the body remains fixed, without relaxing the extending power. The objection to this is the resistance which the friction of the iron surfaces would probably oppose to moving the hooks. Were the surfaces smooth and oiled, I do not suppose that the force could be so great as to resist the efforts of one or two assistants.

Mr. Graham proposes a more scientific but more expensive method, the principle of which is to move the pelvis on the thigh instead of the thigh upon the pelvis. This is accomplished by means of a table fixed to the floor by a central point, with a revolving body like a demonstrating table. On this the patient is laid; the sound joint opposite to that to be reduced is made the central point, and fixed over the centre of the table. He is then strapped down in the manner recommended. The table is very easily moved, and a very slight turn makes a great change on the angle formed by the limb and pelvis. It might be possible to combine a table of this kind with the excellent operating table which Mr. Graham has already contrived.

By way of adjuvant, Dr. L. recommends keeping up severe sickness and relaxation, by means of tartar emetic or tobacco. He condemns bleeding at first, but recommends it at the latter part, for the purpose of increasing relaxation and warding off inflammation.

Before concluding with Dr. L.'s paper, we must beg to offer some remarks on the off-hand manner in which *he gets rid* of M. Flaubert's excellent paper, published in the Rep. Gen. for 1827. He acknowledges he has *never* seen it; and can merely speak from an *abstract* he perused in the paper of M. Marx, a paper professedly written in favour of attempts at reduction, while M. Flaubert's was written against it.

Notwithstanding Dr. L. *never* beheld the paper, he has not any objection indirectly to accuse M. F. of not declaring all the circumstances of the cases described in the first, the pectoralis major, shorthead of biceps, and the axillary artery torn across: the patient died. In consequence of the *duration and mode* of extension not being mentioned, he declares roundly, nay, he asks if it can be doubted for an instant, *that the patient was killed, (slain murdered)* by too sudden and powerful exertions. Alas! for the profession, if the magnates, if the hospital physicians and surgeons, thus forget themselves, what must we expect from the *minores?* If the great men, who, it is but fair to suppose, cannot have any interested motive, especially when the broad ocean rolls between them, if they act in so unprofessional, so unjust a manner, what can we expect from our juniors in the profession, who have to toil up the weary road to eminence, and who can only hope to gain the summit by industry or else covertly undermining their professional brethren. This is the first time we have heard of a paper having been reviewed without being even seen; we hope it will be the last.

Then quoting another case on the same authority, he adds, what surgeon, *not lamentably ignorant of the first principles of his profession,*

would force a dislocated humerus of seven or *eight weeks* (only seven at the utmost) by his own shewing, but we presume the eighth was added for the sake of the tautology) standing into its place, after seven or eight minutes extension. He is here again wrong on his own statement; two attempts were made, and, of course, with an interval between them, surely quite long to tear *cellular connexions* of seven weeks' duration; hardly seven weeks, as the connexions assuredly did not take place on the very day that the accident happened.

Our author has been *unreasonably* severe, more than severe, unjust, to M. Flaubert, and he must not complain of our notice. Our motto is, JUSTICE TO ALL.

The writer of these remarks is acquainted with M. Flaubert, and witnessed some of the cases and their reduction, which he has described. He can aver, and fearlessly also, despite Dr. Laurie and M. Marx, that there is not a more talented surgeon, a better anatomist, a more skilful operator, nor, though last not least, nay, what we attribute to him as the greatest part of his character, *a more humane man to his pauper patients*. M. F. is and has been for several years, surgeon to a larger hospital than any in London; it contains above 1,200 beds. And we have *frequently* seen the hospital so crowded, that double rows have been obliged to be laid.

M. F. bears a great reputation in Rouen, both for his humanity and his skill: it is needless to say, that he is in consequence much beloved. On one occasion, we recollect perfectly well, a deputation from the garrison, waiting on him to thank him for his humanity to some soldiers (the hospital being military as well as civil) in a severe and dreadful accident which befel them. It was in the year 1827.

In conclusion, however, we beg to thank Dr. Laurie for attacking M. Flaubert under his own character, and not anonymously, as is, we regret to say, too often the case at present.

Altogether, the paper is excellent, and were it not for the great blot we have noticed, it would bear the palm.

