

as the source of individual wealth and the sinews of national greatness.

I have the honour to subscribe myself, Sir George, with much respect for your talents and character, as well as your high position,

Your most obedient humble servant,
EDWARD THOS. SPOONER,
M.R.C.S. and L.A.H.,

Member of the Council of the National Institute of Medicine and Surgery, and Member of the Council of the Provincial Medical and Surgical Association.

POOR-LAW MEDICAL REMUNERATION.

[To the Editor of the Medical Times.]

SIR,—As medical officer of a union, I beg to tender my best thanks for your spirited and untiring advocacy of our cause. The movement now begun is the first in the right direction, for it was utterly hopeless to expect justice at the hands of the boards of guardians; indeed, too many of the guardians are unable to appreciate the claims of the profession; they are too much like railroad directors, whose hearts are in their pockets, though I am glad to say there are some noble exceptions.

It seems to me, our complaint is less against the "extras" than against the general stipend. It is the sick poor, who are everlastingly applying for advice and physic, that so heavily tax our time and purses, and tender our duties so onerous. And as these poor creatures who are the subjects of our care—in their squalid poverty, always bordering on destitution—must be "reported" before they can obtain relief, they are constantly applying for the most trivial ailments, and are often tempted, by an exaggeration of their wants, to cheat the surgeon; and I have more than once been chastised by the guardian for reporting cases undeserving, as he thought, of parochial aid.

Again, the "status" of a union doctor is proverbially low; he is exposed to a thousand deductions; his office seems to have begotten in the public mind a foregone conclusion adverse to him; and whether it is from a notion of moral or educational inferiority, or an instinctive sense of his being badly paid—and, therefore, lacking the requisite motive for the full discharge of duty—the public appear to think he cannot, or will not, do the poor justice. And see how very naturally this feeling arises. Those benevolent individuals in a parish who, from the best of motives, make it their business to watch their indigent neighbour, compare the poor man's case with their own, and, from the disproportionate amount of attention given, arrive at a conviction disparaging to the union surgeon. They argue thus:—"I was ill with fever, and Mr. So-and-so attended me twice a day, administering pills and draughts; this poor man has the same disease, and the parish doctor sees him only once a day, and not always that, giving him only powders. Ergo, the parish doctor is guilty of gross neglect." Now, the fact is, the union barely pays for the medicines and journeys *really* necessary, and these the officer gives; while in the other case the medical man bestows an amount of attention, and doses, not in proportion to the real emergencies of the patient, but rather regulated by all that needless alarm with which the disease becomes invested by patient and friends. The union niggardly pays for what is absolutely necessary; the rich, in addition, pay for fears and fancies. This evil would be very much remedied by better remuneration—a payment equivalent to our services would enable us to show the paupers more attention, annihilate the union "caste," and give the appointment a more respectable standing.

This subject, with another closely identified with our "case," is well stated in the *Spectator* of the 28rd ult.:—"Nothing," says the writer, "can be more irksome and disagreeable than attendance on those classes of society most debased by ignorance, vice, and poverty, when further lowered by the prostration of sickness; yet, for that most thankless part of his duties, the medical officer is so ill paid that the post is scarcely an 'object' with him. By the system of tender the lowest amount that a respectable medical man will take is accurately ascertained; and thus you get 'cheap' physic for paupers. But the medical man owes no allegiance to the board of guardians; he is often hostile to them; he always retains a grudging sense that he is underpaid; a very troublesome case, or an unusual number of cases, is a virtual encroachment on his bargain. Paupers are commonly a nasty and unmanageable class of patients; in short, the medical

officer is chronically in a state of mind which prompts a man to throw up his situation—he is aggrieved, unwilling, and careless. Added to all this, he is at times harassed by stupid objections from guardians quite ignorant of what he ought to do; he is under no superintendence from any professional superior. We have here almost all the elements of irresponsibility."

These remarks at first sight may seem beside the question, but they bear upon our position, and the well-being of the poor. I believe they go to the root of the evil, and may lay bare those under-currents of thought and feeling which have full vent in private, but in public are indistinctly enunciated. And I like them the better for not sparing the medical practitioner. It is an admitted fact, that the tendency of the present state of things is to render him "careless," and open to censure. It is here, as everywhere else, you can command efficient services in the long run, only by adequately paying for them.

But I write rather to introduce the accompanying document. It is couched in general terms, leaving the detail with the constituted committee. My own feeling is, that all "extras" should be obliterated, and that one payment should embrace our entire duty. These "extras," when they happen to be unusually bulky, occasion the guardians some uneasiness, and expose the surgeon to suspicion.

The committee will doubtless seek all the *data* they can procure in order to establish our claim. For myself, I may add—I have eight parishes in the Loddon and Clavering Union, including a population of 3766; that I have attended during the past year (1846) at least 370 cases, and been paid forty guineas a year, exclusive of extras. This is at the rate of 2s. 3d. per case, and some of the patients living six miles from my residence. The extras I am paid for according to the scale of fees put forth by the poor-law commissioners.

I have the honour to be, Sir, your most obedient servant,
N. B. FISHER.

Bungay, Nov. 16.

P.S. I have just had an interview with a medical man, of thirty years' experience in union practice, and he strongly advocates the abolition of "extras." He has attended a workhouse during a greater part of the time, and has therefore had a good opportunity of meeting with the guardians at their weekly boards; and when a medical officer has happened to report two or three fractures at the same time, he has frequently heard the insinuation thrown out—"I doubt these doctors report hurts for broken bones." And, in truth, with an abiding sense of an inadequate stipend, it is a temptation to distort a severe bruise into a fracture, for which a fee is paid. I write honestly, for the committee should know the whole truth. I have likewise the welfare of the profession at heart.

Bungay, Nov. 8, 1847.

We, the undersigned, medical officers of the Wangford, Loddon and Clavering, and Depwade Unions, hereby express our hearty concurrence in the object of the "Convention of Poor-law Union Surgeons," held in London on the 27th ult.; and we declare our readiness to forward, to the utmost of our ability, the design of the committee resulting therefrom.

We think the course now taken, in appealing to the Government, the only legitimate one to obtain a redress of our grievances, it being worse than useless to remonstrate with the boards of guardians, who are directly interested in continuing the present mean and inadequate stipends. And we protest against our position as union medical officers implying our satisfaction with the existing payments; we take charge of the poor because they are interspersed among our private patients, and as a matter of necessity, in order to avoid medical men being located in our midst for that purpose; and we deem it most unjust thus to take advantage of our unavoidable situation.

We think the fee for vaccination should not be less than two shillings and sixpence per case. And we loudly complain of the meagre payment for attending the ordinary cases of sickness, which is so unremunerative of the time and labour bestowed.

Chas. Garneys, Surgeon to the Depwade Union.
John Currie, Surgeon to the Wangford Union.
Charles Auslie Mills, Surgeon to the Depwade Union.

Gillett Gilbert, Surgeon to the Depwade Union.
Frederick Robert Rose, Surgeon to the Depwade Union (Diss District).

William Peskett, jun., Surgeon to the Wangford and Loddon and Clavering Unions.

Heynes Hardwicke, Surgeon to the Depwade Union.

Horace Howard, Surgeon to the Depwade Union.
George Rodwell, Surgeon to the Loddon and Clavering Union.

N. Biggs Fisher, Surgeon to the Loddon and Clavering Union.

MEDICAL ASSISTANTS.

[To the Editor of the Medical Times.]

SIR,—We claim the right of reply to a communication signed "Limericensis," and published in your journal of the 5th instant.

Two charges are brought against us—first, that we have taken an assistant from behind a druggist's counter to initiate him into the mysteries of the medical profession. Our reply is, that the charge is untrue, as the gentleman in whose employ our assistant was last engaged would willingly testify. That gentleman is Mr. Hooper, of Rotherham, both a member of the Royal College of Surgeons and a licentiate of the Apothecaries' Company. The second accusation is, that our object in securing the services of our present assistant was to save ourselves the payment of a just and liberal salary. To this we answer, that we were unconscious of having any such motive; and, instead of paying less per annum than is customary with our medical brethren, we have found upon inquiry that the salary given by us exceeds the usual sum. What may be the comparative rate of remuneration to surgeons and druggists' assistants in the Sister Isle we know not, but "Limericensis" should have been aware that in England (to the shame of our profession be it told) an assistant to a chemist and druggist generally receives a higher salary than is paid to one employed by a general practitioner.

We should have treated the communication to which we have now replied with the silent contempt it deserved, had we not felt grieved to see the pages of the *Medical Times* made the vehicle of a personal, spleenetic, and calumnious attack. We are sorry that a journal which in many respects has presented so bright a contrast to a rival publication should (inadvertently, we hope) resemble it in one of its worst features—that of disseminating falsehood and abuse. The medical press has higher duties to discharge, of which fact, we trust, Sir, you are fully sensible, as are also

Your obedient servants,

MESSRS. THEXTON AND JACKSON.

Church-street, Barnsley, Nov. 15.

A GENTLE HINT TO POOR-LAW MEDICAL OFFICERS.

[To the Editor of the Medical Times.]

SIR,—Nothing is more surprising, in the present aspect of the great battle waged by the working-classes of our profession against their oppressors, than the apathy (as far as deeds are concerned) of the oppressed. We have had letters without number, containing groans, sighs, and lamentations of all kinds, and statistics of all varieties; there has been a great outpouring of grievances, but only a very small one of the coin of the realm.

Our cause is holy and just, but, without the sinews of war, must fail; our attack on ignorance and avarice must be repulsed from want of ammunition. However energetic our committee may be—however willing to do all that, as honourable men filling a sacred trust, they can do, such unpoetical items as printing, advertisements, postage, circulars, fees to parliamentary officials, &c., must be defrayed; and, therefore, bitter was my chagrin on reading the meagre list of donors to our fund. Your powerful pen reaches far and wide, and will in time encourage our brethren, so quietly considering the matter, and so quietly awaiting the course of events from which they hope to benefit. Let them consider well, but decide quickly. In merely a commercial and speculative sense, without regarding justice and honour to the poor and themselves, even in this age of ten per cent., "they will find no better investment for their money." At present every union surgeon in the rural districts gets on the average say £40 per annum for every 2000 paupers. When justice is done, and his remuneration fairly arbitrated, he should get for the same duty £100 or £150—an increase of at least £100. Thus, supposing every medical officer holding a salary of £40 under the present *regime* to subscribe 10s. for carrying out his most justifiable agitation, he will receive for his 10s. capital invested in so sure an undertaking £100 per

annum profit, or, in other words, an interest of four thousand per cent. per annum (as long as his faculties and good conduct remain) on his contribution of 10s." And then comes his own inward satisfaction at his increased efficiency to his poor fellow-men; his augmented respectability; his status elevated in public estimation; and, though last, not least, the firmer confidence of the paupers in his attention and skill. All these advantages will follow as surely as morning follows night; and they ought to follow, for who conveys the blessings of our art to the very extremities of Great Britain and Ireland, to the penetration of foul rookeries, courts, and alleys, to the centre of quaking bogs and swampy turnip-fields—nay, to the very bowels of the earth—so much as the union surgeon, to whom millions of the industrious—the thews and muscles of our country—the "raw material" of our invincible army and navy, look for aid in their hour of need; his dwelling-place, the home of his little ones, contains at once the alarm of the first approach of disease and death, and the last resting-place of hope for the afflicted one. And yet he is only the "parish doctor," whom every one may harass, scorn, and snub at pleasure, and through whose exhausted frame the Lady Bountiful, and others equally liberal, may be cheaply generous. But a truce to whining complaint: let us all "put our shoulders to the wheel, and get out of the mire as quick as we can;" let every union surgeon send his 10s. to our fund, and leave our cause safe in the hands of our disinterested and superlative committee; and then we shall, in truth, be surgeons of a union—united to protect, not combined to injure.

Wishing success to your brilliant achievements on our behalf, and thanking you most cordially,

I am, Sir, your obedient servant,
FREDERICK BEVERLEY DIXON,
M.R.C.S., &c.

St. Giles-street, Norwich, Nov. 13.

POOR-LAW MEDICAL RELIEF.

[To the Editor of the Medical Times.]

SIR,—I have read with much pleasure in your journal that the general medical practitioner has at length awoke from sleep, and appears determined to make known the wrongs and injury done, both to himself and the poor, from the scanty and miserable pittance allowed by the guardians of the various unions in this professedly Christian land for the arduous duties performed in his endeavours to ameliorate their physical sufferings; and I fear this state of things has been permitted to go on from a fear of complaining to the powers that be. However, it is proper there should be a limit to all injustice, and I am not very sanguine the question will be fairly discussed unless it be made a public one; and I would humbly suggest, after the committee have digested their plans, that a public meeting should be called, and all parties invited to speak out boldly on the subject. For my own part, I have very little hope of justice being done, either to the practitioner or the poor, until the public voice proclaims the injustice and iniquity of the present system. Were we destitute of means in the country to provide for the destitute, and to pay the labourer for his work, the case might admit of some excuse—but no such thing; and in my opinion it arises from a disgraceful parsimony, and only requires the condemnation of numbers to ring its death-knell.

Having had some experience in affairs connected with the administration of the poor-laws, perhaps I may be permitted to state that, in my opinion, the medical officer of a union should be confined entirely to the duties of attending to the sick poor, receiving, of course, an adequate and suitable remuneration for his services, and making the union-house the centre of his operations as much as possible. Can any living man in this civilized land contend for one moment that the poor are not entitled to this provision and consideration at the hands of those whom the law makes their guardians! Look at the word, and then let us ask ourselves what it means.

Again, I would ask how does it happen that the medical officer is the worst paid of all the union staff? Is it because his duties are light and pleasant? We all know to the contrary. We also know he is ready with his knowledge and assistance by day and by night. Therefore, why should he go unrewarded for his toil and anxiety? I am sure Englishmen are too generous to permit it; we may be unthinking occasionally, but we are not naturally unjust.

Look at the mental toil necessary to qualify a man

for the arduous and responsible duties of a medical adviser, and surely no one will contend the same amount of intelligence is not as necessary for the poor as the rich; we are all, I conceive, composed of flesh and blood.

There is another point I would advert to, and I am done. I believe there is a prejudice in polite society against the medical adviser of the poor—for why I know not, but so it is; and this in my opinion furnishes another reason why his services should be confined as much as possible to the poor and humble of the earth.

Apologizing for the length of my epistle, and with every desire for the success of the movement,
Yours obediently,

W. S. MASTERMAN.

Wine-office-court, Fleet-street, Nov. 9.

OBSERVATIONS ON VARIOUS DISEASES.

[To the Editor of the Medical Times.]

DEAR SIR,—Allow me to state, that during a long period I have had the pleasure to receive in this distant region, *viâ* Panama, the *Medical Times*, with a punctuality equal to that of a mail in Britain. That such a mass of interesting and useful information as is presented in each number of your much-esteemed periodical can be obtained here for less than sixpence, together with its rapid and regular conveyance, is no little wonder, even in this wondrous age. Your columns are always so well occupied that I think it would be ungracious were I from this "Patmos" to transmit cases for publication; only I would notice that while perusing the very able work on "Clinical Medicine," by Dr. Graves, of Dublin, I was struck with (as seems to me) the truthfulness and importance of that distinguished physician's remarks on Professor Liebig's "Theory on Animal Heat;" and, judging from my own experience and observations in tropical countries on both sides of the continent of South America, since 1826, I am convinced that, for the maintenance of health in man, even in the warmer regions of Brazil and Peru, that good animal food, in moderate quantity, is necessary, and that it is as much relished by those who obtain it as in more temperate climes. We know that in some of the hotter regions of the earth, that not only the carnivorous animals subsist on flesh, but also various tribes of the human species, in Africa, &c., and the Gouachas on the burning plains of South America, who, at times, live during months on beef and water only, remaining robust and healthy. It is a notable fact, that on the Andes, on the elevated land, extending throughout several thousand miles of latitude, there are myriads of quadrupeds living in regions where, during night, the temperature is below freezing, and that there nature (a) has provided only meagre vegetable food for all those creatures, who thrive on it better than when they are removed to more genial climes.

The observations of Dr. Graves on the occasional appearance of scarlatina and influenza, as widespread epidemics, are important, and worthy of our notice. We remember the destructive visitation of influenza in Britain in 1837, and we have seen both of those maladies in their worst forms on the west coast of South America. Early in 1882, scarlatina maligna appeared in Chili, and continued several months; during which time dreadful havoc among the people ensued. An eminent physician, then in Santiago, informed me, that during the three first months after the appearance of the pestilence in that city, above 8000 deaths occurred out of a population of about 60,000 souls. The same gentleman, (Dr. Armstrong) also stated, that from the first the disease was decidedly typhoid, and that the stimulating method of practice with gargles of sji, i. e., chili-pepper, and bark, wine, &c., was very successful; while those patients who were treated by depletion died in great numbers. My own experience of scarlatina maligna, as seen in Peru, accords as to its treatment with that above noted; but I have not witnessed here any epidemic which in severity approximated the one in Chili in 1832.

Both scarlatina and influenza, or "la peste," as the latter is here called, appear at times epidemically in Peru; and in 1827, I saw in this city a comparatively slight visitation of epidemic catarrh, but influenza has on some occasions swept over these vast regions with terrible results.

The most destructive visitation within the last century was that of 1759. It appeared first in the south of the Vice Royalty of Buenos Ayres,

(a) "Edinburgh New Philosophical Journal," April 1843, p. 286.

gradually advancing northward towards the Equator; but, in consequence of the great extent of country between where it first appeared and the Line, and the tardy conveyance of intelligence at that period, the epidemic had reached Potosi and Chuquisaca before the people in Quito heard of the approaching calamity, and by the end of July it was at Guancavelica. After leaving the plains of Buenos Ayres, it moved from place to place, from south to north, along both Upper and Lower Peru, visiting in its course hamlets, villages, and towns—such as Potosi, Chuquisaca, Oruro, La Paz, Chubita, Guamango, Guancavelica, Xanga, Lima, &c., and from thence it proceeded northward, both along the coast and the table-land, to Quito and the provinces of Central America.

The Indians died in great numbers, especially those who were addicted to the abuse of intoxicating liquors; such persons when attacked by the malady were soon out off—very few recovered; when that was observed, the sale and use of strong liquors were prohibited, and the result was that, though the epidemic continued, deaths were not so numerous. Its progress was rapid, and its operation so general, that, had the symptoms been equally malignant in every case, few could have survived the visitation; for, within a few days after its appearance in a place, almost every one, both young and old, was affected. The streets and markets were deserted, and the houses solitary; the inmates being unable to help either themselves or one another; but, fortunately, those persons who previously had been in good health and of temperate habits, and who survived, were only two or three days under the more severe symptoms, and were soon able to give assistance to others. The disease began with vertigo, and a feeling of weight in the head; all the senses were weakened, and severe pain was felt all over the body. Fever, but not violent, with general lassitude and discharges of blood from the mouth and nostrils—deafness, loss of spirits, and total loss of appetite were experienced. Persons who were suffering from syphilis or chronic ailments, especially thoracic affections, were soon out off. Many of those who had been in good health recovered under the use of sudorifics and remaining covered up.

Those who passed the more severe stages of the epidemic were in general about a month in a state of convalescence, during which they suffered from prostration of strength, perturbed vision, and melancholy. It was observed that dogs were affected with the epidemic, but it appeared to be more benign in such cases than in the human subject; though many dogs were seen lying in the streets unable to stand, and numbers of them dead.

When the disease reached a place it spread with great rapidity among the population, so that, after about a month, it disappeared from any locality.

In those districts which it first visited deaths were much more numerous in proportion than subsequently; either from the epidemic being more severe, or a result of bad treatment. It was observed that the abstraction of blood appeared to be injurious, which was the mode of practice at first adopted, but afterwards abandoned for that above noted. (a)

M. HAMILTON, M.D., &c.

City of Tacna, South Peru, Sept. 3, 1847.

THE NON-RESTRAINT SYSTEM IN LUNATIC ASYLUMS.

[To the Editor of the Medical Times.]

SIR,—As the Commissioners in Lunacy are now investigating the circumstances detailed in the report of the inquest held at the Lincoln Asylum on the body of John Cottingham, who was found after death to have five ribs broken, it is not my intention to make any remarks on that unfortunate case, but to call the attention of your readers to the case of a man named Dixon, as it bears directly on the "non-restraint" system as now carried out in the Institution.

In June last, to prevent Dixon in a paroxysm of violent mania doing harm to himself or others, he was forcibly held down by four keepers for two hours, when he became completely exhausted from resisting their efforts to restrain him. He was then placed in one of the infirmaries, and, on examining him, two or three of his ribs were discovered to be broken; the skin excoriated from the lower part of his back, and a quantity of blood effused beneath the cellular

(a) *Vide* "Noticias Americanas," page 164. Madrid, 1792.

substance; and that he was covered with bruises from head to foot. Owing to the injuries he received from such brutal treatment, he had partial locked-jaw for several days, and it was with great difficulty that he could feed himself. In fact, had he been beaten with clubs, or had he contended against a prize-fighter for two hours, he could not have been more dreadfully mauled than he was.

Shortly after this case occurred, I alluded to it in a letter which I addressed to one of the local papers, and I maintained that if Dixon had been placed in seclusion his excitement would have subsided, and the serious injuries he received from such unwarrantable personal restraint (a thousand times worse than any mechanical restraint to which he could have been subjected) would have been prevented. In confirmation of what I then stated and now repeat, I find, from the Fifty-first Report of the Friends' Retreat at York, that, "During the absence of the medical superintendent, mechanical personal restraint was in one case temporarily resorted to. The necessities of this case were fully met by secluding the patient in a room, the walls of which are covered with padding." But, strange to tell, Dixon himself, before he was discharged from the asylum, told the board, at one of their weekly meetings, that had he been put in a room by himself his furious excitement would have subsided, and the injuries he received from his keepers would have been prevented. The board made no minute of his declaration; nor have the governors yet provided proper seclusion-rooms for dangerous patients. But what is still stranger, as it shows the extremes to which some men will go rather than acknowledge an error, Dr. Charlesworth, the senior physician to the institution, has said, in reference to this case, that, if four keepers were not sufficient to restrain a patient in a maniacal state of excitement, he would send out for twenty men to assist them, rather than temporary seclusion should be permitted as a moral means of restraint in the asylum! Dr. Charlesworth certainly regards himself an irresponsible member of society, and the governors must look upon themselves in the same light, otherwise, one would think that the case of Dixon, and the cases of others which might be mentioned, would be quite sufficient to condemn the moral treatment of insanity at Lincoln. Dixon's is not a solitary case by any means; but dead men do not tell tales, and walls have not tongues. But the question may be asked, What motives can Dr. Charlesworth and the governors have in continuing their present system of "non-restraint," which is so manifestly injurious to some of the patients? When Dr. Charlesworth first set sail in the "total-abolition" barque, he classified his passengers, his craft was well manned with attendants, and seclusion was his rudder, by means of which he kept his course midst a stormy sea; but in an evil hour he abandoned his helm, and since then his vessel has been unmanageable, and nothing but disasters have befallen it; and now, rather than resume the pilotage, he prefers shipwreck. As to the governors, they have been so prejudiced in his favour for a number of years—they have been led by him to believe that their asylum is the best-conducted one in the kingdom, and that no one knows how to treat insanity but himself—that in spite of public feeling, and in defiance of the opinion of the medical profession, they will not allow the scales which obscure their mental vision to fall from their eyes unless they can dispose of them as a marketable commodity. No, no; none but the managers of the *nonpareil* establishment know anything of the nature and treatment of insanity; and, if any one has the hardihood to doubt my word, I refer him to the last Report of the Commissioners in Lunacy to the Lord Chancellor.

To the systems of non-mechanical restraint and non-seclusion, the system of non-classification has lately been introduced at the asylum, which has been attended with evils too obvious to mention, and which, if persisted in, will give rise to some dreadful occurrence. I will explain myself.

There are about 130 patients in the asylum, divisible into three classes of private patients, besides pauper lunatics; the latter greatly preponderating in number. The male and the female patients are nearly equally divided, and they occupy distinct parts of the building and grounds. The only classification of the patients that can be said to prevail in doors, is, that which is determined by their respective payments. There is no out-door classification whatever, as the disorderly courts have been thrown into the front airing-grounds by the removal of the partition-walls, and the patients allowed thereby to associate together. Yes; at Lincoln Asylum ladies and gentlemen are compelled

to associate with pauper lunatics; and the orderly, the convalescent, the furiously maniacal, the idiotic, the epileptic, and the dirty patients are mixed together in the two airing-grounds; and, yet wonderful to relate, the governors would try to make the public and the profession believe that such an unheard-of assemblage has its advantages over the system of classification in other asylums! I will not condescend to prove the contrary; but by way of anticipating the future, fancy a furious maniac with a homicidal tendency admitted into the asylum; (a) and fancy him possessing himself of some dangerous weapon; and fancy him assaulting the patients with it; and fancy the dreadful scuffle that would ensue between him and his keepers, with the accompaniments of bruises, excoriations, and broken ribs, before he was overpowered: and you have but imagined what may happen at any time in an institution where there is no classification of the patients, no mechanical restraint or temporary seclusion, permitted; but where all is left to the Argus eyes of the medical superintendent, and the forbearance or brutality of the attendants. As it is, black eyes, kicks, bruises, and scratches are the consequences of the disorderly patients assaulting the others; and, occasionally, the list of accidents is varied with a broken rib or a collar-bone.

I am firmly convinced that the "non-restraint" system cannot safely be carried out in any asylum, without a judicious classification of the patients, and the provision of proper seclusion-rooms; and, with these adjuncts, I can, from my limited experience, readily imagine cases in which mild mechanical restraint would be had recourse to with advantage.

The governors of the Lincoln Asylum have erred in introducing the "non-restraint" system as a general rule of practice; they have erred in prohibiting seclusion; and they have most grievously committed themselves in abolishing all classification of the patients. The governors of other institutions have been right in not adopting the "total-abolition" plan, and in making "restraint" the exception to a general rule, which required to be tested by lengthened experience before it could be pronounced to be of universal application. Nevertheless, the introduction of the "non-restraint" system has led to the disuse of a great amount of instrumental restraint that was formerly had recourse to in most of our asylums; but ultimately it will not prevail, and "restraint" will be the exception to the rule. In some of our best-conducted establishments this system has long been acted upon; and, as I find it clearly set forth in the Seventeenth Report of the Belfast District Asylum, I cannot do better than conclude my letter with the following quotation under the head "Restraint—Seclusion":—"Mild mechanical means, or seclusion in a separate apartment, for restraining the refractory or destructive, continue to be employed as circumstances or urgency may demand; and this, it should be specially held in view, not at all as a punishment, as some, who are imperfectly informed on such a subject, might suppose, but simply and purely on the grounds of humanity and kindness towards this class of patients; and who are thus controlled with much less irritation and degradation to themselves, it is honestly conceived, than by the immediate presence of attendants, well trained and humane as they may be, and unlikely to have recourse to muscular exertion, to reduce to submission, when instrumental assistance is strictly forbidden by their superiors. The cases, however, requiring the application of temporary physical restraint, or short periods of seclusion, throughout the year, were comparatively few; which, indeed, is nothing new in this asylum, as not merely the 'total-abolition' plan, as it is called, but a *bona fide* personal liberty, generally, to its inmates, as far as is compatible with safety and discipline, has been the rule, and 'restraint' the exception, since the first day of its opening."

Sir, I have the honour to remain, your obedient servant,
JOHN NICHOLSON, M.D.

Late Junior Physician to the Lincoln Lunatic Asylum.

Lincoln, Nov. 11.

MR. BRAID AND DR. ELLIOTSON.

[To the Editor of the Medical Times.]
SIR,—Will you be so obliging as to insert the

(a) The patient Dixon had a homicidal tendency; the medical superintendent dare not approach him alone; and two keepers were obliged either to be by his side or to have their eyes constantly upon him.

following remarks in the *Medical Times*, out of compassion to Dr. Elliotson and his querulous friends?

In the "Zoist" for July last a paragraph appeared under the following remarkable heading:—"Mr. Wakley's desire that Mr. Braid should utter an untruth." The facts are these. Mr. Wakley, in his *Lancet* of the 21st of last November, states that Mr. Braid, a medical practitioner of Manchester, has said that, when lately in London, he called on a physician, who offered to show him the power of magnets in producing catalepsy during mesmeric sleep; and the application was followed by the expected result. Mr. Braid, in the hearing of the patient, then remarked that he had in his pocket an instrument quite as powerful, only that if he closed the patient's hand upon it the hand would open and the instrument drop. He touched the patient with it, and the expected result followed. He spoke of other properties which it had; and on trial all results ensued as he foretold. The instrument was only Mr. Braid's portmanteau key and ring. Mr. Wakley asks, "Why did not the writer at once name Dr. Elliotson?" We have Dr. Elliotson's authority for saying that, if the writer had, he would have been guilty of falsehood; and that he never saw Mr. Braid during that person's visit to London (on that occasion). Mr. Wakley adds, "that the prototype of the key was a bit of lead substituted by himself for nickel, in an experiment upon Elizabeth Okey. As soon as Mr. Braid saw Mr. Wakley's attempt to make people believe he meant Dr. Elliotson, it was his duty to set the matter right."

Again, the editor of the "Zoist" resumes the subject in the subsequent number, thus:—"Mr Braid and the *Lancet*. 'Justice' is informed that we, like himself, are not aware that this practitioner has yet denied the false insinuation of the *Lancet*, referred to at page 207 of our last number. If he has not, and has seen that insinuation, his conduct is very bad; if he has denied it, we shall be happy to extract his denial from any publication in which it may have appeared."

Now, in reply to these grave charges, I at once admit that I read the article referred to the very day it was published in the *Lancet*; but, so stolid was I, that the idea never occurred to my mind that, in perusing the said remarks, Mr. Wakley had either the desire or expectation that I should "utter an untruth." I merely thought that he supposed himself uttering a shrewd guess. In this guess, however, Mr. Wakley proved himself erroneous (as many other alleged clairvoyant individuals have done, even during the mesmeric state); for most assuredly Dr. Elliotson was not the physician and "my worthy friend" to whom I referred. I did not see, however, that I was under any special obligation "to set the matter right," by correcting Mr. Wakley's erroneous guess. I considered, and still do consider, that it was "a duty" of Dr. Elliotson, or some of his personal friends, to have "set the matter right," if they deemed the grave imputation of sufficient importance to demand a refutation. I am quite at a loss to conceive how Dr. Elliotson or any of his friends, and of all others the editor of the "Zoist," should expect I ought to have volunteered myself as the champion of Dr. Elliotson in this matter, seeing his conduct in grossly and perseveringly misrepresenting me and my views of hypnotism, both publicly and privately, orally and in print, had rendered it requisite for me to publish several papers in self-defence, in which I convicted him and other mesmerists of having mismanaged my processes, and then wishing to hold me responsible for the results of their own blunders. Not only so, but after I had done this, did Dr. Elliotson admit the justice of my charge, and desist from further aggression? or did he attempt to refute my arguments in a straightforward and philosophical and candid manner, as becomes an honourable controversialist? No; but, on the contrary, in the very next number of the "Zoist" he resumed the subject, according to the old dodge, of "we saw at pages" so and so, and then repeated the same charges as in the former number, without the slightest allusion to my criticism and clear and ample refutation of his erroneous charges and misrepresentations. Not only so, but he even appealed to what he had formerly written as proof, forsooth, of the gross misrepresentations he was about once more to perpetrate—as if falsehood could be converted into truth merely by being twice repeated.

Some of your readers may naturally ask why Dr. Elliotson should have acted in such an extraordinary and disingenuous manner by me? The

only reason I can assign for it is this—because I ventured to think, speak, and write regarding what are called the mesmeric state and mesmeric phenomena according to my own convictions, which were opposed to the extreme and mystical views which Dr. Elliotson and other mesmerists contend for. To give a single illustration of this, Dr. Elliotson was the avowed author of the review in the "Zoiist" of Professor Gregory's "Abstract of Baron Von Reichenbach's Researches on Magnetism, and on some allied Sciences, including a supposed 'new Imponderable.'" The "abstract" extended to 112 pages 8vo., and so important did Dr. Elliotson consider it, that his review extended to only forty-two pages of the "Zoiist" (8vo.) He designates this abstract as a "most remarkable, most original, and most important work," and entreats "every person interested in mesmerism to purchase Dr. Gregory's book." He then adds, "My own observations on mesmerism made eight years ago coincide in every point with those of the author, which are analogous. Every one of his observations I feel must be true." Dr. Elliotson thus endorses the whole of Baron Reichenbach's speculations as true; whereas I have published my remarks "On the Power of the Mind over the Body," as a refutation of the futilities of Baron Reichenbach, as furnishing any satisfactory proof of a "new imponderable, inasmuch as I have proved that the phenomena which he attributes to this alleged 'new imponderable,' or exoteric influence, may be produced by a continued fixity of the attention on any part of the body, so changing the physical action of the part as to lead the patient to believe as the result of some external agency what is due entirely to the power of the patient's own mind over the physical functions of his body. If this alleged 'new imponderable' is a reality, and so all-powerful an agent, let me ask why we have had no more of its wonder-working powers brought before the public since my refutation was published? If a vigorous plant, and well cultivated, why so barren of fruit?

Such being the relation in which Dr. Elliotson and myself stood, I would again ask with what propriety could Dr. Elliotson and his friends look to me, as bound to volunteer myself as his champion in informing the public that Mr. Wakley guessed wrong when he alleged that Dr. Elliotson was the physician and "my worthy friend" to whom I referred when recording the adventures of my portmanteau key and ring.

And now I would like to ask who is this editor of the "Zoiist" who ventures to lecture me on the subject, first telling me that it was my "duty" instantly to have contradicted Mr. Wakley's statement, and now asserts that, if I had seen the paragraph, and had not entered the lists in behalf of Dr. Elliotson, it was "very bad"? Surely this virtuous editor, who thinks I ought to have been so prompt to redress the misrepresentations of others, would be most prompt to do so in behalf of those whom he had personally thus sinned against? I can prove him to be no such virtuous personage, however, as the following facts will show:—In answer to a query from a correspondent in the "Zoiist" for January, 1846, the editor gave a most erroneous account of my mode of hypnotizing Miss Collins, evidently intended as an insinuation prejudicial to hypnotism. The editor said, in reference to Miss Collins, "The Manchester plan with her was not only to strain the eyes to the utmost, but to keep them at a double internal squint." To this I wrote a very temperate reply for insertion in the subsequent number of the "Zoiist." I stated that I had no doubt but Miss Collins's eyes remained in the state of double upward and inward squint during the sleep, because that is the position people's eyes naturally and generally assume, even during common sleep. I stated, moreover, that a reference to what was recorded by the patient's father, in the same number, as to my mode of hypnotizing his daughter—namely, by causing her to gaze on my lancet-case held about twelve inches from her eyes—might have convinced him that that was impossible to have happened which he had alleged—namely, strained her eyes to the utmost—for this very obvious reason, that the greatest strain upon the eyes arises from causing the patient to maintain a steady gaze at an object placed at the nearest possible distance at which it can be seen distinctly with both eyes; but here the object, having been held at the distance of twelve inches from the eyes, could only have produced a very slight strain on them, especially as her eyes closed in sleep "in a few minutes," as testified by her father, who was an eyewitness of the whole of my process with his daughter.

Your readers will naturally suppose that the

virtuous editor and professor of ethics—this *censo-moruum*—would instantly insert my communication, and express his deep contrition for having so far misrepresented me. Quite the contrary; for my letter was not only suppressed, but the offence and misrepresentation were repeated in a still more offensive and disingenuous manner, by appealing to a garbled sentence of my book—garbled by himself—as proof that his former statement must have been correct. This was exactly a counterpart of Dr. Elliotson's mode of misrepresenting me, for he appealed to the same garbled sentence, for the like unworthy purpose of misrepresenting me, which could not have been accomplished had the text and context furnished by the paragraph in which the garbled sentence occurred, and the note appended thereto, been fairly quoted. The editor of the "Zoiist," therefore, and Dr. Elliotson, if not the same individual, seem to evince a remarkable coincidence of sentiments, feelings, and actions, in reference to me. "Par nobile fratrium!" I leave it with your readers, and all honourable men, to decide to whose conduct the epithet of "very bad" is most applicable—mine for not volunteering to correct an erroneous surmise of Mr. Wakley, regarding Dr. Elliotson; or theirs, who not only refused to allow me to correct, in the most temperate manner, in their columns, their own erroneous representations of me and my views, but absolutely to sin against conviction, by repeating the same misrepresentations, after I had clearly pointed out their errors to them.

Nor ought the peculiar heading of the first paragraph of the editor of the "Zoiist" to be passed over without remark. It was evidently intended to convey an insinuation to me of the most unfavourable nature and tendency as regarded Mr. Wakley. However, I was too wide awake to be imposed upon by such a transparent trick.

As I have now exonerated Dr. Elliotson from the grave charge implied by Mr. Wakley's erroneous guess, and distinctly averred that Dr. Elliotson was not the physician and "my worthy friend" to whom I referred, the editor of the "Zoiist" will have an opportunity of fulfilling his promise of extracting my denial from the publication in which it has appeared; and I must condition with him, as an act of justice to myself, that he shall publish in full all that I have here written, as my justification for not having entered the lists sooner.

I remain, Sir, your most obedient servant,
JAMES BRAID.
3, St. Peter's-square, Manchester, Nov. 13.

GOSSIP OF THE WEEK.

ANOTHER CASE OF POISONING AT HACKNEY.

On Monday, Nov. 8, an adjourned inquest was held by Mr. Baker, at Hackney, on the body of Mrs. Frances Sheridan, aged seventy, alleged to have been poisoned. The deceased was the widow of a captain in the army, and had a pension of £40 a year, residing with her son William, an excise officer, and two daughters. On the first assembly of the jury the son was charged with having murdered deceased by poison, and he was taken into custody on the coroner's order.

Mr. W. Tidy, of Mare-street, said that he was first called to the deceased on the 23d ult., and found her very sick and vomiting. One of the daughters told witness that she had been taken suddenly ill, and had vomited similarly to her mother. Witness suspected that she had been taking something deleterious, and the daughter volunteered an accusation against her brother William, complaining at the same time of various acts of violence on his part towards the family.

Mr. Hakin, surgeon, said he saw deceased a few hours previously to her death, which took place on the 29th ult. He had since made a *post-mortem* examination, and found the liver unusually large, and the lungs perfectly healthy. The stomach contained about six ounces of dark fluid. The contents of the stomach were sent to Dr. Letheby for analysis. There was sufficient poison in the bowels to account for death.

By the Coroner: Irritant poison would have produced all the appearances described.

Dr. Letheby, chemical lecturer at the London

Hospital, stated that he received three jars from Mr. Hakin, the smallest one containing the contents of the stomach, and the two larger ones the stomach and intestines, together with portions of the liver and lungs. He had subjected about half a pound of the liver to analysis, and was able to detect an abundance of arsenic (exhibited to the jury in a glass tube). It was more than sufficient to cause death. Had further analyzed the contents of the liver, and detected arsenic there also. Deceased had evidently for some time been suffering from arsenic, and from the detection of arsenic in the contents of the intestines he was of opinion that deceased had had a dose within forty-eight hours of her death. The inquest was adjourned.

APOTHECARIES' HALL.—Gentlemen admitted members on the 4th and 11th of November:—Walter Thompson, William Braithwaite, William Pearce, Thomas Watson, Charles Pratt, John Braxton Hicks, Stewart Blacker Roberts, John Glendarvine Winstone, Benjamin French, and James Lardner Green.

The prizes annually awarded by the Society of Apothecaries to medical students for proficiency in Botany and Materia Medica were, on Wednesday last, presented by Edward Bean, Esq., the Master of the Society, to the successful candidates. Mr. John S. Bristowe, of St. Thomas's Hospital, received the Botanical Gold Medal; Mr. George Thomas Jones, of University College, the Botanical Silver Medal and prize books; and Mr. William Bayldon, of University College, received a Botanical prize of books; Mr. J. W. B. Steggall, of Charing-cross Hospital, received the Materia Medica Gold Medal; and Mr. Benjamin Davies, of University College, the Materia Medica Silver Medal. The examination for the Botanical Prizes had been conducted by Mr. N. B. Ward; and the examination for the Materia Medica Prizes, by Dr. Copland.

MEDICAL APPOINTMENTS.—Surgeon: Hugh Jameson, to the Blenheim.—Assistant-Surgeons: W. C. Patrick and J. C. Ingles, to the Victory; J. C. Murray and H. Loney, to the Bittern; H. D. Scott, to the Columbine; H. Arnot, to the Scout; Arthur Adams, to the Flagard; J. Henderson, to the Ocean; J. Muirhead, to the Fly; E. Adams, to Plymouth Hospital; R. C. Scott, to the San Josef.

On Thursday, the 28th Oct., Dr. William Budd was unanimously elected physician to the Bristol Infirmary, in the room of Dr. Riley, who has resigned.

The Ministers of Justice in Paris have addressed a circular to the Procureurs-Généraux, to prevent arsenic being used for embalming in future.

CHOLERA.—We copy the following from the *St. Petersburg Gazette* of the 22nd ult.:—"At Moscow, as we before mentioned, the first case of cholera having occurred on October 14, fifteen other cases, most of them of a fatal nature, have occurred up to our last accounts. Those who were attacked by the fatal disease belong mostly to the poorer classes, and the greater number have suffered previously of diarrhoea and intermittent fevers. These complaints suddenly changed into the real Asiatic cholera, after eating abundance of fruit and other indigestible food, or after exposure to the damp air and cold weather. Of these fifteen persons nine died; and a week previous to the period that the epidemic could be said to have broken out, a traveller from Woronesh fell sick at a tavern in the town of Superchhoff, in the government of Moscow, and died in a very short time. This case, however, appeared to be entirely single, and had no consequence whatever, either in the surrounding country or the town." It is stated in a letter from Constantinople, of the 17th ult., that the news of the cholera was very satisfactory. With the exception of Trebizonde, where not more than three or four attacks per day took place, the disease had ceased its ravages on all the coasts of the Black Sea.

In an official report from St. Petersburg, dated Oct. 23, we hear that the cholera is still at Moscow. Out of 120 persons who were seized with it, 41 have died.

Letters from Trebizonde announce that the cholera has disappeared from thence.

It is also stated that it is proceeding in two distinct directions in Russia. It is now spread over six departments. On the 30th of September it broke out at Moscow.

Dr. Bean having refused the mission relative to the cholera, Dr. Lasséque has been appointed instead.

The German papers give official data from the Russian capital, which inform us that in Moscow, from Sept. 30 to Oct. 19 (19 days), 222 persons were attacked by cholera, of whom 66 died. In the provincial districts of the empire the last list of deaths amounts altogether to 208.

M. Nordin, the Swedish Ambassador at St. Petersburg, has, according to the *Daylight Allehande*, sent information that the cholera is travelling on with such speed that it is now scarcely eighteen miles distant from St. Petersburg, and will doubtless soon appear in the capital itself. In Moscow it has assumed a comparatively mild character.

COPENHAGEN, NOV. 6.—The cholera is so generally prevalent here, that nearly all the performers at our theatre are laid up with it.

IMPORTANT TO UNLICENSED PRACTITIONERS.—On Friday, Nov. 5, an inquest was held upon the body of a man named Patrick Falkner, who died on Thursday. It appeared that the deceased, about three weeks ago, was drinking, in company with some other Irishmen, when they quarrelled, and one of them, named Edward Frenay, struck him several times, and cut his head with a stick; and Frenay's wife also assaulted him. He was much hurt, and upon being assisted home was taken ill, and erysipelas supervened. He was attended by one of the dispensary surgeons. Subsequently, a person calling himself Dr. St. Pierre (not a regularly licensed practitioner) attended the deceased, bled him, applied salt and water (hot and cold) to him, but he died. It was also stated that the doctor, upon one occasion, was not quite sober when he visited his patient. Mr. Lynch said he considered the course of treatment adopted by Mr. St. Pierre as very improper. Under all the circumstances, the coroner said he would adjourn the inquest till Monday, in order to give time for a *post-mortem* examination.

HYDROPHOBIA.—The *Journal des Débats* publishes the following letter, dated Offen, in Hungary, 16th inst., describing a melancholy case of hydrophobia:—"Some days since M. Joseph de Czernery, an octogenarian parish priest of the village of Kovachim, was bitten in the hand by a small dog which he was accustomed to keep near him in his study, and the following day the dog died raging mad. M. de Czernery immediately assembled his parishioners in the church, and told them that he felt within him the germ of the dreadful malady, which might break out at any moment, and under which he must necessarily die. He then took leave of his parishioners in the most affectionate manner, and repaired to the Hospital of the Brothers of Mercy at Offen, where he was most kindly received. The second day following, hydrophobia declared itself, and M. de Czernery expired after twenty hours of intense suffering. The entire population of Kovachim followed the mortal remains of the venerable pastor to his last resting-place." The *Paris Moniteur Parisien* states, that cases of hydrophobia had become frequent in that fashionable quarter, the Chaussée d'Antin.

OBITUARY.—Oct. 22nd, at Belfast, of fever, —M'Murray, Esq., assistant-surgeon to the General Hospital.—Nov. 6th, in Portman-street, aged 60, Powell Charles Blackett, Esq., surgeon R.N.

DEATH OF DIEFFENBACH.—We regret to announce the death of this illustrious surgeon, in the prime of his life, and in the midst of his usefulness.

We announce with great regret the death of an old friend and fellow-labourer, Dr. Nichel (of Lyons), surgeon-in-chief of La Charité. This lamented physician sunk under disease of the lungs.

MORTALITY TABLE.

For the Week ending Saturday, Nov. 13, 1847.

Causes of Death.	Total.	Average of 5 Summers.
ALL CAUSES.....	1098	1046
SPECIFIED CAUSES...	1097	1039
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	322	211
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat.....	92	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	131	157
Diseases of the Lungs, and of the other Organs of Respiration.....	299	333
Diseases of the Heart and Blood-vessels.....	43	34
Diseases of the Stomach, Liver, and other organs of Digestion.....	97	74
Diseases of the Kidneys, &c. Childbirth, Diseases of the Uterus, &c.	9	9
	17	14
Rheumatism, Diseases of the Bones, Joints, &c.	11	7
Diseases of the Skin, Cellular Tissue, &c.	3	2
Old Age.....	46	65
Violence, Privation, Cold, and Intemperance.....	27	29

TO CORRESPONDENTS.

THE "MEDICAL TIMES" may be procured by an order on any Newsmen or Bookseller, or it will be sent direct by post from the Office of the "Medical Times" to Subscribers sending by a Post-office order, directed James Angerstein Carfax, or an order on some party in town, One Pound Five Shillings IN ADVANCE, which will free them for Twelve Months. Half-yearly Subscription, 15s.; Quarterly, 7s. 6d.

"A Poor-law Surgeon," Norfolk, writes—"On the formation of the unions in this district, I represented to Sir Edward Parry, the assistant poor-law commissioner, the injustice of offering so small a sum for the services required; and I received for answer, that, although the sum then offered was certainly less than half what had been usually paid, we should not be required to attend more than a tithe part the number of paupers we had been called upon to do under the old system, and that no one would be allowed medical relief unless they were paupers, to constitute which they must have received parochial relief. This sophistry satisfied me at the time; and where used, no doubt, disappointed others, as it has done myself; and had much to do in bringing about the state of things we now have to deplore; but how did Sir Edward's project work?—need I say? Are there not scores of medical men who will bear me out when I state that, instead of diminished numbers, we are not only called upon to attend more, but have a trouble imposed upon us (unknown under the old state of things) of making a weekly return, and a quarterly register of sickness and mortality, &c. &c. (which duty alone few lawyers would perform for the sum we receive for the whole of our services); and are subjected to annoyances derogatory to an enlightened and liberal profession?"

"Beta," Bridgnorth.—The Lectures were published in the last volume of the *Medical Times*. They contain a large amount of information in reference to the nature and treatment of diseases which frequently come under the care of the general practitioner.

"An Old Reformer."—We are not aware of the secret meetings referred to: if our correspondent will kindly furnish us with particulars, they shall be published. The other suggestions in his letter shall receive all due attention.

"An Honest Englishman" writes us a letter about something we cannot possibly comprehend. His ideas seem to be "confusion worse confounded." We give an extract from the communication, in the hope that some of our readers may be enabled to comprehend and explain our correspondent's meaning. "Do you ever consider the state of man at all in his wretched condition, through his own foolishness, as there is an abundance of provender for the soul? But men, the majority of them, choose their own views and practices, revelling like swine among the foolish luxuries of things until they degrade themselves sufficiently; then they begin to wonder whether they are free or responsible beings or not? after having practised their senses the wrong way of things for years, consuming valuable time, attaining foolishness, which has an existence. Parsons are just as bad or worse; they move through their profession quite technically, prac-

move through their profession quite technically, practising quite as much vice, or possibly more so, than laymen; crimes of higher nature insinuating themselves into their existence: adultery, fashionmongery, pride; in fact, the spirit of the external world suits them better than anything else. What do you think of this mesmerism—what do you think it really is? Do you think he will ever succeed in victimizing his man any more than he has done, or would you not rather think that he would?"

"Inquirer" asks "If there is any society in London affording assistance to necessitous medical men, either by loan or gifts. The case," he says, "for which I make this application is one of peculiar hardness." We are not aware of the existence of any such society.

"A sufferer from Varicose Veins."—The new elastic bandages made by Huxley and Co.

"M. E. C. and L. A. C." complains that he is frequently called to by gentlemen's servants during the night, by the masters' or mistresses' direction, and that, when the account is sent in at Christmas, the charge for servants is deducted by them? There is no doubt that in the eye of the law the master, in sending for a medical gentleman to attend his sick servant, renders himself liable to pay all expenses. While, however, the law may favour the medical practitioner, it is not always good policy to seek its assistance. The members of the profession, of all others, are liable to have bad debts on their books, and too frequently, when they seek payment in courts of law from individuals who have the power to remunerate their services, the plea set up to justify dishonesty is want of skill in the medical attendant. The tale, however, has now been so often told that it falls to produce the effect intended.

"A General Practitioner, London."—The qualifications will entitle the possessor to appear for examination before the College of Physicians. The examiners have the power of proposing their questions in Latin, and of demanding from the candidate answers in the same language.

"Paul Pry" is too inquisitive: while we have the power, we have not the inclination, to satisfy his curiosity, as it would answer no good end.

"Viator."—A coloured medical man, either in the northern or southern states of America, would stand but a poor chance of obtaining any medical practice among the white population. An American lady would go into the at the bare idea of a nigger touching her pulse.

"A Subscriber from the Beginning."—The representation had better be made at the War-office, where the matter will be taken under consideration.

"A Parent."—We should recommend King's College. A prospectus can be had on application.

"Iota."—We are unable to recommend any suitable situation in the metropolis for a young man to commence practice. Would it not be better to try the army or navy, or East India Company's medical service?

"B. B., House-Surgeon, &c."—The reports were received, and they are being arranged for publication. Our correspondent is thanked for the other offers, which we will gladly accept.

"Lector, Halstead."—The work is published by Mr. Churchill, Princes-street, Leicester-square, but we are unacquainted with the price.

"Castigator."—An action for damages would certainly follow the publication of the letter.

"Mr. J. Tunley, Wymondham, Norfolk," shall have his request attended to.

"J. B., Newington."—The complaint is frequently prevalent amongst growing persons; and if our correspondent will apply to his medical attendant he will have all needful advice given him on the subject. We do not prescribe in our columns.

"An Old Subscriber, Uttoxeter," is referred to the editor of the *Pharmaceutical Times*.

"Mr. H. Haynes, Gringley-on-the-Hill," writes, in reference to the poor-law movement, "It is perfectly absurd to debar a pauper the opportunity of employing the nearest qualified surgeon. In my own practice, where it is not convenient to ford a river (to do so at any time is a trespass), by the most approved route to reach the limit of my district, I must cross a bridge and actually pass through a town in another's union, wherein resides other surgeons, and they within one mile of the village; in this case the pauper must send seven miles to a surgeon when he could command three others within a mile of home. Those who constructed these districts did not contemplate having personally to administer to the poor as medical men, or having to receive medical relief as paupers, otherwise the arrangement would have been different."

Letters and communications have been received from Mr. Royston, Redditch; Mr. Pick, Newmarket; Dr. Shearman, Rotherham; Mr. Harrahan, Borkist, Osney; Mr. Roose, Amluck; Dr. Long, Sligo; Mr. Sauter, York; Mr. Calver, March; Mr. Oates, Lichfield; Mr. Gillard, Leeds; Dr. Mackie, Cupar; Mr. Wilson, Lockerbie; Mr. Kenyon, Hooton-Pagnel; Dr. Bredon, Portadown; Mr. Rowland, Wrexham; Dr. Lethby, a General Practitioner, London; Paul Pry; Viator; a Subscriber from the Beginning; a Parent; an Honest Englishman; an Old Reformer; Beta, Bridgnorth; Iota; B. B., House-Surgeon, &c.; Lector, Halstead; Castigator; Mr. J. Tunley, Wymondham, Norfolk; J. B., Newington; an Old Subscriber, Uttoxeter; Mr. H. Haynes, Gringley-on-the-Hill.

A HANDSOME PORTFOLIO for holding the "MEDICAL TIMES"—very desirable to those who would keep the numbers clean for binding, and easy of reference—may be had, by order of any Bookseller, or at the Office, price 5s. An allowance is made to the trade.

COVERS FOR BINDING the Numbers of the "MEDICAL TIMES" are now ready, and may be had, by order of any Bookseller, or at the Office, price 1s. 6d.

No. 426.

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ORIGINAL LECTURES.

DUMAS ON ORGANIC CHEMISTRY.

No. XXXIII.

(Continued from p. 72.)

THE FABRICATION OF MANURES—(continued).

Dung, in the state in which it is procured in most countries, may be considered as an unprepared mixed manure, since, strictly speaking, all its preparation consists in placing the excrements of the animals upon a species of bed or litter, and piling these up so soon as they are sufficiently impregnated with liquid matters. Manures, as we know, are divided into hot and cold, according as they are more or less aqueous, and, consequently, as they contain a greater or less amount of nitrogen.

The name of *manure* is commonly given to the substance or straw which serves for the beds of domestic animals, and which becomes impregnated with their excrements and urine. When a mixture of this kind is left to the open air, and provided care be taken to sprinkle it from time to time with water, a very active fermentation is quickly set up. The animal matters become decomposed, at the same time furnishing gaseous products, among which we may especially remark carbonic acid and ammonia, while the straw itself, in consequence of an analogous decomposition, becomes disaggregated and gradually divided. It is in this state that manure is ordinarily applied to the ground. The liquids which have served for moistening these matters are found to hold in solution all the soluble materials of the dung, and owe their deep colour to the presence of an ultimate of ammonia. They should be collected with care, as their employment is found to be, in some cases, especially advantageous.

A circumstance very deserving of attention, is the fact that the manure, during fermentation, may determine the formation of ammonia at the expense of the nitrogen of the air and of the hydrogen of the water.

The efficacy and value of the manure then depends, not only on the nature and relative proportion of the excrements and of the straw which constitute its base, but also on the processes followed in its preparation, its preservation, and in its employment.

The manures obtained from the excrements of the herbivora are not equally efficacious. The dung of the pig is less valued than that of the cow or of the ox, and the latter again is inferior to the dry dung yielded by the horse or the sheep. Annexed are some comparative analyses, by M. Girardin, on the excrements of the cow, the horse, and the sheep:—

	Cow.	Horse.	Sheep.
Water	79.73	78.56	68.74
Organic matters soluble in water	5.34	4.34	4.10
Organic matters soluble in alcohol	2.00	2.60	2.80

Ligneous fibre	8.70	12.16	16.26
Saline matters, such as phosphates of lime and magnesia, carbonate of lime, silica, chloride of sodium, silicate of potass, &c.	4.23	2.34	8.10

100.00 100.00 100.00

The dung of sheep or of fleecy animals is in general preferred to that of all others. By reason of their form and hardness, the excrements of the sheep mix but imperfectly with the litter, and, as they are impregnated in the stable with but a small quantity of liquid, it follows that this kind of dung ferments less readily than others. To favour the decomposition of the straw, we must dispose it in heaps, and water it frequently before making use of it. It has been calculated that the excrements, which a sheep furnishes during the night, are sufficient to manure a surface of a square metre, or even, according to M. Boussingault, one metre and a third.

By comparing, in the different species of animals, the weight of the dejections with that of the aliments, we find, according to the experiments of Block, the following proportions:—

For the ox	0.42
For the horse	0.42
For the sheep	0.40

Experience has shown, moreover, that a common-sized ox, of 400 kilogrammes (800lb.), produces annually from fifty to sixty hundred weight of dung. The horse will furnish about two-thirds of this quantity, whilst it will take from ten to fifteen sheep to produce an equal amount.

The nature of the litter which we employ must necessarily exercise a marked influence upon the qualities of the manure. In fact, the composition of the straw of leguminous plants and that of the straw of the cerealia is far from being identical; these straws differ not only in the nature and proportion of the saline substances which they contain, but also in their richness in nitrogen. Sprengel classes the different species of straws in the following order, according to their greater practical value:—

1 straw of the rape or turnip plant.	
2 " " vetch.	
3 " " buckwheat.	
4 " " beans.	
5 " " lentil.	
6 " " millet.	
7 " " pea.	
8 " " barley.	
9 " " wheat.	
10 " " rye.	
11 " " maize.	
12 " " oats.	

Annexed are the relative proportions of organic materials and of saline substances which these straws contain:—

	Organic Substances.	Solid Substances.
Straw of the rape or turnip plant	96.127	3.873

" " vetch	94.899	5.101
" " beans	96.879	3.121
" " buckwheat	96.797	3.203
" " lentil	96.101	3.899
" " millet	95.145	4.855
" " pea	95.029	4.971
" " barley	94.759	5.241
" " wheat	96.482	3.518
" " rye	97.207	2.793
" " maize	96.015	3.985
" " oats	94.266	5.734

M. Boussingault and Payen have determined the proportions of nitrogen which these straws contain. The following table gives the result of their analyses:—

	Nitrogen per cent.	Equival. lent.	Manure per hect.
Straw of the pea	1.79	22.34	6.702
" " lentil	1.01	39.60	11.880
" " millet	0.78	51.28	15.384
" " wheat, old	0.49	81.60	24.990
" " oats	0.28	142.85	42.855
" " wheat, new	0.24	166.66	49.998
" " barley	0.23	173.90	52.170
" " rye	0.17	235.29	70.587

The straws of the leguminous plants are, as we see, much richer in nitrogen than the straws of the cerealia. They also contain salts of potass in greater quantity. By putrefaction they furnish a larger proportion of ulmic acid, and disengage more ammonia than do the straws of the cerealia. We should consequently employ them, in preference to the latter, in the preparation of manures.

The straw of the cerealia, though poor in nitrogen and in alkaline salts, contains a large proportion of silica and of phosphate of lime.

The straw of oats is richer in potass than are the straws of other cerealia; consequently, those soils which contain this alkali produce very fine oats. The magnesian soils are especially favourable to the cultivation of buckwheat, the straw of which contains a remarkable quantity of magnesia.

The manner in which the dung is preserved, from the time of its removal from the stable up to the period of its being applied to the land, exercises a great influence upon the useful effects which it is capable of producing. Our object is, in fact, by means of a carefully regulated fermentation, to aid the formation of ammoniacal salts and other stimulating principles, by preventing a part of the ammonia from becoming volatilized, in consequence of too active an evaporation. We should, therefore, select a space of proper width whereon to heap the dung, which should never rise above a certain height, for fear of the temperature not being properly maintained in the interior of the mass. To avoid the disengagement of a part of the ammonia, we should from time to time moisten the dung with the water which escapes from the stable, and which ought to be collected with care. This moistening of the manure should be performed with regularity, by means of a pump placed over the hole in which the urine is collected. Further, we may understand that it will be necessary to

protect the manure against being washed by the rain.

Some agriculturists stratify the dung with earth, with the view of preventing too active a fermentation. It may also be mixed with turf. Experience has shown that a mixture of this kind forms an excellent manure.

Manures may be employed directly on their removal from the stable, without leaving them to ferment: they thus constitute what are called the *long* or *brittle* manures; whilst those which have been heaped up, and preserved for some time, bear the name of *short* or *rich* manures.

During fermentation, the weight and volume of the dung are reduced considerably. It has been found that 100 parts of fresh dung become reduced at the end of—

81 days to 73.3 of the original volume, being a loss of 26.7	
254 " 64.3 " " " 35.7	
324 " 61.5 " " " 37.5	
393 " 47.2 " " " 52.8	

M. Schattenmann, of Bouxwiller, has proposed a very simple and economical means for subduing or regulating the fermentation of manures. This method consists in adding to the waters, which are to be sprinkled over the dung, some sulphate of iron, or some gypsum, the sulphuric acid of which, by combining with the ammonia to form a fixed salt, prevents the volatilization of this principle. In two or three months, we obtain by this method, provided, at the same time, we employ the precautions already indicated, a rich manure endowed with great energy.

As we have already remarked, the different manures are far from being identical in respect to their qualities or their energy. Thus, we find remarkable differences in weight between given quantities of ox-dung and of that of the horse. The following figures will enable us to judge of these variations:—

	Kilogrammes.
A cubic foot of rich ox-dung weighs ..	26
" " of fresh " " ..	21½
" " of rich horse-dung " " ..	17½
" " of fresh " " ..	13½

The best manure, and which may be designated as the *normal* kind, is that of horned beasts, and it presents approximatively the following composition:—

Water	75
Soluble substances.	
Albumen	
Mucus	
Urea	
Bile	
Mucilage or gum	
Extractive and saccharine matters ..	
Salts of potash, soda, and ammonia ..	5
Insoluble substances.	
Resinous and fatty matters	
Starch	
Insoluble salts of lime and magnesia ..	
Vegetable fibre	20

100

M. Boussingault gives the following as the composition of some farmhouse manure, which had been standing six months, and which he calls *normal manure*:—

Water	79.30
Organic substances	14.03
Salts and earths	6.67

100.00

We designate by the name of *town manure* the dirt and refuse of every description which is collected in the streets. These matters have a very complex composition, and, usually, they are not employed in agriculture until they have undergone a previous fermentation. During this process, they liberate large quantities of sulphuretted hydrogen. Sometimes lime is added to them, with the view of accelerating decomposition, but this addition risks the loss of a certain quantity of ammonia. This manure should always be allowed to rest a certain time, for the fermentative action thoroughly to complete itself. If it be employed in the fresh state, it would ferment in the bowels of the earth with too great energy, and thus burn up the radicles of the plants.

The name of *compost* has been given to some mixtures more or less analogous to town manure, and which are formed by arranging manures of different kinds in alternate layers. We may conceive that a host of organic *debris*, the remains of plants, waste animal matters, the liquids which escape from our manufactories or even from our kitchens, may serve for the fabrication of manures. Too frequently, and especially in large towns, matters, which the agriculturist might turn to great account, are wholly or in most part lost.

A farmer, named Jauffret, imagined that, with the aid of branches of fern, reeds, furze, and organic debris of various natures, he could manufacture an artificial manure by determining in these matters a very rapid and energetic fermentation. For this purpose, he piled them up after having divided them into small fragments, and moistened them with a solution of some mineral and organic matters in a state of putrefaction. The most suitable place for this manufacture is the neighbourhood of some pond containing stagnant water, and which should also receive into its interior a certain amount of fecal matters and urine, or the contents of some sewer. We are afterwards to add gypsum, ashes, and saltpetre. By sprinkling the vegetable *debris* with this liquor, a very active fermentation is quickly established; the air imprisoned in the mass favours this reaction, and the temperature, in the interior of these piles, frequently attains an elevation of 75° Centigrade. In twelve or fifteen days, we thus obtain a manure which is capable of being employed immediately.

The expense of this manure, nevertheless, is great; by following the plan laid down by Jauffret, 2000 kilogrammes would cost about twenty francs; whereas the same quantity of stable manure is worth but from ten to fifteen francs. M. Lucy, who has given great attention to this subject, has calculated the expense at somewhat less. In leaving, however, to the practical agriculturist the care of resolving this problem in its varied and economical bearings, we cannot too strongly recommend the system itself, which evidently rests on a sound foundation.

So soon as the importance of the azotized manures for the alimentation of vegetables was fully recognised, no time was lost in endeavouring to turn to profit all those substances which contain nitrogen in greater or less abundance; true manufactories of manure were quickly established in some of the most important towns of France. Indeed, the fabrication or preparation of these substances may, at the present day, be said to constitute a branch of chemical art, which tends to bring to agriculture, under the most desirable form, that supply of nutriment which the farmer is wholly unable to furnish to lands otherwise well tilled, and which must lead to the best possible results.

All parts of animals are capable of forming excellent manures, since all are extremely rich in nitrogen. We have already seen how to turn these to account in the natural state; but, should we wish to convey these matters to a distance, to prevent them from putrefying, to preserve them for any lengthened period, or, finally, to render their effects more lasting, we must give to them a certain preparation, which at the same time renders them less apt to communicate a disagreeable taste to the vegetable.

It is more particularly in slaughter-houses that we are enabled to prepare these animal manures, and to turn to account matters which would otherwise be lost.

The blood may be preserved for any period by coagulating it at a temperature of 100° Centigrade, either directly by placing it in a copper heated over the naked fire, or, which is preferable, by employing the intervention of steam; in the latter case, we place the blood in a tub or vessel made of wood. The coagulated part is removed by means of a large ladle, subjected to a degree of pressure sufficient to expel from it the greater part of its moisture, and, lastly, dried in the open air, or in a drying machine,

through the intervention of a current of hot air.

The blood, when dried and pulverized, is placed in casks, and can be thus transported to any distance that may be required. Prepared in this manner, it constitutes a very concentrated, rich manure, containing as much as thirteen or fourteen per cent. of nitrogen.

In horse slaughter-houses, after having boiled the carcase of the animal in large wooden vessels, heated by steam, they detach the flesh from the bones, then dry it in the sun, and finally terminate this desiccation in a stove by a current of dry air. The matter has now become friable, and may be pulverized by subjecting it to the action of the pestle, or by means of a vertical mill. Reduced into a coarse powder, the dry flesh forms an excellent manure, which becomes decomposed more slowly than the fresh tissue, and which maintains its fertilizing action for a much longer period. Unfortunately, the purposes for which this dried flesh is used, whether for the manufacture of prussiate of potash, or as food for some animals, keep up its price at a rather elevated figure; its employment as a manure is, consequently, limited to the more productive plants; thus, it is exported to the colonies, to be used in the cultivation of the sugar-cane. Its richness in nitrogen renders its transport much less expensive than that of other manures.

The bones, when suitably prepared, constitute an excellent manure, which is very extensively employed in England. In France, where bones are scarcer than in England, the cost is considerably greater, by reason of their application to the manufacture of animal charcoal; still there are some localities in which we find them used as manure.

Before employing the bones, we should extract from them, by ebullition, the fatty matter which they contain, and which may be sold to great advantage; then, we are to reduce them to a coarse powder by means of grooved cylinders of great power, and which are set in motion by a steam-engine; the grinding is commenced by cylinders having large and widely-separated grooves, and terminated by instruments of a much finer description. This manure is held in such esteem in England, that its price may be said to range from fifteen to eighteen francs the hectolitre, whilst from ten to forty hectolitres are consumed in manuring the *hectares* of ground. The principal merit of bones, as a manure, consists in the slowness with which they are decomposed; their action on vegetation is extended over several successive years. Thus, whilst some manures, much richer in nitrogen, are rapidly decomposed in the ground, and lose in the atmosphere a part of the fertilizing gases which the plants have not time to assimilate, the bones, on the contrary, furnish, little by little, these gases, and thus yield the best ultimate results.

Those bones from which gelatine and glue have been extracted, also such as have been a long time exposed to the changes of the atmosphere, give a manure much inferior to that produced from fresh bones; it being, in fact, so much poorer as the organic matter is in less proportion.

At Thiers, in Auvergne, mills are erected for the grinding of those bones which are not considered fit for the manufacture of handles of knives and other instruments which are produced in that town in great quantity. The powder arising from these bones is of a coarse description; sometimes it contains pieces as large as a bean; it is greasy to the touch, and leaves a soil on paper.

After being dried in a stove, this powder was found to yield in every 100 parts:—

Combustible animal matter	43.86
Phosphate and carbonate of lime	56.14

100.00

This is seen to be nearly the normal composition of bone.

There is no doubt but that the animal matter of the bones plays a very important part in their application as a manure; but we should form a

very false notion were we to underrate the importance, or even the absolute necessity, of the phosphate of lime which they contain. In exporting meat and corn, the agriculturist may be said to export the earthy phosphates, for the osseous framework of the animal is formed of these materials, whilst wheat, also, contains remarkable quantities of them.

It becomes, therefore, necessary that these phosphates should be restored to the earth, for light soft lands naturally contain but very little of them. Hence the most simple process consists in giving back to the ground the urine or excrementitious matters of the people whom the wheat has nourished, or the bones of the animal of which the flesh has been exported.

There is no doubt, however, but that the natural phosphate of lime—as, for example, that of Estramadura—would form an excellent corrective, and that its application to this purpose is well worthy of being tried on a scale sufficiently large to enable us to judge of its efficacy.

The most economical method, then, which the agriculturist possesses of giving to the soil those essential products which the plants have abstracted from it, consists in the restitution of ammonia and of the earthy phosphates. M. Bous-singault has, on this principle, been led to essay the employment of the ammoniaco-magnesian phosphate, from which he has derived the most beneficial results, in some experiments which he made on the cultivation of a variety of maize.

CLINICAL OBSERVATIONS ON SOME OF THE MORE FREQUENT DISEASES OF CHILDREN.

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(Continued from p. 32.)

GENTLEMEN,—When I last addressed you I entered upon the consideration of those forms of diarrhoea in which the motions are evidently changed, not only as regards frequency, but as to nature and quantity. I told you to beware, if you recollect, of trusting too much to the appearances of the stools in judging of what portion of the intestinal canal they are altered by or proceed from. With this caution, the observation of them will, however, be highly important.

We may say, speaking generally, that a dejection has as its basis the residues of properly elaborated material and of aliment, &c., only half digested, or otherwise imperfectly acted upon by the elaborative offices. With these are mixed up more or less of the alkaline fluid secreted by the liver, the bile, and the more or less acid ones of the mucous crypts and follicles, varying from the character of mucus to that of mere serosity, and of the blood more or less altered according to circumstances I shall afterwards notice. To these now and then, in rarer cases, may be added muco-purulent matter, and a kind of "pseudo-membranous debris." In the union of these various things in the intestinal tube, of course reactions take place, which often further increase the heterogeneous character of the stools, still more affected too by the power of the drugs and chemicals. At the commencement of one of these forms of diarrhoea the dejections, from being at first slightly altered in their tint of yellow from some change in the biliary secretion, more fluid and of slighter frequency, will proceed through all grades and changes until until they become more like green water, acid and irritating, voided twenty times in the day, or squirted out forcibly with pain, and causing erythema and ulceration about the nates and thighs. Or they occur as repeated stools of glairy, slimy mucus, marked by streaks of blood, attended by much griping and pain on their passage. Between these extremes you may have all sorts of motions; and if you refer to some books you will find that particular forms of diarrhoea are founded upon the appearances of the motions, and a special part of the digestive apparatus is assumed to be concerned in producing them. But, as I have told you, the nature of the stools depends upon so many different and variable circumstances, that it is impossible we can glean all such supposed advantages from their

observation; and all we can do is to notice particularly the more general and original forms of diarrhoea, and then consider their combinations or deviations as subsidiary. Some persons may maintain the "diarrhoea of dentition" is characterized by a particular kind of stool, and so, also, that of the "atrophia ablaetatorum;" that diarrhoea dependent on inflammation of the colon has likewise a dejection peculiar to itself. But I think you will discover that the diarrhoeas of dentition, of weaning, of inflammation, vary most remarkably, and that although a child may have in one case pale clayey motions, or mucous diarrhoea, or the "watery gripes," or drab, yeasty, frothy motions, yet in other examples of the disorder, whether it be that of dentition, weaning, or inflammation, the general character of the motions shall be something else altogether: it shall miss, as it were, the kind of stool usually allotted to it, and run through all the other forms according to the stage and severity of the malady.

Some general laws with respect to the stools I shall give you, however. The more frequent, the more watery and heterogeneous, and the more ascendent, the worse are they. The more the want of homogeneity, at a late period of the malady, is caused by patches of green stuff, streaks of blood, and lumps of matter, whether white pieces of undigested caseum, &c., in infants at the breast; or fatty-like, or fibrinous, or other nodules in older children, the worse still. Here we not only have the diarrhoea to deal with, but the imperfect, if not complete want of digestion at the upper of the intestinal canal. In such cases there is this danger added to the exhausting diarrhoea, that there is almost an entire loss to the patient of fresh aliment to support the body. In such combinations we may believe in there being, after death, anatomical alterations of very appreciable character. In some of the very worst cases, at the last, the motions are mere water, running away gradually from the child, and scalding its nates and thighs. Besides the stools, there are several other things which you have to attend to in drawing your conclusions of

the particular diarrhoea. These, however, you will learn as I speak to you of the several varieties; but I may just mention, that whilst a variety which is not accompanied by fever is in general a slight affection, and with due care and attention may be easily remedied, the same, when associated with great febrile exacerbation, becomes a very different matter to deal with. The higher the fever, the more prominent the vomiting, the more evident certain epiphenomena exist—such as stomatitis and angina—the worse is the affection. The more the lips are cracked, the greater the emaciation and leaden colour of the skin, the more serious is the malady.

The form of diarrhoea I have now to notice is the catarrhal or serous. This variety, like the sympathetic, may attack children of all ages, and may be induced by all sorts of causes. But, like all other forms, unassociated diarrhoea is far more common in infants at the breast, and under three years of age, than above that period. This is a general rule with regard to diarrhoea you must not forget. Diarrhoea, as a disease, as I view it, is, *par excellence*, a disease of infancy and very early childhood; as such only, also, it may be said to kill. When diarrhoea becomes obstinate in elder children, it merges into another disease; or, when it has become so, it has been preceded by another, of which it is merely a complication. It comes before us a complication of remittent or typhoid fever, of the exanthemata, of gastro-enteritis, of ramollissement of the digestive mucous coat, in all their various forms.

Diarrhoea of any character may, and does, attack children of all ages, from that of a month to puberty. But it is in those we find at the breast, or being brought up by hand—in those in whom dentition is proceeding—that we have so much to do with diarrhoea *per se*. It is also to such children that it proves fatal. I draw your attention to the table before you, which is made from those cases which presented themselves at the infirmary on the 29th of July and the 2nd of August—the time when diarrhoea began to increase rapidly.

Sex.	Age.	Dejections.	Worms.	Blood.	Frequency in twelve hours.	Weaned or not.	
	Y. M.						
F	0·8	Watery ..	..	..	"Continually"	Not	Vomiting.
M	0·9	Yellow and thin	..	..	4 to 5	Not	Vomiting, tongue white.
F	1·5	Watery ..	..	..	6	Weaned	Loses flesh.
F	1·6	Watery ..	..	..	10 to 12	Weaned	Ill a fortnight.
F	1·8	Watery ..	..	..	8 or 9 already this morning	Weaned	Ill a week, had scrofulous vaginitis.
M	1·1	Green, watery	..	Pure blood	20	Weaned three or four days	..
M	1·0	Green & lumpy	..	Sometimes a little	12	Weaned a week	Motions very offensive.
M	1·7	"All sorts" ..	..	"Congealed" blood	20	Being weaned	Ill a month.
F	1·11	Slimy ..	Ascarides	Blood	12	Weaned	Stomatitis.
M	0·4½	Green, and like white of egg, yellow	..	..	20	Not	..
F	1·0	Slimy deep yellow	..	..	15	Not	Motions very offensive.
M	0·3	Green, slimy ..	..	..	7	Not	..
M	1·0	Green, slimy ..	..	..	8 to 9	Not	Marasmus.
M	2·0	Dark, offensive	..	..	4 to 5	Weaned at 1·0	..
M	5·6	Dark, offensive	..	Sometimes a little	5 to 6	..	..
M	1·9	"Curdled" ..	..	..	2 to 4	Weaned	..
M	2·0	Green, watery	..	..	5 to 6	Weaned	..
F	2·0	"All sorts" ..	..	Much blood	20	Weaned	..
M	1·2	Watery ..	..	..	4	Weaned	..
F	1·6	Very slimy ..	..	Sometimes	12	Weaned	..
M	0·5	Thin, yellow ..	..	..	12	Not	..
M	0·7	Green, slimy ..	..	..	4 to 5	Fed	..
F	1·5	Slimy ..	..	Yes	15	Weaned	..
F	0·11	Green, slimy ..	..	..	12	Not	..
M	0·10	Whitish yellow	..	..	"All day long and all night"	Not	Vomiting.
M	0·8	"Vary" ..	..	"Has been"	"Very frequently"	Dry nursed	..
F	2·0	Watery ..	..	..	6 to 7	Weaned	..
M	3·0	Slimy ..	Ascarides	..	12	Weaned	..

I may remark that Rilliet and Barthez, out of 88 cases, found 18 above six years of age, and 70 below; and in the Fifth Report of the Registrar-General it is shown that, out of 100,000 males dying in London under five years of age, 2797 die by diarrhoea, whereas at five, and under ten, only 749 succumb.

However, to return to the symptoms of catarrhal or serous diarrhoea. I may remark that, after some warnings, like restlessness, twisting the legs about, or flexing them on the belly, in infants; and in elder children, complaints of pain in the stomach and head, the child becomes purged, the dejections gradually more fluid, and lose their proper colour. The tongue is clean. There is no heat of skin, nor any loss of appetite. The dejections, however, become still more frequent and watery. There is now great nausea or striving to vomit; the tongue white, yet moist; the stomach soft, and not painful on pressure; the skin not discoloured; but the appetite may be diminished gradually; from the attention paid to the cause of the disorder, and from the child being duly treated, the motions become less fluid, more opaque, and fewer; the tongue cleans, the appetite increases, and the child gets better. But the reverse may happen: the stools still increase in frequency and fluidity, and have patches of green here and there, and present a very heterogeneous appearance; the child at the breast shows febrile symptoms of a remitting form; elder ones those of a more continuous character: in both there is vomiting, often distressing, of biliary and undigested matters. If the disease still makes progress, the infant becomes pale and weak, the skin very sensible to cold, the tongue deeply coated, and the flesh loses its firmness along with the increasing serous dejections. Elder children complain of their head and belly; the appetite is greatly diminished, and the thirst increased. Sometimes, however, the appetite is beyond what is natural; I have seen it ravenous. To the intestinal disturbance may now be associated stomatitis in its various forms, prolapsus of the rectum, erythema of the nates and thighs; and in older children, angina. Though all this shall happen, considerable debility be produced, the system having suffered much "wear and tear" from the continuous watery dejections, all may yet go well again, the child quickly recover, and we shall have no evidence for believing that, supposing during the disorder an accident had killed the child, and we examined its body, we should find appreciable anatomical alterations in the intestine.

But such a course as the above may be, sooner or later, departed from: the disorder may go still further, assume more severe characters, or may have at once broken out with them. We may see it run from the simplest form of the "watery gripes" up to the highest of "lienteria;" or it may break out with such violence in an already debilitated constitution, that, in three or four days' time, death may result, the child dying in a state of collapse or coma. The dejections may be at once abundant, continuous, and watery; the child neglected, or not at once attended to; the face and extremities get cold and pale; and the child die with all those symptoms I have spoken of before, when I made some remarks upon hydrocephaloid disorder. (a)

Though this form of diarrhoea shall commence in the more modified and milder manner, the stools may become more green and watery, with here and there some mucus streaked with blood, constant in frequency and often abundant in quantity. Now and then a motion is passed having pieces of scarcely altered, or undigested, matters or aliment in them, perhaps squirted out forcibly, smarting and scalding the anus and thighs. With all these is seen great loss of flesh in the child, a dirty or discoloured skin, often constant vomiting; in fact, the disease passes into one of a distinct inflammatory character, of whose symptoms I shall presently speak to you about. The child shall first

exhibit a slight increase of serous exhalation, the disease shall progress, death ensue, and enterocolitis be seen afterwards on examination.

Whilst you will have many children brought to you to treat for diarrhoea, exhibiting only slightly-increased frequency in respect to their dejections—a little altered, perhaps, by a change in the biliary secretion; or, again, characterized by the milder form of the increased serous exhalation, as I have just spoken of—you will find others suffering from diarrhoea whose stools are always more or less "slimy"—children having the mucous form of the affection. At the commencement the stools are rather less consistent, and of varied colour, with here and there patches of mucous or gelatinous matter mixed up with them; gradually they become more fluid, passed with more pain and itching at the anus, but yet distinctly mucous in character. If the diarrhoea goes on, the motions have a very nasty sickly odour; sometimes they become intensely offensive, but this generally happens with the darker motions of elder children; sometimes they consist of a thin gelatinous matter, having streaks of blood, or even large quantities, floating in or mixed with the mucus. At other times small lumps of fecal matter float in a seromucous fluid, intermixed with numberless ascarides. In a still further stage the dejections may assume the peculiar thin, white, milky character, marking what has been called "chylous diarrhoea;" or they may run into the thin, green, watery motions of the worst form of serous diarrhoea. In other cases the true mucous type may pass, like the serous one, into a diarrhoea of inflammatory character. In the mucous form of diarrhoea the belly is generally more tense and hard than in the serous one, and the tongue more likely to be coated early. But there is not in general the same risk of febrile disturbance; not the same concomitant general *malaise* as in the others; but I think we may say the stomach is more out of order. In both of these latter diarrhoeas we have excess either of the serous or mucous exhalations of the intestinal canal: often of both. The more either is alone increased in quantity, so of course is the character of the dejection plainer; but as both may be increased, and the nature of a motion will be dependent, as I have already shown, on many other things besides, you can imagine how various may be a stool. In either of the serous or mucous forms you may have at the beginning of the former the frothy, yeasty, drab-coloured motion you will so often read of in books; in the middle of the latter you may have it too, or often before it passes into the diarrhoea of the serous type. What we may call the vernal-autumnal diarrhoea of children is very often marked at different periods of its season by stools of particular character. This season I have noticed that at first the more frequent kind of stool alluded to by the mother was the "watery;" towards the middle it became mucous, "slimy;" and within the last week (Sept. 16) I have heard of more "frothy" stools in one morning than all the time before. Of course I have had others described to me, "curdly," very often "quite white, like chalk"—"like egg;" and sometimes so strange was the description of them that I could make nothing out of them; and as I did not see them I cannot describe them to you. Another remark on the season of the disorder I have to make is this, that towards the end of it I think those cases which you see you will find more often accompanied by febrile erethism than at the beginning; I find it to be so, at least. This may happen from the fact that those who are attacked early are those who are very susceptible, whose intestinal irritability is lighted up on the least stimulus, and does not wait for any great constitutional irritation to occur first; whilst those who are attacked last are those not so irritable or liable, but those in whom the vital powers must be more generally influenced, in whom there must first occur a more universal *upsetting* of the constitution. When speaking of the febrile

excitement accompanying diarrhoea, I forgot to say that I think it is far more often seen in younger children, in the catarrhal varieties, than the French authors, especially Bouchut, allow. However, it is astonishing sometimes to observe what frequent and enormous evacuations of green watery matter take place, and yet the child preserves its appetite, and betrays not the least febrile disturbance.