We fear that the medical profession will be long ere it is raised to that rank in society which it merits: complaints are continually made of the manner in which we are regarded, and of the rapid progress *downwards*, which we are making in the eyes of the unprofessional public; but can we wonder at it, when detraction, calumny, scurrility, and all the ignoble passions characterize a large portion of the faculty in an age so enlightened as the present?

Had we been disposed to be cynical towards Dr. Laurie, we need not do more than refer him to the excellent report of surgical cases which occurred in the Glasgow Infirmary, among which he will observe an account of a case entitled "Hernia punctured by mistake for hydrocele, death, inspection," and this by a surgeon who resides within five miles of Glasgow. Dr. M. S. Buchannan, who published the report, refrains from disclosing the name of this enlightened Esculapian, and evinces more sense, judgment, and professional etiquette by so doing, than by calling him a murderer, as Dr. Laurie

has thought fit to designate one of the most scientific anatomists and surgeons of another country. If he takes the trouble to peruse modern medical literature, he cannot fail to discover, that fallibility is the lot of all practitioners; he will discover, that "to err is human, to forgive divine."

12. *Case of Axillary Aneurism, in which the Subclavian Artery was successfully secured in a Ligature.* By Valentine Mott, M.D.

William Hines, aged twenty-eight, of Smithville, Virginia, came to New York, August 24th, 1830, and became my patient.

The account he gave of his case was, "that about seven weeks ago he received a violent strain while carrying a canoe on hand-bars across the arms, which was followed by an extensive discoloration of the skin of the right arm, extending to the chest, and attended with considerable pain. It, however, yielded to the usual remedies in such cases. Three weeks subsequent to the accident he observed a swelling about the size of a pigeon's egg under the right arm, which had rapidly increased."

On examination, I found a tumour about the size of a goose egg, and decidedly an aneurism of the axillary artery. His general health being good, I directed him to keep quiet, to be bled, and to take some purgative medicines; and fixed on Monday, the 30th, for tying the subclavian artery.

At 11 o'clock, A. M. he was placed upon the table, with the shoulders elevated and inclined to the right side. An oblique incision was made, two inches in length, through the integuments and platisma myoides muscle, and corresponding to a middle line of the triangular interval formed on the inner side by the scalenus muscle, on the outer by the omo-hyoideus, and below by the clavicle. The cervical fascia was next divided to the extent of an inch, and with the forefinger and the handle of a knife, the adipose and cellular tissues were put aside, and the artery readily exposed as it passes from between the scaleni muscles. After denuding the artery a little of the filamentous tissue with a knife rounded at the point, and cutting only at the extremity, a ligature was conveyed around it, from below upward, by the *American needle;* and the artery tied a little without the scalenic muscles.

No other ligature was required. The patient lost less than two tea-spoonsful of blood. The operation lasted about fifteen minutes, and was performed, with the assistance of Drs. Vache and Nosacks in the presence of Drs. Barrow, Kissam, Rogers, and Wilks. The wound was closed by two stitches and adhesive straps; the arm was immediately wrapped in cotton wadding; no diminution of temperature took place.

8, P. M. Found the patient comfortable; says he has less pain in the arm than before the operation; heat rather more than natural; a faint pulsation in the right radial artery; pulse 88.

31st. Morning. Passed a comfortable night after taking fifteen drops of the sol. sulph. morphine, which was given to allay the pain about the elbow, and which he considered rheumatic, having had

more or less of it for some time previous to the operation. This pain was no doubt caused by the pressure of the tumour upon the brachial plexus. Pulse 70; skin natural; says that he feels very comfortable. —Evening. Complains of head-ache; directed a saline cathartic; pulse 90; skin pleasantly moist; pulsation in the right radial artery occasionally very distinct and regular; temperature of the right arm a little higher than that of the left.

September 1st. Pain of the arm obliged him to sit up most of the night in an easy chair—after the operation of the salts, took again fifteen drops of the morphine, and slept quietly about five hours. Feels at present very comfortable; pulse 75; not the least evidence of febrile disturbance in any of his symptoms.

2d. Feels much more comfortable than yesterday; slept composedly all night; little or no pain in the arm: pulse 80; removed the wadding from the arm, and enveloped it in flannel, which keeps it very comfortable.