These forms of simple diarrhoea, the sympathetic and catarrhal—the latter including the serous and mucous types, with all their varieties and combinations—are those you will find prove the most amenable to treatment; because, as I have told you, they are functional disorders, they are diarrhoeas of muscular irritability or of increased exhalations, and have not their origin in appreciable structural lesions. But, as you have seen, the catarrhal form may now and then take upon itself so exaggerated a state—the symptoms run so high, the vital powers be brought so low, and the superaddition of other phenomena be seen—that we are often at a loss to determine whether or not inflammation has really been lighted up. This is particularly the case in the *lienteric* forms of the malady in which pellets of undigested or scarcely altered matter are passed in the green, watery, acid evacuations. Here, as M. Trousseau has remarked, the symptoms may result from two very opposite conditions of the system, often difficult to distinguish from each other, and each leading us to adopt an opposite line of treatment. In the one case the disease may be connected with an inflammation of the intestine; and in the second, we may have to cope only with a perversion of functions induced by debility. There is also this to be taken into account, that it is highly probable, as has been affirmed by Legendre, that wherever the severity and continuance of the discharge are great, it alone, as it passes through the intestinal tube, is sufficient to produce, by its local irritation, inflammation and even ulceration of the follicles of the mucous lining, and that, in fact, many of the morbid changes in the canal are the consequences of the diarrhoea, and not its cause. This, though true, will yet further complicate a hitherto simple functional form most severely, and in such a case we may have enteritis, with finally, ramollissement of the mucous lining of the stomach, arise from at first a very simple source. It will behove you then, in all persisting forms of the simple kinds of diarrhoea, when you find they become accompanied by loss of flesh and febrile excitement, to be upon your guard, lest the disorder may pass into that formidable type of which I shall speak about at my next lecture.

ORIGINAL CONTRIBUTIONS.

THE PHYSIOGNOMY OF DISEASES OR SEMEIOTICS IN THEIR ASSIMILATIVE CHARACTERS.

By GEORGE CORFE (Author of "A Popular Treatise on the Kidney," &c.), of the Middlesex Hospital.

(Illustrated by Portraits of Cases.) (a)

(Continued from p. 19.)

CLASS I.

DIVISION III. Cerebral Sympathies in Irritability; Countenance distressed.

From Delirium tremens.

" in fever.

" pneumonia.
" pericarditis.
" enteritis.
" hysteria.
" mania.
" epilepsy.
" chorea.

(a) These portraits, which are painted from the life, by that eminent artist, George Fogg, Esq., are to be seen in the museum of the Middlesex Hospital School of Medicine, a woodcut being deemed inefficient to carry out the peculiar features and tint of each countenance.

(a) See *Medical Times*, vol. xvi., page 426.

Paralysis agitata.
Paralysis veneno.
DELIRIUM TREMENS.

This is a disorder peculiar to drunkards; it usually creeps on when they are deprived of their accustomed stimulus; but I have repeatedly noticed that men who are in the habit of drinking freely, and who at the same time eat largely of animal food, twice or even three times a day, rarely become the subjects of this disease; but if they fall off in their appetite for this kind of food, and still continue to take their usual quantum of beverage, bilious diarrhoea, perhaps, supervenes; they become disordered, dose themselves with salts, &c., and perhaps get bled, and the disease soon sets in with its usual fierceness of excitement. Such is the case with the brewer's draymen and porters, potmen, &c., in London, amongst which class of persons the far greatest number of these cases occur. Such is the fact, at least, with the idiopathic form of this disease; but the traumatic character occurs in the surgical wards continually, and even here, it may be observed, that if a drayman is brought in with a fractured thigh, and is able to continue to eat his accustomed quantity of animal food, with a fair allowance of porter, &c., he is most likely to escape the disease altogether. There is, at this moment that I write, a man in the accident ward, from one of the largest breweries, with severe laceration of the leg, and who has been allowed by Mr. Arnott, his surgeon, five pints daily of the very best porter, and which is certainly equivalent to a gallon of the publican's liquor in point of strength, and he has also been allowed full meat diet, extra bread, &c., and has hitherto escaped all symptoms of the disease.

These men, generally speaking, are rationed at a gallon per diem when in full work, and they usually drink at least another half gallon in their rounds delivering the beer to the different public-houses, where they are entitled, as they think, though it is only a custom in the trade, to have a pint of porter each, and some bread and cheese. They are not, however, habitual spirit-drinkers, and, considering the work that they do, and the temptations that lie in their way, they are as abstemious, in comparison, in dram-drinking as they are excessive in porter-drinking.

In the east part of London, and along the Thames, this disease is more frequently seen amongst the coalwhippers and bargemen, who drink even more than the draymen of the west-end; but, as they obtain their liquor wholly from the public-house, which is of an inferior quality, and not from the firm direct, as is the case with the latter class of men, it may be calculated that they swallow the same amount of alcohol in both instances. (a)

It should be observed that every case of threatening delirium tremens is preceded by more or less biliary derangement; and, as these men rarely enjoy active or healthy secretions from their alimentary canal, it does appear, from the observations of a large number of cases in this hospital, that the disease is purely hepatic in its origin. This opinion is entertained by our talented physician, Dr. Seth Thompson, who has most successfully treated some of the worst cases of this disorder with large and repeated doses of calomel, followed by brisk cathartics; and he has never been obliged to resort to opium at all, sleep having succeeded the active unloading of the hepatic system. It has long since struck my mind that the invasion of the disease springs from a sudden or, it may be, a gradual poisoning of the blood, by means of a chemical alteration in the bile and urine; and that some of the elements of one or both of

these secretions are carried through the circulation. My chief reasons for drawing these conclusions are the following:—Since I have had an opportunity of watching the admirable practice of the above-named physician, the disease has given way, in a most decided manner, under sharp purgation with calomel, &c.; and the improvement is invariably coexistent with the passage of numerous dark, offensive, and deeply-bilious evacuations. The onset of the disease is ushered in with loss of appetite, foul tongue, giddiness, nausea; and, in an effort to throw off some of the morbid cystic bile, sickness and bilious diarrhoea may probably set in also. Again, a very large number of cases, and those of the worst form, present themselves with symptoms of poison by urea. It is stated that they have had one or more fits; these fits are distinctly epileptic, and exactly resemble those attacks which sometimes occur in persons labouring under albuminous disease of the kidney, and in whom the disappearance of urea from the urine, and its presence in the circulating fluids, has been repeatedly detected by Dr. Christison and others. In fatal cases of delirium tremens an epileptic fit is often the forerunner of death.

However, I will portray an instance of this disease before us. He is a bony, muscular, and well-formed man, between twenty-five and forty-five years of age: for it rarely occurs antecedent or subsequent to these periods of life. His countenance is bathed in a dirty sweat; his eyes are fierce, bold, and fiery, but the brows and eyelids droop somewhat, and the former are knitted. The angles of the mouth, whilst he is quiet, are slightly drawn downwards, the alae nasi distended, and the pupils are small; the cornea is dusky; the mouth is parched, and the lips are dry and peeling. There is a sharp, knowing look about him, very significant of the disease, and he darts his eyes in all directions; and the moment a word is spoken he has fifty more to answer with. His loquacity is most striking, and the sharp, quick manner of answering all your questions is equally peculiar to this disease. When you get him into bed, and are in the act of putting his trousers aside, they are seized with a sudden earnestness, and he fumbles in the pockets for some supposed paper, bill, or money; the bedclothes are rolled up, the sheets made into ropes, and he tugs and pulls away at them, hallooing out to his companions, whom he supposes present, to come and assist him in pulling up this barrel, or hoisting this quarter of beef, as his occupation of drayman or butcher, &c., may have been. Whilst the men in the "public line," so called, a genteel phrase for "potboys," keep up an incessant conversation with their masters, mistresses, and the various customers:—"I say, Jim, look after that half-and-half just gone out; she has given me a bad shilling." "Pray, sir, what are you doing below there, in the cellar? Come up, you young rascal." "Sally! Sally! Sally! you fool, why don't you come when you are called? here are two half quarterns of gin waiting at the bar." In the midst of this noisy talk and bath of perspiration, the physician enters; perhaps he suddenly turns off to him, and, recognising him as a gentleman, will address him as such, thus:—"How do you do, sir; I believe you are Mr. Simpson, I hope you will be so good as to give my kind regards to Mr. So-and-so;" and then, turning to the keeper, will abruptly address him:—"Why don't you cut this string, you fool; pull out your knife, I tell you, and cut these ropes;" meaning the straps with which he is fastened down in bed; and again turning off to the gentleman:—"I believe, sir, you advertised for a livery servant, last week, in the *Times*. I read your advertisement, and was fully intending to wait upon you in the course of this morning, but Mr. Green persuaded me to go up in his balloon, and in descending we struck against St. Martin's Church, and I fell on the curbstone and received this blow over my eye, and got this sore (putting his hand to a blister on the forehead, placed there some hours before); and, therefore, I could

not appear before you in such a figure as this. What wages, sir, pray, do you give, may I be allowed to ask?" &c. &c.

Now, I think, the main feature of this delirium lies in the following observation, which I have invariably made in this disease. There are always hallucinations of a pleasing or of an horrifying nature; but in the midst of the greatest loquacity you may stop him, by suddenly accosting him thus:—"Put out your tongue; where do you live?" &c.; and thus you may sit at his bedside, and keep up a tolerably connected gossip for a quarter of an hour, if you will not bother him with too many questions at once, but allow him to make his own running comments upon the questions which you put to him.

There can be no difficulty, one would have thought, in recognising this disease, and yet the instances are not few where the patient has been bled, lowered, and treated as a case of phrenitis, and has thus been hurried into eternity at the shrine of gross ignorance. The following is an example of this malpraxis:—

Thomas Martin, aged forty-three, a short, bulky man, a coalwhipper, admitted July 14, in a state of great agitation; tremors of the whole body, which is bathed in perspiration; countenance fierce, dingy, and covered with sweat; eyes wild, and reddish, with occasional knitting of the brows, expressive of mental anguish. He gives a correct account of his feelings and history, and corroborates the statement of his companions who brought him. Pulse quick and small; tongue furred; no sleep. It is reported that, whilst he was at work yesterday, he was suddenly seized with general tremors, giddiness, and pain of the head. He walked to an hospital with some difficulty, and was immediately bled to 16 oz. For some nights past he has been restless and watchful. He has been in the West Indies, and there he addicted himself to drinking large quantities of rum. Has had a similar attack before. He was allowed one-third of a pint of port wine, a pint of porter, full meat diet daily, and took one-third of a grain of morphia in camphor julep every six hours. A blister was applied to the neck, and a black draught given immediately.

On the 25th, five A.M., the following summary of notes may be given:—

Perfectly unmanageable, requiring restraint; talking and swearing horribly to persons not present; countenance much sunk and altered; bathed in perspiration; his whole muscular frame in constant agitation and strong action; pulse 120, feeble. Rum, milk, and eggs, every hour. T. opi. 3jss. every four hours. Heart's action devoid of impulse or sound.

At one P.M. this day, after a short interval of comparative quietude, he had an accession of all his furious symptoms, and died suddenly in a few minutes afterwards, in a paroxysm of rage and exertion, uttering the most horribly blasphemous language.

It is computed, says the note in the case-book, that he took nine drachms of laudanum in sixteen hours, without the slightest narcotic influence being produced.

On another occasion, the servant from a livery-stable-keeper in Bond-street was with us, and exhibited the most extraordinary activity, excitement, and mental as well as bodily ardour, in the attempt, which he was supposed to be executing, to drive his master's four-in-hand thoroughbred horses from the stables into the City. He held the reins (so to speak) in his hand, and, with the whip in the other, he mounted the box and started off up the stable-yard, on getting out of which into the street, the off leader, "a high-spirited creature, full of play and of blood," as he described her, made a shy at something, and nearly drove the coach against the wall; at this he became most eager and excited, explaining matters with the master, who was witnessing the exit of the coach from the yard, as we gathered from his quaint remarks; he continued to halloo at the horses, coaxing one, talking kindly to another, and swearing at the off leader. His actions, in his supposed

(a) Dr. Minianowsky, Professor of Medicine in the Imperial College of St. Petersburg, visited this hospital last week, and expressed his surprise, on my informing him, that this disease is oftentimes brought on by the excessive drinking of porter only; whilst in the Russian capital, and in Moscow, the malady is only known as the result of the abuse of ardent spirits, for malt liquor is scarcely to be obtained throughout that country.

driving; his rapid observations, as he passed down one street into another; his remarks upon the beautiful team; his jokes, his extreme mental anguish to get on and keep all safe, exceeded everything that I ever witnessed before or since. You might follow him in every street he went along, by his shrewd remarks and singular conversation; but all his dread on entering the City seemed to arise from the idea that he should not get the "off leader" to stand the noise of St. Paul's Churchyard. (a)

However, he turned into the yard, as he expressed it, and had not gone a very great distance, when it was evident by his gestures, increased excitement, and his language, that the leader of "high mettle" had shied at something, and in another moment he was against the curbstone, and the beautiful creature was sprawling on the pavement. The agony, the agitation, the sweat, the vociferating language, the horror, the busy, eager, and fierce glare of his eye and face, the shock, in fact, which this dreaded calamity produced upon his excited and incoherent mind was too powerful, and he never had a tranquil moment after it. The poor fellow sunk in a few hours more, from mere exhaustion of the vital powers.

Post-mortem Examination Twenty-four Hours after Death.—*Head.* Scalp, cranium, and dura mater tinged with blood, which issued copiously when these parts were respectively divided. The arachnoid, generally speaking, puckered from thin, clear fluid, which was effused beneath it and the pia mater. There was an ounce of serum in each ventricle. The substance of the brain was rather more injected than usual, and the convolutions were small.—*Chest.* The heart was pale and flabby, and softened in its walls. In its cavities, instead of the usual accumulation of coagula and fibrine, there was a fluid more resembling curds and whey, deeply tinged with blood.

The peculiar paleness and flabbiness of the muscular structure of the heart, in fatal cases of delirium tremens, has been noticed before by myself, and a late house-surgeon, Mr. Lonsdale, who refers to it in his work on fractures, where he cursorily treats upon the character of this disease as occurring after severe accidents.

The extraordinary effect of cold affusion in delirium tremens has not, that I am aware of, been alluded to by writers upon the subject. There have been several instances in this hospital in which continued sleeplessness, violent excitement, profuse perspirations, contracted pupil, and rapid exhaustion have attended the exhibition of even larger doses of opium or morphia than were administered in the preceding case, and yet, with such unfavourable symptoms, the cold affusion, freely used, has induced calm and protracted sleep, with ultimate recovery.

Robert Pyper, Esq., surgeon in the 11th Hussars, and my late intelligent colleague in this hospital, informs me that whenever the men have been indulging too freely in liquor, and that the well-marked symptoms of approaching delirium tremens manifest themselves, he orders the hospital sergeant and another man to mount a table or ladder, place the patient in a tub below them, and pour, from this height, a continuous stream of cold water upon the head and chest of the offender until he is calmed down; he is then rubbed dry with a rough towel, placed in bed between warm blankets, and almost invariably falls into a deep sleep of many hours' duration, and awakes perfectly collected and well. We were induced to adopt this practice many years ago, in consequence of our utter inability to confine a strong, muscular fellow, whose fearful excitement, pugnacity, and rebellious obstinacy to take any medicine or food, set all our attempts to control him, or to induce sleep, at utter defiance. The house-surgeon and

myself placed a chair on each side of his bed-head with a pail of cold water upon each chair. A man sat on each side of his body, and held his head and chest down, so as to prevent him rising up in bed. Two more persons supplied us, respectively, from the pails, with pints of cold water, and we alternately poured it in a small stream upon his forehead, face, and chest; the more he bellowed, the more fluid he gulped; he struggled for breath, and, again recovering his respiratory powers, hallooed and roared, "Murder! police! murder! police!" but so much the more did he get of cold water down his throat. We saw it was a desperate case, and called for a desperate remedy, if such it may be styled. We persevered, and so did he; but at length he choked, he gulped; the respiratory system became paralyzed, so to speak, or, at least, tranquilized; he whined, spoke mildly about our cruel treatment, inquired how long we were going on with that sort of work, promised to be quiet if we would leave off; and at length sued for pity, and entreated us to give over, as he had had enough. We instantly desisted, drew away the wet clothes, rubbed him dry, had some hot blankets ready at hand, covered him up, and he fell asleep, and continued in a sound doze for thirteen hours, and awoke perfectly well, but unconscious of all that had passed, only that he had dreamt he had been out in a pelting storm!

When this disease becomes so perfectly uncontrollable, whether by failure in the remedies administered, or by the obstinacy and refusal of the patient to take any kind of food or medicine, it may then be regarded in the light of mania, rather than in that of simple delirium tremens. We have no resource but in some such powerful agent as that of cold affusion; and the instances where it has proved of striking efficacy are not few.

It is needful, however, to advert once more to the fact, that a large proportion of the cases of this disease which have been admitted into the medical wards during the last two or three years, have been most successfully treated by full doses of calomel and aperients, whilst opium, as a narcotic, has been almost wholly abandoned; and whenever the former drug has acted briskly upon the hepatic circulation, and has brought away, for several days successively, a large amount of chocolate-coloured, offensive bile, the hallucinations have disappeared, tranquil and refreshing rest has followed, and convalescence has rapidly succeeded. But, although the authority of so eminent a physician as Dr. Watson is directly contrary to this practice, yet it is impossible to have witnessed the gratifying results of the purgative treatment without being fully convinced that this course of practice is both safer, and is based upon pathological principles more prudent, than is the treatment of drugging a semi-maniac, who is already poisoned by morbid secretions, with another narcotic, the action of which tends directly to check the separation of those morbid agents from the system which generate the disease. The following instance illustrates this plan of treatment.

William Kellarly, aged thirty, tailor, admitted April 20. Countenance wild and anxious; walked to the hospital, and stated that he could not rest for several days past, in consequence of being "nervous" at night. On more minute inquiry, however, he acknowledged reluctantly (a) that he had all sorts of visions, that rats and mice ran over his bed, and prevented him getting sleep. There was slight tremour of the hands, but no violence in his manner. He was immediately ordered, by Dr. Seth Thompson,

(a) There is a remarkable shyness in patients afflicted with this disease to relate to a practitioner the hallucinations under which they labour; and unless you put "leading questions" to them, and inquire if they fancy that their fellow workmen talk to them at night, or if they think they see and hear cats, monkeys, bears, &c., about the room, they are very backward to acknowledge it.

five grains of calomel with one of opium, and a senna draught six hours afterwards. He passed the first night in a very disturbed and noisy manner; he was, however, tractable, and did not require any restraint. His hallucinations were chiefly about his work, and he was talking and calling to his various comrades. The following day the bowels began to act, and were kept open by a further purgative draught. The evacuations were abominably offensive in the ward, of a deep mahogany colour, and contained a large quantity of morbid cystic bile. The dose was again repeated, and the same results followed; but the secretions gradually presented a more healthy aspect, and did not emit such a fetid, unnatural odour. The patient slept at intervals refreshingly, and was convalescent in a fortnight. Purgation was still kept up two or three times a week, by a grain of calomel and nine of compound extract of colocynth; his appetite returned keen, and his countenance assumed a lively animation, which was not seen on his admission. The same results followed in a case treated precisely in the same manner by Dr. Mervyn Crawford.

William Seagur, thirty, a potboy, admitted May 12, who acknowledged that he drank a gallon of beer a day, and four or six glasses of gin. He was a short, thick, fat, and bloated fellow, with a wild, fierce eye, horrid hallucinations, and had passed five or six nights without a "wink of sleep." But the chief peculiarity about this man's case was, that the disease was ushered in with tinnitus aurium, vertigo, temporary loss of consciousness, in short, with those sudden symptoms which are classed amongst the "precursors" of apoplexy. Doubtless many practitioners would have depleted him largely, under the belief that such a disease was about to set in; but it can be no matter of question with us, that, if such a treatment had been adopted (as is, alas! too often the case), the patient would have suffered from a severe attack of delirium tremens, and his constitution would have probably sunk under the attack; whereas, the purgative treatment by calomel, colocynth, and black draught was sedulously followed up, and, although it proved a more obstinate case than the former, yet he left the hospital in three weeks after his admission perfectly convalescent. It is but just, however, to add, that after a few days' severe purgation the Doctor allowed him a quarter of a grain of morphia at night, in consequence of the irritable, nervous state in which the treatment had left him. The hallucinations vanished as the alvine secretions presented a healthy aspect.

ON THE CAUSES OF DEATH AFTER SEVERE SURGICAL OPERATIONS.

By HENRY SMITH, Esq., Surgeon,
Late House-Surgeon to King's College Hospital.

(Continued from p. 50.)

I shall now proceed to consider the causes of death after amputations. This part of my subject presents a more extended field for investigation than what I have gone over previously, as there are so many serious dangers connected with the operations of removing portions of, or the whole of, limbs from the body. I have notices of nineteen amputations, all of them of the lower extremity with the exception of three, two of which were amputations of the forearm, and one amputation at the shoulder-joint. Of the sixteen cases, six were of the thigh, six of the leg, and four were amputations of the foot, or greater portion of the foot. The number of fatal cases amongst the whole was six, namely, one fatal case of the thigh, four of the leg, and one of the upper extremity.

The mortality after amputations, particularly in hospital and civil practice, is considerable; and to any person who has carelessly looked over the statistics of this operation, collected on a large scale, it would appear unaccountable; but when we come to recollect under what various conditions and for what various circumstances amputations are performed, and, moreover, that

(a) This space is so very large that the reverberation of sound produces a striking contrast to the incessant din that goes on in other parts of the City. This must have been the ground of his fear.

these operations are done, not upon one part of the body only, but on different parts of a greater or lesser magnitude, it will not be difficult to understand that death will frequently take place after such severe proceedings.

In an operation of such magnitude as cutting off a limb, or the part of a limb, from its parent trunk, there are more serious circumstances likely to accrue, which may have an influence in bringing about a fatal result, than in the operations I have already treated of. Thus we have found that the mere shock of the operation will carry off the patient who has been cut for stone, or has had his abdominal cavity opened for the relief of a strangulated portion of intestine; but when a great part of the body is suddenly severed by the knife of the surgeon, this fatal collapse, especially under certain circumstances, is more easily produced. The very idea beforehand of losing an important member, the sudden taking away of a considerable portion of the body, the bleeding during the operation, and the sometimes vast amount of disease or injury requiring it, must, when combined, have a tremendous effect upon the frame: consequently the majority of severe amputations are followed by a more marked state of collapse, which will in many cases carry the patient to the grave. But it is more particularly when an amputation has been performed for some severe and recent injury—as a compound fracture, spreading gangrene, or secondary hemorrhage—that a fatal collapse is brought about. If a compound fracture, the system has already experienced a heavy shock; from the danger of which, to relieve the patient, the surgeon, in many cases, has the only resource in amputating. If mortification of a limb has taken place either suddenly or slowly, the powers of life have already become much depressed, and the vital energies so much lowered that no healthy reaction will occur, and the stimulus of the operation will probably hasten on the death of the sufferer. If the patient has suffered from severe or prolonged secondary hemorrhage, and there be no other resource but amputation, that operation will give but a poor chance of recovery; a further loss of blood will add much to the shock the heart and brain have already sustained; and the patient will be in a still less favourable condition to bear so severe an operation. The first of the six fatal cases is an example of death by collapse after amputation, on a patient whose system was already terribly shaken by one of these mentioned injuries.

The patient was an elderly man who had received an awful compound fracture of the thigh, in consequence of the passage of a heavy cart-wheel across it. The fracture had extensively involved the knee-joint; and, therefore, there was no hope but in amputating. The poor man was exhausted, much shaken by the accident, and the operation was, therefore, not performed until eight hours had elapsed. He bore the operation well, but, like too many of these cases, the proceeding was useless: he sank in a very few hours afterwards.

It is much more rarely that the shock of the operation destroys a patient who has been lingering for some time under a chronic affection of a joint. The system becomes accustomed gradually, as it were, to the irritation of the disease, and does not feel so acutely the effects of the operation, as when it is suddenly shaken by recent injury, as a compound fracture. It is the circumstance of the two shocks suddenly following each other that destroys the patient in such a case I have mentioned; and it has been a great question amongst military and naval surgeons, as to what is the best period for operating after such accidents. Some say that amputation should be performed immediately, before the patient has time to think of his miserable condition; others, that some hours should elapse before the operation is performed, in order to give the sufferer a chance of recovery from the shock he has sustained by the infliction of the injury. Baron Larrey and Copland Hutchinson held to the former opinion, and acted

upon it with great success. Mr. Guthrie, on the other hand, a great authority—whose experience, however, in such cases was probably not nearly so great as that of the celebrated French surgeon—recommends some delay of a few hours, because he says, there is a great shock to the system, which must be removed by the administration of stimuli.

Mr. Copland Hutchinson says, that the best plan is not to allow the patient time to think about the operation which is to be performed upon him, but to proceed at once whilst he is suffering excruciating agony from the wound, which is much more severe than that caused by the operator's knife, and less easily tolerated.

Secondary hemorrhage is a more frightful cause of death after amputation: it is an accident likely to occur whenever any operation has been performed upon an artery, more especially when the vessel has been divided by the surgeon's knife, and a ligature has been subsequently placed upon it. If it takes place from the main trunk, it is likely to cause death in a short time; but, if the bleeding come from a branch, the result may not be so severe. One of the cases I have noticed presents a very melancholy instance of death from this source; I shall mention the case more fully, as it was the severest I have ever witnessed, both in regard to the accident which necessitated the amputation, and the subsequent effect which produced death.

The subject of the case was a healthy young man, who, in attending to a machine composed of two circular rollers for crushing bark, had the misfortune to get his right arm entangled and rapidly drawn in as far as the shoulder. I was called to him whilst he was in this position, and from the nature of the machinery I found it was impossible to extricate him in any other way but by severing the arm, which was frightfully mangled, from the body. I accomplished this by means of a small pocket-knife alone, as the bone was broken; no hemorrhage had taken place. On his being conveyed to King's College Hospital, it was found that what remained of his arm was so dreadfully mangled that it was necessary to remove it at the shoulder-joint. This Mr. Ferguson accomplished with little bleeding. From the severe nature of the accident, and the operation combined, it might be a question whether the patient would rally; but he was a healthy, temperate man, and he suffered comparatively little. The skin was so much torn that hardly any could be found to make a flap, and, consequently, the tied axillary artery could be easily seen exposed and pulsating at the bottom of the large wound. Matters, however, went on favourably, and it was expected he would do well—Mr. Ferguson, however, cautioning me to look carefully after the artery which appeared so much in danger. A slight attack of erysipelas appeared in a few days, and some sloughing of the surface of the wound followed.

On the tenth day a tremendous bleeding suddenly took place, almost annihilating the patient; and this must have been the case had I not been at the door of the ward at the time. I stopped the bleeding, and a ligature was immediately placed higher up on the artery. He rallied considerably from this accident; but sixteen hours afterwards, in the middle of the night, another tremendous gush of blood took place, and the man's life was only saved this time by the presence of mind of a patient in the ward, who, having seen me place my finger on the artery the day before, jumped out of bed on the alarm being given, and stopped further bleeding. It was a question now what was to be done—where the ligature should be applied. The man, however, was so much exhausted, and the artery, higher up, appeared to my colleague, Mr. Brinton, and myself, to be healthy enough to warrant our putting on another ligature there; this was accordingly done; the poor fellow again rallied in a wonderful manner, but within eight hours the bleeding suddenly recurred and carried the patient off.

Pondering since on this melancholy case, the

question has often arisen in my mind, whether the patient's life would have been saved, had the subclavian been cut down upon and tied at the time the second bleeding took place? It ought, perhaps, to have been done; the blame, however, if there was any, I am free to confess rested with me alone, as in such an emergency I chose to act entirely on my own responsibility.

Secondary hemorrhage takes place at different periods, and from various parts of the vessel; the blood will either come from the main trunk suddenly and with such impetuosity (as in the above case), that the patient will soon be carried off; or, on the other hand, a branch may bleed, or ulceration will take place at the seat of ligature, on one side only of the main vessel, and consequently the bleeding would be less fierce, and will give the surgeon more time to think what proceeding should be adopted. Secondary hemorrhage after amputation may occur in consequence of the vessel being laid open by some foreign body, such as a splinter of bone, or a piece of wood. Thus, Dr. Dewar relates the case of a man whose arm was amputated at the shoulder-joint, at the battle of Algiers. The ligature came away from the subclavian artery safely on the fourteenth day. On the twenty-seventh, hemorrhage came on; the vessel was cut down upon, and the edge of the knife used came in contact with a sharp splinter of bone, which had caused ulceration of the vessel, and consequent bleeding.

Another most frequent cause of death after amputation is irritative fever produced by the formation of secondary abscesses. Two of the patients who underwent amputation of the leg died from this cause. The first case was that of a healthy man, whose leg was amputated for disease of the tarsus. At the time of the operation there were the remains of some erysipelatous inflammation about his leg. This man went on very well for some days, but a change took place; he got fever, and an erysipelatous blush appeared about the stump. The veins of the limb became inflamed, and death took place after a few days. On *post-mortem* examination, the saphena and femoral veins were found to contain pus, and there were circumscribed abscesses in the lungs, and collections of matter in the pleura.

In the other case, the leg was amputated for a chronic disease of the tarsus, and the patient was a strong country lad. The symptoms after the operation were never favourable, and they caused great anxiety about the result. Fever of a low, irritative character set in, emaciation became extreme, inflammation of the veins of the thigh came on, and, although this was considerably subdued by the remedies pursued, other more serious symptoms set in. Destructive inflammation of the eye came on, and rapidly destroyed vision; subsequently, symptoms of pleuritis appeared, and with these he died. Unfortunately, no *post-mortem* examination could be obtained. We see then, in these two cases, another serious cause of death after amputation, namely, irritative fever and secondary suppuration. Under the same head I place phlebitis: for I believe that, as in these two cases, where secondary destructive inflammation is produced, the veins will be found more or less affected. These are accidents which may and do occur after any operation; but it is more particularly after an amputation that these results take place. A large surface is cut and exposed; the bloodvessels are exposed to the air, and other irritating agents; and foul dressings, it is to be feared, are too often allowed to remain on the stump, and the decomposed products become absorbed; and if the patient is lying in a hospital, perhaps much crowded, and the air not of the purest description, it is not very difficult to understand how such affections are produced.

This is an interesting subject, as it treats of a cause of death after operations which may be in a great measure removed—in fact, it has been partly removed. It is not so frequent now-days as in the times when surgeons were in the habit of dressing stumps with all sorts of things,

in the fear that they might take cold. The very light and easy dressings that are now in use, and their not being too early or too frequently disturbed after the operation, render the occurrence of inflammation of the veins of much less frequency; at the same time it is an accident always liable to occur, especially in a hospital, and if there is any erysipelas about the place.

There is yet another cause for a fatal event after amputation, namely, delirium, or what may be more accurately called traumatic delirium, a very interesting instance of which took place in one of the fatal cases I have mentioned. The patient was a middle-aged man, who had suffered a severe compound fracture of the leg, just above the ankle. The broken tibia was protruding in such a manner through the wound that I was unable to reduce the fracture. Mr. Fergusson found it necessary to saw off this protruding part of the tibia, and determined to attempt saving the limb. This poor man was, unfortunately, of a very nervous temperament; he had at an early period of his life been in better circumstances, and latterly had sustained some severe pecuniary losses; this, as I learned from his wife, had preyed greatly on his mind. He became irritable and anxious under treatment, and proved the most troublesome patient I ever had to do with. There was great spasmodic action of the muscles of the limb, frequently causing displacement of the bone. To make matters worse, secondary hemorrhage came on, and then delirium of the worst character; with great care, however, and by means of large doses of opium, this symptom was overcome; but it returned again, and the local and constitutional disorders were so severe that amputation was advised; but at first he would not submit, and his symptoms became aggravated. At last the operation was performed, and the case went on admirably for a few days; but on the sixth day, watching this case as I did with the utmost anxiety, I noticed that the tongue had become dry, and the pulse was quickened. I knew what was coming: delirium again set in, those remedies which had in the previous attacks been so useful were now powerless, and he sank exhausted.

This dangerous condition is not only liable to supervene after amputations, but it is a consequence more generally, perhaps, of severe accidental wounds, as compound fracture and punctured wounds, and it occurs more frequently in those who are in some way or other predisposed to it. In fact, it is nothing but delirium tremens set up by some depressing shock to the system. It is one of those links in the chain of nervous disorders which prove after amputation so troublesome to the surgeon and fatal to the patient. The brain, irritated either by alcohol or care, will suffer in the same manner after any severe operation or injury; and the effects of this disordered condition of the organ will appear in the shape of delirium, spasmodic action of muscles, and even tetanus. We sometimes see these unlucky results take place after severe operations or injuries, even when there is no apparent predisposing cause for them; but under the circumstances I have mentioned there is a greater likelihood of their coming on. It behoves, then, the surgeon who has to perform an operation in such a case, narrowly to watch for the first symptoms of a disorder which, at least, will cause him great trouble, if it does not destroy his patient.

I have now finished my remarks on this very important subject; having attempted to point out the various dangers which may beset the surgeon in the employment of his art, and the causes of those unfortunate accidents which are always liable to occur when such formidable operations as I have been reviewing shall be undertaken. Surgery has, happily, now become divested of many of the horrors and dangers which were the necessary attendants upon it in the days when it was deemed to be a mere handicraft, and not thought worthy of the name of a science; and, with the means of alleviating pain which the surgeon now possesses, a sur-

gical operation, as regards its actual infliction on the patient, is looked upon without dread; but yet the consequences of the proceeding are the chief cause of the surgeon's anxiety, for he cannot foretell what may happen, and he knows that dangers are to be feared. An accurate study, however, of these accidents, and an investigation into their causes, will render them less likely to happen, and less fearful in their consequences if they should take place; moreover, it will simplify surgery still further, as it always has done: because, in order to avoid dangers and ensure a safer result, the surgeon will find out safer and less complicated methods of performing operations; it is thus that one of the greatest improvements in operative surgery was brought about, namely, the operation for aneurism: for (to use the words of Mr. Samuel Cooper), "In the practice of surgery, whenever operations proved inadequate to their intention, Mr. Hunter always investigated, with uncommon zeal, the causes of ill success; and in this way he detected many fallacies, as well as made some important discoveries, in the healing art." It is only by the observation of facts and the study of causes that remedies can be found: a wise traveller, about to enter upon a dangerous and difficult journey, endeavours to find out the perils and impediments which may meet him, and, in as far as it is in his power, to provide against them. Thus, also, the surgeon who regards his profession as a science, and wishes to do his duty to his charge, endeavours to find out the dangers which he may meet with in the performance of that duty; by this means he gains art; he is able, in a great measure, to control them, and if he cannot do this, he is not taken unprepared should any unfortunate result happen.

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ON RHEUMATISM, AND ITS OCCASIONAL CONNECTION WITH CHOREA ST. VITI.

By B. PEACOCK, M.D., Darlington.

The complex nature of rheumatism is sufficiently proved by the opposite modes of treatment which the first practitioners of the day have from time to time respectively advocated. Some, as Sydenham, regarding it as a purely inflammatory disease, and to be cured by a simply antiphlogistic treatment; others considering it as a nervous disease, for which quinine, opium, &c., are, even in the acute form, the most appropriate remedies. That it is sometimes, both in its acute and chronic forms, connected with a disease usually considered purely nervous, viz., chorea, I am convinced from cases occurring in my own practice. Other practitioners may, in all probability, have made similar observations, although I cannot at present call to mind any records to that effect. If any such exist I should be glad to have them pointed out to me, as I believe, if the connection betwixt chorea and rheumatism can be established as a fact of even rare occurrence, its practical bearing will not be unimportant.

The first case I have to mention is of a girl, aged twelve. When called in, the symptoms were simply those of febrile excitement, for which saline purgatives were given two days successively. On the third day there was decided chorea with slight fever. I gave her a mixture, with Fowler's arsenical solution and Tr. opii. (three drops of the first and five of the latter for a dose) every six hours. This she took regularly for two days; on the third the chorea subsided, and well-marked rheumatic symptoms, swelling and pain of the joints, and increase of fever, came on. She had then Dover's powder in sudorific doses every four hours, with occasional purges. In a week from that time the pain had nearly left her, and she soon recovered without any relapse.

CASE II.—A girl, about nine years of age. On March 7, 1848, feverish symptoms, for which calomel purges and saline mixture with vin. antim. were given. 8th, ditto. 9th, every symptom of acute rheumatism. Dover's powder,

with a mixture containing vin. colchici, to the 26th, when the rheumatism subsided and chorea immediately supervened. For this, pills, with bismuth and an arsenical mixture, to the 8th of April, when the chorea began to abate. Quinine was then given to April 14, when the chorea having disappeared, the rheumatism in a sub-acute form again came on; the joints swollen and very painful, but not much fever. The quinine was continued, and Dover's powder, twice or three times a day, added to the treatment: this was pursued without change to May 13, when palpitation of the heart, soon followed by oedema of the extremities, became the prominent symptom, for which diuretics in various forms were given, but without effect, and the case was eventually removed from under my observation apparently in a hopeless condition.

CASE III.—I did not see this at the commencement: the subject was a farmer's boy, aged fourteen. From the account which his friends gave, it appears he had had acute rheumatism about two months before; it had now passed into the chronic form; there was no fever, but great pain in the joints, especially the ankles, which were not swollen; general debility, want of sleep, &c. A mixture, with hydriodate of potash, ter die, and 10 gr. Dover's powder hor. somni., gave immediate relief, and was continued for some weeks, when a very urgent message came for me to visit him; he was some miles distant, and I was unable to attend immediately. On my arrival I found the boy's friends and neighbours in great alarm and perplexity about him, he having been, as they said, quite suddenly attacked in a most strange way, and, as it appeared to them, he was "going out of his head." On entering the house, I found him in the most complete state of chorea I ever saw, both sides being apparently equally affected; he had an anxious and frightened expression, and gave short and confused answers. This, with the strange antics which the disease occasioned, had, no doubt, impressed the good people with the idea that he was deranged. I ordered him a pretty strong arsenical mixture every six hours, with a dose of calomel and opium at bedtime. On the following day, I was glad to find the violence of the chorea had almost immediately subsided after beginning with the medicine. The disease, however, continued very obstinate, and had to be treated with arsenic and sometimes quinine for upwards of two months.

In the first of these cases we have chorea with fever ushering in acute rheumatism.

In the second, a well-marked case of rheumatic fever, ending in heart disease and dropsy, and in the very midst of it an attack of chorea, continuing upwards of a fortnight, during which time the rheumatism was, as it were, in abeyance.

In the third case we have chorea supervening on chronic rheumatism.

The practical conclusions which I draw from the connection betwixt these two diseases are sufficiently obvious.

In obstinate cases of rheumatism, either acute or chronic, when in the first state, bleeding, colchicum, calomel, and Dover's powder seem ineffective; and in the second form, when turpentine, sulphureous waters, baths, &c., seem also likely to fail, might not a trial of arsenic, bismuth, iron, &c., the means usually relied on in chorea, be advisable, even although no symptoms of chorea are then presented? and, on the other hand, might not the usual treatment of rheumatism, colchicum, Dover's powder, baths, &c., be substituted for the routine of tonics and aloetic purges, in certain intractable forms of chorea? I remember only one case of chorea terminating fatally, which was treated throughout on the tonic and aperient plan: the subject, a girl, about twelve years of age. The convulsive movements went on regularly increasing in severity, until her strength seemed to be worn out; and, although opiates were given pretty freely towards the termination, I am inclined to think, if they had been employed earlier, along with other sudorifics, she might have recovered.

OBSERVATIONS ON THE NATIVES OF THE THREE KINGDOMS OF AMBRIZ, AMBRIZETTE, AND MUSULA, SOUTHWARD OF THE RIVER CONGO, WEST AFRICA.

By W. F. DANIELL, Esq., M.R.C.S.

(Read before the Ethnological Society, November 12.)

From the slight and meagre information we possess respecting most of the countries in South-western Africa, and the restricted commercial intercourse carried on by the English merchants, this part of the African continent appears to have created but little interest or regard in this country. It is now, however, indubitably well understood that, in many of the fertile regions of the interior, no paucity exists in any of those vegetable and mineral productions which have hitherto been deemed the most valuable in other portions of the globe; and it only requires a thorough investigation into the merits of this subject to prove that a commerce, once firmly established and judiciously fostered, cannot fail to become lucrative to its promoters, and would ultimately tend to the advancement and prosperity of the mercantile interests of Great Britain.

In the present paper, prior to any consideration of the general characteristics of these races, it will suffice to merely advert to the geographical position, boundaries, and relative situations of these kingdoms, and also to point out a few of those topographical distinctions which in tropical climates exert such a dominant influence on the habits and physical conformation of man. The maritime territory to which I shall now direct your attention embraces a tract of coast above 130 miles in length, extending from Cape Padron, the south-western point of the river Congo, in lat. 6° 30' S., and long. 12° 13' 53" E., as far as the Rio Dandé, the stream that bounds the northern limits of the Portuguese possessions in Angola, the embouchure of which is situated in lat. 8° 29' 0" S., and long. 46° 9' 23" E.

The kingdom of Ambrizette, the least influential of the three, is partly located in the province of Sonkio, or Sogno, which comprises all that country from the Rio Zayre, or Congo, to the river Ambrizette, or Birigi, above sixty miles in a direct line from north to south, and stretching nearly the same distance inland from west to east. Although now subdivided into a series of petty states, each affecting to maintain a certain isolated independency, they are nevertheless more or less tributary or subservient to those commercial towns that lie within the coastal districts. Within comparatively recent times the Songhese, by their bravery and warlike opposition, preserved their freedom from the constantly threatened subjection of its more powerful neighbour, the great Congo empire, of which it formerly comprised a portion, and successfully resisted all the artifices and encroachments of the Portuguese adventurers, who, by the aid of missionaries and mercantile establishments, endeavored to subvert and reduce its government under their authority as an immediate dependency on the province of Angola. Their sordid ambition, however, with an inordinate desire for the accumulation of wealth, proved in the issue an insuperable bar to the accomplishment of their schemes, and it required no great efforts on the part of the aborigines, after a few well-fought battles, to finally expel them from a land which teemed with all the requisites that could administer to their cupidity and love of conquest.

From the memoirs of the Capuchin missionaries, who first settled here in the seventeenth century, an insight into its early history, laws, productions, and customs may be readily obtained, and which possess in a great degree all the essential verifications of faithful observation and elaborate reflection.

The town of Ambrizette lies deep in the centre of a moderate-sized bay, between thirty and forty miles to the northward of Ambriz. In the maps and charts it is usually marked as the town and bay of Juma or Yuma; but this title, upon due

inquiry, does not appear to be known to either the white traders or natives of Ambriz—its former name being that by which it is generally understood. This metropolis derives its appellation from that of the circumjacent country, and is divided into two continuous portions, both of which are erected on the elevated table-hills that skirt the beach. In front of them stand the commercial establishments of the English and Americans, and a short distance to rearward may be observed the slave barracoons of the Portuguese. The number of its inhabitants is but trifling, and seldom amounts to more than three thousand. The exports procurable are chiefly gums (copal, and a coarse dark species of gum arabic), copper ore, redwood, and slaves. A remarkable feature in its local government is, that the sovereign powers are vested in a queen, who, by means of her Mafukas or ministers, apparently exercises the regal functions much to the satisfaction of her subjects. The circumstance has been considered to be somewhat rare in this division of Africa, since women are generally held in such low estimation as to be compelled to perform all the drudgeries and hardships that should fall to the share of man. This, however, is not a solitary exception, for instances are on record where several of the interior kingdoms of the Congo have rapidly increased in rank and importance under the wise and able policy of their respective queens.

The natives of Ambrizette are much inferior to, and have not attained that degree of civilization as, the tribes more to the southward, owing, probably, to their circumscribed European intercourse, and the demoralizing effects of an extensive slave traffic.

Betraying thus a contemptuous indifference to the more enlightened usages of the white residents, and being less influenced by those pecuniary advantages that would necessarily ensue from the reciprocal interchange of commodities with a superior race of men, they consequently lose by their apathy in not cultivating those good feelings and interests which impose upon each party obligations that cannot fail of eventually proving lucrative to both. Hence they revert to the opposite extremes, and partake of those despicable vices and barbarities that degrade them to the rank of the least-civilized grades of humanity. Their character, therefore, has become so notorious as to excite no slight apprehension and vigilance on the part of the trader; while their treachery, brutalized habits, revengeful dispositions, and repeated acts of roguery, inspire him with that distrust and caution never reconcilable with those friendly relations and that true faith which, in preference to all other motives, ought to constitute the bond of union in every commercial transaction with the native Africans.

As the customs and physical traits of the inhabitants of Ambrizette furnish but trivial deviations from those of Ambriz, the narrative of them may with propriety be deferred until the delineation of the latter comes more especially under consideration.

The outline of these regions affords to the observer a succession of beautiful and picturesque landscapes, swelling into park-like undulations and gentle eminences crowned by thickets and clumps of trees, and again sloping into fertile vales and deep ravines clothed with a luxuriant pasturage and the splendid vegetation of the tropics; with these ever and anon are mingled detached rocks, and massive fragments of granite, sterile hills, and other bleak tokens of the aridity of the soil, that on the whole offer a peculiar contrast to the more densely-wooded districts that fringe the Congo. Numerous small towns and villages that lie scattered around in various localities satisfactorily attest a flourishing population and abundant internal resources, while well-frequented roads and less public by-paths prominently display their natural character and avocations in the multitudinous trading communications which they carry on with the adjacent nations. Before I quit this preliminary topic, it may be advisable to briefly

note two of the frontier towns of this kingdom. The first of which, termed Kayumbah, is built near the point of Kinnada, the northern extremity of the river Ambriz, and is the grand mart for European manufactures and native merchandise of the interior; the other, entitled Mussolongo, is a miserable fishing village, situated at no great distance from the river Lelando, which has acquired some notoriety from its becoming one of the ordinary shipping ports of the Portuguese slave-factors. This river may be estimated to be the northern, as the Rio Ambriz is the southern, terminus of the territories of Ambrizette.

The state of Ambriz, although comparatively insignificant in magnitude to either Musula or Ambrizette, is, nevertheless, in other points of view, far more important and interesting to the speculating voyager; occupying a more exalted and dignified position from the circumstance of its commanding a vast influx of indigenous products, brought from the most remote provinces of the Congo, it can by the greater diversity and value of these articles always attract and secure a permanent connection with the foreign trader, and thus possess a decided supremacy in its markets, which would render nugatory, if not futile, any attempt at competition on the part of its less prosperous neighbours. Independently of these facts, a partial proficiency has been made towards the adoption of a few of those friendly social customs of Europeans, manifested by a certain amenity of deportment, with less of that habitual audacity and jealousy of disposition which characterize the majority of the savage nations that originally composed the more turbulent masses of the powerful Congolese empire.

This country commences at the river Ambriz, which forms its northern boundary, and extends to the south as far as the Rio Losé, about ten miles distant by the route along the seacoast. This latter stream, or rather its bed (for it is barely discoverable in the dry season, owing to the excessive aridity of the climate), also marks the frontier of the districts of Musula. On the east and south-east, the mountain of Mongo Sungho, and part of the course of the Rio Ambriz, with the seven hills of Musula Grande, are the natural barriers to its continuity with the inland regions, while the fruitful lowlands of Musula still further restrict its limits to the southward. The circumscribed tract of land thus comprehended within these territorial distinctions is, however, very thickly populated—a circumstance which, in many respects, will answer as an equivalent fully commensurate to the drawback.

Ambriz originally constituted an integral fifth of the opulent principality of Bamba, being distinguished from the other minor subdivisions by the name of Quitungo. Its chief held the high rank of a duke, and was partly under the jurisdiction of, and tributary to, the Mani-Bamba, or sovereign governor of the whole, who, in general, was some eminent personage belonging to the royal family. When the ancient kingdom of Congo existed in its primitive integrity, Bamba was valued as the key, or essential stronghold of its immense possessions, not only in consideration of its central position, but from the large armies that could be readily levied from a warlike and courageous people, who were greatly dreaded by the Ambundas and other proximate tribes for their predatory incursions.

From the accredited statements early promulgated by the missionary travellers, it appears they were endowed at that period with a strong, athletic, and well-moulded form, combined with great muscular vigour and activity, which rendered them capable of sustaining the heavy fatigues incidental to their protracted expeditions. Their weapons consisted of bows and arrows, spears, &c., with shields, and long, heavy swords of European manufacture, introduced, doubtless, by the Portuguese as one of the articles of traffic for the purchase of slaves, of which they annually exported several thousands to their Brazilian and other recently-established colonies. The viceroy resided at a large town nearly equi-

distant from the metropolitan city of St. Salvador and the seacoast, the latter being more than one hundred miles apart. Here he maintained, with appropriate ceremonies, his court, which might be said to vie almost in magnificence and grandeur with that of his liege suzerain.

According to oral tradition, and the modern testimony of the inhabitants of Ambriz, after the dismemberment and final dissolution of the seven principalities that comprised the supreme monarchy of the Congo, during the confusion and anarchy that subsequently resulted, their country was invaded by a Portuguese army, who rapidly reduced it under subjugation, and erected a number of fortresses on various eligible sites, by which they could overawe and keep under the necessary surveillance any of their subjects who were inclined to prove refractory. The tyranny and exactions of the invaders at length became so odious as to be insupportable; and under a guerilla system of warfare, resorted to by the natives, the extermination of the Portuguese progressively proceeded, while the garrisons, thinned by disease and death, gradually deserted their posts, which, as they fell into the possession of their enemies, were forthwith razed to the ground. The last fort, which had long and successfully withstood the attacks of the natives, was built on the mountain of Mungo Sungho, adjoining the Rio Ambriz, and was well garrisoned and abundantly supplied with stores. Fortunately, at this emergency, an English slave-ship anchored in the roadstead, the captain of which, upon consultation, advised them to wait until the termination of the sickly season, when the Portuguese, dispirited and reduced by the debility resulting from the endemic maladies of the locality, could offer but a faint resistance. In adherence to these views, a native force, united with a body of white men, landed from the vessel on the first propitious night, and easily surprised and stormed the fortress without the occurrence of a single casualty. From the date of its demolition to the present period, this kingdom has uninterruptedly enjoyed its liberties without molestation, under the more tolerant government of kings selected from among the higher class of chiefs.

A bold and conspicuous promontory of a moderate elevation, with its summits embellished by groups of lofty cacti and a dense undergrowth of brushwood, is, from its somewhat solitary appearance, distinctly recognised as the Point of Ambriz. Scientific observations have placed it in lat. $7^{\circ} 51' S.$, and long. $13^{\circ} 6' E.$ On the continuous hilly crest that trends from it to the southward, and facing the sea, are the factories of the European and other traders, consisting of three English and one American, engaged in a legitimate commerce; and five Portuguese, Brazilian, and French, carrying on a lucrative business in the exportation of slaves. These habitations have been erroneously taken for the portion of a negro town; such, however, are located deeper in land, and are not visible from the point, being enveloped by the umbrageous foliage of the wooded slopes. The title by which this country is designated in the native language is Quatungo, Katungo, or Quating. There are also other appellations, I believe, employed by the surrounding nations, but they are not much in vogue. The chief town is named Kincolo; but Kimpanzah, being the one in which king resides, although considerably less in size, nevertheless, assumes the privilege being considered the metropolis of these petty dominions.

The inhabitants of both Ambriz and Musula, though closely allied in physical formation, language, and other national peculiarities to the tribes resident on the banks of the Congo, yet offer some distinctive features that apparently incline to establish their connection with other races whose external attributes are not altogether in conformity with those derived from a more primitive source. There can, however, be no difficulty in assigning the primary origin of the various tribes which occupy the lowland regions placed in the vicinity of some great river, such

as the Congo, which, penetrating an immense distance inland, may be supposed to furnish the ordinary means by which the tidal efflux of population had gradually approached the seacoast. Admitting this explanation to be correct, under the general circumstances of the case, still there are other causes which subsequently tend to create a material modification in those physical characters that exist as the typical illustrations of the numerous negro communities, by which we more clearly define their relative affinity and early origin. Thus, the assimilation of one black race with another may be imperceptibly effected, either by subjugation and consequent colonization, by the liberation and adoption of slaves of foreign extraction, and by intermarriages with distant nomadic tribes. Experience, however, has abundantly shown that, irrespective of those peculiar deviations from an aboriginal standard, the physical elevation or degeneration of different races is, in a great measure, dependent upon the nature and local condition of the country which they inhabit. An analytic investigation into the structural outlines of the natives of Ambriz will point out to an intelligent observer, unequivocal proofs of a dissimilarity from those tribes which have conjointly descended with them from one common parentage. This is well exemplified by that uniformity of organization which yet prevails among the negroes of certain districts in the Lower Congo, who, in consequence of endemic influences, and a less intermixture with other tribes, may be taken as the true typical conformation of the black races in this portion of Western Africa.

Bearing in remembrance the preceding introductory remarks, in reference to those agencies that regulate the development of the human frame under various aspects, I shall now proceed to the delineation of the exterior characteristics of the Ambriz negroes, and the examination of that heterogeneous origin from which they appear to have emanated. Unfortunately, the greatest obstacle to the attainment of this object is the scanty information we possess respecting the customs, localities, &c., of the nine remote inland nations, with whom may be traced a greater or less personal affinity. But it is equally necessary to observe that any precise description of a race of people, which claim their descent, not from one, but a number of sources, must become a matter of no easy accomplishment, particularly if viewed in connection with the present subject, since the regions intermediate between those inhabited by the Congoese to the north, and the Ambundas to the south, with the mingled Kafir tribes to the east, are, in fact, a kind of "debatable land," populated by a variety of offshoots, blended into one national community. In support of these remarks, I shall first enter into a brief detail of those physical differences that constitute the data upon which the succeeding observations are founded; and, secondly, endeavour to describe, as far as my limited resources will permit, those modifications of form which naturally ensue, when branches of various tribes are incorporated under one general denomination.

The most obvious indications of the derivation of the Ambriz people may be simply referred to four separate divisions, viz. :—

1. From the primitive Congoese tribes.
2. From the Anzichi or Bowman tribes.
3. From the Ziagas or other nomadic tribes of the interior.
4. From the Ambundas or inhabitants of Angola.

The physical distinctions of the primitive Congoese are represented by a dark or jet black colour of the skin and complexion, crisp woolly hair, large black eyes, and a countenance whose smallness of features are but moderately impressed with the ordinary negro stamp of thick lips, flat expanded nose, and a low depressed forehead. That placidity of mien, with a harmonious softness or quietude of features, which engenders a pensive and somewhat melancholic expression, almost analogous to the subdued air of dejection

that pervades the physiognomy of the Eboe and other tribes to the northward of the equator, may be more or less recognised among the natives of the Congo. This peculiarity, however, is frequently redeemed by the bright and lively lustre of the eyes, when animated by any unusual emotions. Their stature and development of frame, as contrasted with the majority of the negro tribes in Northern Africa, present a rather diminutive and effeminate appearance; nor is there that aspect of dignity, symmetrical roundness of form, blended with the firm muscular organization so commonly observed among the former races, displayed to any extent among the latter; while, in intellectual endowments, their inferiority is so decidedly manifest as barely to admit the claim of comparison.

It must, however, be taken into consideration that these observations are only applicable to a limited sphere, and require to be somewhat qualified before they can properly appertain to the same native tribes inhabiting the hilly regions adjoining the town of Embomma, or in those villages situated on the banks of the Congo, above the first and succeeding falls of the river. Here the dark hue, and rough dirty aspect of the skin, become less conspicuous, and in their place we observe a more delicate cutaneous tegument comprising the different gradations of yellow, bronze, and deep-brown tints—a diversity of colours that would seem to indicate a modification or change of structure, apparently resulting more from the amalgamation of other distinct races than the ordinary influences of the locality. The countenance in many instances, especially among the females, assumes a more interesting and pleasing character from the softened expression of the features, which is heightened in effect by the more open and unreserved exposition of the feelings, than in the repressed and vindictive dormant passions personified by the harsh and unpleasant negro regularities of faces predominant among the inferior tribes resident amid the swamps near the embouchure of the Congo. These physical traits, in combination with an air of inferior intelligence and corresponding outline of form, almost tend to reveal a line of demarcation between various communities of a common origin inhabiting the same river, but severed from one another only by the peculiar endemic agencies of situation, soil, and elevated position. In our delineations of aboriginal tribes one important error must always be avoided, viz., that of confounding the irregular changes in the colour of the skin, which arise from a hereditary or natural predisposition, with those that simply proceed from an intermixture with other races of a distinct family.

OBSERVATIONS ON THE USE OF THE PERCHLORIDE OF FORMYLE.

By H. HAYNES WALTON, Esq.,
Surgeon to the Central London Ophthalmic Hospital, &c. &c.

I hasten to make public the result of my trials of the newly-discovered anæsthetic agent, chloroform, or perchloride of formyle, which I have used this day in three cases for surgical purposes.

As far as I can judge, I greatly prefer it to ether. I have confirmed most of the results of the experiments performed with it by its talented discoverer. I have used it as Dr. Simpson recommends, "a little of the liquid being diffused on a handkerchief held on the patient's mouth and nostrils." In my operations I was assisted by my kind friend, Mr. McClure, and my pupil, Mr. Nurse.

The first case was that of a female, aged forty-five, with external hemorrhoids. Six ligatures were applied for their strangulation. It is useless for me to comment upon the pain with which this operation is attended; it is obvious that it was one well calculated to test the success of this agent in deadening pain. The patient was weak, hysterical, and rather emaciated. About 3j. of the chloroform poured on the handkerchief was placed over her

mouth and nostrils. She inhaled it freely and easily, without experiencing any unpleasant sensation. In two minutes and ten seconds she was wholly insensible, when the handkerchief was removed. The voluntary muscles became quite relaxed, the pupils dilated, and quite insensible to light; her circulation was quickened. She remained for fifteen minutes under its influence. Just before she recovered, her circulation became still more rapid, being 160 in the minute, and very feeble. No stimulant was used to rouse her; she expressed entire immunity from pain, and was not aware that anything had been done to her.

Second case, a female, aged twenty-six, a stout, healthy woman, with polypi in the right nasal cavity. 3 ss. of the chloroform was inhaled by the mouth; she became insensible in a minute and a half. Unlike the foregoing patient, there was not any relaxation of muscle, but a rigidity as if in spasm. She became sensible in ten minutes. Her circulation also was increased. She was quite unconscious that the polypi had been removed.

The third case was a scrofulous child, aged five years, whose right nasal duct had been obstructed for two years, and in whom, also, there was true fistula lachrymalis. Twenty drops were given. He became insensible in about one minute; his muscles were quite relaxed. He remained under the influence about six minutes, during which time a style was passed into the nasal duct. The little fellow walked away immediately after his recovery in a laughing mood, and saying we had not hurt him; of his own accord he shook hands with all the bystanders.

Remarks.—It is impossible to speak with accuracy—from the manner in which the chloroform was inhaled—of the exact quantity required to render a patient unconscious: for doubtless, a great deal of it evaporated through the handkerchief, probably one-half that was used. Compared with ether its effect is more sudden, lasts longer, and is very much less unpleasant to inhale; being more portable and easier of exhibition are great advantages. When consciousness does return, the complete recovery of the patient is decidedly quicker than when ether is used. I think that it is peculiarly adapted for children, in whom the administration of ether was often a troublesome process. I shall gladly avail myself of the new agent in a few days, when I shall have to remove a very large tumour from beneath the lower jaw. I am certain that the patient, a very nervous and irritable female, would require a great deal of persuasion to induce her to inhale ether; but the less objectionable chloroform will probably be administered without trouble.

I had expected to report a few more cases, that my friend Mr. Greenhalgh had requested me to operate on, but that gentleman having been called away from town, the operations must be delayed.

13, Bernard-street, Russell-square, Nov. 22.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF MEDICINE.

Meeting of Nov. 6; M. BEGIN in the Chair.

INSTRUCTIONS DELIVERED TO THE SANITARY PHYSICIANS IN THE LEVANT—(continued).

Sect. III. The medical certificate.

10. The certificate shall be established upon the sanitary state of the country, the hygienic condition of the vessel homeward bound, and the state of health of the crew and passengers. It shall be terminated by a clear conclusion for a clean or foul bill of health.

Sect. IV. The books.

11. When the sanitary physician shall have been exposed to infection, and will for that reason have abstained from going on board, the certificate of the physician of the ship, or of a practitioner of the neighbourhood, shall be annexed to that of the sanitary physician, stating

the existence of the epidemic, and demanding the delivery of a foul bill of health.

12. In order that authenticated and precise documents may be always at hand, several books shall be carefully kept by each sanitary physician, and shall be signed by the resident consul. These books shall be three in number. The first shall contain a copy of certificates delivered, informations as complete as possible on the sanitary condition of the French or foreign ships outward bound, the results of the investigations in the city and its hospitals, and a statistical table of births and deaths. The second shall contain a copy of all the reports forwarded to the Minister of Agriculture and Commerce, or to the authorities; and also of the orders, instructions or other official documents received. The third shall be destined to the correspondence with the other sanitary physicians.

Sect. V. Correspondence with the Minister.

13. The sanitary physicians shall forward to the Minister a monthly account of the certificates delivered, a report on the state of public health during the preceding month, and every year a very detailed report on the same subject.

14. These annual reports shall be communicated to the Academy of Medicine, who shall draw up a general "résumé," in which the important facts and their consequences shall be clearly brought forward.

15. Should the consuls of other nations require the assistance of the French sanitary physicians, their demand shall be acceded to; all the forms prescribed in the three first sections of these instructions being complied with.

The second part of the instructions, referring to the scientific researches prescribed by Government to its medical agents, enters into considerable detail upon the necessity of instituting a minute topographical inquiry into all subjects connected with the soil, its elevation, exposition; the nature, form, and aspect of the dwellings, hospitals, and cemeteries; the quality of its waters, their composition; the state and depth of pits, cisterns, and ponds; the inundations, description of the harbour, &c.; the condition of the atmosphere, its hygrometric, thermometric, and barometric state; the direction and persistency of the winds, &c.; a description of the plants, fruits, and vegetable products of the country; the history of animals and of their diseases;—of the inhabitants, their constitution, functions, professions, diet, habits, government, and religion—each race being isolately considered. A monthly account shall be drawn up of the reigning disorders, with their most interesting peculiarities, &c. With regard to the plague, three points principally shall fix the attention of the observers: sporadic plague, epidemic plague, and the study of the localities where the disorder spontaneously arises. With regard to sporadic plague, cases shall be taken down with the most minute detail, in order to ascertain as correctly as possible the symptoms, progress, duration, treatment, anatomical alterations, and transmissibility of the disease. Should a pestilential epidemic make its appearance, the precise date of the increase of the mortality shall be carefully noted; the symptoms and anatomical characters attentively studied, and all circumstances connected with the first cases minutely enumerated, in order to discover positively if the disease was or was not imported. The mortality and the periods of the epidemic, the age, sex, class, profession of the patients, shall be correctly stated, &c. &c.

These instructions, signed by the eight members of the commission, were adopted by the academy.

Meeting of Nov. 9; M. BEGIN in the Chair.

DISARTICULATION OF THE FEMUR.

Dr. Hénoc, a military surgeon, read a case of which the following is an abstract:—

A soldier, aged twenty-six, had been for three years affected with a voluminous exostosis, occupying the right femur as high as the trochanters. Fistulae, symptomatic abscesses, and hectic fever had made their appearance, and the removal of

the thigh was deemed necessary. On May 25, ethereal inhalation having been first resorted to, the operation was performed. The flap operation was preferred, with an anterior and a posterior flap, the latter being considerably longer than the former. The patient did not experience any pain, and the wound was united by six sutures; primary adhesion took place in the greater part of its extent. The ligatures fell from the 18th to the 44th day, and on the 90th day after the operation, cicatrization was completed. The patient was presented to the academy: the stump was round and muscular; the scar, 22 centimètres (eight inches) in length, was straight, solid, and situated in front in such a position as not interfere with the means of prosthesis employed.

THE SALT MARSHES OF FRANCE—A REPORT BY DR. MÉLIER.

The tax on salt in France is a considerable source of revenue to the Government, indeed, so great as to be entirely out of proportion with the value of the salt itself; the kilogramme of salt, value one centime, paying to the Treasury thirty centimes duty. In England, salt marshes are not now in use, because salt mines and springs furnish salt at a more economical rate. Indeed, the dampness of the climate would constitute an almost insurmountable obstacle to its extraction from sea-water; but it is not so in France, particularly on the coast of the Mediterranean, where that branch of industry has, under the severe inspection of Government, acquired a considerable development. Upwards of 100,000 workmen are employed in the trade; and, in order to ascertain the influence of these marshes upon their health, the Minister of Commerce requested the academy to examine into the matter and to forward a report, which M. Mélier now presented to the meeting.

The academy, said M. Mélier, was consulted only upon the industry of salt marshes, that is, exclusively upon the extraction of salt from sea-water, by spontaneous evaporation on the surface of the soil. The Minister inquired whether such marshes were insalubrious or not, and to what extent the establishment of new ponds might be authorized without danger to public health? In order to answer these questions, M. Mélier thought it necessary to give a description of the marshes which he had visited in all their details. A saline marsh consists merely of a vast surface destined to the evaporation of sea-water; and this surface is divided into a series of compartments in which the water is successively admitted, becoming more and more concentrated, until at last it deposits its salt. The size of the marsh is variable; some extend to several hundred hectares. In general it is more or less elevated above the level of the sea, and the water must be raised by machines; on the ocean, the reverse is observed—the ponds are lower than the shore, and the water naturally flows in by the action of the tide. On the coast of the Mediterranean the whole establishment consists of three parts: the *heaters* (chauffoirs), vast ponds in which the water directly enters from the sea; the *needles* (aiguilles), are narrow canals for the circulation of the waters; and the *tables* are ponds less deep than the first, in which the crystals are finally deposited. During its sojourn in the heaters the water becomes more and more concentrated—a difference which is easily judged of by the use of the areometer; but long before this instrument marks 25°, some of its salts are deposited—the carbonate and sulphate of lime, which are carefully removed, as they might injure the purity of the salt. At 85° the chloride of sodium begins to crystallize, and it is time to bring the water upon the tables. The layer of water (two inches in depth) is daily renewed, the salt being promptly deposited and accumulating progressively from April to September, during the whole course of the summer months. The mother water is daily removed, and M. Balard has succeeded in utilizing it in the following manner:—Besides the salts which we have already mentioned, sea-water contains also sulphate of magnesia, hy-

drochlorate of magnesia, and sulphate of potass. These salts remain in the mother waters, and by placing them at a given moment in contact with a certain amount of sea-water, saturated with chloride of sodium, a layer of crystallized sulphate of soda is obtained, perfectly pure and white. Thus the mother waters, formerly an inconvenience, are now a source of revenue, which promises to exceed the value of the fabrication of the chloride of sodium. When the waters have attained a certain degree of concentration, 23° for instance, a curious phenomenon is observed. They acquire a rose colour, which gradually deepens, and at last presents the deepest shade of red; at the same time a very marked odour of violets prevails, and still persists for several months in new salts. Before the invention of the areometer, these changes of colour served to indicate the degree of concentration of the waters; their cause was discovered some years since by M. Joly, of Toulouse. He showed that both colour and odour were due to the development of an infusory animalcule, the *monas dunali*.

(To be continued.)

HISTORY OF THE ILLNESS OF DANIEL O'CONNELL, AND OF THE POST-MORTEM EXAMINATION OF HIS BODY. BY DR. A. LACOUR.

(*Journal de Médecine*, Lyons.)

Daniel O'Connell, born in Ireland, in the county of Kerry, in the year 1775, was endowed with a vigorous constitution, which had been at last shaken by fifty years of incessant labour and struggles. His last illness did not make its appearance suddenly: doubtless, the well-known events of his latter years, and the misfortunes of his country, contributed to predispose his brain to congestion; but that predisposition was considerably increased by the imprudent suppression of a sort of infirmity which long habit had rendered necessary to his health. From his youth O'Connell was subject to hemorrhoids: the almost periodical discharge of which they were the source constituted a salutary derivation to the incessant excitement kept up in his brain by the agitated life of the tribune, and increased by the stimulating diet required by his energetic temperament. O'Connell had more than once expressed a wish to be cured of these piles; their suppression was imprudently advised, about two years since, by an empiric, and with medicines of which we could not ascertain the composition. At that period first appeared giddiness, tinnitus aurium, headache, and diminution of intellectual activity. Absorbed by his labours, O'Connell did not at first perceive, himself, the decline of his health; but, although he soon became aware of the diminution of his strength, he came to London in February, 1847, for the purpose of resuming his seat in Parliament. He was advised by several eminent London physicians, who considered his case one of temporary fatigue, the use of port wine and of meat several times a day, also the cessation of all political labour, and a speedy change of scene. O'Connell then determined to begin his pilgrimage to Rome, a long-cherished project, which he considered as the consecration of his militating life. Towards the middle of March he set out upon his journey, accompanied by his youngest son and his friend the Rev. Dr. Miley. From London to Paris the disease had made notable progress, the appetite had diminished, the step was less firm, the intellect more dull. In Paris, O'Connell consulted Professor Chomel and Dr. Olliffe, who were of opinion that the weakness of the patient was the result of slow congestion of the brain. Hygienic prescriptions only were made. The diet was to be of a less tonic nature and the mind amused, the journey to Rome answering perfectly the latter indication. The illustrious patient left Paris on March 29, and on his road to Lyons met with most severe weather. On examination, Professor Bonnet found the face highly coloured, the pupils contracted, the pulsation of the heart natural, the pulse small and regular. The chest was less sonorous to percussion in the superior part of the right side, and on auscultation mucous and

sibilating rhonchi were heard in the same region. The left side of the chest was perfectly healthy. The appetite was destroyed, a vague sense of uneasiness existed in the abdomen, and the bowels were confined, in spite of the use of several English laxative pills. The intellect was perfectly clear, but inactive, and the mind was continually preyed upon by melancholy preoccupations. The movements of the arms were slow, and the right arm shook continually; the right hand was cold and difficult to warm. The left foot was colder than the right. In walking the steps were slow and unequal. Professor Bonnet diagnosed a tendency to softening of the brain—a pulmonary catarrh, and expressed an unfavourable opinion with regard to prognosis; he advised a slightly tonic diet, the use internally and externally of aloes for the purpose of recalling the piles, and antimonial medicines for the pulmonary disease. The same opinions were adopted by Dr. Viricel, and on April 22 the patient left Lyons, accompanied by the writer of the case (Dr. Lacour), who continued the use of the antimonials and of the aloetic suppositories. At Avignon, where O'Connell arrived on the 26th, an aloetic pill was exhibited, and the piles became swollen, and bled slightly. From that time the improvement in health and spirits was evident; the redness of the face ceased, and O'Connell took an active part in all conversations. The improvement was recognised by all who surrounded the Liberator, and the continuation of the journey to Rome was resolved upon. On the 2nd of May he arrived in Marseilles; the cough had entirely ceased, the appetite was better, the strength had somewhat returned. In the evening, O'Connell conversed with a degree of animation which he had not shown since he left England. On the 5th he embarked, and arrived at Genoa on the 6th. During the two first days of his sojourn in that city, his condition continued to be most satisfactory; he had taken long walks, which had not inconvenienced him in the least. On the third day, O'Connell complained of a violent headache; the speech was hurried, and movements more energetic. Constipation being obstinate, a laxative injection was presented, and its result was to diminish the cerebral congestion. The following night was sleepless, and in the morning a consultation was called, in which Drs. Baretta and Duff observed that the cough had returned; diarrhœa had shown itself in the night, together with almost continual drowsiness, redness of the face, headache, slight delirium, difficulty of pronunciation, strength of the pulse, and dorsal decubitus. Leeches were applied to the perineum, and ten grains of calomel were exhibited in five doses. In the evening O'Connell was much better, but the next day, the symptoms having returned, leeches were applied to the neck. On the 13th, the difficulty of swallowing was almost insurmountable, and speech was hardly distinct. Dr. Vivian saw the patient on the 14th, and, symptoms of compression of the brain evidently increasing every hour, a small quantity of blood was removed from the arm. During the night a violent crisis took place, which threatened an early catastrophe; the last sacraments were administered, and the illustrious patient expired at thirty-six minutes after nine on the evening of the 15th.

On the 16th the body was conveyed to the Hospice des Incurables, where it was placed in an iced bath. On the 17th, although thirty-six hours had elapsed since death, no signs of putrefaction were apparent. O'Connell having expressed a wish that his heart be carried to Rome, no choice was left between the ancient and modern modes of preservation; and, permission having been granted to make a necroscopic examination of the body, it was performed by M. Balleri, chief surgeon of the hospital, in presence of Messrs. Baretta, Duff, and Lacour.

External Habit.—High stature, remarkable proportion between the limbs and body, considerable loss of flesh, cadaveric stiffness, no macule on the skin.

Head.—The dura mater was in its natural

condition; adhesions existed between the two surfaces of the arachnoid; in a few fissures, the pia mater had also formed adhesions so as to unite several convolutions. The pia mater was considerably injected with blood. The consistency of the brain was in general tolerably firm. The pia mater was easily detached except upon the lateral portion of the right anterior lobe, where the membrane, on being removed, carried away with it a thick layer of cerebral substance. In a space which might have contained a walnut, the pulp of the brain was transformed into a whitish pap, which did not contain a single drop of blood. Around this ramollissement the brain gradually regained its natural firmness; in all its other parts the cerebrum was gorged with blood, and, as it were "sablé." No other alteration was detected, notwithstanding the minutest dissection.

Thorax.—The left lung was perfectly sound; the right lung had formed in front intimate adhesions with the pleura. The parenchyma of the viscus was slightly congested; the internal surface of the larynx, trachea, and bronchi was intensely red, and several divisions of the bronchi were considerably dilated. The heart was healthy; several ossified spots were noticed in the arch and abdominal portion of the aorta; also, in the femoral arteries.

Abdomen.—The digestive tube was throughout the seat of a very marked injection. The large intestine was distended by the presence of hard fecal matter; the spleen, considerably enlarged, was quite softened. The other organs were perfectly healthy.

POSTHUMOUS DELIVERY.—At the Society of Emulation of Lyons, the following singular case was related by Dr. Gromier:—He had been summoned by the magistrates to perform, at some distance from Lyons, the exhumation of a woman who was said to have died a violent death. On opening the tomb it was found that the woman had been interred in a state of pregnancy, and that both the child and the placenta had been expelled from the womb after interment.

At the meeting of the Academy of Sciences of Nov. 8, only two communications of any interest to the medical profession were made. One by M. Tizon, student in pharmacy at the Hospital of Algiers, who proposed to colour arsenious acid with the red sulphuret of mercury, and to give it an odour by the addition of creasote, in order that it may readily be distinguished even by inexperienced persons from flour, salt, sugar, &c., with which it may be confounded, and to prevent the frequent and fatal mistakes which frequently occur. The other communication, by M. Blanchet, referred to a new instrument of his invention, which he calls a *comètre*, destined to measure the different degrees of deafness of persons suffering from that infirmity, and to judge of the gradual improvements produced by the various methods of treatment employed.

D. M'CARTHY, D.M.P.

Treatment of Chronic Cystitis by Injections of Nitrate of Silver.—Dr. R. L. Macdonnel, in "The British American Journal of Medical Science," recommends in strong terms the injection of a solution of nitrate of silver in chronic inflammation of the bladder, a disease which has proved very refractory to other remedies. He mentions the case of a gentleman who had suffered for some months from this disease: it was marked by frequent desire to pass water, accompanied by heat and scalding, violent straining, pain in the region of the bladder, above the pubis, and in the perineum, and a constant feeling of heat and weight in the lower part of the abdomen. These symptoms gradually increased in severity. When first seen by his medical attendant, fully one-half of the fluid passed from the bladder was pure pus; and, after repose, a deposit of blood globules was found to intervene between this and the supernatant urine—this being highly alkaline, fetid, and albuminous. Examined microscopically, it exhibited some scales of nucleated

epithelium. There were also frequently mixed with this, tenacious masses of lymph, varying in length from half an inch to an inch, and entangling a quantity of earthy matter. The bladder was injected with a solution composed of eight grains of lunar caustic, two drachms of tincture of hyoscyamus, and four ounces of distilled water. The injection caused little inconvenience, except that of inducing a strong desire to empty the bladder, which was prevented by compressing the penis. The patient gradually improved, and the strength of the lotion was increased to double, when the improvement became very rapid, and health soon returned. The method of injection found most efficient is the following:—The patient, being placed either in the erect position or on a sofa, a gum-elastic catheter, about the size of No. 9 or 10, is introduced, and water at the temperature of 98° F. is injected through this into the bladder by means of a caoutchouc bag or a syringe. After the bladder has been completely cleansed, the solution of caustic, being heated to the same degree, is to be introduced in a similar manner, and allowed to remain there for about one minute, care being taken, by compressing the urethra, to prevent its being forcibly ejected by the straining which is certain to be produced. The quantity of water in solution should never exceed four ounces, as in chronic inflammation the viscus is seldom capable of holding more than a few tablespoonfuls; and, consequently, a larger injection would act injuriously in two ways—by over distending the organ, or by passing up into the ureters. The patient is then ordered a warm bath, and, should the urine become bloody or mixed with shreddy concretions, he should use frequent fomentations or anodynes. But these symptoms seldom last more than a few hours. The advantages which the solution of nitrate of silver possesses over that substance in a solid form are:—The patient does not suffer from retention of urine; it can be employed in various strengths from one to four grains, or even stronger, if necessary; and the application comes in contact with the entire diseased surface. It is, moreover, easily employed by an inexperienced operator, and it cannot possibly be attended with any risk.

Nosology of Aphthæ.—Dr. Eisenmann had been consulted in the case of a child, four months old, labouring under the usual signs of acidity of the primæ viæ, with a general aphthous state of the mucous membrane, and twitching of the facial muscles. The symptoms were temporarily relieved by the use of medicines, but yielded completely only to a change of diet; milk paps being interdicted, and replaced by acorn coffee with a little milk twice a day, then soup and bread, and sugar and water as drink; as a remedy, the tinctura thea aquosa with carbonate of potash. Under this regimen, and with two hours' exercise in the open air daily, the child soon got well. The child belonged to the upper ranks, and lay under no suspicion of scrofula; yet it had a small scrofulous-like swelling on one of its fingers, which disappeared along with the aphthæ. In considering the relation between the acidity of the primæ viæ and the aphthæ, the results of the investigations of Liebig and some others are referred to, viz., that microscopic plants of the lowest grade arise in albumen sufficiently diluted, under the influence of an acid, and exposed to the atmospheric air. Now, the aphthæ consists of such plants arising under similar conditions. The blood contains too much water, as a consequence of the bad digestion and defective supply of other materials; a portion of the acid of the chyme passes, doubtless, with the chyle into the blood; the necessary atmospheric air of oxygen is supplied by the respiration; the fungi may then arise in this way:—The abnormal blood may so work upon the centrifugal or motor nerves of the predisposed mucous membrane of the alimentary canal, as to produce congestion and exudation, in which, under the influence of atmospheric air, the germs of the fungi may be formed and developed after exudation. With respect to the scrofulous-looking swelling on the finger, Fuchs

has shown that in scrofula a copious production of fungi takes place; aphthæ and scrofula may then be allied affections. Whether the damp air and dwellings in which scrofula principally develops itself react upon the digestive organs, or causes the production of morbid fungi in some other manner, cannot now be decided.

Internal Hemorrhage during Pregnancy.—M. Plainchant has communicated to the Academy of Medicine, Moulins, the following case:—A strong, healthy, although lymphatic, woman, aged forty-seven, the mother of several children, had arrived at the sixth month of her last pregnancy in her usual good health, when, one evening, she was attacked with pains in her loins. A midwife was called in, who, on examination, found nothing to indicate approaching miscarriage. The pains, however, became more frequent; she had fainting fits; the skin became cold, the pulse thready, and the patient sank calmly in five hours after the first attack. Nothing had escaped from the vagina. On examination after death, the uterus was found very large and firm; an incision was made into it, and the waters escaped without anything unusual being perceived. The child was well formed for a six months' fœtus; the umbilical cord was uninjured; the placenta was connected with the fundus uteri by a small part of its substance, but was separated to a large extent from it by a quantity of blood to the amount of about seventeen ounces. The uterus was very red at this part, but showed no lesion of its texture; the fibrous bodies, each the size of a large nut, were found implanted in the wall of the uterus of the right side.

Treatment of Inflammatory Affections of the Brain.—Mr. Solly says, in the treatment of these affections the following principles must be attended to:—1. There is no time to be lost, even minutes are of value. 2. Inflammation of the brain being a depressing disease, general bloodletting is not often admissible. 3. Though this may be attended with benefit at the time, the good derived is seldom permanent. 4. Local bloodletting by leeches and cupping is generally useful, and especially in cases of insomnolence, arising from abnormal action of the brain. 5. In cases of insanity, where opium has failed to produce sleep, leeches and cold applications generally will; and, if they do not, it is strong evidence that the excitement arises from hyperæmia, and not from anæmia, as in that of delirium tremens. 6. Aconite and digitalis are the best sedatives, especially when combined with mercury. 7. When it is advisable to salivate rapidly, raise the cuticle by boiling water, or a similar escharotic, and dress the surface with strong mercurial ointment. 8. Always commence the treatment with a brisk mercurial purgative. 9. Soothe the patient's feelings in every way. 10. Never leave anything that is disagreeable to the patient to be done by a nurse or attendant, such as the application of leeches, &c., but persuade him to have them applied. 11. Never lose your patient in the treatment of a chronic case, or try to hasten the cure by increasing the doses. 12. When it is considered necessary to continue the use of mercury for a lengthened period, combine tonics with it.

Treatment of Laryngeal Disease by the Nitrate of Silver.—In chronic affections of the larynx and pharynx, Dr. Horace Green, of New York, says that he has ordinarily employed a solution of lunar caustic of the strength of from two to four scruples to an ounce of distilled water. When, however, there are found extensive ulcerations of the epiglottis, or about the opening of the larynx, ulcerations which it is desirable to arrest at once, he has not hesitated to apply to the diseased parts a solution of double this strength. But one or two applications of this solution should be made at one time; ordinarily, however extensive the lesions may be, it will not be necessary to employ a solution of greater strength than one compounded of four scruples of the salt to an ounce of water. On the other hand, it has been found that one of less strength than of from forty to fifty grains to an ounce of water will

have but little effect upon a diseased mucous surface where ulcerations exist. In cases where it becomes necessary to cauterize the interior of the laryngeal cavity, the aperture of the glottis should not be passed at once; the part should be educated by applying the solution daily for several days to the faucial and pharyngeal region, to the epiglottis, and about the opening of the glottis. The exquisite sensibility of the lips of the glottis is, in this manner, in a good degree overcome; and the instrument may be passed into the larynx without producing much irritation. The instrument found most convenient is one of whalebone, about ten inches in length, curved at one end, to which is securely attached a small piece of fine sponge. The extent to which this rod is to be bent must be varied according to circumstances, for the opening of the glottis is situated much deeper in some throats than in others; but the curve found suited to the greatest number of cases is one which will form the arc of a quarter of a circle whose diameter is four inches. The patient's mouth being opened wide, and his tongue depressed, the sponge is dipped into the solution to be applied, and, being carried over the top of the epiglottis, and on the laryngeal face of this cartilage, is suddenly pressed downwards and forwards, through the aperture of the glottis, into the laryngeal cavity. This is followed by a momentary spasm, by which the fluid is discharged from the sponge, and is brought into immediate contact with the diseased surface. If the patient, on opening his mouth, take a full inspiration, and then be directed to breathe gently out at the moment in which the sponge is introduced, the irritation will be comparatively trifling.