3d. Slept well all night after taking his dose of morphine, and feels very well to-day; pulse 74; pulsation of the right radial more regular and distinct.

4th and 5th. Continues to improve.

6th and 7th. Every way comfortable; right radial pulsates regularly, though more feeble than the left.

9th. Dressed the wound and removed the stitches; mostly healed, except where the ligature from the artery passes out. Pain in the arm for some days past has not been felt; makes no complaint; pulse in the radial artery very distinct and regular with the actions of the heart.

11th. Dressed the wound, which looks remarkably well; every thing appears very favourable.

14th. On removing the dressings to-day, the ligature came away; all promises well.

20th. Wound being just closed, permitted him to walk about the room, and to take his usual allowance of food; aneurismal tumour much diminished in size, and very hard.

27th. Left the city to-day on his return by water to Virginia.

When I reflect on the disease for which this operation was performed, and upon the situation, importance, and size of the vessel which was tied for its removal, it appears to me almost incredible that but twenty-seven days should have been required for its cure. That it should have succeeded is particularly grateful to my feelings, inasmuch as it was first successfully performed by an American surgeon, and is an additional proof of the triumph of surgery over disease and death.—*American Journal of the Medical Sciences, Feb.* 1831.

13.—*Illustrations to Mr. S. Cooper's Surgical Dictionary.*—Each Part contains four lithographic plates, with letter-press descriptions and references to the text. These illustrations are published monthly, and eight parts have now appeared. Such a work as this has long been a desideratum, both to the student and established surgeon.

Though nominally illustrations of the Surgical Dictionary, these are really delineations of every other system of surgery. The plates are faithfully executed, many of them beautifully coloured after nature, and so very cheap as to be within the reach of students. We wish the author that success which he so well deserves, and conscientiously recommend his work to every class of our readers.

14.—*The Surgical Anatomy of the Principal Vessels of the Head.* Published by John Wilson, Princes Street, Soho.—This is an exceedingly well executed delineation of the arteries and veins of the head, face, and neck in the adult, and deserves place in the collection of plates of every anatomist. It is useful in explaining the danger of wounds of the parts which it represents, and facilitates the labours of the dissector, in this important piece of human anatomy. It reflects great credit on its author.

15.—*Views of the Pelvis, shewing the natural Size, Form, and Relations of the Bladder, Urethra, Rectum, Uterus, &c. &c. in the Infant and in the Adult, taken from Preparations made for the Museum of the Royal College of Surgeons in Ireland.* By John Houston, M.D., Curator of the Museum, and Demonstrator of Anatomy in the Royal College of Surgeons in Ireland, &c.—These views illustrate the relative situation of the pelvic viscera in the male, female, and infant, and will be referred to with advantage in the anatomy and pathology of these important Viscera. The lithotomist and obstetrician will find them well worthy of notice.

16.—*Observations on Distortions of the Spine, with a few Remarks on Deformities of the Legs.* By Lionel Beale, Member of the Royal College of Surgeons, &c. 8vo. pp. 102.—This is an Appendix to the author's work on Deformities, which is now out of print. In reviewing that excellent work a few months ago, we spoke of it, as we do of all works that come before us, as it deserved; and it affords us satisfaction to find our high opinion of it now amply confirmed. The essay before us is replete with instructive information on the various subjects enumerated in the title. We have no space, at this late period of the month, to make extracts; but we assure our junior readers that this production is worthy of their attention. If it contained nothing more than the section on deformities of legs of weakly children, and the judicious advice for the management of these alarming though harmless complaints, it ought to have a place in every medical library. It contains a good account of spinal irritation, inflammation, and curvature, with cases in illustration. We shall notice it fully in our next.