Retroflexion of the Uterus.—Dr. Beatty, in "The Dublin Quarterly," remarks, that the part of the uterus at which this deflexion takes place is that at which the neck and body of the organ join; and the angle at which the body is bent upon the neck varies, being sometimes very acute, and at others more obtuse. The displacement is most commonly the result of pregnancy; it could scarcely, if at all, occur during gestation, owing to the fullness and tension of the uterus; but in most cases it occurs subsequent to delivery. Velpeau saw fifteen cases in which it occurred in the unimpregnated uterus, but after parturition. Dr. Davis is of opinion that this incurvation may have occurred congenitally, as the effect of an originally imperfect development, or as a result of disease, either of the uterus itself, or of the organs in immediate contiguity to it; but he gives no cases of either kind. This displacement is very different from retroversion, in which the os and cervix are thrown upwards; but in retroflexion these parts maintain their natural position, while the fundus is thrown downwards. The time at which this displacement occurs is most probably immediately after delivery, when the uterus is still large, but soft and pliable; it is likely, however, at the time of its occurrence, because the very urgent symptoms do not manifest themselves until the woman rises from her bed, and resumes her usual employments; then it is that gravity causes the pressure to be felt by the surrounding viscera, and the symptoms declare the nature of the malady. It generally happens, however, that the sensations are endured for a long time without complaint, in the hope that they will subside as the woman gains her strength. The organ, by this delay, becomes fixed in this unnatural position; a certain amount of chronic inflammation alters its tissue, and moulds it into its new shape, rendering all attempts at restoration alone by mechanical means fruitless. A more favourable prognosis may be formed, when the cases are recent, from the ease with which they can be rectified. The means to be adopted are those employed to restore a retroverted uterus; and, after the organ has been placed in its proper position, great care should be taken to keep the patient lying as much as possible on her face, until the uterus has shrunk to its original size. Some practitioners consider chronic deflexions totally in-

curable by any efforts of art exclusively, without the aid of nature, as exerted during the changes and developments which are the special attributes of pregnancy. The altered conditions of the tissue and texture must be attended to, and the chronic inflammation must be combated by appropriate treatment. The symptoms attending this complaint are dragging pains in the loins, groins, and back, aggravated by walking or making any violent effort. Pain and difficulty in defecation, and during the attempt a sensation is experienced as of something blocking up the passage and preventing the exit of the contents of the bowels. Sometimes there is an irritable state of the bladder, also menorrhagia and leucorrhœa to a considerable extent.

Cause of Puerperal Fever.—Dr. Scanzoni, of Prague, arrives at the following conclusions in reference to this disease:—1. That a rawness of the internal surface of the uterus does not constitute the sole and only predisposing cause of puerperal fever, but that this consists in a peculiar constitution of the blood. 2. That this is indicated by an increase in the quantity of fibrine. 3. When this increase becomes excessive in a high degree, it constitutes the primary cause of the disease; or it is, in short, in itself the essence of genuine puerperal fever. 4. The genuine disease is characterized by the fibrinous type; no other type is genuine, but can only be developed secondarily out of the fibrinous. 5. Hypinosis of the blood gives immunity against that form of puerperal disease accompanied by fibrinous exudation; it gives but little protection against the suppurative, and none against the typhoid, form. 6. The hyperinotic form of the disease frequently, during epidemics, passes into the purulent or into the typhoid form. 7. The two last forms may be developed either primarily in the blood, or secondarily by the absorption of pus. 8. This absorption can take place from suppuration on the surface, in the tissue, or appendages of the uterus, or from the placenta. 9. The cases which run the most rapid course are those which are the result of a primary disease of the blood; the less acute are the result of absorption.

Acute Glanders in a Female Mattress-maker.—A woman, aged forty, was admitted into the Hospital Necker, Paris, who had been ill ten days. She had been first seized with neuralgic pain of the right side of the head, which was successfully treated with preparations of belladonna; then with an intercostal neuralgia, quickly followed by an acute sciatic pain on the left side, particularly severe in the calf of the leg; this was quickly removed by a blister sprinkled with morphia. Then the left knee became painful, the pain being soon accompanied with redness and swelling, and now some delirium arose. She had never anything to do with horses, though her husband was a hackney-coachman. She was accustomed to card wool and prepare horsehair. The day after her entrance into the hospital she had fever acute; pulse frequent; eyes injected; she returned correct answers when questioned; there was much delirium in the night; there was redness, tumefaction, and excessive pain of the left knee; a red fluctuating tumour, the size of an olive, on the left hand, near the lower extremity of the second metacarpal bone. On the third day, the twelfth from the commencement of the attack, the delirium continued; the skin was dry and somewhat jaundiced; on the middle of the right cheek there was a vesicle with an inflamed base of a violet colour, resembling a malignant pustule; some red spots, and some small buttons, like those of smallpox, were spread over the thighs and other parts of the body, also some small, hard tumours, with a violet tint of the skin. On the thirteenth day the pustule on the face had a carbuncular appearance, and the skin was gangrenous for a small space around; there were numerous pustules of irregular size on the face, eyelids, and extremities; no restlessness—profound stupor. Next day she sank. On the post-mortem examination there were found on the mucous membrane of the nasal fossæ some

superficial ulcerations; in the knee-joint a large quantity of pus; in the subcutaneous tumours, pus mixed with blood; the gangrenous spot on the face was but superficial beneath; the cellular tissue was infiltrated with a yellowish serosity to a considerable depth. The other parts of the body were not examined. A lancet was charged with some sanious matter from the gangrenous spot, and adjacent abscesses, with which a horse, between eight and nine years old, affected with ankylosis, but otherwise healthy, was inoculated. This horse died on the seventh day after, of well-marked acute glanders.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—Nov. 9.

J. M. ARNOTT, Esq., F.R.S., President.

This was the first meeting of the session; the library was crowded with members and visitors.

A paper was read by Mr. B. Phillips, entitled, *OBSERVATIONS ON THE DIAGNOSIS AND THE TREATMENT OF INTESTINAL OBSTRUCTION DEPENDENT ON INTERNAL MECHANICAL CAUSES.*

The object of the paper was to show the great difficulties which are experienced in the diagnosis of the causes and the seat of an internal obstruction—the great mortality which occurs in such cases—and to consider the question, how far are we justified in resorting to surgical operation for their relief? The author had not based his observations on his own experience alone, but had endeavoured to elucidate the subject by a careful consideration of 169 cases, in which obstruction was more or less complete. He first stated the particulars of cases exemplifying several varieties of these affections, for the purpose of showing the great similarity of the symptoms which were present, under very different circumstances. After setting forth the more ordinary symptoms, he entered upon inquiring whether there be any combination of those symptoms by which particular varieties of obstruction are characterized, so that the plan of treatment may have reference to the cause of the obstruction. The result of a careful analysis of symptoms and cases went to satisfy the author's mind that no arrangement of symptoms is so definite or constant as to make a diagnosis of the cause of obstruction conclusive. Supposing an operation to be resorted to, it is of course very desirable to ascertain the seat of the affection; and here the difficulties are not less formidable than those which occur in attempts to determine the cause of the obstacle. The history of the case may give assistance in some instances, the existence of a tumour in others, and the distended intestine in a few cases: but in most instances we shall be left in doubt. The author then stated the results—unfortunate enough, certainly—of ordinary treatment; and concludes that there are cases in which recourse to surgical operation is justifiable. He showed that the abdominal walls have been cut through in more than fifty cases, for the purpose of affording relief, stating the particulars of many, and the results of all; and showing that of those operations twenty-four appear to have terminated favourably. He showed, further, that some of those operations were undertaken with a view to seek the obstacle and to remove it, but in very few instances has the object been accomplished, the ordinary result being the establishment of artificial anus; and he regarded this as the only practicable result of operation in cases which do not prove fatal.

Mr. Wade related the case of a child, five years of age, to whom he was called about four hours before death. The little patient had from birth been the subject of obstinate constipation, and three weeks previously to death had been seized with pain and tenderness in the abdomen, from which he recovered under proper remedies, and was so well the day before he died, as to be able to trundle his hoop in the Park. In the night he was suddenly seized with acute pain in the abdomen, attended by vomiting and other symptoms of strangulation. He died, and, on examination, several folds of ileum were found

in a state of strangulation from being encompassed and bound tight by a broad band, about three inches in length, attached to a diverticulum of the ileum, and connected with the mesentery. In another case he had seen a woman, three days before death, who had had no relief in her bowels for six days previously. The abdomen was not painful, but tympanitic. Medicines afforded no relief; and after death, which occurred at the end of four days, a stricture of the transverse arch of the colon was discovered, about half an inch in length, and puckered in appearance. In neither of these cases did the operation of opening the cavity of the abdomen seem to him justifiable.

REVIEWS.

On the Causes and Treatment of Abortion and Sterility; being the Result of an extended Inquiry into the Physiological and Morbid Conditions of the Uterus, with reference especially to Leucorrhœal Affections and the Diseases of Menstruation. By JAS. WHITEHEAD, F.R.C.S., &c. London: J. Churchill, 1847; pp. 426.

There is scarcely a subject within the whole range of medical science which presents greater features of interest than that which relates to the female organs of reproduction. While the attention of physiologists has from an early period been directed to the study of phenomena which manifest themselves in connection with these organs under the various conditions in which they are found, it is only within a few years that investigations have been so scientifically conducted as to afford an amount of knowledge infinitely valuable to the medical practitioner in the treatment of the various diseases to which the organs are especially liable. The present generation is distinguished for the circumstance of having adopted a new method of discovering abnormal states of the uterus by the use of instruments which bring parts within view whose condition formerly was only ascertained by manual examination. The pathological states of the organs of reproduction have, in consequence, become better known, and new modes of treatment adopted to remove diseases when they have been discovered to exist. To the French medical practitioners belong the honour of having first used the speculum to ascertain the nature of morbid changes which affect the vagina or uterus; while our own countrymen, following closely in the footsteps of their Gallic neighbours, have advanced the cause of science and humanity by their zealous and successful efforts.

It would be improper here to notice all the advantages resulting from the use of the speculum in the investigation of disease; but we cannot avoid remarking how singularly beneficial it has been in affording to the medical practitioner a knowledge of the causes of abortion which has led to the use of means frequently successful in preventing so serious an occurrence. It is common to suppose that miscarriage is generally produced by external violence, the use of improper medicine, or mental perturbation; yet it is surprising, in a healthy condition of the gravid uterus, what shocks it will suffer without taking on the action necessary to expel its contents. Most of the abortions occur without the women themselves being able at all to account for the premature event; while the speculum has brought to view certain states of the uterus which at once would account for its setting up an abnormal action. The circumstance of a leucorrhœal discharge being a leading feature in those cases of premature expulsion of the ovum, where it seemed impossible to assign any known cause for the event, induced Mr. Whitehead to examine the uterus with the speculum; and he tells us that he "almost invariably found the existence of disease of this organ sufficient in extent to bring the other symptoms under the arrangement of sympathetic disturbances merely." The frequent existence of local disease being thus ascertained, a series of examinations were insti-

tuted, involving an inquiry into the history of menstruation as connected with abortion, and the results are stated.

The directions which are given for using the instrument are well worth the attention of those who prosecute specular inquiry, or are called to manage local treatment. It is recommended that the patient should recline "on her left side upon the edge of a bed or couch, in the same position as that preferred in this country during the process of parturition. The instrument is introduced without ocular aid, and no part whatever of the person is exposed. The diseased organ is at once brought into view, and the remedies are applied with facility, and without occasioning the least suffering.

In the chapter on menstruation the discharge is spoken of as recurring monthly, and lasting from three to seven days. Deviations, however, are by no means uncommon, without the general health becoming affected. Five hundred and twenty healthy females were examined in order to arrive at correct data how far erratic menstruation was consistent with a state of health. Of this number, three hundred and fifty-nine had always exhibited great regularity; while of the remaining one hundred and sixty-one cases denominated *irregular*—in fifty-one, menstruation recurred every lunar month, the discharges being prolonged every third or fourth return for some days, with a difference in the quantity; thirty-eight menstruated every lunar month generally, except every third or fourth time, when it occurred some days earlier; fifteen passed three weeks only between each period, with the exception of the third or fourth time, when it was usually a month; fourteen, every twenty-four days, with an occasional extension to twenty-eight; five, every five or six weeks, with an interval sometimes of a month only; two, every eighteen days, with an aberration now and then; one, every lunar month, the middle of the third interval being marked by a discharge similar to the catamenial; two, every fourteen days, in one of whom the discharge continued from seven to ten days, while the other had it only two days, and sometimes but a few hours; one, monthly, but every third time missed the period; while in thirty-two the irregularity was so great as to afford no means of calculating the periods of recurrence. Marriage sometimes effects a considerable change, the discharge either becoming larger in quantity, of longer duration, or more frequently repeated.

The quantity of blood secreted during each menstrual period is variable, and our author considers that an elevated temperature affects the amount and period of its duration. As regards the properties of the menstrual fluid, its great distinguishing characteristic is that of not coagulating, owing to its admixture with vaginal mucus, in the acid of which fibrine is freely soluble. Numerous physiologists, however, have been unable to detect any fibrine; and this was the case in a specimen examined by Dr. Letheby, obtained by the section of an imperforate hymen in a girl seventeen years of age. The vaginal mucus and the menstrual fluid always exhibit acid properties; the secretion of the uterus is alkaline. From numerous observations it has been ascertained that the menstrual secretion issues from the interior of the uterus, and during this time the vaginal membrane always becomes suffused, but never exudes blood. The ovaries perform an important office in connection with menstruation, for where these do not exist the function is never discharged.

The period at which menstruation commences is dependent upon a variety of causes; and is, therefore, different in different individuals. The following table shows the age at which puberty was accomplished in 4000 individuals.

At the age of 10 years, 9 first menstruated.	
" 11 "	26 "
" 12 "	136 "
" 13 "	332 "
" 14 "	638 "
" 15 "	761 "
" 16 "	967 "

At the age of 17 years 499 first menstruated.

" 18 "	393 "
" 19 "	148 "
" 20 "	71 "
" 21 "	9 "
" 22 "	6 "
" 23 "	2 "
" 24 "	1 "
" 25 "	1 "
" 26 "	1 "

Average age of the first menstrual period, fifteen years and seven months. A precocious puberty is commonly observed in those possessing the sanguine and bilious temperament, the child-bearing period short but fruitful, and menstruation stopped at from thirty-seven to forty-seven years of age. In the lymphatic and melancholic constitution, menstruation comes on at a late period; it is often tardily and with difficulty accomplished. In the nervous temperament it is attempted early, commences with difficulty, and, when established, is frequently accompanied with disturbance of a very troublesome kind.

Mr. Whitehead is opposed to the doctrine, which has been believed very extensively, that factory employment has a particular tendency to induce premature development of the sexual organs, and that a precocious womanhood is more frequently witnessed among the manufacturing population than among other classes of people. Having ourselves had considerable opportunities of investigating this subject very closely, we perfectly agree with our author in the conclusion at which he has arrived. The subjoined statement will show that factory employment has rather a contrary effect to that which is commonly supposed.

"Of the 4000 individuals before quoted, 2127 were employed in mills, warehouses, and places connected with various processes of manufacturing, at the period of puberty, and for a length of time previously to its advent. Their collective ages amounted to 33,296—affording an average of *fifteen years and nearly eight months*; of whom 511, or 24.02 per cent., suffered under disease consequent upon undue retardation of the functional changes at the commencement. The remainder, 1873 in number, included all that were otherwise circumstanced; as domestic and farm servants, hawkers, sempstresses, and shopwomen; together with a number of educated females, not necessarily engaged in any pursuit, except school exercises. The sum of their ages was 28,982, giving *fifteen years and about five months* as the average age of puberty; and 375, or 20.02 per cent., experienced functional difficulty in form of amenorrhœa at the onset."

With regard to climate, our author considers that, while it exercises considerable influence in developing the early sexual appetite in hot countries, it does not to that extent as was formerly supposed.

Amenorrhœa manifests itself under two forms: in the one, the generative organs remain inactive after the physical developments of puberty, no fluid being secreted; in the other, there is mechanical impediment to the escape of the product: the latter condition is one of frequent occurrence; in its simplest form it most frequently occurs, and generally requires very little medical treatment. That form which often does is characterized at the onset by general or local plethora, in conjunction with a vitiated state of the secretions. The treatment adopted in the cases mentioned consisted of repeated application of leeches to the hypogastrium, the hot hip-bath, poultices to the abdomen, and the administration of mild saline aperients, repeated at intervals of a few hours.

The menstrual function is liable to be interrupted, or totally suspended, from various causes, such as a cold damp atmosphere, intense grief, violent passions; acute, inflammatory, and infectious diseases, and certain kinds of medicine. Cases of acute peritonitis, inordinate obesity, partial paralysis, asthma, apoplexy, congestion of the cerebral veins and sinuses, and erysipelas are

mentioned as resulting from sudden suppression of the catamenia.

Dysmenorrhœa is stated to have its origin in a morbidly irritable state of the lining membrane of the uterus, or those parts of the nervous system in immediate relation to it. The suffering is oftentimes considerable, the pains being intermittent, and often simulate the incipient pains of labour. Little is said about treatment, but in one case mentioned opium appears to have exercised a beneficial influence.

Vicarious menstruation is a form of dysmenorrhœa for which nature provides her own remedy, by withdrawing from the system, through a channel not originally intended for the purpose, the excess of circulating fluid. The organs through which compensatory discharges most frequently take place are the mucous membrane and the skin, but other organs may be occasionally the seat of vicarious disease. Cases are given of vicarious epistaxis; leucorrhœa; discharge from the surface of an ulcer; periodical diarrhœa.

Metrorrhagic menstruation is a peculiar condition of the organs of generation, under which a greater amount of fluid is separated from the blood during the monthly evacuation than the system can bear without inconvenience. The discharge is usually more or less clotted. It may appear under three different aspects. In the first the secretion is simply augmented while it lasts; in the second, it is too long continued; in the third it is too frequently repeated. These discharges occur in young girls sometimes before the age of puberty, and in women who have ceased to menstruate; in the latter it is connected with disease of the uterus, which, when not of a malignant character, consists in ulceration about the cervix, often the result of varicose inflammation, or of endo-uteritis. The treatment will vary according to circumstances: in some it will be necessary to abstract blood; in others, opiates and sedatives are indicated; and sometimes alterative and tonic medicines are beneficially employed. The nicest discrimination is requisite.

The menstrual climacteric Mr. Whitehead has found to be as uncertain as that of its commencement, the most commonly observed time being between forty and fifty. A singular case is narrated of a woman, an inmate of the Manchester Union Hospital, who was menstruating at the age of seventy-five, and who stated that she had done so regularly from the time she was thirteen years of age. She married at eighteen, and up to forty-three, when her husband died, bore fifteen children at thirteen births. At every pregnancy she menstruated regularly till the last month of the full time, and the discharge reappeared in two or three months after the birth of the child, notwithstanding that she suckled.

Our author has vaguely stated that the period of human gestation is nine months, reckoning from the moment of impregnation; and, before he enters upon the subject of abortion, mentions the usual signs of pregnancy, with all the difficulties and anomalies which often puzzle the practitioner when called to give his opinion. Thirty-two years is stated as the period which women in this country are capable of bearing children; the last five or six years of this term not being generally characterized by an aptitude for impregnation. The average time at which conception takes place after marriage, according to the statistics furnished of 541 married women, was about two months and a half; the average number of pregnancies twelve, including false conceptions, premature deliveries, and all having an unsuccessful issue. From a tabular statement in reference to the pregnancies of 2000 women, it appears that more than thirty-seven out of every hundred experienced abortion before they attained the age of thirty years. The popular idea, that first pregnancies have more frequently a premature termination than those which come after, is not supported by Mr. Whitehead's observations: the third, fourth, and subsequent pregnancies, and one or two of the last, are most unsuccessful. In 602 cases of abortion, which

had come under his notice, 85 happened at two months; 275 at three months; 147 at four months; 30 at five months; 32 at six months; 55 at seven months; 28 at eight months. These causes of abortion were investigated in 2000 cases. Of this number 747 had already aborted once at least; to some the event had occurred several times. The sum of these abortions was 1222. The following are the causes to which they had been attributed:—

Inward weakness, impaired state of the health generally, and acute disease ..	910
Accidents, mental perturbation, &c. ..	223
No assignable cause ..	90

1222

The "inward weakness," which is sometimes also called a "waste," refers always to a light-coloured vaginal discharge, unconnected with menstruation. Upon submitting these cases to a specular examination, there were but few instances in which disease of the lower part of the uterus was not found. In 378 cases, 275 were thus found to be affected.

The symptoms of diseased uterus are leucorrhoeal discharges; a deep-seated pain in the lower part of the abdomen; a fixed peculiar pain in both sides of the body near the groin; aching of the loins; a sensation which is significantly denominated a "bearing down"; rigors, lassitude, and remittent feverishness; a frequent desire to void the urine; nausea; loss of appetite; painful digestion; cramps, palpitations, hysteric fits, convulsions, &c. The following are the forms of uterine disease which predispose to abortion at particular periods of the progress of pregnancy:—Inflammation and superficial erosion of the lower part of the uterus; varicose ulceration; oedema; fissured ulceration; induration of the cervix; endo-uteritis; follicular ulceration; gonorrhoeal virus; syphilitic disease; prolapsus uteri.

In the treatment of *superficial erosion of the cervix*, opium and calomel are recommended internally, leeches to the epigastrium, and solid nitrate of silver to the ulcerated surface.

For *varicose ulcer*, in addition to the above treatment, a strong solution of nitrate of silver should in no instance be omitted in the first instance; also sulph. of zinc, combined with vin. opii, or tinct. of matioo.

Oedema of the Cervix.—The treatment indicated is almost entirely constitutional. Small bleedings are recommended at intervals, with the exhibition of calomel and digitalis in moderate doses, and saline aperients, combined or not with quinine as occasion may require. Local remedies may be beneficially employed if any abrasion of the surface remain after the absorbents have been brought into more energetic action, and when the evacuation of the fluid has been in a measure effected.

Fissured Ulcer.—This form of disease is one of the most frequent causes of what is called "habitual abortion," and is successfully treated by the administration of alteratives, and the application of leeches when there is much swelling, and afterwards of solid nitrate of silver to the diseased parts.

In *induration of the cervix* a strong solution of sulphate of zinc, combined with opium, is recommended to the abraded surface, and allowed to remain on the part for some time; in the subsequent treatment, solid nitrate of silver, or acid nitrate of mercury, while the internal remedies should be of the alterative and tonic kind.

In *endo-uteritis*, the treatment consists in local or general bleeding, regulated according to the strength of the patient, and the urgency of the symptoms; in the exhibition of alterative and soothing medicines; and in injecting within the uterus, when unimpregnated.

In *follicular ulceration* the treatment is similar to those methods recommended in the various forms of disease with which it is usually associated. In gonorrhoeal inflammation, attended with plethora, local measures are not to be adopted until the system has been tranquillized by means of aperients, emollients,

rest, and a mild diet. Sulphate of magnesia is one of the best aperients, dissolved in an ample quantity of any suitable mucilaginous infusion. The local applications should consist of nitrate of silver, either in the solid form or as a strong solution sulphate of zinc, alum, or chloride of lime. When the external parts are inflamed the lotio plumbi is a good application.

In syphilis, calomel and opium, and compound decoction of sarsae, containing small doses of iodide of potassium, are recommended daily, and to the diseased surfaces the free application of nitrate of silver. In prolapsus uteri the application of pessaries is condemned, as the position of the organ can be restored without their aid. This is to be accomplished by a generous diet, when no febrile symptoms are present; tonic and chalybeate medicines, and the local application of lunar caustic, sulphate of zinc, sulphate of copper, matioo, opium, and tannin.

In reference to sterility, Mr. Whitehead, considers one of its most frequent causes to be chronic endo-uteritis. "The disease," he says, "generally sets in soon after marriage, in cases where it is not attributable to specific causes; and in some rare instances there are evidences of its having existed before. The earliest symptoms are a sense of tension and soreness of the abdomen, aching of the loins, pain of the hypogastrium and thighs, pallor of countenance, languor, and general *malaise*. A slight leucorrhoeal discharge manifests itself; this at first is clear and colourless, but soon acquires a yellowish or brownish tinge, and is not unfrequently offensive. The menstrual functions are performed with suffering; the discharge appears in unusual abundance, being sometimes clotted; and the peculiar secretion characteristic of internal inflammatory action occupies the whole interval between one menstrual period and another. The affection is accompanied with rigors and remittent fever; and there is a great tendency to peritoneal and enteritic disturbance." An examination of the uterus discovers its body, at the posterior part especially, enlarged and painful; the cervix tense, and sometimes erysipelatous; the labia thickened, with a vivid, red, irritable-looking ring of inflammation surrounding the orifice of the uterus, from whence arises a discharge of a peculiar odour. Pregnancy, in consequence, is prevented in three ways:—1. The inflammatory action, going on and aggravated by venereal excitement, may prevent the formation of the *membrana decidua*, and the ovum becomes blighted. 2. The Fallopian canals become obliterated. 3. The secretion of the internal surface of the uterus may be inimical to the active existence of the spermatozoa, occasioning their destruction before they arrive at the extricated ovule.—M. Donnè remarks that certain kinds of uterine mucus kill the animalcules with the greatest rapidity. He considers that the excess of alkali which the secretion appears to contain, in some women, does this. Mr. Whitehead, however, believes that, when the secretion becomes endowed with a property precisely opposite, fecundation is prevented.

The work reflects great credit upon the author, as it shows him to be a man with a mind well disciplined, and one who has closely studied the subjects on which he writes.

THE MEDICAL TIMES.

SATURDAY, NOVEMBER 27, 1847.

THE COMMITTEE OF POOR-LAW MEDICAL OFFICERS.

THE form of interrogatory addressed by the Committee of the Convention to every individual union surgeon, a copy of which we publish in another column, will convince the friends of the movement that those gentlemen are fully alive

to the important character of the duties involved in the trust confided to them. In providing for the accumulation, under the most authentic sanction, of a body of facts significant in their character, clear in their connection, and complete as a whole, the committee is establishing for every future operation a broad and immutable basis, whilst the views and opinions which the experience of such a body as the union officers of this kingdom can suggest must be peculiarly valuable in the responsible engagement by which its energies are tasked and its anxieties occupied. It cannot be necessary to urge upon any one to whom these inquiries will come the obligation of co-operating in the preparation of such important statistics—a duty the general and efficient performance of which will, by its results, entitle the committee, in its intercourse with the Government, to that consideration and deference which can never be long denied to a clear and vigorous statement of a righteous cause; and we feel satisfied that the response to the present appeal will be marked with that promptness and efficiency which have characterized the more exciting, but not more important, demonstrations by which it has been preceded.

MEDICAL APPRENTICESHIP AND MEDICAL EDUCATION.

"Ego nec studium sine divite venâ,
Nec rude quid prosit video ingenium; alterius sic.
Altera poscit opem res, et conjurat amice."—HORACE.

MEDICAL education is a subject which has for some time past been seriously occupying the attention of those members of the profession who are anxious that reform amongst us shall be placed upon a sound and permanent foundation. It is only within the last few years that anything like systematic efforts have been made to raise the standard of instruction amongst general practitioners. Previously to the year 1815, when the Apothecaries obtained their act, the public had no guarantee that the medical attendant of the sick was an educated individual, as any one might, without let or hindrance, assume the most responsible duties of medicine. This was felt to be a state of things which required immediate alteration, and the associated surgeons and apothecaries succeeded so far as to win the attention of the Legislature, who passed a bill for the better regulation of the practice of medicine. The Physicians' corporation lost no opportunity of mutilating the bill wherever it could, and it succeeded in making it imperative that all those who sought to obtain licences to practise as apothecaries should be compelled to undergo an apprenticeship of five years, and that the Court of Examiners should be composed of members of the Apothecaries' Society. These were blows aimed directly at medical education—that the general practitioner should never obtain a high standard of qualification, and, therefore, should always be made subservient to the views of the physician. It is a fortunate circumstance, that all the mischief intended by the College of Physicians never happened; and by the exercise of great caution on the part of those to whom the working of the bill was intrusted, the surgeon-apothecary has been gradually rising in the scale of society, and is now in a good position to secure most important privileges for his order.

It must be admitted, however, that even now his education is very defective, and that any measure of reform, to be decidedly beneficial to him, must provide better instruction, both general and professional, than that which he now receives. There is a constant clamour about the

profession being overstocked; and it is no difficult task to discover how it is that many obtain authority to practise who ought never to have been admitted within the pale of medicine. Some have imagined, that to make the fees for instruction much heavier would remedy that evil; it would do so in a very partial manner, for gold is a thing far more easily to be obtained than *now*, and a material offering more easily presented at the shrine of medicine than an intellectual one.

If a careful analysis were made of persons who have obtained qualifications to practise, in the course of a single year, we should find many to have been those who were originally chemists and druggists—who perhaps started in that business, but, finding that it would be somewhat to their advantage to become regularly-qualified practitioners, determined on being surgeons instead of mere venders of physic. Now, it is evident that, if a good preliminary education were demanded, many of this class of persons would never be able to obtain a legal medical qualification, and there are multitudes of others who would be in the same predicament; while the members of the profession would enjoy an increased amount of public respect, and would not be exposed to so much competition amongst themselves.

There is no doubt that the system of apprenticeship which exists among the general practitioners has acted very injuriously. Its entire abolition is, perhaps, not to be desired, but there is required a very great modification. As it now exists, it stands in the way of education, every means being adopted to evade the necessity of passing five years in the surgery of a private practitioner; indentures are antedated, borrowed, and even forged; and it would take a vast deal more vigilance than that which the Society of Apothecaries possesses to detect the multitude of tricks which are weekly practised upon it. But, even supposing indentures to have been fairly executed, and the five years duly served, the knowledge acquired during that time is generally of a very limited description. Either from the fault of the pupil or the master, many valuable years of a young man's life are often sacrificed; and the real time when the study of medicine commences is in the hospitals and schools of the metropolis.

While, however, the system of lengthened apprenticeship exerts a very baneful influence upon education, both general and professional, a limited medical pupilage under the superintendence of a private practitioner is not without its advantages. Mr. Martin, of Reigate, in a paper on this subject, says, "I am decidedly of opinion that a youth destined for the medical profession as a general practitioner, after an adequate preliminary education of a liberal and comprehensive character, cannot commence his professional education better than by being employed for three years in acquiring a knowledge of the various articles of the *materia medica*—their peculiar characteristics—their sensible and medicinal properties—their preparation and composition in all the various forms in which they are dispensed and administered in the cure of disease: thereby improving the education of the senses, acquiring a readiness and quickness of manipulation, an accuracy and perfection in the combination and preparation of medicines." During this time it is also supposed that the pupil will acquire a sufficient knowledge of the articles of the *materia medica* to enable him to

discover any adulterations in drugs which are so frequently sophisticated. In addition, also, he will acquire, it is thought, a method of neatly and correctly preparing medicines, a knowledge of osteology, and a dexterity in performing the minor operations of surgery. But may not all this information be acquired in a much shorter space of time than three years? We think that eighteen months well spent, under the superintendence of an intelligent tutor, would do wonders for the pupil in the departments alluded to. With regard to the articles of the *materia medica*, there is too much importance attached to many of them. The drugs and chemicals used by medical men in the treatment of diseases are few in number. Dr. Armstrong used to tell his pupils that a dozen would be, in general, all that they would find necessary for the successful treatment of disease where medicine is of any service. And all medical men soon arrive at this conclusion, that it is not the number of tools which they employ, but the skill and precision with which a few trusty ones are used, that produce the best results. A mere loading of the memory with the names and qualities of drugs which will afterwards never be employed, is a loss of valuable time which might be better employed in the pursuit of more useful knowledge.

It should be borne in mind, also, that the abolition or curtailment of medical apprenticeship, without insisting upon a young man destined for our profession possessing a good general education, would be productive of no benefit whatever. We would earnestly caution medical men on this subject, as a certain periodical, once noted for its scurrility, thought proper last week to take up the cudgels against a classical education for surgeons in general practice. It is true that a knowledge of the literature of Greece and Rome will not make a man a physician; but it has this excellent effect upon him, combined with other branches of polite learning—so to discipline and strengthen the mind as to fit it to study, under the most advantageous circumstances, the medical science. It is evident, moreover, that a mind well tutored by an early liberal education is not only placed in the most advantageous circumstances to acquire professional excellence, but there must be generally produced a refinement of taste subversive of those low tricks to gull the public which are practised by the quack fraternity possessing diplomas. There may be exceptions to this general rule, but they will be very few; and, with a profession highly educated, we may with confidence look for a high tone of moral feeling.

Sir James Clark, in reference to the tuition of medical men, remarks that, "It is from being uninstructed in the common principles of philosophy, and, consequently, unacquainted with the laws by which the various physical agents amidst which we live are regulated, and the effects of these in promoting health and inducing disease, that medical men have failed in some of their highest duties, that they have been less efficient ministers of health, and less successful investigators of disease, than they would otherwise have proved. It is in the power, as it is unquestionably the duty, of the Legislature to put an end to this state of things—to improve the education of medical men generally, and, above all, in its neglected and not least important department, *preliminary instruction*." We advocate a modification of the apprenticeship system, that the early education of youth destined to practise medicine may be as extensive as possible; and

the mind will then be brought under the most favourable circumstances for the study of a science which is confessedly one of the most important to mankind.

PAYMENT OF MEDICAL MEN FOR PUBLIC SERVICES DURING THE CHOLERA.

THE public are looking with anxiety at that Eastern scourge, the cholera, which is now travelling with hasty steps towards the shores of our own country. We rejoice to find that the claims of medical men to public sympathy and support, in case of the threatened invasion, are being advocated by many of the provincial and metropolitan journals. We have repeatedly declared that the manner in which the sick poor are left to the benevolence of the profession is disgraceful to the nation; and it would be adding to the numerous wrongs which medical men suffer, to expect that they should in times of pestilence perform duties fraught with danger without reward. The surgeon performs his engagements at the risk of his own life; and, should that be taken away, how often does it happen that a widow and a family are left without those worldly means which ensure respect and administer most materially to earthly happiness! We quote, with satisfaction, the following remarks from a Yorkshire newspaper:—"It is some trifling consolation, that the medical practitioner, in risking his life, is providing for his family when paid for his services; but when, as in the case of the cholera, all his danger and anxiety and toil are only rewarded by the 'I shall never forget' of the wealthy, the question assumes another aspect. The public can easily comprehend that the members of an honourable and dignified profession esteem such rotten praise to be more insulting than silence. The late Mr. Needham published a history of the cholera, as it appeared in the city of York; and in that work he has chronicled the avarice and selfishness of the then city authorities. We hope sincerely that this stain will be wiped away, and that the first steps, in anticipation of the cholera, will be the formation of a fund, by voluntary subscription, for the purpose of fully remunerating the courageous and diligent medical practitioner for his attendance on the sick. This is no medical gentleman's question, but a question of the poor man—a question as to whether the indigent are, in times of pestilence, to be efficiently supplied with competent medical aid."

It is a source of satisfaction to us, as we were the first to advocate the claims of the poor-law surgeons to increased remuneration for their services, to find that the public sympathy has been excited on their behalf, and to such an extent as to lead to a well-grounded hope that our long parish authorities will be compelled to act with a greater measure of liberality to their medical officers. The question of medical remuneration is not, however, confined simply to the fees which surgeons receive who are officially employed in the parochial unions of the kingdom; and we are glad to find that the public press is viewing the matter in this light. In the last visitation of the cholera we are not aware of any especial fund being established for the purpose of rewarding medical men for their services; we trust, however, that past neglect will be atoned for by the wealthy portion of the community coming forward with their purses to provide a fund out of which medical men shall receive remuneration for their attendance upon poor persons who may be seized with the cholera.

THE SHIP FEVER; AWFUL MORTALITY ON BOARD AN EMIGRANT VESSEL.

"Mors ultima linea rerum est."—HORACE.

THE terrible disasters which have occurred on board emigrant vessels appear not to have excited that alarm in the minds of those who superintend their equipment as to induce them to seek all approved means for the safety of the passengers and crews. In the face of the most awful calamities, and in defiance of Government regulations, many of these ships still continue to pass across the Atlantic freighted with human beings, but destitute of a medical officer, who is best capable of suggesting sanitary regulations, and of combatting disease when it makes its appearance. A passenger vessel without a surgeon is in as perilous a condition when there is sickness among the people, as a ship at sea without a governor on board acquainted with the laws of navigation. It is possible under both circumstances to escape destruction; but no one with the least grain of prudence or humanity in his constitution would, with the means of preventing it, allow a vessel, under such circumstances, to risk a voyage across the ocean. Merchants, for the sake of their own pockets, will take good care that their ships are superintended by those who are capable of conducting them to the wished-for port; but in matters which relate to the health and comfort of those on board they have hitherto manifested a parsimony which must be designated as cruel and inhuman. It is truly astounding that the Government and merchants should exhibit so much supineness in providing efficient medical officers for emigrant vessels, with a perfect knowledge of the tragic events which have lately occurred in consequence of fever amongst passengers. Scarcely can we credit that a ship would now leave our shores without having an individual on board well skilled in the healing art, and having at his command all the means which can be furnished to prevent disease, or to combat it in the best manner should it appear. And yet we have been again startled with a dreadful tale of suffering and death, arising from fever, on board the ship *Avon*, which started for America with 500 passengers on board.

At the very outset of the voyage, this vessel appeared destined to meet with no ordinary disasters. The weather proving unpropitious, she lost several spars, and so suffered in her rigging as to greatly prolong the time that she continued at sea. It appears that her human cargo consisted of the lowest orders of the sister country, who are represented as becoming during the voyage so turbulent and wild as to set at defiance every means employed to promote their health and comfort. They would hearken to no remonstrance, adopt no sanitary measures, and even resisted with main force every attempt that was made to ventilate and clean the steerage. As a consequence, the fever appeared amongst them, and exhibited so much virulence, being at the same time unchecked by any medical applications, as to prove almost immediately fatal.

But this was not all, for the ignorant and infatuated creatures would not separate themselves from the dead, until the infection arose to such a pitch that, frantic with despair, the captain, uniting with some of the more intelligent part of the passengers, and a few able hands of the crew (for the disease had extended to the men engaged in navigating the ship), gave battle to the unruly in the steerage, and finally succeeded in overcoming them. When possession was obtained of their loathsome den, the most appalling sight presented itself to view: sixty dead bodies

were found in various states of decomposition, stowed away in chests or sewed up in beds. These, of course, were soon committed to the deep, and many a fresh victim soon followed, until the largest portion of the passengers and all the crew, with but two exceptions, were destroyed. Since the arrival of the vessel at Miramichi, into which port she put in a disabled condition, it is said that the Government has instituted a searching investigation.

Now, in this "searching investigation," we hope that three things have been particularly looked into:—1. The condition of the ship itself—its sea-worthiness, the state of the hold, the means of ventilation, and its capabilities of accommodating so many as 500 human beings. 2. What provisions were shipped for the use of the passengers during the voyage; whether these were in good order, and of sufficient quantity. 3. What resources were on board to meet, in the most effectual manner, the frightful fever when it appeared amongst the passengers and crew. This latter inquiry would involve an investigation into the condition of the medicine-chest; whether the drugs were sufficient in quantity and good in quality, in fact such as could be relied on when scientifically employed in the treatment of disease. We know that the dispensary of many emigrant ships is of the most wretched kind, the articles being supplied by some druggist who uses his own discretion as to what medicines shall be furnished for the voyage, and who can, if he please, send the most inert articles, having no efficient person over him to prevent him serving himself in the best way, even at the expense of the lives and health of individuals on board. Above all, it should be seen whether there was any qualified medical practitioner in the vessel. From the reports which have reached us we cannot learn that there was one; and every circumstance goes to prove that this was certainly the case. Now, it is imperative on the Government, should it be found that their regulations have in any way been evaded, with reference to a surgeon being in every ship containing a given number of individuals, and going on a voyage which shall occupy a certain length of time, to punish most severely the parties who have been guilty of this dereliction of duty. It is a matter which concerns not only the poor emigrants themselves, but the inhabitants of those countries amongst whom they intend to settle. If they arrive the subjects of a disease which, under particular circumstances, becomes infectious, it is impossible to foretell the extent of mischief which may be produced. Already in Canada numbers of the respectable inhabitants have succumbed to fever which had its origin on board ship.

This we conceive is a matter in which the members of the medical profession are especially called to bestir themselves. They should not be deterred from this because the plague is not experienced on our own shores; but, manifesting a benevolence which knows no other limits than that of the great human family, it is for them to use their powerful influence to prevent avaricious men from inflicting unspeakable injuries on the poor of our own country who engage in a voyage by sea; or of these innocently transmitting the seeds of a fatal disease to the inhabitants of the great Western continent.

The subjoined circular and inquiries have been prepared by the Committee of the Convention, for transmission to every poor-law medical officer in the kingdom:—

"Committee-room, 4, Hanover-square, Nov. 22.

"The Committee of Poor-law Medical Officers submit to you the enclosed return, and they beg the favour of you to fill it up and return it to them *with the least possible delay*.

"In order to support the representations which they are about to make to the Government, they feel it necessary to be in possession of the most full and accurate information as to the present state of medical relief throughout the country; and the only means of arriving at that information is, by the general transmission to them of the enclosed return. Where medical officers have not attended their district so long as for the last five years, it will be sufficient to make the return for the time only that they have attended. Their attention is also particularly requested to the questions regarding the best mode of remunerating medical attendance on the poor.

"The committee beg also to remind you, that considerable expenses have been, and must be, incurred, in the prosecution of their inquiries; and they earnestly request that you will forward a subscription, by post-office order or otherwise, to the Treasurer, Thomas Martin, Esq., Reigate.

"We are, on behalf of the committee,

"Yours respectfully,

"THOMAS HODGKIN, M.D., Chairman.

"T. PIERS HEALEY, Hon. Secretary.

"All communications should be addressed to the Honorary Secretary, 4, Hanover-square."

The subjects on which information is desirable are arranged in a tabular form, under the following heads; and answers should comprehend, where practicable, the period from 1843 to 1847: "Total number of sick, as per weekly return. Number of sick attended, but not included in weekly return. Amount of annual salary exclusive of extras. Payment for midwifery—rate per case; amount received. What is your opinion as to the propriety of payment per case, and the amount? What is your opinion as to a fixed salary, based on the number of cases attended, and the mileage? What is your opinion as to payment for extra cases, exclusively of midwifery? What is your opinion as to fixed payment on the number of population, and area, to be settled by the Poor-law Commission?"

CHLOROFORM.

THIS new anæsthetic agent is attracting the attention of all classes of the profession in the metropolis. Already many operations have been performed while the patients have been under the influence of this new agent, and in every instance it has bid fair in a very short time entirely to supersede ether. Chloroform produces less irritation on the aerial passages; insensibility is induced by it in a much shorter time, in smaller doses, in a greater degree, and more persistent than sulphuric ether. We last week published Dr. Simpson's excellent paper on the employment of the new agent, and in the present number will be found some good remarks by Mr. Haynes Walton.