17.—*The Art of Cupping; being a brief History of the Operation, from its origin to the present time; with a Description of the various Instruments employed, &c. &c.* By George Frederick Knox, Cupper at the Westminster Hospital, Central Infirmary, &c. &c.—The young practitioner will find this work of great service, more especially if he is not a practical cupper, and even the established practitioner will peruse it with advantage; of course we speak of that part of the work which relates to cupping itself: we cannot

speak so well of that part which relates to medicine; but this detraction is to be ascribed to the conciseness of the work. Mr. Knox forgets that, when recommending cupping in certain diseases, he should specify the particular states which require it; or he may lead *(perhaps)* young practitioners into very serious mistakes. It is not, we believe, the practice at present, and it requires *facts* to prove its utility before it is recommended, to cup in cases of *anasarca, bubo, cephalalgia, catarrh, hernia humoralis, hydrocephalus, nodes, phthisis, ptyalism*, &c. Our readers will perceive that many of these affections are more frequently symptoms than diseases, and symptoms even of very different diseases, so that a general rule for prescribing cupping in these complaints must be followed with great caution. As an excellent and cheap manual for the study of cupping, this production cannot be surpassed.

Mr. Knox describes a *torch* for exhausting the glass, which we believe is not in common use. We subjoin his account of it. "It is nothing more than a brass or silver tube, abut six inches in length, containing as many folds of common lamp cotton as can be tightly pulled through by means of a piece of twine: one end of the tube is bevelled from the edge on one side to about three quarters of an inch, to allow of the better spreading of the cotton; to the other end is screwed on a piece of tube, about half an inch long, which is attached to a ring an inch in diameter, for the purpose of slipping over the finger, or for holding conveniently in the hand. A flat plate of the same dimensions would be equally serviceable.

The end of the cotton should project about half an inch beyond the tube, and be trimmed round with the scissors into something like a mop shape; and in its use care should be taken, after it has been saturated in the spirits of wine, to squeeze it tightly against the neck of the glass as it is withdrawn, and to draw the lower edge over a towel. The object of this is to guard against the spirit in its inflamed state dropping upon the skin, which would otherwise happen when the torch was moved with rapidity, or if the torch were grazed along the skin in its wet state.—p. 34.

He likewise mentions the glass-leech of Dr. Fox of Derby, by *one application* of which he has abstracted thirteen ounces of blood, and frequently eleven ounces. The scarificator, after being used, should always be sprung through a bladder of lard or some such substance to preserve the lancets in proper order.

Cupping *on the temple* is the most difficult and the most painful: a branch of the temporal artery should be selected, as the blood will flow more readily; should it be necessary, the artery may be completely divided afterwards with a lancet, to arrest hæmorrhage or to prevent aneurism, which occasionally happens. After applying the glass, the lower edge should be *gently and slowly* raised to remove the pressure from the vessels, as, until that is done, the wounds will not bleed. On the back of the head, the part must be *cleanly* shaved, or the rough hair will raise an edge of the glass and admit air. The large scarificator should be used *behind the ear*, and on the *throat*;

the oval glass and the temple scarificator are best. The position most favourable for cupping on the *throat*, is the recumbent, with the head bent towards one side.

"Those who calculate the pain incurred in cupping by comparison with a cut finger, are very much deceived: in fact, there is rarely any pain felt in this part of the operation, *nor is any inconvenience* suffered from it afterwards."

This is not always the real circumstance of the case. We know from personal experience, that when cupped in the contrary direction to the fibres of the muscles on the chest, whenever the arm was moved, the pain was very severe, resembling the drawing of a blister, as also when cupped on the deltoid. Upon the whole, we pronounce this a highly useful publication. It contains every information that can be desired for the successful and judicious performance of the very important operation of which it treats. It ought to be in the possession of every medical student and young surgeon.

MATERIA MEDICA.

18. *On Peruvian Bark.* Dr. Carpenter, of Philadelphia. In this paper Dr. C. describes a species of bark from Maracaibo, which is much superior to the Carthagena bark, containing more than double the quantity of cinchonia and quina, and also more extracts; it bears the same price in the market. It is more compact than the Carthagena bark, breaks with a short and clearer fracture, and is more intensely bitter. It has only appeared within a year or two in the market.—*American Journal of the Medical Sciences, ut supra cit.*

19. *On the Utility of Strychnia in certain forms of amaurosis.*—If a person be suffering from loss or diminution of the power of vision from an atonic state of the retina, or other part of the nervous apparatus of the eye, or of the system generally, the local use of strychnia (applied in the following manner)—will be, in my opinion, the most likely means of removing the defect, more especially if it be of recent occurrence. But it will, in many instances, be found necessary to institute a most rigid examination, before deciding upon the necessity or propriety of the treatment: for instance, the history of the patient must be closely investigated, and the eye subjected to the most attentive examination, and if the result of this enquiry and examination lead to the opinion that the defect does depend on the atonic condition of one, or all the parts to which I have just alluded, he may, with safety, be subjected to the very tedious and somewhat painful plan of treatment it remains for me to explain; but it will be readily admitted that if this examination be not conducted in the most careful manner, it will be impossible to discriminate, with any approach to certainty, the particular conditions of the retina, and other parts of the nervous apparatus of the eye, productive of amaurosis, which admit of alleviation or removal: nor can the trial of strychnia, without such a preliminary investigation, be viewed, as otherwise than a rash and criminal procedure; a procedure which is

more likely to destroy the power of vision for ever, than to yield any prospect of relief.

The manner of employing it is as follows:—Place a narrow blister over each eye-brow, which must not extend beyond a line drawn upwards from the external canthus; when it has risen sufficiently, cut away all the cuticle, and apply, for half an hour, a piece of linen, to absorb the serum, which is apt to be discharged in large quantities, for a short time after the removal of a blister, then dust the remedy chiefly in the situation of the supra-orbitary nerve, but not so thickly as to prevent the entire absorption of the whole layer of the powder, at the time of the second dressing, which should be, as nearly as possible, twenty-four hours afterwards; twenty-four hours between each dressing is a proper and necessary interval; cover the blistered surface with a piece of linen very thinly spread with ung. cetacei, for, if much greasy matter be mixed with the powder, it is less easily and quickly absorbed; but, unless a little be applied, the linen adheres to the wound, and occasions great pain in its removal. Increase the dose of strychnia very gradually, until the state of vision is improved, or symptoms indicative of the injurious agency of the remedy occur. If there be much local pain excited by the application of the strychnia, dilute it with flour, or mix it with opium; and if that does not succeed, suspend its employment until the stomach and bowels be improved, by a plan of treatment instituted expressly for their benefit, and then resume its use; if severe pain in the head, convulsive muscular twitchings, great general nervous excitement, or other symptoms, denoting the injurious agency of the strychnia upon the constitution, supervene, and the condition of vision be not improved, it must be discontinued altogether; as it would appear probable that in such case it was not likely to exert a favourable influence upon the disease, at the same time, that, from some peculiarity of constitution, it was calculated to do important general mischief.

This paper is highly interesting, in regard to its pointing out the particular cases in which the strychnia is serviceable—it will be found important to the practical reader.—*Mid. Med. & Surg. Rep.*

MIDWIFERY.

20. *Accidents caused by allowing a pessary for years in vagina related by M. Ricord.*—The unfortunate subject of this case was aged 61 years, and had a pessary passed in 1825, since which time it had remained. M. Lisfranc divided the perinæum, in order to effect extraction of the instrument: death ensued, and there existed cancerous vegetations and gangrenous perforations in the bladder and rectum.—*Journ. Univ. et Hebdomadaire de Med. Chir. Pratiques.*

This case affords a salutary lesson to those surgeons who maintain that a pessary may be left in the vagina for an indefinite period, without producing mischief. Such is the sapient doctrine supported at our debating societies, and by those engaged in teaching obstetrics. The truth is, that we have lecturers on all branches of

medical science in London, who promulgate as ridiculous opinions as students of three months' standing. This defect is at length perceived by the constituted authorities, who now deem it necessary to require strong proofs of the teacher's competency to warrant his recognition. On the occasion to which we allude, it was held to be quite unnecessary to withdraw a pessary once a week, for the purpose of cleaning it; that the speaker had known a case in which one was worn for three years without removal or inconvenience. Now any medical practitioner, of the most ordinary comprehension, must, on a moment's reflection, see the utter fallacy of such statement, when he remembers that the presence of a foreign body, on a mucous surface, must inevitably induce irritation, and inflammation, and ulceration in a shorter period than two or three years. It must be unnecessary to dwell farther on a matter so obvious. The negative assertion was one of these false facts with which the faculty is *so redolent* at the present period.—Ed.

21. *Signs of Pregnancy before the fourth month.*—M. Bescaria informs us in the Italian Journal, from which we have already quoted, that there is a circumscribed pain in the occipital region, or according to Gall in the reproductive organ, soon after conception; somnolence soon supervenes, and pains return daily at the same hour.