It is right the members of the medical profession should be informed that many spurious articles are being sold for chloroform, which have none of its virtues; surgeons in the country should, therefore, order of those in whom they can exercise a well-grounded confidence.

TO THE RIGHT HONOURABLE THE LORDS SPIRITUAL AND TEMPORAL OF THE UNITED KINGDOM OF GREAT BRITAIN AND IRELAND, IN PARLIAMENT ASSEMBLED;

THE PETITION OF THE PHYSICIANS AND SURGEONS OF THE CORK UNION

Humbly sheweth—

That your petitioners respectfully beg to lay before your Honourable House a few of the grievances under which the medical profession in Ireland labours.

Medical men are frequently summoned by the

Crown as witnesses to courts of assize, the fees seldom defraying half their expenses—these being exclusive of the loss caused by absence from home, occasionally of more than ten days' duration.

Medical men are often obliged to give evidence on behalf of the Crown in courts of quarter sessions, for which they receive little or no remuneration. The same injustice is practised to the Faculty in a recorder's court. No remuneration whatever is allowed in any of the above courts, except in cases of felony, though the services of the medical men are equally availed of in those of misdemeanour.

Medical men are constantly called on by magistrates and police officers, to institute critical examinations in cases of rape, battery, &c., for which they get no compensation, notwithstanding, without the aid of medical testimony, the ends of justice would many times be defeated.

Medical men are summoned by magistrates and constabulary officers before courts of petty sessions, often in consequence of the above examinations. For their attendance there the law recognises no remuneration.

The fee allowed to a civilian medical man, for medicines and attendance to a British soldier, is so discrepant as to require no comment; while a policeman (officer included) is, by law, provided with medical and surgical attendance, together with medicines, for 6d. per month.

The law requires a medical certificate in order to secure the admission of a lunatic into an asylum, but allows no fee to the medical man supplying the certificate.

In coroners' courts, the fees are not payable for a year, and pass through channels so complex, as sometimes to render them not available at all. The 32nd Section of the recent Coroners' Act furnishes an additional instance of injustice to medical men attached to hospitals, infirmaries, lunatic asylums, and other public medical institutions.

Your petitioners respectfully call the attention of your Honourable House to the above grievances, the injustice of which is so very obvious; and they humbly pray, they may be redressed in any bill that shall come before your Honourable House this session, either in reference to the medical charities of Ireland, or through such other channel as to your Honourable House shall seem fit.

And your petitioners will ever pray.

POOR-LAW MEDICAL RELIEF.

[To the Editor of the Medical Times.]

SIR,—I have just now read the letter addressed to the Right Hon. Sir George Grey, Bart., by E. T. Spooner, Esq. It contains much that is true, much that is good; but one suggestion, also, which I conceive, in the carrying out, would be altogether impracticable. Mr. Spooner says:—"I would propose, then, that an adequate dispensary and a qualified dispenser be attached to each union, to supply the medicines prescribed by the medical staff." Such a scheme could only be made available in the principal town of the union, where it might work well; but when we consider that a large number of union medical officers reside in country districts, its inutility will be at once apparent. Such a course would entail one of two things—either the establishment of a dispensary for every medical officer, which I believe no union would be found to accomplish; or it would compel the pauper to travel many miles before he could obtain the required medicines. Paupers have to travel many a weary mile as it is. They have first to travel to the relieving officer for an order (how far they alone know); then they have to travel back to the medical officer to present the same; and, last of all, have to travel again for the medicine. And a wearisome travel it is, without anything to lighten it! I repeat, a dispensary in every large town might work well and prove economical, but in country districts it would not be necessary; and yet to compel paupers to fetch their medicines from the town establishment would be only adding travel to travel, and would prove a heartless injustice. There need be no fear of medical officers dosing their patients with bad or inferior medicines—no fear of them withholding that particular remedy, no matter how expensive, which science has rendered available in the treatment of particular cases—if they only had awarded to them that fair remuneration which is justly due. This is all that is wanted. In my own district there are thirteen medical officers, three only of whom reside in the town; the remainder are stationed in villages at a distance of two, three, four, and five miles. The shortest, the best, and the most just way for the

paupers is for these gentlemen to distribute their own medicines; and I believe they will be both plentiful and efficient—will embrace "leeches, quinine," and even "sarsaparilla," if commissioners, Government, and guardians can only be induced to award proper "pay." Poverty of payment is the root of the evil, not any disposition on the part of medical officers wilfully to furnish bad medicines. Bad as things are at present, I believe the latter surmise a libel, for I have that opinion of the profession that, if there were no pay at all, the medical relief of the poor would still be held a prominent duty.

Talking of leeches: Parliament should abolish the duty on leeches this very session. Fivepence per leech is a large sum out of a poor-law medical officer's pay.

I have the honour to be, Sir, your obedient servant,
FREDERICK SMITH GARLICK.
5, Cheapside, Halifax, Nov. 22.

CHINESE METHOD OF APPLYING MANURE.

[To the Editor of the Medical Times.]

SIR,—Referring to what M. Dumas says in his 32nd Lecture (*Medical Times*, vol. 17, p. 71), respecting the Chinese method of using human excrement, in a solidified state, as manure, I beg to observe, that I have it from an eyewitness—a British officer, who was there in the late disturbances—that the Chinese use the manure in question principally in a liquid state; manual labour being in that country obtainable at very reduced rates, from the excess of population. He has seen the inhabitants throng the fields, and, with a kind of wooden spoon, apply a little of the liquid night-soil to each root of the rice and other plants; and the luxuriance it produces in this manner is truly beyond conception.

If you can spare a nook for this communication in an early number of your valuable periodical, you will oblige yours truly,
W. THOMAS.
Fembroke Dock, Nov. 17.

ROTHERHAM UNION.

At a meeting of the medical officers of the Rotherham Union, held at the Crown Inn in that place on Friday, the 12th inst.; present, Messrs. Turner, Blythman, Wilkinson, Wade, Flower, Hardwicke, and Stone:

Proposed by Mr. Blythman, seconded by Mr. Wilkinson:

Resolved,—That this meeting consider that the salaries of the poor-law medical officers throughout the country are not commensurate with the duties they have to perform.

Proposed by Mr. Wade, seconded by Mr. Stone:

Resolved,—That the medical officers of this union approve of the efforts now making by the Convention of Poor-law Union Surgeons, and express their determination to support them until redress be obtained.

Proposed by Mr. Flower, seconded by Mr. Hardwicke:

Resolved,—That a subscription of 5s. each be forwarded to T. P. Healey, Esq., the Secretary of the Poor-law Union Convention.

Moved by Mr. Wilkinson, seconded by Mr. Hardwicke:

Resolved,—That this meeting strongly object to the payment of the medical officers of unions by case.

Proposed by Mr. Wilkinson, seconded by Mr. Wade:

That Mr. Blythman be requested to take the office of Secretary, and to communicate with the Secretary of the Poor-law Union Convention.

JOSEPH HATFIELD TURNER, Chairman.

DEATH OF M. DIEFFENBACH.

Last week we announced the demise of the celebrated surgeon, Dieffenbach, which took place at Berlin on the 11th inst., between two and three o'clock in the afternoon.

In the morning of that day he appeared in his usual health and spirits. At two o'clock he arrived at the Hospital of la Charité, Berlin,

where he delivered a clinical lecture and received the visit of two French physicians. He also performed an operation for aneurism, and afterwards engaged in conversation with his two friends, in which he referred to the operation. Suddenly M. Dieffenbach turned himself, dropped his head back, and bent towards one of the gentlemen, so that the persons present thought that he was addressing something to him, which was intended only for his ear. As he remained in this position, it was perceived that something had happened to him. M. Angelstein, one of the physicians of the hospital, arrived and endeavoured to bleed him, but without effect. The illustrious surgeon had ceased to live. The autopsy not having been made at the time our former communication was sent from Berlin, we are ignorant at present of the immediate cause of death. The loss of M. Dieffenbach to science and surgery is very great; but to the University and public of Berlin it is irreparable.

This celebrated surgeon was born in 1796, at Königsberg, and he first devoted himself to the study of theology. It was not till after the war of 1814 or 1816, in which he took part as a volunteer, that he devoted himself to medicine. In 1812 he repaired to Paris, and became a pupil of the illustrious Dupuytren, for whom he ever after professed an admiration so great as almost to amount to veneration. At his return to Berlin he performed many important operations, which were followed by complete success, and founded such a reputation as was not tardy in becoming European. He was a Professor in the University of Berlin, and President of the Council of Health. All the academies of Europe had enrolled him amongst the number of their members, and most of the sovereigns had conferred decorations upon him.

M. Dieffenbach has left in manuscript a very extensive work "On Etherization," and he had nearly completed one on "The History of Surgery," illustrated by numerous drawings executed by himself.

GOSSIP OF THE WEEK.

WAR-OFFICE, Nov. 19.—66th Foot: Assistant-Surgeon R. G. Montgomery, M.D., from the 74th Foot, to be Surgeon, vice Miller, promoted on the Staff.—69th Foot: Second-Class Staff Surgeon H. J. Schooles, M.D., to be Surgeon, vice R. Harthill, retired upon half-pay.—74th Foot: F. Robinson, M.D., to be Assistant-Surgeon, vice Montgomery, promoted in the 66th Foot.—75th Foot: J. S. Furlong, M.D., to be Assistant-Surgeon, vice Adolphus, promoted on the Staff.—Hospital Staff: Surgeon J. Miller, M.D., from the 66th Foot, to be Staff-Surgeon of First Class, vice M. White, retired on half-pay; Assistant-Surgeon E. Adolphus, M.D., from the 75th Foot, to be Second-Class Staff-Surgeon, vice Schooles, appointed to the 69th Foot.

NAVAL APPOINTMENTS.—Surgeons: Dr. John Burke, to the Stromboli; W. R. Dalton, to the Cygnet; Frederick J. Whipple, to the Alert.—Assistant-Surgeons: Gerald Yeo, to the Stromboli; Lawrence Carey, to the Porcupine; T. B. Forster and C. K. Ord, to the Asia; John Ward, to the Vengeance; Hart Gimlett, to the Lizard; W. C. Tucker, to the Raleigh; W. Bine, to the Blazer; Charles Forbes, to the Acheron; C. S. Lester, to the Belleisle.

APOTHECARIES' HALL.—Gentlemen admitted members Nov. 18.—Robert Walmisley Baxter, Benjamin Kealley, John Beecroft, and Robert Alexander William Westley.

ROYAL COLLEGE OF SURGEONS.—Gentlemen admitted members on the 19th instant, viz.:—Messrs. J. P. Teebay, W. Pearce, G. R. Pemberton, W. Fincham, J. W. Elliott, W. J. Edwards, G. Roper, J. Urquhart, J. F. Unisacke, G. H. King, N. D. S. Wallich, and T. Green.

BOTANICAL SOCIETY OF LONDON.—Nov. 5.—J. E. Gray, Esq., F.R.S., &c., President, in the chair. Donations of British plants were an-

nounced from Mr. Hewett Watson, the Rev. A. Bloxam, Dr. Lemann, the Rev. W. R. Crotch, Mr. J. W. Salter, Mr. A. J. Hambrough, Mr. E. G. Varenne, Mr. B. M. Watkins, Mr. James Motley, the Rev. R. C. Douglas, Mr. J. Rich, Mr. G. Cooper, Mr. F. Barham, Mr. G. Rich, Mr. H. C. Stephens, the Rev. T. Butler, Mr. G. E. Dennes, Mr. B. D. Wardell, Rev. G. W. Sandys, Mr. R. J. Mann, Rev. H. Marsham, Rev. J. Bigge, Mr. W. Mitten, Mr. H. Taylor, Mr. T. Moore, Mr. W. L. Notcutt, and Mr. F. P. Pascoe. Azorean specimens had been received from T. C. Hunt, Esq., her Majesty's Consul at St. Michael's; and foreign specimens from Dr. Southby.—Miss C. Wilkins, of Westbury, Wilts, and Mr. A. Beardsley, of Hleanor, near Derby, were elected members.—The Rev. Andrew Bloxham presented specimens of *Anacharis alinastrum* (Bab), discovered by Miss Kirby in ponds or reservoirs, adjacent to Tottonlocks Canal, near Market Harborough, Leicestershire, in October last.

THE HUNTARIAN MUSEUM.—We understand that the Council of the College of Surgeons have expended a large portion of their funds (report states £16,000 or £18,000) in the purchase of Mr. Alderman Copeland's extensive premises adjoining the college, for the purpose of increasing the magnificent museum and library.

KING'S COLLEGE HOSPITAL.—In consequence of the great increase in the number of outpatients applying at King's College Hospital, the council of King's College have appointed Dr. George Johnson, medical tutor of the college, as an assistant-physician to the hospital.

HOLBORN UNION.—At the weekly meeting of the board of guardians held at the board-room in Gray's-inn-lane, on Wednesday, the 17th inst., it was resolved, on the motion of Mr. S. Pearson, an intelligent and active guardian of the upper liberty, that the salaries of the several medical officers of the union should be increased, viz., that of Mr. Gibson, from £125 a year to £165; and those of the two other medical gentlemen, Mr. White and Mr. Whitfield, from £115 to £150 each, to commence from last Michaelmas-day; and that such sums should be exclusive of midwifery cases, which were included in the former salaries, but which it was declared should be paid for in future separate and distinct from the annual salaries so fixed by the board. It is a subject of congratulation that the board of guardians should have come to this resolution, inasmuch as the pay to the medical officers has long been inadequate, especially considering the great increase of both out and in door patients; and it now remains for other boards of guardians to imitate the example of liberality thus set by that of the Holborn Union.

DR. REID'S ALVEOLAR HEMORRHAGE COMPRESS.—The committee appointed to inspect the compress report that, having carefully examined Dr. Reid's compress, they are of opinion that the advantages set forth by the inventor, in his descriptive communication to the society, are realized by the apparatus.

THE CHOLERA.—The official reports relative to the progress of the cholera, published by the Russian Government, state that only 120 cases had manifested themselves at Moscow between the 30th of September and 14th of October, 41 of which had proved fatal. The epidemic prevailed at that period in sixteen governments of the empire, and had crossed the Dnieper. The report of its appearing in Galicia and Podolia was not confirmed. Hitherto it seems to follow a north-eastern direction.

HORSEFLESH AS HUMAN FOOD.—The *Belgian Medical Gazette* has made the following proposition to the Veterinary Society of that place:—"To have a banquet where there was to be nothing but horseflesh, with vegetables produced in the country. Wine and every foreign production was to be forbidden. 'Thus,' they say, 'we shall have a truly national banquet. What a desirable influence the example of wealthy and well-informed men will have upon the poor! To extol horseflesh is something, but to set the example of eating it is more meritorious.'"

MORTALITY TABLE.

For the Week ending Saturday, Nov. 20, 1847.

Causes of Death.	Total.	Average of 5 Summers.
ALL CAUSES.....	1086	1046
SPECIFIED CAUSES....	1082	1039
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	344	211
SPORADIC DISEASES.		
Droopy, Cancer, and other Diseases of uncertain or variable Seat.....	89	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	132	157
Diseases of the Lungs, and of the other Organs of Respiration.....	293	333
Diseases of the Heart and Blood-vessels.....	30	34
Diseases of the Stomach, Liver, and other organs of Digestion.....	86	74
Diseases of the Kidneys, &c. Childbirth, Diseases of the Uterus, &c.....	16	9
Rheumatism, Diseases of the Bones, Joints, &c....	13	14
Diseases of the Skin, Cellular Tissue, &c.....	2	2
Old Age.....	40	65
Violence, Privation, Cold, and Intemperance.....	24	29

TO CORRESPONDENTS.

THE "MEDICAL TIMES" may be procured by an order on any Newsmen or Bookseller, or it will be sent direct by post from the Office of the "Medical Times" to Subscribers sending by a Post-office order, directed James Angerstein Carfrae, or an order on some party in town. One Pound Five Shillings IN ADVANCE, which will free them for Twelve Months. Half-yearly Subscription, 15s.; Quarterly, 7s. 6d.

The case of United Twins, by Mr. R. U. West, of Hogsthorpe, Alford, Lincolnshire, was by mistake placed last week under Original Contributions. It was an abstract of a pamphlet sent to us, and which originally appeared in "The Edinburgh Medical and Surgical Journal."

"Sigma."—The new anæsthetic agent has been successfully used in London in some surgical operations. Its influence appears to be exerted for a longer time upon the patient than ether.

"A Surgeon-Apothecary."—The only remedy is prosecution; probably the Company would assist, as it appears to be a clear case of illegal practice.

"Nuper Guyensis" writes, in reference to Mr. Lawrence's evidence before the Medical Registration Committee:—"He should have been the last to have aspersed the character of any examining body, when the qualifications of the mass of the men admitted within the pale of membership of the College are so manifestly inferior to their professed position in the medical world. Suffice it to say, that six months' grinding will at any time pass the most thickheaded dolt through the ordeal of the College of Surgeons." To obviate the necessity of grinders, as in the present system, and to direct the student in his studies, in order that he may afterwards become an efficient surgeon, our correspondent thinks that tutors should be appointed in all hospitals to superintend and examine pupils from time to time. Every pupil should be compelled to attend lectures and examinations, by means of a mark, as in a college life, at hall, chapel, &c.

"Edinburghensis."—The packet of newspapers was duly received, but we fear that events referred to are not exactly suited for the columns of a medical journal.

"P. C. D." is thanked for his suggestions, which shall be attended to.

"Amicus."—We admire the spirit of our correspondent, but there are some parts of the communication which may be misunderstood, and therefore improper meanings applied to them; we are, in consequence, reluctantly compelled to decline publishing it without considerable alterations.

"Dr. Fergusson, Kingston, Jamaica," is thanked for his communication. A private letter will be sent by the first packet.

"Chemist."—We were not present when the experiments were tried with Ellerman's Patent Disinfecting Process, and are, therefore, unable to speak as to its merits.

"A Friend to the Medical Profession" writes with good intentions, but weak arguments. We perfectly agree with him in the view he takes of the late Medical Registration Bill, as containing but few good points; while, if it were suffered to become law, it would retard for a considerable period sound medical reform.

"Dr. Chas. Armstrong, Cork."—The petition of the physicians and surgeons of Cork to both Houses of Parliament has been received, and shall obtain an early insertion.

"A Friend and Upholder of the *Medical Times*."—The omission referred to was unintentional. The other points of the communication shall be attended to.

"Amicus, Great Bolton."—We cannot decipher one of the words in the letter, and are, therefore, unable to give an opinion as requested.

"Tyro."—The purpose of medical education is to furnish the practitioner with as great an amount of knowledge available in the treatment of disease as possible. There is no doubt that the present system is very defective, and it may be attributed to the competition existing between so many corporate medical constitutions possessing authority to grant diplomas.

"A Non-Medical Inquirer" had better seek his information concerning the "discovery and history of gunpowder" from those of the weekly newspapers which are accustomed to answer questions of this sort. It is out of the province of a medical journal to discuss non-professional subjects.

"A Poor-law Guardian" writes us, in very wrathful terms, for the part we have taken on the subject of medical remuneration to parochial surgeons. He says, "The fault is not with the guardians, but with those who will take the parish at the sum offered, and even below. I know four parishes where there were doctors willing to attend the poor, and some of the candidates went round to the different guardians soliciting as a favour their votes and interest. I do not see why they should, then, make such an outcry against us, nor do I think that it is anything to your credit to be found writing continually in their favour, and against us." We are very much obliged to our correspondent for the compliment he has paid us, and we assure him that we shall continue to expose the conduct of those who, calling themselves guardians of the poor, would withhold from their medical attendants a just remuneration for their arduous labours.

"A Present Subscriber."—We will endeavour to accommodate our correspondent.

"An Edinburgh M.D."—A Scotch physician may practice in the provinces, without any fear of molestation from the College in London.

"A Correspondent" wishes to be informed the cheapest way to become a physician, and whether the medical information requisite is great. We beg to refer our correspondent to Dr. Burrows or Dr. Paris.

In a communication which we have received from "Mr. Hooper," Fall-mall, that gentleman, speaking of the virtues of pure chloroform, says—"I am most anxious that should not be hastily called in question, for, from some samples which have been furnished to me, I find that much irritation and sickness have ensued. This has resulted from processes having been used different from that of Dumas, and the product cannot be considered to be pure chloroform. By some persons chloric ether has been sent for it, and it is therefore incumbent upon all who use the product to test its nature. Pure chloroform should be neutral, and sink in water; it should possess a saccharine taste and have the odour of the apple, or, as Dr. Simpson says, a fruity odour. I can confidently appeal to Dr. Boott, Dr. Rigby, Prof. Fergusson, and Mr. Robinson, for the truth of my assertion, that pure chloroform has fully justified the commendations of it by Dr. Simpson; and I cannot too strongly recommend the process of Dumas to be, at least for the present, exclusively used."

"A Young Surgeon."—An appointment in the East India Company's service cannot be purchased. Application should be made at the East India-house, Leadenhall-street, where the information can be obtained without expense, and with very little trouble.

"Dr. J. C. Hall, Grove-street, East Bedford."—We have received the paper on Sanitary Reform, which shall have an early insertion. The other suggestions shall be attended to.

"Mr. H. Haynes Walton" will see that his request has been attended to.

"The Committee of the Health of London Association, 40, Leicester-square."—We are fearful that we shall not be able to comply with the request contained in the note received.

"Senex, Dudley."—The poor-law medical movement is in a most healthy condition, and there is a prospect of tardy justice being done to hardworked parochial surgeons.

"A Qualified Practitioner."—The communication had better be sent to Mr. Ross, the Secretary of the National Institute, Hanover-square. We are not certain as to the number of books in the library of the Institute; they gradually augment.

"Mr. Bolton."—We must decline the article sent. Letters and communications have been received from Mr. Preston, Strand; Dr. Long, Sligo; Mr. Riles, Ventnor; Mr. Risdon, Dalston; Sigma; A Surgeon-Apothecary; Nuper Guyensis; Edinburghensis; F. C. D.; Amicus; Dr. Fergusson, Kingston, Jamaica; Chemist; A Friend to the Medical Profession; Dr. Chas. Armstrong, Cork; A Friend and Upholder of the *Medical Times*; Amicus, Great Bolton; Tyro; A Non-Medical Inquirer; A Poor-law Guardian; A Present Subscriber; An Edinburgh M.D.; A Correspondent; Mr. Hooper, Fall-mall; Mr. Wm. Smith, King-street, Belper; Dr. J. C. Hall, Grove-street, East Bedford; Mr. H. Haynes Walton; The Committee of the Health of London Association, 40, Leicester-square; Senex, Dudley; A Qualified Practitioner; A Young Surgeon; Mr. Bolton.

A HANDSOME PORTFOLIO for holding the "MEDICAL TIMES"—very desirable to those who would keep the numbers clean for binding, and easy of reference—may be had, by order of any Bookseller, or at the Office, price 5s. An allowance is made to the trade.

COVERS FOR BINDING the Numbers of the "MEDICAL TIMES" are now ready, and may be had, by order of any Bookseller, or at the Office, price 1s. 6d.

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ORIGINAL LECTURES.

A COURSE
OF
LECTURES ON SURGERY.BY
SAMUEL COOPER, Esq., F.R.S.,Professor of Surgery to University College, London;
Consulting Surgeon to London University Hospital, &c.

LECTURE XIX.

GENTLEMEN,—At the close of the last lecture I left unfinished the subject of phagedenic ulcers; I described the disease as it is met with in syphilitic cases, but it may arise from other causes. It was seen in St. Bartholomew's Hospital that disease of this description was contagious, and that it was communicated by the use of the same sponges by the diseased and others. Although in its commencement attended with little febrile disturbance, the progress of the disease is rapid towards a general indisposition as terrific as it at first appeared slight. Perpetual agony prevents the patient from sleeping; the tongue is furred, and the appetite lost; the epigastrium is tender; together with these symptoms, the pulse is quickened, the skin sallow, and the patient suffers severely from headache. Bilious vomiting or diarrhoea frequently attends or follows.

In the local treatment bleeding can rarely be resorted to with advantage; venesection exposes the patient to the risks of hemorrhage, on account of the natural tendency of this disease; and leech-bites assume a morbid action, as is just what we see in hospital gangrene. Mr. Welbank found an application of strong nitric acid to the surface an excellent means of arresting the ravages of gangrenous phagedena. His mode of applying it was, after protecting the surrounding skin with a thick coating of cerate, to dip lint in the acid and apply it to the part, the surface of which was thus converted into a firm and dry mass. Simple dressings were afterwards employed, and an evaporating lotion. In France a solution of chloride of sodium, consisting of one part of the concentrated solution in eight of water, is employed, either mixed in a poultice or used with lint. The dressings most used are bread or carrot poultices, a watery solution of hyoscyamus, the liq. opii sed., with a pledget or poultice over the lint. From a consideration of the predisposing cause you will infer the propriety of attending to diet and regimen; when great debility exists, you are to employ bark, quinine, and wine, with a light nourishing diet. In St. Thomas's Hospital it is customary to allow a mutton chop, with eggs and milk.

The subject of ulcers and ulceration will be properly followed by that of burns, as, in fact, burns produce ulcers of a peculiar kind, remarkable for the luxuriance of their granulations and

the powerful manner in which the circumference is contracted towards the centre, often producing most horrid disfigurement. It is not necessary to observe, that burns proceed from the communication of heat upon some part of a living texture, which, if produced by a liquid, is called a scald. As water will only admit of a temperature of 212° F.; or, to speak more properly, as after that degree it evaporates, you do not find in common water scalds that degree of pain and injury which follows the scald of thicker fluids, which attain a much higher temperature. You will likewise remember, that a scald is apt to be severe from the rapidity with which it spreads and the extent of surface it covers. You find that where the cuticle is thick less injury results, as you would naturally expect; and this is particularly seen in persons like blacksmiths, who, from the nature of their labour, have the outside of the palms of their hands so thick as to enable them to handle a surprising degree of heat without injury.

Burns may be classed in six varieties:—In the first there is just a redness of skin where the degree of heat which has been applied has not been intense, and there is little or no sloughing, and some erythema; and in a very few hours, or, at most, in a day or two, the effects will subside, and the cuticle peel off, leaving no remains of injury in the part. It is very true that even this degree of heat may produce great injury, and even danger where it is very extensive, as it suspends the functions of the skin, very much to the loss of the whole system; the pulse is quickened, the tongue red, and the mucous membrane of the alimentary canal is excited. In the second variety the degree of heat has been greater, the redness is darker, and sloughing more considerable, but what marks it more particularly is the formation of vesicles, which sometimes rise immediately after the application of heat, and in other instances, within twenty-four hours afterwards, contain serous fluid. In the third class, the surface of the cutis suffers, and is more or less destroyed; the vesicles attending this injury contain turbid blood and serous fluid; you may know it by the appearance of the part, it having a yellowish or light brownish discoloration. These parts are converted into eschars, from which the patient suffers no pain, unless pressure be applied, which produces suffering by affecting the living parts between the eschar. In the fourth class, the whole surface of the cutis is destroyed, and more or less of the subcutaneous texture is injured; the discoloration of the eschars is also of a deeper colour. You may observe that these eschars are stiffer than those in the preceding classes, and also more brittle, and the skin around them is puckered and wrinkled. Upon the separation of these eschars you find ulcers, from which granulations are formed and they spread in great luxuriance; there is also profuse discharge of pus. In the fifth class of burns the textures more deeply situated are involved, as the fascia and muscles; sometimes nerves and vessels, not destroyed, are included. The eschars are thicker, cold, black, and

brittle; they are longer in separating, but when they do separate, there is a very rapid discharge of pus, and quick granulations. In consequence of the muscles being involved, their action is impeded, and it often happens that the whole functions of a limb are suspended by a burn of this kind. In the sixth class the limb itself is turned into a black, insensible mass, as sometimes occurs in large iron foundries, where the hot metal comes in contact with the lower extremities; the foot, for instance, is placed in the groove or gutter where the hot metal runs, and is at once converted into an eschar, when, indeed, it is not at once annihilated. I need not tell you that in the former case you must amputate the member.

The constitutional symptoms of burns may vary much; I may tell you they are divisible into two classes: those arising from the shock and irritation of the system produced by the action of heat; and those which come with the reaction which takes place, such consequence implying hectic disturbance and its usual concomitant circumstances.

A burn may be only superficial, and yet, from the extent of its surface, highly dangerous, and perhaps fatal, from the shock experienced by the system. It may produce such depression of the circulation that you can scarcely feel the beating of the arteries of the wrist, and the whole body may be in a state of utter prostration. Now, all the danger arising from the first and second variety of burns is, in the first stage, a fact which you will take notice of, as it does not apply indiscriminately to the rest; and, if the patient get over the first stage, there is small danger to be apprehended from the rest; resolution will take place, and within twenty-four hours the danger will have passed away. Not so with burns of the third, fourth, and fifth degree: involving the deeper textures, they are not at once attended with all that constitutional danger attending burns of the first and second degree; but in three or four days, when the process commences by which the eschars are separated from the living parts, a great degree of constitutional disturbance takes place. This process may take three or four weeks for its accomplishment, but it commences within three or four days of the injury; and that period is always one of great danger in burns of this degree. Dupuytren called this dangerous disturbance, the irritation from the injury, or, as we should say, the shock.

The second period of danger is during the inflammatory stage. The third period of danger is when suppuration is going on, and the great discharge tends to produce hectic.

There is one subject connected with burns not very well understood till within these last twenty years. I allude to the *post-mortem* appearance after burns. When persons perish in the flames there is no opportunity for inflammation to take place; but it is found there is a determination of blood to the internal organs, and there are red spots seen on the lungs, on the membrane of the bowels and the bronchial ducts, and often on the capillary vessels, and effusion of serous blood into

the several cavities of the body. These marks, though arising in cases where the surgeon can be of no service, are yet of great use in helping to an understanding of the way in which burns bring on death. If the patient live till the third day, and then die, you will see traces of inflammation of the internal organs, especially in the mucous membrane of the lungs and the alimentary canal. If he die in about eight days afterwards in the hectic stage, you will find, not only traces of inflammation of the mucous membrane, but ulcers, and the parts have been even perforated. This has been seen in this hospital, where the duodenum has been found perforated in one or two cases. In some instances death has been preceded by a kind of stupor; the patient becomes inert. There is also uneasiness about the stomach, and, in addition to that, a difficulty of breathing, which was formerly accounted for by supposing the existence of some principle of sympathy of the lungs with the injured surface; but we know now that they become congested and loaded with blood.

The prognosis depends principally upon the extent, the degree, and the depth of the burn. You may have a burn of the first and second kind, and, if of small extent, it is of no danger; but if you have three or four feet of surface, the danger will be very great, although the degree and depth of the burn may not be of the worst order, and the patient may die in the inflammatory stage from the great constitutional disturbance which comes on. Burns on the head, neck, face, and trunk are, generally speaking, far more dangerous than those on the limbs. Scalds of the throat are dangerous, because they implicate the larynx. Children of the poor may often drink out of the spout of a teapot or teakettle, and the larynx is inflamed, the glottis closed, and death comes on most rapidly. Some burns are very dangerous on account of the complications they involve, such as phlegmonous erysipelas; and, in burns of the sixth degree, you have necrosis, or death of bone. When called on by the friends of a patient to express an opinion on the danger of a burn, you cannot use too much caution, as the different periods of danger are many, and when the degree of heat is great, supposing your patient to recover, it will very likely be with great disfigurement, arising from the violence with which the cicatrix is drawn to the centre. The separation of the eschars, too, will disclose a greater amount of injury than would be imagined before they were removed.

CLINICAL OBSERVATIONS ON SOME OF THE MORE FREQUENT DISEASES OF CHILDREN.

By W. HUGHES WILLSHIRE, M.D. (Edin.), M.B.S.,
Physician to the Royal Infirmary for Children, &c.

(Continued from p. 112.)

I have, to-day, gentlemen, to consider one of the most frequent and fatal of diseases to which children from birth up to between two and three years of age are liable; a disease, also, I believe, constantly mistaken or, perhaps, rather miscalled, and one which merits your utmost attention. This is the simple, uncomplicated, inflammatory form of diarrhoea, which leaves behind it indubitable organic lesions, chiefly met with in the larger intestines, sometimes in the stomach, and in France exhibiting in many cases a peculiar condition of the liver. The morbid appearances seen after death from this affection, being more prominent in the larger bowels than anywhere else, the name of *entero-colitis* has been by several writers bestowed upon it. It is, as I have told you, almost peculiar to infancy and early childhood, few children dying of it after two and a half or three years of age. It assumes the place in such patients of the general mucocenteritis of elder ones, and also especially of typhoid fever and remittent fever of a typhoid type. In some respects it is, as Bouchut has remarked, "the antithesis" of typhoid fever. In this form of diarrhoea the anatomical alterations have their chief and primal seat in the larger

bowels, and spread, as it were, from the lower foci into the upper ones; whilst, in the fever alluded to, they originate in the upper, and secondarily involve the lower, intestines. When the intestines are involved in typhoid fever, it is, you know, the ileum which is chiefly attacked; in our present disorder, the colon mainly suffers. In our own country the intestinal affection in this fever is not so frequently met with as it is in France, and in Edinburgh less often than it is here. Of the particular morbid appearances of our present disorder I shall speak presently.

If you reflect, you must remember that you have often seen infants and very young children who, after being weaned, or nursed upon bad or impoverished milk, and exposed to other anti-hygienic influences, or during difficult dentition, affected with an obstinate diarrhoea; you will have observed them get thinner and thinner daily, reject their aliment from the stomach; become affected with herpetic, eczematous, or aphthoid affections; and, in spite of all you can do, proceed from bad to worse, until at last, in the extremes of emaciation and miserableness, there occurs a fatal event. In a rather slow and chronic form of this disorder, if the belly has become at any time swollen or hard, the little patients are often said to labour under "mesenteric disease," or, if not this, of "infantile marasmus" or of "bodily decline."

In most cases of the infantile disorder I am about to speak of, the child at the onset exhibits much the same series of symptomatic phenomena as it does on the supervention of a common catarrhal diarrhoea of the serous form. From this it is often very difficult to say what affection in the long run we shall be called upon to treat. So difficult is it, that Bouchut maintains that at first it is impossible to establish a distinction. A like difficulty exists between the diagnosis of catarrh and that of lobular pneumonia of children of a similar age. In each, however, time dissipates all uncertainty: new characters unfold the existence of pneumonia; new symptoms reveal the presence of *entero-colitis*. So it is also with whooping-cough in its early stage, in which the initial catarrh has no mark by which the troublesome and obstinate malady is foreshadowed.

Mild as the disorder often is at its beginning, the general "malaise" increases; the stools become more fluid and less homogeneous, lose their yellow colour, and have a bad smell. The tongue still preserves its natural appearance, or is rather redder than usual, as is the mucous lining of the oral cavity. The stools now becoming more fluid and heterogeneous, the child gets thin and weak; loses colour; the nates and thighs become red; and fever, more or less continued, according to the age of the child, is seen. On pressing the belly, from the child crying and twisting its legs about, pain is evinced. Vomiting or constant regurgitation of the aliment is observed, and the skin is often very hot. Soon rapid emaciation follows upon the still obstinate and watery diarrhoea, whose dejections are now often of the "spinach" form, and sometimes here and there mixed with a little mucus, having streaks of blood in it. The tongue is then often coated—in the centre dirty white, red at the edges, or aphthoid disorders appear on the inside of the lips and on the tongue. The lips become cracked and sore, herpetic eruptions often appear about the mouth, and the thighs and nates suffer from erythema and ulceration. Prolapsus ani is not uncommon, and the French writers particularly allude to ulcers on the ankles. The fever now abates, but the vomiting continues; the extremities become very susceptible to cold; the loss of flesh is extreme; the belly becomes flaccid, and of a dirty brown colour, or of a speckled hue, as do the integuments of the thighs, which hang about in loose folds. The breath, as well as the motions, are often very acid. On applying the ear to the belly, you will sometimes hear *gargouillement*. The child now refuses everything; the motions run away like plain water; the spaces beneath the eyes fall in; it lies on its back quite quiet if laid down; the face becomes pale and cold and hot alternately; it be-

comes almost too weak to cry, breathing with difficulty, and dies in the extreme of marasmus and exhaustion. Such is a general form of the course of the malady, which rarely proves fatal under a fortnight, sometimes not for several months; which may run a course of acute character, marked by continuous febrile symptoms, or a very slow and chronic one, the appetite often being preserved almost ravenous to the last.

In some instances the disorder breaks out very suddenly. After a considerable degree of "malaise," diarrhoea appears, vomiting is constant, emaciation becomes in a few days extreme, and the exhausting discharges reduce the little patient to the lowest ebb. Sometimes, again, the first and intense symptoms subside somewhat, the disorder assuming the more chronic form; in other cases they continue, and the child soon succumbs. As a rule, however, the disorder is not of an acute and rapid character.

Speaking of these two forms of the affection, Bouchut—who has paid great attention to them under the auspices of M. Trousseau in the Hôpital Necker—says, "Acute *entero-colitis* is accompanied by an evident and rapid deformation of the features. In the course of a single night the face becomes wan and emaciated; the lips lose their colour; the nose becomes pinched; the cheeks fall in; the eyes become hollow, lose their brightness, and are encircled beneath by a deep, hollow infra-orbital space. In the chronic form the emaciation of the face *gradually* makes progress. The skin, deprived of its cellular tissue, remains soft, flabby and wrinkle over the muscles that draw it in every sense. The child presents an emaciated figure, it is fleshless, the bones project, numerous wrinkles furrow the brow, and become evident round the eyes, round the lips, on the chin, and on the neck. The child resembles a little old man about to die, and, as a '*spirituel*' physician once remarked to me, has a *Voltaire-like* countenance. To those who are acquainted with the observations which have been made on the physiognomy of this great philosopher, the phrase will be most expressive, and I shall adopt it."

You must have often remarked how frequently I have spoken of "green patches," and of green "spinach"-like stools; and, also, that such stools may be met with in the simpler as well as in the most formidable kinds of diarrhoea. Upon the exact nature of these stools there has been much variety of opinion, but it was not until Dr. Golding Bird, about two years ago, undertook to examine them chemically, that any precise opinion was ventured on the subject.

Some persons have spoken of green stools occurring after children have taken mercury, and hence all green stools have been supposed to indicate the previous administration of that metal, which has been said to cause them "by the mercurial stimulating the gall ducts, and thus exciting the gall-bladder to pour out its contents, which, from having been pent up for some time, have become viscid or inspissated, and acquired a much darker green hue than recent hepatic bile." Then some have drawn a distinction between these green stools of mercury, and the green slimy motions sometimes seen in hydrocephalus. "Hydrocephalic stools are distinguished from these by being very little acted on by water, which is scarcely coloured or rendered turbid by them, and by possessing little or no offensive odour. We know too little about the manner in which the liver or any other gland separates its secretion from the blood to explain the nature of the change which produces hydrocephalic stools, but we know that it is intimately connected with the state of the brain." Again, a distinction has been attempted to be fixed between the green stools I have already spoken of and the "chopped spinach" motions of severe diarrhoea. The "muciparous fluid," says Bouchut, "is constantly acid, though not always to the same degree; and we are ignorant of those circumstances which augment its accegency, though the existence of the latter be so easily determined. The biliary secretion is alkaline, and serves to neutralize the

destructive power of the former. From their reaction on each other, and the mixture of the result with the alimentary matters, a peculiar colour is produced which bestows the green colour I have already spoken of, on the motions." "But it would be wrong to consider this green coloration of the dejections as always the result of the accecency of the gastric fluids, for it does not disappear after the internal administration of absorbent and alkaline powders. This it should do if accecency were its cause."

However, to pass at once to the researches of Dr. Bird, I may give you his *resumé* after analysing a "chopped spinach" stool passed by a hydrocephalic infant whilst under the influence of mercury. He says:—"I am induced to regard the green colour of the emerald and "chopped spinach" stools of children as depending upon the presence of modified blood rather than as an excess of bile;"—"as indicative not of a copious secretion of bile, but of a congested state of the portal system, in which blood is exuded very slowly and in such quantities so as to allow of the colour being affected by the gases and secretions present in the intestines." Now, if I had made any minute research or chemical analysis of the green stools of children, I should not have troubled you with so many other persons' thoughts; but as I have not, I have thought proper to do so. However, I have made one or two "clinical observations" upon the subject, which I may just tell you of. In the first place, I believe that all the varieties of these stools owe their existence to the same general cause, whether coming after the administration of mercury, in the course of tuberculous meningitis, in the progress of catarrhal diarrhoea, or of entero-colitis itself. Secondly, that any modified appearance they present is owing to the great or less intermixture of the serous and mucous exhalations, and general consistency of the fecal matter in which the colouring material is contained. Thirdly, that they are not indicative to us, in our present state of knowledge, of any individual anatomical alteration, as they may occur after mercury or not; they may or may not occur in tuberculous meningitis; they may occur in a simple or very severe form of diarrhoea; and, *vice versa*, mercury may be followed by all sorts of stools, tuberculous meningitis also; and so may all the forms of diarrhoea have all forms of stools. Lastly, I cannot agree with Dr. G. Bird in thinking that these peculiar motions are, in the majority of cases, when first voided, of a bright orange colour, and that they assume their characteristic grass-green hue only after exposure to air. I have inquired of the mothers and nurses, whether the stools are green when voided, or not so, and whether they only turn green after a little time has elapsed. To all my inquiries, except in one instance, I have been told they were evacuated of the green colour. I agree with Dr. Bird in thinking that blood is more often discharged or mixed up with the dejections of children than is commonly allowed, and that it often precedes the appearance of the stools in question; but still not often enough for me on that single fact to be able to trace between them a relation of cause and effect. For me to offer an opinion upon the *chemical* researches of so able an analyst as Dr. Bird would be out of place, so I must refer you to his paper on the subject in the *Medical Gazette* of Sept., 1845.

I have now to refer to the morbid appearances met with after death from severe forms of uncomplicated diarrhoea. I told you, you will remember, that in the simpler kinds of the sympathetic, serous, and mucous types, or in the catarrhal affections of the intestinal mucous lining, we have not evidence enough to lead us to believe that these forms are dependent on anything else than temporarily increased exhalation and peristaltic action; that, although we may suppose some change in the structure or machinery of an organ must ensue before alteration of its function can take place, yet that these disorders happen to be of that category in which the structural changes producing the functional aberration are inappreciable to us. The altera-

tions of the organs are too "transcendental" for us to seize them, although the modifications of their offices are apparent enough. When such is the case, and we only know the diseases by the modified functions, we are at liberty to call them *functional disorders*. So do I call the sympathetic and the catarrhal forms of diarrhoea. We may, it is true, give a sort of physiological guess at what the changes of the organs chiefly consist, or how the latter may be influenced to produce these alterations of their functional phenomena; but we are not at liberty from such, however probable in their truth, to indicate the disease accordingly. Thus, in relation to the catarrhal form of diarrhoea, we are authorized in supposing that it is the *follicular* apparatus that is originally affected, and that any changes in the texture, &c., of the true mucous membrane itself are wanting, or are secondary or subsidiary to the first. We may also go to this extent, and find with M. Bery (*Lancet*, August, 1845, and "Ranking's Second Report"), that the caliber of the capillary vessels is much greater in children than in adults; that this applies particularly to the meshes of the follicles of the intestines; and, therefore, discover how such anatomical peculiarities explain the rapidity and abundance of their secretions, the more especially when suffering an unusual stimulus. Also, how the capacity of the tissues renders their engorgement easy, and at the same time renders their disorganization slower; and why, therefore, it should occur that children who have died of another disease, but have had diarrhoea for a long while, sometimes present no appreciable alteration of the intestines; or why, as Bouchut, Billiet, and Barthex, &c., have shown, in some rarer instances where the child has actually succumbed from diarrhoeal exhaustion, there has been found no special modification of any of the viscera; and in these cases so severe have been the symptoms that entero-colitis has been assumed to exist.

In taking these and other circumstances into consideration, we can also readily understand how the continuance of stimuli to the mucous follicles, and the persistence of the diarrhoea, should at length sometimes convert a catarrhal form of the disorder into one afterwards prolonged by gastro-intestinal inflammation and its sequences, and this inflammation, &c., be the cause of death.

ON THE PHYSICAL PHENOMENA OF LIVING BODIES.

By Professor MATTEUCCI, of Pisa.

PART XVI.

VOCAL APPARATUS—VOICE.

(Continued from page 17.)

We have to preface Müller and Weber's experiments with a brief exposition of a few general facts concerning the sounds produced by reeds.

Reed instruments are, generally speaking, of simple construction. Take a metal plate, about 1-10th or 1-8th of an inch in thickness; cut out a rectangular aperture, about four times as long as broad, and place over this a thin elastic brass plate of the same shape, and of a size just to close the aperture; solder or screw this plate on one of the two smaller edges; this will constitute a vibrating tongue, which may be set in motion by putting the instrument lengthwise to the lips, and blowing a current of air against the free end of the small brass plate. It would seem to result from several experiments that the nature of the sounds produced in this manner by vibrating tongues is altogether independent of the intensity of the current of air that may happen to be directed against them, and also of the nature of the gas constituting this current. The nature and intensity of the current seem to influence simply the *intensity* of the sound produced.

The sounds produced by vibrating tongues may be accounted for upon two different suppositions: either the tongue may be looked upon in the light of a vibrating metallic rod, producing

sounds by its vibrations; or it may be assumed that the oscillations suffered by the tongue in its alternate displacements by the current of air, and returns to its original position by strength of its inherent elasticity, act in the manner of the vibration imparted to the air in the siren or in Savart's machine. The second supposition would seem the more correct one of the two, since we find that the sounds which the tongue yields under the impulse of a current of air are louder and more distinct than those produced by its vibrations under the influence of mechanical shocks. Against this view it might be urged, however, that the mere mechanical striking or twanging of the tongue imparts to the latter only a species of shake by no means of sufficient duration to produce a uniform and protracted vibrating movement; besides, why should we not assume the coexistence of the two causes?

The instrument spoken of in the preceding lines is only a simple tongue-work, and not a reed instrument in the full acceptance of that term. To form the latter it is still requisite to mount upon the tongue a sonorous tube. The sounds produced by a complete instrument of this kind differ vastly from those yielded by simple vibrating tongues. The sound produced is a combination and mutual modification of the two different kinds of sound yielded respectively by the tongue and the tube. From Weber's experiments upon this subject it results that the addition of the tube may serve to deepen the sound of the vibrating tongue to the extent of, at the most, one octave, but that it never produces the opposite effect.

We come now to the sounds yielded by reeds formed of membranes; and here we have to occupy ourselves more particularly with those which in form and shape strongly resemble the glottis; these consist of a flat, thin piece of india-rubber, fastened on the edges of one of the apertures of an open tube, and presenting in the centre a small longitudinal cleft. It is by means of apparatus of this kind that the construction of an artificial larynx has been attempted. The sounds yielded by membranous reeds may be greatly modified by varying the tension of the membrane: compression of the latter renders the sound more acute. The great difference between the sounds produced by membranous, and those produced by metallic, reeds consists in this, that the sound yielded by the former increases in acuteness in proportion to the force with which a current of air happens to be propelled through the tube; whereas the reverse is the case with metallic reeds.

The sounds produced by membranous reeds are greatly modified by the tubes or pipes adapted to the reeds. Müller observed that the sound grew higher or deeper according to the greater or less length of the pipe or tube mounted upon the reed.

The greater number of wind instruments, and among them horns and trumpets, may be looked upon as membranous reed instruments; a skilful performer on such instruments is able to embrace three octaves by simply varying the tension of his lips, and without altering the length of the column of air propelled into the instrument.

The organ of the voice of man is essentially a reed apparatus formed by two membranous lips, as has been experimentally demonstrated by Müller. This philosopher fastened the larynx of a dead subject upon a board, having previously removed the whole of the parts situated above the lower ligaments; he then attached, by means of a hook, a cord to the angle of the thyroid cartilage, immediately above the vocal chords; this cord he passed over a pulley, and fastened it to a balance-scale. By this means he was enabled to give a greater or less degree of tension to the vocal chords, by placing a heavier or lighter weight on the scale; lastly, he added a wooden pipe to the trachea.

With this apparatus Müller observed the following facts:—

1. When the glottis is sufficiently narrow, and the vocal chords are in a state of tension, full and clear sounds, analogous to those of the

human voice, are produced upon propelling a current of air through the wooden pipe attached to the trachea.

2. The sounds produced by a larynx, prepared and arranged in this manner, increase in acuteness in proportion to the degree of tension of the vocal chords, and this even to the extent of about two octaves; upon carrying the tension of the vocal chords to a very high degree, the sounds produced become hissing and disagreeable to the ear.

3. The sounds produced when a slight degree of tension only is applied to the vocal chords, differ in intensity, but not in tone, according to the greater or less degree of contraction exhibited by the glottis. When the vocal chords are brought within actual contact with one another, the sound is strongest and fullest.

4. By increasing the force of the current of air propelled into the pipe attached to the trachea—maintaining the vocal chords at a constant degree of tension—the sound may be heightened to the extent of a fifth, and even more.

5. The parts of the larynx situated above the vocal chords, and the upper cavity of the mouth, seem to perform in the apparatus of the human voice the part which the tube or pipe performs in a reed instrument.

Weber has succeeded in the construction of an instrument yielding equally clear and pure sounds for the *piano* and the *forte*, though the cause producing the sound vary considerably. This instrument is so contrived that whenever an increase in the intensity of the current of air propelled through the tube heightens the sound yielded by the latter, this is accompanied and compensated by a correspondent lowering of the sound yielded by the tongue.

With regard to the "*compass of the voice*," it is obvious that this must depend partly upon the extent of vibratiliity possessed by the vocal chords, and partly upon that possessed by the membranes and cartilages of the larynx, and also upon the *resonant* faculties of the nasal, buccal, and thoracic cavities.

The "*intensity*" or "*volume*" of the voice depends partly upon the degree of force with which the air is expelled the lungs, and upon the size of the thoracic cavity; and partly upon the degree of vibratiliity possessed by the vocal chords and the rest of the larynx.

ORIGINAL CONTRIBUTIONS.

CEREBRAL AFFECTIONS.

KING'S COLLEGE MEDICAL SOCIETY.

(Professor PARTRIDGE in the Chair.)

Mr. Griffith read an interesting essay on "Some peculiar Cerebral Affections," of which the following is an abstract:—

In the first part, the author gives an account of a very interesting series of cases of cerebral affections, which occurred at Herne Bay during the spring of 1844, having all the characters of an epidemic. Not less than fifteen adults in the practice of one gentleman, in a population under 2000, and during the space of two or three months, were attacked with various degrees of vertigo, headache, and affections of the sight: several were seized with paralysis, more or less complete, and two with apoplexy. Not one of the whole number died; no more than one or two required, or could bear, depletory measures. There were no atmospheric phenomena to account for the epidemic, and it was the first time that it had appeared in that locality. The author then adverted to other instances of epidemic cerebral affections.

The second part of the paper was taken up with the consideration of Anæsthesia. This may be either simple or combined with want of power; it is to the former to which attention is now directed. Simple anæsthesia may be local or general: thus, in some, small patches only of ntegment are wanting in their sensibility, while in others, as in a case related by Andral,

sensation is lost over almost the entire surface of the body. Sauvage relates a case in which the whole of the body was involved. At other times it assumes a paraplegic or hemiplegic character. Mr. Broughton relates a case in which it succeeded to complete paraplegia of the lower extremities. Other cases are also related; but its most interesting as well as curious form is, that in which it assumes a hemiplegic character: no case of which has yet been published. The following are notes of a case which occurred under the author's own observation:—The person, the subject of the following account, was about twenty-two years of age, and had previously enjoyed comparatively good health, never suffering from any but the ordinary complaints, with the exception of some severe attacks, when young, of otitis in the right ear, followed by caries of the temporal bone, and total loss of the power of hearing. At the time of which we now speak he was somewhat out of health, owing to close application to his profession in town. He stated, that after violent exercise in climbing the Cheddar Cliffs on a warm day in the end of last August, being somewhat heated, he went in this state into the cold, damp caves; he was not struck with any chill or shivering, but, ere, he had proceeded far, was suddenly seized with violent pain over the right eyebrow, as if some immense weight were pressing on that part of the brain. This, as far as he himself could judge, was unattended with any impairment of the intellect, though, naturally, with great depression of the spirits; it was soon followed by numbness and tingling of the same side of the face and left extremities; on touching these parts with the other hand they felt somewhat colder; sensation was soon almost entirely gone, for he could not feel a hard bite of the right side of the tongue or right cheek, nor did pinching the same side of the body cause any pain. Voluntary motion was not in the least impaired, though the right hand, owing to its want of sensibility, afforded little assistance in groping along the narrow passages; the difficulty of progression which might have attended walking in an open space, was not remarked in the cave, where, from the character of the place, the steps were short and irregular. That there was no distortion of the face, or lameness, was manifest from the fact that he was able so to govern his movements, that no one perceived how he was affected, though it caused him not a little alarm, both from the strangeness of the symptoms, and knowing that they might result from effusion of pus on the surface of the hemisphere from the diseased temporal bone. The symptoms lasted upwards of twenty minutes, until the party left the cave, was again exposed to the warmth of the sun, and began to take active exercise, when sensation soon entirely returned; but the violent headache remained during that and the following day. The same person, subsequently, and under similar circumstances, had attacks like those just detailed, but the symptoms were less marked, and the anæsthesia was on the opposite side of the body; so also the pain in the head, which was as completely localized over the left eyebrow as on the former occasion it had been over the right.

It is curious to observe in these cases of anæsthesia, that not only does the skin lose sensation, but the mucous membranes, the muscles, and other parts, do the same: hence the cheeks may be bit, the mucous membrane of the bladder does not stimulate its sphincter to contraction; hence the urine dribbles away; a catheter may be passed into the urethra, or a finger into the rectum, or irritating particles into the eye, without the patient's knowledge; the mouth and nose, though they remain susceptible of taste and smell, will not perceive pungent stimuli, as ammonia; and a case is related of a man who, falling with his spade, broke his arm; he heard the crash, but thought it was his spade only that was broken.

The following may be stated as the causes, when the complaint does not depend on a local affection:—

1. Sudden exposure, when heated, to cold; the susceptibility being increased by previous debility.
2. The influence of noxious vapours, as air loaded with carbonic acid.
3. Sanguineous effusion.
4. Serous effusion.
5. Effusion of pus on the brain, as from a carious temporal bone.

The three causes last mentioned, evidently, will not account for our case, the symptoms of which were too evanescent to be explained in this manner. The two former, both of which would cause venous congestion, will partially account for the attack; but even these do not serve to explain its hemiplegic character, or the absence of paralysis of motion.

Pathology.—Cases of simple anæsthesia are rarely, if ever, fatal; hence no opportunities of making examinations are afforded; but the different cerebral affections are so interwoven the one with the other, that the pathology of one class will go far to explain that of another. Apoplexy is often fatal, and presents many marks of similarity to the case under consideration. When this does not result from serous, sanguineous, or purulent effusion, or softening, which are by no means invariably present, congestion is the only morbid appearance found; this may be either arterial or venous: when the former, the patient has usually been strong and hearty, with full action of the heart while the symptoms lasted; when the latter, there is feeble action of the heart, coldness and exsanguineous state of the surface, debility and faintness, which were all present in our case. How this venous congestion produces the further symptoms of anæsthesia, &c., whether by gangrene or by the presence of the highly carbonized blood in contact with the brain, time will not allow us further to consider.

The author next dwells on the analogy which existed between simple anæsthesia, anæsthesia combined with loss of motion, and apoplexy, and the three different stages through which a person passes while inhaling ether. The treatment of a person rendered insensible by ether would also be similar to that of one labouring under paralysis from venous congestion.

The paper led to some discussion, in which Mr. Salter and others took a part.

Mr. Salter believed the symptoms attributable to carbonic acid, and observed that cold destroyed the sensibility as soon as the motor power, or even before; in Napoleon's army, which perished around Moscow, most of the men died from apoplexy. He thought there were four epidemics of cerebral diseases on record, one happening at the siege of Vienna, when twenty out of twenty-five children were seized, after a few minutes, with hydrocephalus. In some parts of Germany, more recently, an epidemic of arachnitis had been noticed.

Mr. G. Smith would, as connected with the subject of discussion, make known a fact which fell under his own observation during the last summer; viz., an epidemic among some horses in a part of Somersetshire, when three horses grazing together were attacked with hemiplegia of the left side, but recovered by the use of bleeding and medicines.

Several other members took part in the discussion

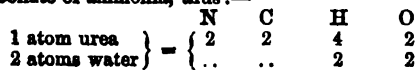
ON THE NEUTRAL OR PRISMATIC VARIETY OF THE DOUBLE PHOSPHATE OF MAGNESIA AND AMMONIA; AND ITS ARTIFICIAL SEPARATION FROM THE URINE.

By ROBERT VENABLES, M.B., &c.

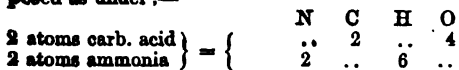
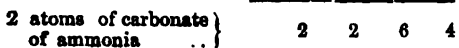
Students and others commencing the study of urinary deposits or sediments, and their microscopical appearances, have frequently represented to me, that they find a great difficulty in speedily obtaining specimens, more especially of the neutral or prismatic double phosphate of magnesia and ammonia. The addition of ammonia,

unless most carefully and dexterously managed, seldom or never succeeds in precipitating the prismatic salt; and the inquirer is often obliged to await the chance of urine, with which the prisms are voided, or the more tedious process of spontaneous formation in the urine after evacuation, by the decomposition of some of its own principles, particularly the urea. Formed thus slowly, by the gradual conversion of urea into carbonate of ammonia, it appears as an iridescent pellicle or film upon the surface of the urine. This process, however, often proves so tedious as to fatigue and exhaust the patience; further, the prisms formed under these circumstances become so intermixed with the products of putrefaction, that their appearance is obscured, and their brilliancy and beauty impaired.

Urea, in certain circumstances, undergoes decomposition, being converted by the appropriation of the elements of two equivalents of water, and a re-arrangement of its own into carbonate of ammonia, thus:—



Two atoms of carbonate of ammonia are composed as under:—



Thus, then, it is clear the one atom of urea and two of water are capable of such a re-adjustment of their elements as to form two atoms of carbonate of ammonia. Now this is what takes place in urine abounding in urea, and left to the spontaneous reaction of its own constituent principles. The decomposition is determined or hastened by the action of the atmosphere, the oxygen of which excites a sort of fermentative process in the mucus or some other of the animal principles, the constitution of which disposes them to the fermentative process. By this means a sort of catalytic motion is extended to the urea, and its conversion into carbonate of ammonia the result. The newly-generated salt either assists, with its ammonia, in the formation of the prismatic phosphate, or at all events causes its separation from the urine. The more slowly these changes proceed the larger and the more beautiful the crystals, but the more likely to be intermixed with and obscured by foreign matters; (a) but time is often of consequence even for practical purposes.

The agent which I employ is a diluted solution of the ordinary sesqui-carbonate of ammonia of the shops. The proportions from half a drachm to one of the salt dissolved in one ounce of rain or distilled water. If a little of this solution be added to urine, not too high coloured, and of specific gravity from 1018 to 1025, the upper surface, in the course of two or three hours, will be found to be covered with a film of the prismatic phosphate, and the sides of the vessel thickly studded with minute crystals of the same salt. It should be recollected that the double phosphate separates from urine, which exerts an acidulous reaction upon litmus-paper; consequently, the addition of the ammoniacal solution should not proceed beyond neutralization; and, indeed, had better stop short of complete saturation, a slight degree of the acidulous reaction being retained.

So effectual is this reagent that the prismatic crystals may be evolved and demonstrated on the instant. Thus, if a single drop of urine be placed on a glass slide, and to it a small drop of the solution be added, after two or three seconds, if placed under the microscope, minute crystals of the double phosphate will be seen. The

crystals in this case are very minute, and require a deep objective to bring them out. Under an inch-and-a-half object-glass they appear as dark spots, (a) sometimes almost black; but with a half or, still better, a quarter inch focus, they are brought out well-defined, and developing in the most distinct manner the prismatic forms.

The triangular prism is the form more commonly assumed by the ammonia phosphate, under the ordinary modes of formation; but the minute crystals evolved by the foregoing process seem, so far as I have observed, to assume rather the form of the square or quadrilateral prism: the triangular being comparatively rare. These crystals, too, are sometimes curiously marked. The central lines connecting the edges which bevel off are sometimes marked with lines which cross each other like the letter X; in others they present the appearance of two crescents or semi-circles, with their convexities opposed to, but in contact with, each other. I have also seen this latter appearance so modified as closely to resemble the small Greek letter κ (kappa).

Presuming that these few hasty remarks may prove interesting to some of your readers, I beg to forward them to you, should you deem them worthy a place in your journal.

5, St. Vincent-place, Islington, Nov. 27.

REMARKS ON THE UNHEALTHINESS OF TOWNS.

"THE GREATEST NATIONAL BURDEN IS THE FEVER TAX."

By JOHN CHARLES HALL, M.D., M.R.C.S., &c. &c. &c.

"Violet hæc sub luce videtur,
Judicis argutum quæ non formidat acumen."

Hon. *Ans. Post.*, ver. 363.

Public meetings are called, commissioners to investigate the condition of our cities, towns, and villages appointed; reports are presented to Parliament conveying the appalling information that every year about sixty thousand human beings are cast into the grave by causes man has in his power to remove; and, six years ago, a report was placed in the hands of every peer of the realm, and every member of Parliament, informing him that "the annual slaughter in England and Wales, from preventable causes of typhus, which attacks persons in the vigour of life, appears to be double the amount of what was suffered by the allied armies at the battle of Waterloo." (b) One unacquainted with what has since taken place, would expect us to add that immediate steps were taken to remove the evils existing from one end of England to the other. What is the fact? It is now about seventeen years since the cholera visited this country. It was brought forth amid poisonous effluvia of every possible kind. Its cradle was formed of filth; its diadem of the results of the most disgraceful negligence; in England, the throne of this awful destroyer was reared, where it ever is, in the back streets of our larger towns, amid the dirt and wretchedness, the reeking abominations ever to be found near the dwellings of the poor. What was the result? The fear of death was then at the door of every man, and what ought to have been done years ago was now attempted. The hand, however, of God was not "shortened that it could not save;" the prayers of the nation were heard, and, by His providence, we were delivered "from the pestilence that walketh in darkness, and the destruction that wasteth at noonday;" for puny were our efforts to arrest its progress, and truly "rain was the help of man." But have we gained by experience? did the fatality of the disease teach us to work against the possibility of its occurrence, by removing the causes of it, and thus depriving the cholera of a habitation and a home? Alas, no! we hear of the disease again journeying towards England;

(a) These sometimes glisten when, by the motion of the reflecting mirror, the light is made to pass rapidly through them.

(b) Sanitary Report from the Poor-law Commissioners.

before many months, in all human probability, it will again have cast the blue and icy mantle of its life-destroying touch over thousands of our countrymen, for the cholera will find us as unprepared to meet it, as before; the odours emitted from our overcrowded and pestilence-producing graveyards, cry "Welcome! welcome!" and the badly-constructed sewers, the open kennels filled with putrefying filth, the abominable cesspools, the nightmen's yards, and the mountains of filth, dirt, dust, ashes, mixed with decaying animal and vegetable remains, to be found in every city and large town in England, echo the invitation. It may be well to state, at such a moment as this, that, during the last visitation of the cholera, 11,018 cases occurred in the metropolis, and of these 5745 recovered, and 5273 died—about fifty per cent. of the whole, or one out of every two persons attacked: a very frightful rate of mortality, but not greater than we had a right to expect, when we call to mind the peculiar condition of the inhabitants of London, and the enfeebled state of the poor—a necessary result of bad clothing, unwholesome food, gin-drinking, and the perpetual breathing of the poisoned atmosphere by which they are surrounded.

But these are topics I will urge no further; in another place (a) I have ventured to place them before the world, and to defy the advocates of the present state of things to contradict them. I have appealed to their humanity, their love to their neighbour, and their fears, apparently without effect. I must now take another view of the subject and attack the filth-of-towns party through the only vulnerable gate, their pockets; and I do hope that, if we succeed, in the pages of this widely-circulated and universally-read journal, in showing that the fever tax is the greatest burden the rate-payers have to bear, that the last objection—"who is to pay for the carrying out of sanitary reform?"—will be removed; and even the members of our town councils, who prate so loudly, but know so little of the subject, will be induced to join the League now fighting against that great enemy of mankind, Typhus Fever, and the parents producing it.

And here permit me to address a few words to the members of my own profession, the first great advocates of the sanitary movement. All may not have the time, or perhaps the inclination, to publish to the world the facts that daily come before them of the sin, the misery, the truly awful wretchedness that the want of common comforts—common decencies I ought to have written—in the houses of our poorer brethren occasions. But we all have it in our power to repeat the tale of woe as we pass from house to house; we are then listened to; no patient refuses to hear his medical attendant, for the very fact of employing him proves how great the confidence reposed in his skill; and we may thus become the missionaries of improvement, and may accomplish more for the Sanitary Reform Bill than all the lectures that have been delivered, or all the letters and pamphlets that have been written. Let us, my friends, all feel it as a sacred duty to labour in making known this startling truth, that in narrow streets, in which a crowded, squalid, wretched population exist, inhabiting neglected and badly ventilated dwellings, surrounded by every possible depot for the production of disease, there, most assuredly, will fever exist; in fact, from such back streets it is never absent, and thus, from its permanence, becomes more fatal even than the cholera. (b) The districts thus unhealthy in the metropolis and larger towns are well known; the effects are known also. It is known as certainly as the large red cross on the door, and over it "Lord have mercy upon us!" in the days of the plague, denoted that house to be visited by the pestilence, that in

(a) "Letters to the Times on the Unhealthiness of Towns." By John Charles Hall, M.D.

(b) The deaths from epidemic, endemic, and contagious diseases, in other words, from want of sanitary regulations, were—1840, 76,064; 1841, 63,148; 1842, 64,295.

all densely-populated neighbourhoods, where the back streets are dirty and narrow, the houses badly ventilated, and also without sewers, will, most assuredly be found, as we have before said, those diseases which spread from such abodes to the mansions of the rich. Here, too, are the congenial abodes of drunkenness, idleness, profligacy, crime! Here recruits are daily enlisted and drilled, not only for the workhouse, the hospital, and the untimely grave, but also for the gaol and the gallows; for filth, destitution, and crime herd together—they are naturally congenial and inseparable companions.

I now proceed to estimate the burdens of the fever tax; and yet this is hardly a question that admits of being argued after a pounds, shillings, and pence fashion. With the well-known fact before us, that every year thousands are swept into the grave by the want of proper sanitary regulations in our large towns, the means for preventing the evil, and not the cost, ought to be the first and only object of attention. It has been proved unquestionably that each year in England and Wales 35,000 of our countrymen are snatched from the land of the living by causes that are known, and which might have been years ago removed. We see monuments erected to those who have fallen in battle; we read on the pages of history of the dreadful affliction that was occasioned by Trafalgar and Waterloo, the number of families of distinction plunged into mourning by the loss of sons who perished amid the sound of trumpets, the beating of drums, the waving of banners, and what are termed the glories of war. But, unnoticed, unwept, and unmourned by the rich and great, every year in the United Kingdom, at least, 60,000 are murdered by influences the advocates of sanitary reform have long been labouring to remove, but in vain! Look, reader, for a moment on this mighty mass—contemplate the large space of ground on which it is standing, and then call to mind the awful fact, and realize the miserable truth, if you can, that in one short year, in this kingdom, such a mass of your fellow-creatures—men, women, and children—are taken away (and that, too, by causes which need not exist) over and above those who must die in the ordinary course of nature. As I look upon those graves, I can hardly refrain my indignation whilst I ask, is this a question that ought to be considered as to the expense that will be incurred in our efforts to give to our poorer friends those blessings which God has so largely provided for the happiness and comfort of all, and which can only be enjoyed by releasing them from those chains of physical corruption by which they are at present so painfully bound down?

There is not even the miserable gratification (if any mind be capable of deriving satisfaction from such a source) that by this large amount of deaths an increasing population is kept within due bounds; just the contrary is the result, as proved by the elaborate calculations of M. Mallet and M. Quetelet, and the praiseworthy exertions of Mr. Chadwick. In Manchester, where one-twenty-eighth of the whole population is swept away every year, the registered births amount to 1 in 26 of the population; in the county of Rutland, where the proportion of deaths is 1 in 52 of the population, the proportion of births is 1 in 33. In the worst and lowest districts of Manchester, of 500 children born, at least 285, or more than one-half, will have died under five years of age. In some streets of Leeds the mortality amongst infants is much in the same ratio; and, speaking of similar facts, M. Mallet remarks, they exhibit "proofs of a population little advanced in civilization, ravaged by epidemics—a population in which the influences on infancy are murderous, but where the very great mortality in infancy is more than compensated by a very high degree of fecundity."

There is another view of this question, which has not, perhaps, been sufficiently insisted on in estimating the loss and cost to a country which must result inevitably from the neglect of proper sanitary regulations—the deterioration of the

strength of the population. We have already stated that the want of cleanliness, &c., exerts its influence most heavily in the dwellings of the poor; from this class our army and navy are supplied; the strength of this country is dependent upon the healthy condition of the labouring classes, for labour alone gives riches to a nation, and the only riches she can call her own.

The very important general fact, that the test of strength and prosperity does not depend upon numbers only, has been very clearly established by examining individuals of different classes. M. Villermé states that the difference of strength between classes such as those in which we have seen that the value of life differs (a) is well known to the officers employed in engaging recruits for the army. At Amiens the result was "that the men of from twenty to twenty-one years of age were more frequently found disqualified for military service, from their stature, constitution, and health, as they belonged to the poorer classes of the manufacturing labourers." In order to obtain 100 men fit for military service, it was necessary to have no less than 343 men from the poorer classes, whilst 193 conscripts sufficed of the classes in better circumstances. (b)

The evidence presented to the House of Commons, which was collected by the Factory Commission of Inquiry, proves that fewer recruits of the proper strength and stature, for the army, are now obtainable in Manchester than heretofore. Sir James M'Grigor informed Mr. Chadwick, that a corps levied from the agricultural districts in Wales, or the northern counties of England, will last longer than one recruited from the manufacturing towns—from Manchester, Birmingham, or near the metropolis. So great and permanent is this deterioration—the result, too, be it remembered, of improper sanitary regulations—that out of 613 men collected from six manufacturing towns only 238 were passed as fit for service. (c) The chances of life of the labouring classes of Spitalfields, are, perhaps, amongst the lowest of any of the unfortunate inhabitants of the back streets of the towns of this country; they are decayed in their bodies, and are rapidly descending to the size of Lilliputians. You could not raise a grenadier company amongst them all. (d) Mr. Duncanson states, that "the inhabitants of Bethnal-green and Spitalfields are much deteriorated in size and appearance within the last thirty years," and attributes it to "bad air, bad lodging, and bad food." The sanitary condition of the inhabitants of Bethnal is truly awful. I have a report, which has been expressly made for me by an inhabitant, on my table, and, did I not know such to be true, I should almost be inclined to doubt, that in the metropolis of a Christian country, such abominations could have been permitted in the nineteenth century. (e) This part of our subject is worthy a most careful investigation, and cannot be too attentively examined by the members of the legislative assembly.

(a) With females the expectation of life, in Whitechapel, is 34·3; males, 31·0; whilst in St. George's, Hanover-square, it is, for females, 39·7; males, 37·4; showing a difference of about six years in the probability of life in favour of the inhabitants of the best locality.

(b) M. Quetelet and M. Villermé, on the authority of M. Tenon, "Annuaire de l'Obs. de Bruxelles."

(c) For additional information consult the Sanitary Report from the Poor-law Commissioners.

(d) See Dr. Mitchell's Report of the Handloom Weavers.

(e) In my work "On the Animal Kingdom, and Unity of our Species," published in 1840, by Messrs. Whitaker, I have endeavoured to exhibit the influences of adverse sanitary circumstances, in making whole tribes become deformed or stunted; this appeared to me particularly true with regard to the Bojesmans, or Bushmen, who were plundered of their property, by the early Cape settlers.—See pages 136 to 142.

The peculiar burdens resulting from unnecessary deaths must be considered in no partial view; the magnitude of the subject entitles it to the most minute dissection, and we proceed, therefore, to the demonstration of its heart-rending details. It will be necessary—in order to show that a proper measure of sanitary reform, so far from proving an additional tax, will be a considerable saving to the nation, and that, after all, the fever-tax is the greatest incubus on the industry of the country—not only to glance at the expense caused by medical attendance (a very trifling sum, under the present most infamous system) upon those who die of fever, by parochial relief to the widows and orphans thus left destitute, but also the cost of providing for the many cases that recover, for the recoveries, even under the most unfavourable circumstances, always bear a considerable majority to the deaths. From the report of the Poor-law Commissioners we learn, that in one year 112,000 orphan children received relief from the poor-rates, and in the same year 43,000 widows were chargeable on the parish funds. Now, premature widowhood, and orphanage, is one of the most fruitful sources of pauperism, and at the same time one of the most lamentable, and also one of the most constant, drains on the pocket of the rate-payer; any one taking the trouble, will ascertain that the widow, where there are children, generally remains for ever a pauper—remarriages amongst those who have children are very rare, in many unions they do not exceed one case in twenty; in others, not one case in thirty.

The late Dr. Cowan has given us a truly interesting account of the pecuniary burdens on the rate-payers of Glasgow, arising from fever. He says it "is not possible, from the data before him, to give anything like an accurate calculation of the sums spent in Glasgow, during the last twenty years, for the treatment of fever." To prevent the possibility of a charge of exaggeration, the following calculation falls considerably under the amount:—

1. Cost of the Fever Hospital ..	£8,566	7	9
2. Temporary hospitals, and maintenance of patients in them	5,000	0	0
3. 21,691 patients at 30s. each, treated at the cost of the infirmary	32,536	10	0

£46,102 17 9

But, then, we must add the cost of treating the poor at their own houses; the demands upon the poor-rates for the support of the families of those suffering from fever, during convalescence, as well as during the continuance of the disease; and each individual attacked by fever will, on an average, be more than six weeks out of employment; and to this must be added the sums paid for the fatherless children and widows of those who have died from fever; arising, let it never be for a moment forgotten, from causes we have it in our power to remove. Think, also, of the woe and suffering this state of things must occasion, both to individuals and to families. In the report presented to Parliament by the Poor-law Commissioners, page 209, it is calculated that the loss and cost of fever cases to the town of Dundee, taking an average of seven years, is yearly £25,096. 13s. We have the authority of Dr. Southwood Smith for stating that in the district of St. George's, Southwark, out of 1467 persons who have received parochial relief, 1276 are reported to have been ill with fever—in fact the whole, with the exception of 191.

The Bethnal-green and Whitechapel Unions had to pay, extra, in one quarter, for fever cases £619. 19s., or at the rate of £2467. 16s. additional for the whole year. Truly has Dr. Lyon Playfair remarked, that millions are paid annually in England to sustain the attacks of preventible disease, and not one pound to remove or weaken the sources from which these attacks gain strength; and we have the same high authority for concluding the pecuniary loss and misapplication of money to the inhabitants of London, from a neglect of

proper sanitary measures yearly, amounts to £3,264,531.

I cannot refrain from thinking that the majority of my countrymen have "eyes but see not;" at any rate they do not look properly at the evils by which they are surrounded, otherwise a cry would long since have arisen for their removal, which it would have been impossible to have resisted. I wish, however, and I feel humbled in taking such a view of the subject, to take a narrow and pecuniary ground, and to ask the ratepayers of England to consider the question of sanitary reform as a question affecting their pockets, to look at its dry statistical details, to call to mind that it has again and again been proved beyond the power of contradiction that the sick and dead tax yearly levied on this country amounts to £14,873,931. This appears a very large sum; but, remember, we have annually 60,000 unnecessary deaths, that twenty-eight cases of preventible sickness occur to each of these deaths. It follows, then, that the number of cases of sickness that can be prevented every year in the United Kingdom will reach to a no less number than 1,680,000.

It would be very easy, did time permit, to refer to the advantages that have, in certain towns, followed the carrying out, however imperfectly, of sanitary regulations; and the evidence is most conclusive to prove beyond the shadow of a doubt that thousands of valuable lives are every year lost to us by want of drainage and sewerage, and the proper ventilation of the houses of the poor, and that the mortality at once decreases when the causes are removed which produce it. If we turn to Liverpool, which the last Report of the Registrar-General so well describes as "created in haste by commerce, and reared without any very tender regard for flesh and blood," we see how fearful has been the lesson! how awful the results of crowding her poor into cellars! Had we seen last year the piteous spectacle this fine city presented, "with the floating lazarettos on the Mersey, the workhouses crowded with destitute paupers, the three large fever-sheds, which will hold three hundred, nearly full of patients, and the fever extending to the higher classes," we should begin to estimate the evils of the present system, and at once be ready to exclaim, with the inhabitants of Liverpool, the fever-tax has been our greatest burden.

Here, for the present, I must pause, and will only add, in whatever aspect the subject is viewed, whether as regards the annual loss of life and health arising from diseases which are produced by the want of proper sanitary regulations, or simply as a matter of cost to the pocket of the ratepayer, it will be clearly seen that, whilst on the one hand those who wish to retain any claim to the character of Christians are bound by the dictates of humanity, by the commands and precepts of our holy religion, not only to remember the present awful condition of the poor, the misery, the wretchedness, the sickness, the deaths which annually occur in this country from causes that admit of being quickly removed, but also most earnestly to assist Lord Morpeth and a willing Government to provide means by which these evils may be for ever eradicated; on the other it is seen that, looking at the question in a pecuniary point of view, as one affecting the ratepayer, whatever the cost of carrying out the necessary sanitary reforms, the public must be considerable gainers, for the most careful calculations prove the greatest tax on property and income arises from deaths and diseases, which an efficient cleansing and drainage of our cities, towns, and villages would for ever extinguish.

It is, then, manifestly, a duty we owe to our country and our God to do all in our power to hasten the coming of that happy age—and come it will—when the bright bow of social improvement, which, though seen as yet afar off, shall at no distant period encompass our country, giving to every inhabitant those blessings to which our poorer fellow-creatures have hitherto been strangers. Such a labour of love as this ought to en-

list our warmest sympathies. It is a task well worthy our noblest efforts; it seeks to rescue the babe from death—the parent from a premature grave; in a word, to solve that mighty problem—how can we make the greatest number happy? Such deeds, however, require no panegyric from my pen: they are enshrined in the heart which gives them birth; and in our hours of sorrow, in the day of trial, and on the bed of death, sweet will be the balm of their consolation, and precious will be the remembrance of them.

Grove-street, East Retford.

HOSPITAL REPORTS.

NORTHERN INFIRMARY, INVERNESS.

Case of Diffused Aneurism at the Bend of the Arm. Under the care of Dr. S. Chisholm.

Grace Robertson, aged twenty-two, from Tain, recommended by Dr. Cameron. Admitted May 28, 1847. Patient states that about four years ago, Mrs. Ross, a midwife in Tain, made an attempt to bleed her at the bend of the arm, but no blood flowed from the wound. A few hours afterwards the whole arm, from the fingers upwards to the axilla, became discoloured and swollen. This gradually disappeared, but about two weeks after, a small pulsating tumour became perceptible at the bend of the arm. It did not, however, at once prevent her from performing the duties of a house-servant, and in that capacity she some time after went to Glasgow. After her removal to Glasgow, the tumour gradually increased and disabled her from service, so that she was induced to enter the hospital there, where she remained for six weeks, under treatment by pressure and bandaging, but without deriving any relief. She now became anxious to return home to Tain, and did so in January last. Four weeks before admission into the Inverness Infirmary, and while engaged in washing, the tumour increased suddenly, and the arm became very painful. On admission, the arm presented the following appearances:—There is a large pulseless, diffused, and livid swelling at the bend of the right arm, extending up to near the middle of the arm, the arm itself being flexed and rotated inwards. The tumour is very painful on pressure, and the forearm and hand are slightly œdematous.

31. After a consultation on the case, the brachial artery was tied in the upper part of the arm, by Dr. Chisholm.

R. Liq. ammon. acit., 3ij.; mur. morph., 3ss.; syrup. sinip., 3j.; aq. menthæ, 3ss. m. ft. haust. hor. somn. sumend.

June 1. Patient going on well, she having passed a tranquil night, with much less pain than usual.

R. Ol. ricini, 3j.; aq. cinnamomi, 3jss. m. stat. sumend.

2. Temperature of the forearm increased; the aneurismal tumour becoming pale, softer, and less.

3. Progressing favourably.

Hab. haustus sennæ cum sulph. magnes.

6. Tumour assuming an inflamed appearance, and becoming more painful.

7. Tumour inflamed and painful, with sickness and febrile action, preceded by a rigor early in the morning. To have a febrifuge mixture, with a poultice to the tumour.

8. This morning there was a considerable discharge of grumous blood from the tumour. Operation. Wound healing kindly.

9. Offensive discharge of dark grumous blood from the aneurism, which has become much diminished in size. Sickness abated.

10. The discharge from the aneurism becoming coagulated, tumour diminishing, and the forearm and hand assuming a healthy aspect; pulse perceptible at the wrist for the first time; constitutional disturbance much less. The forearm and arm to be bandaged from the fingers.

11. Case progressing favourably; the aneurismal sac and contents sloughing away.

16. In consequence of the patient using her hand to adjust the bedclothes, hemorrhage, to the extent of a few ounces of blood, took place from the aneurismal cavity, but was speedily arrested by compression.

17. No return of the hemorrhage, and the case is going on well.

19. Hemorrhage came on again, on which the aneurismal cavity was freely opened up, and the opening in the artery exposed; but, from the diseased state of the parts, and the oozing of the venous blood, it was found impossible to get a ligature round the artery so as to retain its hold. Under these circumstances a small curved needle was passed in front of the opening in the artery, and the parts brought together by means of the twisted suture, a thread having been put into the eye of the needle for withdrawing it again. A dossil of lint was put into the wound over the needle, and secured with a bandage, with which the forearm and arm were rolled from the fingers as formerly.

21. Dressings removed and wound looking well; patient has felt the arm tolerably easy since it was handled on the 19th.

23. Hemorrhage recurred at twelve o'clock at night, when the patient was asleep; dressing removed, and needle withdrawn, after which a bit of dry sponge was introduced into the wound and secured by bandage.

24. The patient feeling comfortable, and the temperature of the arm natural, the compress was left undisturbed.

25. Compress removed and wound examined, without any further recurrence of hemorrhage; the wound filled with lint, and the arm kept bandaged.

28. Dressings removed; no further hemorrhage; wound suppurating and granulating favourably.

July 16. Wound at the bend of the elbow nearly closed; pulse at the wrist quite perceptible.

24. Dismissed cured.

The patient presented herself to Dr. Chisholm some weeks after leaving the hospital, having the perfect use of her arm.

DR. BUSHNAN'S VISIT TO DIEFFENBACH. TENOTOMY AND MYOTOMY.

DEATH OF DIEFFENBACH.

[To the Editor of the Medical Times.]

(Continued from p. 31, vol. 16.)