CHEMISTRY.

22.—*On a New Process for preparing Medicinal Prussic Acid.* By W. Thomas Clark.—It is of the highest importance that a medicine, so powerful in its operation, so sudden, and so transient, should be of an uniform strength, and as it is impossible to rely on the manufacturer's preparing it in such a manner, Mr. Clark has been induced to give a formula for its preparation by the apothecary; it appears easy, and, if generally adopted, will obviate such, at least, of those objections to the use of the hydrocyanic acid which arise from the uncertainty of its dose.

Take of

Tartaric acid - - -	72 grains.
Cyanide of potassium - -	32 do.
Distilled water - - -	1 ounce.

In an ounce phial, furnished with a cork or stopper, which should by previous examination, be ascertained to be sufficient, dissolve the tartaric acid in the water. Then add the cyanide of potassium, and immediately thereafter insert the cork or stopper, which for a little must be preserved firmly in its situation by the finger. Meanwhile agitate, keeping the vial immersed in a basin of cold water, in order to repress the heat produced in the process. When all action has ceased, set the phial aside in a cool and dark place for twelve hours, in order that the cream of tartar formed may subside. Afterwards decant the liquor, which preserve in a phial in a cool and dark place.

A decomposition ensues, and cream of tartar and hydrocyanic acid are formed: the supertartrate of potass is precipitated in a great measure, and is to be removed; a small portion (about one-fifth of a

grain in a dose, supposing the ounce to contain twenty-five doses,) remains dissolved, but it is so inconsiderable as to require no attention to be paid it. Indeed, chemical purity is often obtained at the expense of medicinal uniformity.

The ounce contains about thirteen grains of hydrocyanic acid—somewhat similar to Vauquelin's prescription. Mr. Clark anticipates that when this process is generally adopted, the cyanide of potassium will be supplied by the manufacturers; but we incline to think, with all due deference to Mr. C., that it is something like "mettant la charuce devant les bœufs." We think the cyanide of potassium must be freely obtained, before this process will be put in use by the apothecary.

The method of obtaining the cyanide of potassium is rather too complicated for any gentleman at all engaged in practice to employ. It is to be obtained from the prussiate of potash of commerce, which consists of one part of water, two of cyanide of iron, and five of cyanide of potassium. In this process—

The water is to be driven off by moderate heat, the residue to be finely pounded, and again moderately heated, by which we obtain a white powder, weighing seven drachms.

Now, out of every seven drachms which remain, two are cyanide of iron, and five are cyanide of potassium; and these two cyanides are very different, in this respect, that if exposed to heat the cyanide of iron is entirely decomposed, but not so the cyanide of potassium, at least in close vessels: I say in close vessels, because if the cyanide of potassium were strongly heated in contact with oxygen, or with steam, it also would be liable to decomposition. Therefore put the dried powder (to the extent of forty or eighty ounces, if you choose) into a wrought iron bottle, such as apothecaries get mercury in. This bottle must be furnished with an iron tube, which must screw into the bottle, in the place of its iron screw stopper. This tube should also be bent in a curve at a few inches from the bottle, so that while the bottle is perpendicular the straight part of the tube may be horizontal; and to the open end of this tube one more flexible must be joined, so that the open end of the latter may be immersed in a cup of water. Now-a-days nobody can have any difficulty in getting such tubes; for the people who fit up gas pipes have them in abundance.

The iron bottle, thus filled and thus furnished, is to be put on a smart fire, and to be kept there so long as gas is evolved. Cyanide of potassium remains intermixed with iron and charcoal, resulting from the decomposed cyanide of iron. We dissolve out the cyanide of potassium by water; we filter; we concentrate by evaporation; we set aside for crystallization; we concentrate again the mother liquor; and thus continue till we entirely separate the cyanide of potassium. This salt being deliquescent, is to be dried at a gentle heat, and to be kept in bottles well corked.

It is likewise considerably cheaper.—*Glasgow Med. Journal. May.*

MISCELLANIES.

23. *Expulsion of Dr. Ramadge from the London Medical Society.*—The Medical Society of London, the oldest and one of the most respectable in this metropolis, expelled Dr. Ramadge, for his advocacy of Long, the Quack, and his abuse of the medical profession. We have been informed, upon the best authority, that the College of Physicians will adopt a similar proceeding.

24.—*Dr. Ramadge's Reply to the Editorial Remarks on his Defence of Long the Quack.*—It is almost unnecessary to make a single comment on the following letter, which is no reply whatever to our strictures on the impropriety and unprofessional conduct of any respectable physician or surgeon, in defending such an illiterate humbug as this empiric. The London Medical Society has confirmed our opinion, which indeed must be that of every respectable member of the profession. We have no wish to prolong this painful discussion, but may inform Dr. Ramadge that we know much more about it than he imagines. It appears he did not send the letter to the *Sunday Times*; but any man of common sense must see it was intended for the public eye. He next endeavours to escape from his assertion, that there was only abrasion of the cuticle in the eschar on the back of Miss Cashin, though it was proved in evidence by Mr. Brodie, Mr. King, and others, there was a sore or eschar the size of the mould of a hat, or of a supper plate, and a large slough in the centre. Dr. R. labours under a mistake, when he supposes we have not seen an account of the autopsy. He will find it at length in our fifth volume. As to the extracts quoted by him, we have never denied nor contradicted them; and our only regret is, that he to whom they applied should descend from his high station to bring them to his aid in defending a notorious and incorrigible Quack. We leave the reader to form his own opinion on the value of the following very polite letter:—

To the Editor of the London Medical and Surgical Journal.

SIR,—As it is impossible for me to reply to the numerous unmanly and mendacious attacks made upon me in some of the medical journals, and in yours among the rest, I shall here confine myself to noticing one or two errors under which you appear to labour.

In the first place, *it is not true* that I sent any letter to Mr. Long through the medium of the *Sunday Times*. The letter in question was addressed by me to Mr. Long in answer to one in which he appeals to me as an honorable man to give a candid opinion on the cases of two ladies who had previously been under his care, but who died in the hands of Mr. Brodie and Mr. Vance. It first appeared in Mr. Long's last publication, and from thence found its way into the newspapers.

In the next place, *it is not true* that Miss Cashin had no disease of the lungs, or never was consumptive. In proof that the contrary of what you state is the fact, I beg leave to refer you to the report of

the post-mortem examination by the medical witnesses, which document you do not appear to have seen, as well as to my letter inserted in the *London Medical Gazette* of the 14th of this month. You are pleased to assert that there was no abrasion of the cuticle from the effects of putrefaction, which last you say had not taken place. This is false! The commencement of the report runs thus: "Anteriorly over the abdomen and thighs the skin peeling, apparently from the effects of decomposition. The skin of the neck, shoulders, and face covered with green reticulations in the course of the blood vessels, the neck above the clavicles swelling and puffy, feeling when pressed as if containing air; likewise all the cavities of the heart were in a state of effervescence and decomposition."

To your illiberal remarks, and the ridicule you wish to excite against me respecting the opportunities I possess of examining dead bodies, I shall merely reply by quoting your own words, which I extract from your Manual of Midwifery. At page 53, you observe, "my much respected friend Dr. Ramadge, whose opportunities of opening dead bodies are *unequalled*, and whose industry has been indefatigable in the pursuit of morbid anatomy for many years, has a beautiful specimen of disease under consideration in his select and valuable museum, a part of which can be seen at the Central Infirmary, Greville-street. I am deeply indebted to the kindness of that able pathologist; the result of whose labours I am happy to say ere long will be submitted to the profession, as the work of Dr. Baillie is universally acknowledged to be defective." At page 92, is the following:—"Dr. Ramadge has a most extraordinary specimen of diseased uterus; the organ weighed ten pounds, and contains various structures, as cancer, schirrus, calcareous depositions, muscular thickening, fungus and bone." Moreover, in speaking of ovarian disease, in your preface you speak of the museum of "my able and talented colleague Dr. Ramadge."

How you can reconcile these your former observations with the sentiments you express towards me in the last number of your Journal, it is not for me to determine; but on these points I have much pleasure in reflecting that your readers are competent to form an opinion of their own.

To conclude, I have only to state, that whether the opinion I have given in the two cases referred to, be or be not palatable to the medical profession, is to me a matter of perfect indifference. I know enough of the subaltern members of the faculty, to be able to appreciate their factious and illiberal proceedings. I have seen enough of their acts and deeds to be convinced that he who wishes to arrive at eminence and be useful in his vocation, must disentangle himself from their petty cabals, and those orgies where ignorance is a virtue, and passive obedience a duty.

Requesting the insertion of this letter in your next number,

I remain, Sir,

21*st May*, 1831, Your obed^{t} serv^{t},

Ely Place. F. H. RAMADGE, M. D.

25.—*London University.*—Dr. Elliotson has been appointed Professor of Practice of Medicine in the London University; and it is said that Mr. Quain, the distinguished anatomist, of Aldersgate-street School, will be the successor to Mr. Bennet. There are few lecturers more popular than Mr. Quain, as he possesses the rare qualities of eloquence and sterling talents. His appointment would be highly advantageous to the University, and very satisfactory to the profession.

LIST OF BOOKS RECEIVED DURING THE MONTH.

1. Illustrations of Mr. S. Cooper's Surgical Dictionary, published monthly. Parts VII.-VIII. IX. X. XI. and XII. each containing Four Lithographic Plates, with Letter-press Descriptions and References to the Text. London, Longman and Co. 8vo. 1830. See our present number.

2. Views of the Pelvis, shewing the natural size, form, and relations of the Bladder, Urethra, Rectum, Uterus, &c. &c. in the Infant and in the Adult, taken from Preparations made for the Museum of the Royal College of Surgeons in Ireland. By John Houston, Curator of the Museum, and Demonstrator of Anatomy in the Royal College of Surgeons, Ireland, etc. Dublin, Hodges and Smith, and Leekie; T. and G. Underwood, London; and Maclachlan and Stewart, Edinburgh. 1829, 4to. Noticed in this number.

3. Surgical Anatomy of some of the principal Vessels of the Head. Wilson, London. See a preceeding page.

4. The Art of Cupping; being a brief History of the Operation, from its origin to the present time; its Utility; minute Rules for its Performance; a List of the Diseases in which it is most beneficial, and a Description of the various Instruments employed, &c. &c. By George Frederick Knox, Cupper at the Westminster Hospital, the Central Infirmary, &c. &c. Dedicated, by permission, to the Physicians, Surgeons, and Pupils of the Westminster Hospital. London, T. and G. Underwood. See our present number.

5. Lectiones Celsianæ et Gregorianæ; or Lessons in Celsus and Gregory, consisting of Passages from those Authors syntactically arranged, with copious Observations explaining the Difficulties of Construction, and a Lexicon of the Words. To which is added, a succinct and comprehensive Grammar, written and adapted for the work. For the Use of Medical Students. By W. Cross, Teacher of the Classics, and Medical Latin. Wilson, London. 12mo. 1831.

6. The Art of preventing the Loss of the Teeth; with Instructions calculated to enable Medical Practitioners, Heads of Families, and others, travelling or residing in distant parts, to adopt the Author's Practice of treating the Diseases of the Teeth and Gums; including the stopping of decayed Teeth, and curing of Tooth Ache, by the Use of the Anodyne Cement, &c. &c. Also stating the Improvements in fixing Artificial Teeth, and a Description of the Siliceous Pearl Teeth, and Teeth Renovator; with Testimonials from their Majesties' Physicians and Surgeons. By Joseph Scott, Dentist. London, Simpkin and Marshall. 8vo. 1831.

NOTICE TO CORRESPONDENTS.

We have been informed that Dr. O'Shaughnessy is not the author of the Comments on Toxicology, to which we referred in our last; but we were led to think otherwise by the accuracy and profound knowledge displayed in these essays—qualities which characterize all his productions on the detection of poisons.

Mr. Pereira will find the matter in our next.

ERRATA IN OUR LAST.

Page 370—20th line from top, for "rite," read "series."
—— 373—2d line from bottom, between "distinct" and "regarded," insert "been."
—— 402—3d line from bottom, for "sanguilent," read "sanguinolent."
—— 405—7th line from top, for "cadine," read "iodine."
—— 412—16th line from bottom, for "citrate," read "tartrate."
—— 496—16th line from top, after "blister," add a comma.

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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THE END.