SIR,—After a long silence, occasioned by an extended continental journey, I beg to conclude my brief notices of my visit to Dieffenbach, and of the operations I saw him perform; and among these none seemed to me to be more important than those undertaken for the relief of seriously distorted limbs, and other deformities of the human body. And when we consider, on the one hand, that neither simple orthopedic treatment is of itself capable of relieving deformities; nor, on the other, that these are to be cured by a species of slight of hand similar to that of a celebrated surgeon who, in one case, divided, I am afraid to say how many muscles and tendons—the unfortunate patient, however, died from the operation—we cannot be surprised that tenotomy and myotomy have been generally opposed by the profession. But how soon would the views of an opponent to the system under consideration be changed, if he were to see, as I have seen, a patient who but a few weeks before was limping on crutches, come out of Dieffenbach's hands completely cured, no longer a burden to himself and to his friends, or a disgusting object for public commiseration! And how is this? he would ask: for well he knows that neither the mechanical manipulation of the limb, if I may use the expression, by complicated instruments, nor the section either of muscles or of tendons, are, of themselves, individually capable of removing deformities. But Dieffenbach neither rejects the one nor adopts the other; on the contrary, he combines the two into one happy

, and assigns to each its proper place in the treatment of distorted members in such a manner as efforts have been attended with the most successful success. From the contraction of a toe, considerable that it merely impeded the adjustment of a boot, to that of the prin- limbs, which interfered with their motion reduced unsightly deformities, I have seen most effectual cures by Dieffenbach's operations. Clubfeet of every description; con- nements of the knee, hip, and elbow joints at acute angles: all these I have seen reduced to their normal form and use. And these surprising and almost invariably successful results? Simply because no one case is exactly like another. It is one of Dieffenbach's greatest qualities to individualize and even during his operation; and here, illustration, I might relate a case of an im- mense tumour of the face, which was supposed to have destroyed the eye. In the course of the operation for its removal, an assistant observed the eye was not destroyed, and he said so. At that moment Dieffenbach changed his whole management not only to preserve the eye, but even to form a species of eyelids to protect it! But to return. It is not that this or- thopedic is to be divided in any given com- mon, and according to a certain theory. No: now this and now that; now more, now less; always as little as is possible. Another quality of accounting for Dieffenbach's happy re- sults, that he is never tempted, like some sur- geon, by the love of display; he never in these forces the limb immediately into its proper position, so as to astonish his class by a kind of ulous conjuring; on the contrary, some- times always elapse before he commences any orthopedic treatment further than that of a slight supporting bandage. The reason for this be- comes obvious when we consider that the matter is divided between the cut extremities of tendons and great elastic powers. It is thus only the divided tendons are so reunited that the limbs are in a condition to be exposed to the tension necessary to reduce them to their nor- mal form.

I have seen Dieffenbach operate on the same child of fourteen days old, and a man of fifty years. I did not remain in Berlin to see the result of these cases, both of which were of a very high degree of clubfoot; but Dieffenbach assured me they would both be suc- cessful. The museum attached to the Klinik is rich in models and drawings of these affec- tions, and the results of operations of the extraordinary descriptions; and from among these I have selected two cases which have al- ready been described by Dieffenbach, (a) and (b) may stimulate others to follow his bright path.

CASE I.—Fedor W., son of a baker at Fur- chen, was born with pes equinus of the first degree. In his early years he had crept on all fours; and all endeavours to make him walk were frustrated by the position of his feet, which were in straight lines with his legs. As he grew in life he learned to walk upon crutches. At nine years old he was brought to Dieffenbach. At that time the deformity was threatening to ad- vance to the fifth degree; the instep was yield- ing and becoming altogether everted; it would have formed a sole for the foot. The distal phalanges of the metatarsal bones were turned upwards and rested on the ground; the toes turned upwards, and the sole was concave, corresponding with the convexity of the dorsum. The heel was retracted, and the muscles of the leg were atrophied and withered. The thigh was very weak, and the pectineal muscles rigid from ex- cessive extension. He walked as on stilts, leaning his whole weight on his crutches, and bending his knees.

The operation, which was performed in the presence of his Royal Highness the Prince of Prussia and his suite, consisted of the sub-

cutaneous division of the tendo Achilles. The limbs were then lightly enveloped in bandages, and after a few days laid in Stromeyer's machine, and gradual extension had recourse to. In four- teen days after the operation the feet were at obtuse angles with the legs, and in two months they had acquired their natural position. The boy could now put the soles of his feet to the ground; but the limbs were still weak, and he could not stand upright without pain. The ab- duction of the thighs was greatly impeded by the rigidity of the pectineal muscles; these were, therefore, divided, and then free motion was estab- lished. The necessary orthopedic treatment was carefully pursued, and the boy was soon able to throw away his crutches, to walk alone, and without deformity.

CASE II.—Marie K., aged fourteen, Pes equinus of the right side. The foot formed one straight line with the shin; its form was altogether de- stroyed, and consisted of a shapeless mass. The tendo Achilles and flexor hallucis were divided. After a few days orthopedic treatment was re- sorted to, and the foot soon assumed a better form. In six weeks the cure was effected.

I could here relate many more cases, not only of the successful treatment of the pes equinus, but also the pes varus and pes vulgus, of all de- grees of intensity; and also describe the opera- tions for contractions of the knees and other joints; but space will not allow me to do so, and I will pass on to other matters.

What I have said concerning Dieffenbach's tenotomic and orthopedic treatment of con- tracted joints, applies equally to his myotomic operations for partial paralysis of the face, and also for the relief of those frequent cases of blepharoptosis, or palsy of the orbicularis palpebrarum, where the eyelids cannot be completely opened; and lagophthalmos, where the eye cannot be completely closed. I saw these operations performed; and several patients were exhibited to me in whom no traces of the operations they had undergone were to be remarked, or any evi- dence of these very disfiguring defects remained—defects which were dependent upon the dis- proportional forces of the two antagonists, the levator palpebræ superioris, and the orbicularis palpebrarum. In the case of a lagophthalmos, Dieffenbach protects the eye by a small piece of wood—in the case I witnessed, he cut it from the cover of a cigar-box—passed under the lid and up to the supra orbital ridge of the frontal bone; he then pierced the eyelid at its outer angle, passed a very narrow and slightly curved knife up to the levator palpebræ superioris, which with one stroke he cut through, and then withdrew the instrument at the point of incision. The in- stantaneous result was truly surprising: the eyelid was immediately closed, and the or- bicularis had regained its power. In blepharoptosis, in like manner, the too powerful orbicularis is divided; and both operations have been invariably attended with the most perfect success. In both, a careful orthopedic after treatment is practised.

Paralysis of one side of the face often becomes the subject of myotomy. In these cases Dieffenbach divides the muscles of the healthy side. I saw such an operation performed on an otherwise healthy girl, whose mouth and nose were drawn towards the healthy side of the face, causing a hideous deformity. By a subcutaneous incision, the necessary muscles were divided, and the frightful disfigurement entirely removed. Or- thopedic means were had recourse to in order to ensure the elongation of the incised muscles.

This is, perhaps, the most fitting place to de- scribe Dieffenbach's operation for strabismus; yet his mode of operating and the success which has attended it are so well known that I need scarcely dilate upon them. I saw him, however, in one day, operate for S. convergens of both eyes, and S. internus of the left eye; and in all these the eyes were fixed, the muscles cut down to, drawn out with a blunt hook, and divided with a small and slightly curved pair of scissors with incredible rapidity. All were perfectly successful. A looker-on at an

operation for strabismus is very apt to think it is so easy that any tyro might perform it; and so it is, as far as the mere exposure and division of the muscles are concerned; but I was never more convinced that these are the least important parts of the operation, than by observing how Dieffenbach, according to the circumstances of each particular case, cut through the muscles, sometimes entirely, sometimes partially; how he divided them sometimes superficially, sometimes deeper within the orbit; and also what various modifications he prescribes in the after orthopedic treatment. It is only by frequently witnessing it that we learn to know all its difficulties, and to conceive that, differing in degree as does strabismus in almost every case, how much expert- ness and calculation are requisite to determine in each case, where, and how far, the muscle is to be incised. Here lies the difficulty of the operation, and here is the cause of its frequent failure.

DEATH AND MEMOIR OF DIEFFENBACH.

I had proceeded thus far in arranging my notes, and proposing to accompany the reader through a wide extent of operations for hernia, ampu- tations, extirpation of tumours, extractions of polypi, refracturing of badly-set bones, the operations for the cure of various fistulae, and many other matters connected with Dieffenbach's Klinik, when the sad tidings reached me that this great master-mind was no more! He literally died in harness, having been struck with apoplexy on the 11th of November, while in his lecture-room and in the presence of his pupils: in the very place where, for so many years, his lessons had been so greedily listened to; in the room where he had restored sight to the blind and given feet to the halt; where he had relieved so many from affliction; and where his fertile genius had so often struck out a path towards the relief of the most desperate maladies which all others had failed to observe. What a glo- rious death for such a man to die, and how mer- ciful! The aim of his life was his profession, and he died in the very midst of it; he was wont to say "I shall die on the field of battle." Perhaps the wish was father to the thought; at any rate his prophecy was fulfilled. His sudden death, too, was a merciful dispensation of Providence: for to a man of his temperament and active mind the confinement of illness and the inability to exercise his profession would, indeed, have been intolerable. He seems to have contemplated not only the manner of his death, but its speedy occurrence. It is not long since he told his wife that some day he would not return at his usual hour from the Klinik; and that Dr. Angelstein, his principal assistant, would come and inform her of his death. And so it happened! Doubtless he was well prepared for the great change. Can it be, that there is sometimes vouchsafed to us a shadowy foreshowing of events to come—that a misty future sometimes opens to our gaze to guide us, and direct us, and to do us good?

On the morning of his death, Dieffenbach was quite well, in his usual health and spirits, and took exercise in the riding-school with his wife and daughter; but for some time he had been greatly interested and excited by the affairs of Switzerland, and had frequently expressed him- self very warmly in favour of the liberal party; and to this undue excitement may, perhaps, be attributed the proximate cause of his sudden death. He repaired as usual, at two o'clock, to the Klinik, where he found two French physi- cians waiting him. To these gentlemen he pre- sented a young man on whom, the day pre- viously, he had operated for aneurism. He seated himself on his usual sofa, and explained to them the steps of the operation. Suddenly he ceased speaking, and his head fell forwards, as if he was whispering to one of them. But alas! his voice was hushed for ever. He had ceased to live.

Surgery has experienced the greatest loss by the death of Dieffenbach; while to the University of Berlin it is irreparable; he was one of her brightest ornaments, and a teacher who promised

"Ueber die Durchschneidung den Sehnen Muskeln."

to raise her to the highest rank as a school of medicine. None are living who can supply his place: for although England, France, and Germany can boast of many surgeons who may surpass him in erudition and equal him in the power of doing what others have done, yet, as there are none who possess his originality of professional thought, his power of seizing upon a principle, and his quickness in adapting a means to an end, so are there none who have done so much, or are likely to do so much, for surgical science as has done Dieffenbach.

I trust his great work on surgery, and another that he has left in M.S. on the use of ether in operations, and which cannot fail to be of the greatest value, may soon appear in an English dress.

It may be as well to mention a circumstance connected with this melancholy event, which threw, I may safely say, all Berlin into a state of the greatest excitement: it was currently reported that Dieffenbach was not dead, but that he lay in a continued swoon! This was partly owing to the fact that in cases of sudden death, and without any previous illness, symptoms of corruption are always long in appearing; and also that a well-known somnambulist had gone to the house of Dr. Holthof, Dieffenbach's son-in-law, and asserted that he was still in life. The report rapidly spread, and, strange to say, was generally believed. Some young practitioners, and especially Mr. D. clung to the belief; they insisted upon regaining with the corpse after it had been placed in its coffin, asserted that symptoms of life still remained, and even poured wine down the throat. I will not attempt to paint the distress such scenes have caused to the family and friends.

John Frederick Dieffenbach was born at Konigsberg, in Prussia, in the year 1795. His father was professor of theology in the university of that city, and he himself was destined for the clerical profession. In the year 1813 he volunteered into the Mecklenburg cavalry, and accompanied that regiment in its campaigns. When the war was over, he again resumed his theological studies; but, becoming a student of the University of Bonn, he devoted himself entirely to surgery, under Walther. In 1823, he went to Paris, and placed himself under Larrey and Dupuytren, for the last of whom he always testified the most profound admiration. Leaving Paris, he established himself in Berlin, where the publication of several works, and the happy results of some very important operations, soon established his fame, and rendered his name one of European celebrity. In 1830 he was appointed to the Hospital of La Charité; and in 1840 he succeeded Gräfe as surgeon of the Klinik, which became both the scene of his greatest works and the theatre of his death.

His inaugural thesis before the faculty of Wurtzburg was upon the transplantation of parts of the human body; and rhinoplastic surgery ever continued to be his favourite branch of the profession, yielding him his greatest renown; and in this, indeed, he stood alone—the originator of numerous operations; the great master of rhinoplastic art; the creator and reformer of deficient and defective parts of the human body; and the obliterater of the most unsightly deformities. The greatest knowledge we possess on this subject we owe to him; and his book, translated into English in 1833 (Highley, London), testifies the value of the legacy he has left us; it is from him that future writers will borrow their best histories of the formation of artificial noses, lips, cheeks, and eyelids; and from his works that they will best teach how to remedy the harelip, the cleft palate, and a host of other disgusting deformities. The same may be said concerning his operations for contracted joints, for wry-neck, for squinting, for ununited and badly set fractures; indeed, I may ask, what branch of surgery is not indebted to Dieffenbach? He particularly delighted in the surgery of malconformation, and especially in those cases which had

been declared irremediable by the old school; and those who have seen him in his Klinik can never cease to remember how rich he was in expedients even in the moment of operation; or to admire the address, the coolness, the presence of mind, and the confidence in himself with which he performed the task before him; and all this by such simple means, with such an absence of display and affectation, with no dread array of complicated instruments and unsightly machines, that one was led to wonder how, with so little, such mighty things were done. The writings of Dieffenbach can give but a faint idea of the man himself, for his style of composition was anything but terse, and his sentences, even for a German, are long and laboured, and difficult of translation. He was altogether a man of action, and to be known must have been seen in his Klinik. He was, perhaps, more a man of genius than a man of talent—more actuated by instinct than by reason and volition; hence he was a bad dissembler, speaking his mind with such freedom and honesty that kept him from many high places to which men less worthy were appointed; and hence, too, like other poor children of genius, he was improvident. Although his income was considerable, he has left no fortune to his family, for his hospitality was great, and his generosity unbounded: tales of distress and of necessity were never told to him in vain, and of the many who solicited his assistance none left him unrelieved in the most effectual manner. His habits, too, were expensive, while his liberality was most unblushingly abused. He could never bring himself to ask a patient for a fee; and I have often seen those known to be well off in the gifts of fortune reward him simply with their thanks: and many of the crowned heads and sovereign princes by whom he was employed more frequently paid him with empty titles and glittering decorations than with substantial gold.

His remains were deposited on the 15th Nov., in the Werder Cemetery, without the gates of Berlin, and amid the uncontrollable expressions of regret of a host of citizens of all classes. The funeral procession was headed by a volunteer, and very numerous, band of musicians. Before the coffin—upon which, in its progress to the grave, quantities of flowers were showered, and coronets of "immortelles," touching emblems of a people's sorrow—marched many officers in full uniform, accompanied by the army surgeons, bearing upon cushions the orders and decorations which had been bestowed upon the deceased. Then followed the city clergy, the relations and private friends of the family, the rector and students of the university, the pupils of the Frederick-William Institution, and the medical men of Berlin. Then came the empty carriage of the deceased, calling forth loud lamentations from the crowd through which it passed. A long line of private equipages, headed by the state carriages of the King and the Prince of Prussia, closed the melancholy cortege. A funeral discourse was pronounced over the grave by Professor Sydow; and the service for the dead, chanted by the choristers of the cathedral, terminated this ceremony, so full of sorrow and regret, but so honourable to the memory of the deceased. "Requiescat in pace."

I am, &c. &c.,

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PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF SCIENCES.

Meetings of Nov. 16 and 22; M. BRONGNIART in the Chair.

TREATMENT OF VESICO-VAGINAL FISTULA.—Dr. Jobert forwarded to the academy four new cases of successful treatment of this obstinate disease. In these four cases the fundus of the bladder communicated with the vagina, through a large aperture which, in two cases, was placed

immediately beneath the os uteri: they all were the result of difficult labour. The method employed by the surgeon of Hôpital Saint Louis does not merely consist in the displacement of tissues, or in the dissection of a portion of membrane, proportioned in size to the aperture. In his operation, the organ itself is to a certain extent displaced, after having been rendered movable by the detachment of some of its insertions. The vagina and bladder, therefore, change their relative positions; the lips of the most extensive fistulae are thus united without any dragging, any dissection of flaps, or any of those details of the so-called "French" method which are frequently productive of gangrene.

ERGOTINE IN HEMORRHAGE, BY DR. SÉE.—We have on various occasions forwarded to the readers of the *Medical Times* extracts from the oft-repeated communications of M. Bonjean, an apothecary of Chambéry, to the Institute, on this subject, and also the remarks which fell from Professor Velpeau, who not only disbelieves the boasted efficacy of the drug in cases of hemorrhage, but advises surgeons to be on their guard, lest, placing confidence in an imaginary hemostatic, they neglect the more efficient means which art places at their disposal. Dr. Sée stated at the meeting of Nov. 22, that he had used ergotine in eleven cases of internal, and in one case of external, hemorrhage. In the former, the effects of the medicine were insignificant, and in the latter, negative.

ARSENIC IN FERRUGINOUS SPAS.—M. Chevalier communicated an analysis of the waters of Bussang: two litres and a half contain about one-fifth of a grain of arsenious acid.

ACADEMY OF MEDICINE.

Meetings of Nov. 16, 20, and 23; M. BÉGIN in the Chair.

RUPTURE OF THE SPLEEN; HEMORRHAGE; DEATH.—(Case by Dr. Landouzy, Corr. Member of the Academy.)—A man, aged twenty-eight, of a strong constitution, was admitted into the hospital at Reims on Sept. 10, 1847, with the symptoms of typhoid fever. During the week which preceded his admittance he had suffered from headache, epistaxis, nausea, diarrhoea, and feverishness; he presented the lenticular eruption of fever, the abdomen was tender on pressure, and up to the 19th of September, the intensity of the disease gradually increased, when the case terminated fatally. On dissection, the characteristic alteration of typhoid fever was found in Peyer's glands, and about twelve ounces of dark fluid blood in the peritoneum. The spleen, six inches in length, was, on its external aspect, lacerated in an extent of one inch; its tissue was softened, and the peritoneum was free from any signs of inflammation.

THE SALT MARSHES OF FRANCE. REPORT BY M. MELIER.—(Concluded.)—From what personal observation had taught him, the reporter was of opinion that, in themselves, the salt marshes were not insalubrious; but that, when they were not carefully kept, they might compromise considerably the health of the neighbouring population. The abandonment of salt marshes, without the adoption of particular precautions was most dangerous, and capable of producing fevers of the most severe character.

COX'S FEMORAL ANKYLOSIS. BY M. MAISONNEUVE.

The celebrated operation of Dr. Barton, of Transylvania, who, nineteen months after the consolidation in a vicious direction of a fracture of the neck of the femur, divided the bone and replaced the limb in its proper position, was repeated at the Hôpital Saint Louis, in February, 1847, by Dr. Maisonneuve, and with equal success. The patient was presented to the academy, and the following is a rapid sketch of the case:—

A young man, aged nineteen, became affected with Coxalgia on the right side: the joint after some months suppurated, and, the ligaments being destroyed, dislocation of the head of the femur occurred. In this new position ankylosis took place, the thigh being completely flexed upon the abdomen, the knee being almost as

high as the corresponding shoulder. On the 23rd of Feb., the patient having first been deprived of consciousness by inhalation of ether, an elliptic incision, seven inches in length, was performed on the outer face of the thigh; the trochanter major was thus uncovered, and, with considerable difficulty, divided with a saw. At first the limb could not return to its proper direction, but it was gradually straightened, and less than two months after the operation the patient could walk with the assistance of crutches. The limb has acquired some strength, and, although still partially insensible from the section of the sciatic nerve, is gradually regaining sensation: it is shorter by three inches than the other extremity.

URINE IN TYPHOID FEVER. BY DR. MARTIN SOLON.

In this paper Dr. Martin Solon stated, that the urine of patients affected with typhoid fever was less abundant, more highly coloured, and heavier than during health, and that it preserved its acidity, but became speedily alkaline, on account of the large proportion of urea it contained. The quantity of this substance was often so great that nitrate of urea could sometimes be instantaneously obtained, without evaporation of the urine, and by the mere addition of nitric acid. This reaction might be predicted whenever the specific gravity of the urine attained 1.030 or 1.036. M. Martin Solon remarked that the various deposits observed in urine, and which formerly became the basis of the theory of critical signs, had ceased to be consulted, because they had too often been proved to be deceptive. Some of these signs furnished by the examination of the urine were, however, most valuable: thus, in transparent urine nitric acid might or might not occasion the formation of a deposit; the same could be said of those urines which contained saline precipitates; after filtration nitric acid might or might not produce a cloud; that cloud, constituted by the bi-urate of ammonia, was principally observed at certain periods of typhoid fever, and of other acute diseases, towards their termination, and was a critical sign deserving of notice. In the progress of typhoid fever the secretion of bile underwent considerable modification; hence the appearance of the green colouring matter of bile in the urine.

Albumen was observed in many acute diseases to form in the urine in a transitory manner, but it was in none so frequent as in typhoid fever; when albuminuria was noticed it was always in the worst cases, and the occurrence justified an unfavourable prognosis.

CHLOROFORM.

From a perusal of the *compte-rendu* of the Academy of Sciences, meeting of March 8, 1847, vol. xxiv., page 342, it is evident that M. Flourens, the secretary of the Institute, did make some experiments on animals with chloroform; but Mr. Simpson is the first who, having tried it on the human subject, pointed out its advantages over ether.

M. Blandin, M. Roux, M. Vidal, M. Amussat, have all operated upon patients rendered insensible by the new anæsthetic agent, and the results obtained are perfectly in harmony with those announced by Professor Simpson.

FACULTY OF MEDICINE.

LECTURES ON GENERAL PATHOLOGY, BY PROFESSOR ANDRAL.

CHAPTER I.

We devoted last session to the study of the elements of disease: we first laid before you a history of the alterations of the mediate and of the immediate principles by which our fluids and our solids are constituted; we then entered into an inquiry relative to those changes of the dynamic state of our organs from which disease can also arise; and in the last lectures we glanced rapidly at the forms and types of maladies, concluding the first part of our course with a description of that state which separates disease from health, and which is called "convalescence." We will now begin the history of those phenomena of the morbid state termed symptoms, first considering

them merely in the light of abstract facts; and, afterwards, converting them into signs, by pointing out their connection with the art of diagnosis.

Let us first direct our attention towards the digestive organs; in the mouth we find several phenomena deserving of notice, and in its inferior region an important organ, the tongue, which may be modified in its circulation, its secretions, its sensibility, or its motility.

From the modifications brought on by disease in the circulation of the tongue, arise various changes of colour; for instance, a redness, which may be general or limited to the edges, apex, or centre of the organ; it may occupy only the papillæ, and at the same time its surface may be either dry or moist. The surface of the tongue may be smooth, as after desquamation of the epithelium; together with a change of colour, an alteration of size is sometimes observed: diminution, for instance, with redness, is indicative of disease of the stomach. The heat of the tongue may be increased, or may fall below its average standard; and in this latter case the organ acquires a purple hue, as in asphyxia and the blue period of cholera. Blood may also be extravasated on the tongue, and, drying up, leaves a black fuliginous deposit on its surface. In chlorosis, on the contrary, the part is paler than during health.

The secretions of the tongue may also be altered from the effects of illness. We find it sometimes dry, at others more humid than usual, and occasionally viscid. Universal dryness of the cavity is also observed, without being caused by diseases, as in persons who sleep with their mouths open, and may also proceed from moral causes, affecting the nervous system. From the deposition of mucus, of bile, or of blood, the tongue may acquire a white, yellow, green, or even a black colour. Accidentally, particularly when vigorous abstinence is observed, the organ may acquire an unnatural colour from contact with various substances—wine, for instance; when a yellow or white deposit has formed, the tongue is always acid, the saliva remaining alkaline. The centre, edges, or apex of the organ may be the seat of morbid deposits; it is frequent to observe red specks on a white tongue, or to see its edges red, and centre white; abundant mucilaginous and warm drinks, abstinence from food, and relaxation of the bowels from medicine, facilitate the deposition of these morbid secretions, to which some individuals are more predisposed than others.

Changes of the special or common sensation of the tongue are also observed; a sense of heat generally accompanies removal of the epithelium. Neuralgia is also met with, and taste may be diminished, abolished, or perverted.

The movements of the tongue are impeded by its being swollen or dry; when the nervous system is deeply affected, its motions may be tremulous, irregular, uncertain; they may even be abolished altogether, or only on one side.

Let us now examine the signification of these various symptoms in the different classes of diseases. In continuous pyrexia, the tongue furnishes more signs than in the intermittent; it assists in the distinction of forms, of complications, and of different degrees of severity of fevers, and leads to some therapeutic indications. In typhoid fever, for instance, the tongue is at first uniformly white, or dotted with red specks, and is generally humid, broad, and soft. In favourable cases, this appearance persists throughout the disease, but may also vary; in the saburral form, the deposits become thicker, and purgatives are indicated. When at the same time the apex and edges acquire a bright red colour, the exhibition of stimulants should be more guarded; the deposits may also disappear, and the tongue become uniformly red, being at the same time humid or dry; the cases in which these successive modifications are noticed, are generally unfavourable, and stimulants would increase their severity. At a later period, a black crust forms on the tongue, from extravasation of blood, and the epithelium breaks. It is, a gene-

rally true remark that dryness and a dark coating of the surface of the tongue correspond with diminution of vital power, alteration of the blood, and depression of the nervous system, and that in such cases bloodletting should be carefully avoided.

The black colour and desiccation of the tongue may appear rapidly during any acute disease, in certain unfavourable conditions of the system. Thus, we observe it often in the phlegmasia of aged subjects in typhoid fever; the tongue gradually regains its natural colour and appearance during convalescence, but, until it has become quite healthy, some anxiety is justified. Such are the general rules; but, exceptionally, we find in fever that the tongue may remain natural throughout the disorder; this, however, is of sufficiently rare occurrence to render the accuracy of the diagnosis doubtful. The tongue is also found sometimes to have returned to its natural state, although the recovery does not progress—a circumstance which depends upon the continuance of the intestinal eruption. In eruptive fevers, the alterations of the appearance of the tongue chiefly depend upon complications. In scarlatina, however, it acquires often in the incipient stage a bright scarlet colour, which may persist during the eruption, and even outlive it. The epithelium peels off, and, the congestion of the fauces being propagated to the tongue, causes this special redness observed in scarlatina. During variola, dryness, swelling, and a black colour of the organ usually denote a serious complication; it may be occupied by pustules, or remain a long time dry—a sign of a very unfavourable nature, unless the nares are impervious to air. Intermittent pyrexia are not accompanied by any remarkable change of the tongue; during intense chills, however, the tongue may be cold and livid, as in algid fever; in the stage of heat it becomes red, and sometimes dry, but invariably recovers its natural appearance during the sudoral stage of each paroxysm.

Inflammatory congestion of the stomach is usually accompanied by redness of the tongue; but, if the inflammation has been so rapid in its progress as to disorganize the viscus in a short time, the tongue may remain perfectly natural. Thus, during the last summer, we met with a case in which, although six gangrenous eschars had formed in the stomach, the tongue had not departed in the least from its usual appearance. In chronic gastritis the tongue is more or less dry and red, and its papillæ congested. In that form of bilious synocha, called in France "embarras gastrique," the tongue is constantly covered with a uniform layer of white deposit, and is at the same time broad and soft: emetics and purgatives rapidly relieve this condition of the stomach. The perfectly natural aspect of the tongue is truly remarkable in cancer of the stomach; particularly during the first period of the disease, when cancer occupies the sub-mucous cellular tissue. When the mucous membrane is invaded, the tongue sometimes becomes red and dry, and, after repeated hæmatemesis, pale and colourless. In gastralgia, the tongue preserves its natural characters; but, if the neurosis has been consequent upon chronic gastritis, the papillæ of the tongue may have acquired a degree of hypertrophy which may cause some hesitation in the diagnosis. In acute enteritis, colitis, dysentery, colica pictonum, the tongue is not modified, unless a complication be present. In cholera, during the blue period only, the tongue presents a special appearance, which we have already noticed.

In diseases of the organs of circulation the tongue remains natural, unless considerable difficulty exists to the return of venous blood to the heart. In phlebitis it presents the same appearance as in typhoid fever—the black sanguineous coating, which always points to great depression of vital powers, and to alteration of the blood.

In acute thoracic disorders, pneumonia for instance, no signs can be extracted from the appearance of the tongue. In the aged, pneumonia is usually accompanied by the formation of dark

rusts of desiccated blood, which positively counter-indicate the use of the lancet. In consumption the tongue is natural: at the close of the disease, however, it often becomes the seat of a pultaceous, pseudo-membranous secretion, by which the fatal termination of the case is generally ushered in. In pulmonary emphysema, when respiration is very laborious, a beginning of asphyxia may be observed, when the tongue assumes a bluish tinge, and its temperature at the same time descends below its average standard.

In diseases of serous membranes the tongue undergoes no change; indeed, it is remarkable to see that organ preserve a natural appearance in spite of the obstinate vomiting and febrile excitement which accompany peritonitis. In icterus the tongue seldom becomes yellow, whilst the velum is, on the contrary, tinged with bile. Maladies of the urinary organs readily modify the aspect of the tongue: in vesical catarrh, for instance, a dry, fuliginous tongue is not unusual.

When the nervous centres are the seat of morbid change, the sensibility and motility of the tongue are often modified. Its sensibility is not much altered by affections of the brain, but may be more so by diseases of the nerves; thus exquisite pain, or anæsthesia of the tongue, may result from an alteration of the fifth pair of nerves, and the organ may lose common or special sensation. Paralysis of motion of the tongue is the sign of many cerebral disorders. In general, the apex of the tongue, when caused by disease of one cerebral hemisphere, is deviated towards the paralyzed side. During the first days which follow apoplexy, it often happens that the tongue cannot be protruded from the mouth. In paralysis of the insane (an improper expression, that form of paralysis not being special to the demented), the first symptom of the disease is stuttering and difficulty of utterance; the diminution of muscular power in the limbs shows itself only later; and, in proportion with its progress, the intellect is observed also gradually to grow weaker. Paralysis of the tongue may be likewise produced without any physical change in the nervous centres—in cases of hysteria, for instance. It is always important to ascertain if paralysis of the face be the result of cerebral hemorrhage or the effect of cold upon the portio dura; when paralysis is idiopathic the tongue is never deviated; on the contrary, when distortion of the countenance is symptomatic of cerebral disease, the tongue is generally more or less deviated to one side.

D. M'CARTHY, D.M.P.

Sudden Death from Entrance of Air into the Internal Jugular Vein.—The case is reported in "The New York Journal of Medicine," by Dr. Richard H. Cooleage, surgeon U.S. army. A man in a fit of temporary delirium inflicted a wound with a razor, commencing over the sternomastoid muscle, about three fingers' breadth below the lobe of the left ear, and extending to a corresponding point on the right side. In the course of the wound the left internal jugular vein was divided obliquely for about two-thirds of its circumference, and the carotid artery and pneumo-gastric nerve were exposed, but not injured. The razor then passed through the larynx into the pharynx, so that the finger could be passed from the external wound into the trachea and œsophagus; the remainder of the incision was superficial. On the visit of the surgeon, the patient was lying on his left side on the floor, with the head bent forwards, so as partially to close the wound. His back being towards the door, on the entrance of the surgeon the patient turned his head, thus opening the wound; a convulsive struggle ensued, and, before any assistance could be rendered, he had ceased to exist. The hemorrhage had not exceeded two pints. The autopsy was not as complete as desirable, in consequence of an anxiety manifested for a speedy removal of the body by some of the patient's friends. The anterior portion of the parietes of the chest being removed in the usual manner, the lungs were found to present a na-

tural appearance, and there was no emphysema. On opening the pericardium, the right ventricle and pulmonary artery appeared more prominent than usual, and were elastic on pressure. The pericardium was now filled with water, and the right auricle punctured under water with a sharp-pointed bistoury; no air or blood escaped. The right ventricle was now punctured in the same manner, when a large quantity of air bubbled up through the water. There was no air in the left cavities of the heart. The quantity of air which escaped from the other side was not measured. On opening the heart the right auricle was found to contain a clot of blood; the right ventricle, pulmonary arteries, and left auricle and ventricle were entirely empty; the venæ cavae were filled with blood, but the pulmonary veins were comparatively empty.

Traumatic Tetanus Successfully Treated with Quinine and Morphia.—Dr. D.E. Bishop, of Ithaca, New York, attended a blacksmith, who ran a rusty nail into the hollow of the foot, wounding the internal plantar collateral nerve of the great toe. The wound progressed very unfavourably. About three weeks after the accident tetanus appeared (opisthotonos), paroxysms occurring every three or four minutes, pain agonizing, perspiration very profuse, difficult deglutition, pulse 84, respiration hurried, and the jaw could only be separated about half an inch. The wound was incised, and the actual cautery applied. Five grains of calomel with one minim of castor oil, in two pills, were first given; then fifteen grains of sulphate of quinine, with three quarters of a grain of sulph. of morphia two hours afterwards; and a liniment to be rubbed along the whole course of the spine, composed of one ounce of sulphuric acid and two ounces of olive oil. The next morning it was found that the evacuations had been copious, the secretions being very much depraved. The quinine and morphia had the effect of lengthening the interval between the spasms, in the course of a few hours, to five minutes; pulse 75; pain much diminished; distress at the pit of the stomach quite as severe, which might have been aggravated by the quinine, as is sometimes the case. Having a desire for food, the patient was ordered strong beef-tea with brandy. The same treatment was continued for four days, with occasional variation as regarded time and dose, as circumstances required, the irritation of the spine being also kept up. On the sixth day, owing to a suspension of the quinine and morphia for ten hours, all the symptoms increased rapidly; they were again given in as large doses as at first, with the same happy effect, the wound healing kindly and rapidly; and on the eleventh day from the time he was first seen by his medical attendant the jaws were capable of being opened to their usual extent, at the will of the patient; the countenance was bright and cheerful, the pulse natural, and only four spasms during the night. The quinine and morphia, four grains and a quarter every six hours, were continued, with an occasional cathartic; port wine, beef-tea, and arrowroot, for nourishment; and on the twentieth day every symptom of the disease had left, the patient only complaining of weakness.

Encephaloid Tumour on the Lungs.—Dr. C. K. Thompson, of Wellsboro', Pennsylvania, relates this case in "The New York Journal." The patient was a labouring man, who, in 1842, hurt his side by lifting, which afterwards caused a swelling, and he was lame for four or five months; when he apparently got well. In the summer of 1845, in the harvest-field, he felt a sudden "giving way" in his side, followed by shortness of breath and faintness; and the patient always dated the commencement of his ill health from that time. He continued to labour on until some time in the winter of 1845-46, when he was seen by a medical man; and the symptoms found by him present were a peculiar wheezing, dry cough; an enlarged gland on the left side of the neck, just above the clavicle, about the size of a hen's egg, with a puffy swelling extending two or three inches round it. Two or three months afterwards he was examined again, and there

was found dulness on percussion over a triangular portion of the left lung, the base of the triangle corresponding to the lower edge of the clavicle, and the apex being just below the left mamma; no vesicular murmur in the affected portion of the lung; bronchial murmur loud and sibilant; puffy swelling of integument covering left side; a shining or glossy appearance of the skin, which was purple in spots; the rest of a natural colour; purile respiration of the right lung. The next examination was the April following, when the extent of dulness was found increased; less bronchial murmur; veins in the course of the epigastric artery enlarged; cough very severe; no expectoration; several glands about the neck enlarged. In September there was found complete dulness over the whole extent of the left lung, with total want of murmur; the left side of the chest larger by measurement than the right, and no expansion in respiration; axillary veins and glands enlarged; appetite good; no cough; face bloated; pulse 110; breathing short; bowels regular. One week previously to death there was found complete dulness of the left side, and past the median line to the right; no murmur; no expansion of the left side in respiration; left mammary region projected forwards more than natural, and hard, presenting a sensation to the touch as if the ribs were firmly fixed in their places; axillary and cervical glands much enlarged, hard, and irregular; breathing difficult, especially in the recumbent position; cough with bloody expectoration; pulse 130. At the autopsy there were the following appearances:—The whole of the left lung, and a small portion of the right, were converted into a fibro-cartilaginous mass, and also the pericardium, which was firmly attached to the heart. In front, this fibrous texture extended nearly to the skin, i. e., muscle entirely, and bone to a degree, were converted into the texture and consistence of the tumour. On slicing the tumour, in the centre was found a large mass of brain-like substance, with firm fibrous bands running through it; and scattered through the tumour in different places were spots of the medullary substance, and in one place was a portion melanotic, or nearly black in colour.

Deficiency of the Stylo-Hyoidæus Muscle.—Dr. Moses Gunn, of Michigan, U.S., in dissecting a negress, apparently about sixteen years of age, noticed this anomaly. The integuments, and external layer of superficial fascia, were dissected up, and exposed a tolerably developed platysma hyoid. Removing this, and the sterno-cleido-mastoid, with usual care, the dissection was commenced of the supra-hyoid region. The anterior belly of the digastric was dissected out to the point where its tendon passes into the loop of the fascia which connects it to the hyoid bone. In dissecting out its posterior belly, it was observed to be beautifully developed, though not much exceeding its usual size, and not to pierce muscular fibres, as it usually does those of the stylo-hyoid. The dissection was continued by laying open the loop of fascia which invests its tendon, and turning back the muscle to its origin. This exposed, not the fibres of the stylo-hyoid, but a layer of fascia, removing which, brought to view the stylo-glossus and stylo-pharyngeus in their natural position, and ordinarily developed. Adjacent parts were perfectly normal, but not the least traces of the stylo-hyoid could be found. The dissection was repeated on the opposite side, with additional care, and with the same result.

Characters of Urine in Pregnancy.—According to Dr. Regnaud, the urine contained in a glass vessel, and placed in a chamber the minimum temperature of which is 14° to 16° C., loses its transparency on the second or third day, and becomes more and more opaline. From this time it ceases to redden litmus paper, and restores the blue colour to reddened-paper. From the third to the fourth day, a slight white precipitate is deposited on the sides of the vessel, and then appears on the surface the first traces of a white pellicle, which, increasing in extent and thick-

ness, generally covers the surface on the fifth day. There may be also seen, in the majority of such cases, crystals, which appear as brilliant points; the pellicle continues to increase up to the sixth or seventh day, but the advancing putridity now causes the phenomenon to lose its regularity. This pellicle, observed on the surface of urine from pregnant females, is considered only an exaggeration of the normal state. In such cases there is a hyper-secretion of an albuminous matter, which has escaped the oxygenation that ought to have converted it into urea. Hence arises a part of the pellicle, which is otherwise very complex in its composition. During the last days of pregnancy it cannot be discovered. This depends, it is thought, on the abnormal elimination from the kidney, of a variable proportion of lactine or sugar of milk, which, by being transformed into lactic acid, sensibly increases the acidity of the urine, and prevents the ammoniacal transformation of the urea. It is believed that these characteristics in the urine may be found in certain morbid conditions independently of pregnancy, and that too much importance has been attributed to them as a means of diagnosis. Yet, when the sensible signs of pregnancy are not very manifest, they ought not to be neglected, and may have a certain value in connection with the rational signs of that state.

Observations on Hysteria.—M. E. Marchand, of Sainte-Foy, has arrived at the following conclusions in reference to hysteria:—That aglobulia denotes a diminution of the blood globules, as hyperglobulia signifies an increase of the same, or plethora. Aglobulia is a very common morbid state. The blood globules, the medium proportion of which is 125 in 1000 parts of blood, may fall to as low a figure as 24. Aglobulia has for its discriminating mark a disturbance of the nervous system, and this is more decided the more complete the aglobulia is. The disorders arising may affect either the nervous system of the functions of relation or the nervous system of the vegetative functions. Under the first head fall convulsions, paralyses, hysteric lethargies, hysteric aphonia, hysteric asthma; disorders of organs of sense, as amaurosis and double vision, and tinnitus aurium. Under the second head come various chlorotic phenomena, nervous palpitations of the heart and great vessels, venous and arterial murmurs, failure of the complexion, certain disorders of the uterine function. In general, the diseases termed nervous depend on aglobulia, or at least always coincide with it. Aglobulia is more frequent in women than in men. The majority of the former have the affection slightly, which explains their nervous susceptibility, their exalted sensibility, and their many neuralgias. Women have a smaller proportion of blood globules than men, which may be ascribed to their periodical hemorrhage; and this seems to produce in them their peculiar nervous susceptibility. The nervous symptoms of the first months of pregnancy depend on the diminution of the blood globules. Chlorosis is the basis of pathology in the female constitution. Hysteria is the aglobulia of females from twenty-five to fifty-five years of age; chlorosis the aglobulia of young girls, and often of young men; hypochondriasis of grown men. A great number of chronic maladies—but especially syphilis, tubercle, cancer, and intermittent fevers—gives rise to aglobulia, which is then symptomatic. Spare diet too long persevered in, too frequent venesection, produce it also, and consequently nervous excitability. Antispasmodics may calm excitement, but can never cure it. To do this, the blood globules must be brought back to their normal state by animal diet, wine, iron, bitters, exercise in the open air, sea-bathing, &c. In syphilis it is desirable to combine with these certain other remedies. An increase in the proportion of blood globules (140, 150, 170 per millimètre), or hyperglobulia, impairs the nervous sensibility, and leads to apathy. Those affected with hyperglobulia are affected with gout, gravel, cerebral hemorrhages. The best means of curing hyperglobulia are venesection, spare diet, vegetable nourishment, alkaline water, &c. The

functional derangements of the vascular system, and those of the nervous system, arise in an inverse ratio.

Abnormal Distribution of the Brachial Artery.—Mr. Charles Anderton records a case in "The Provincial Journal," where, on amputating the arm of a girl, fifteen years of age, of scrofulous constitution, in which there was an abnormal distribution of the brachial artery, the only vessel requiring a ligature was a small (not larger than a terminal) branch of the superior profunda, on the external side of the bone. On examination of the face of the stump, there was a forcible pulsation in the normal situation of the brachial, which, on tracing, appeared to take a circumflex course anteriorly. Under these circumstances the edges of the stump were not brought together immediately, from fear of secondary hemorrhage. The tourniquet was cautiously loosened, until all restraint on the vessels was removed, and the stump left exposed for two hours, but without the least appearance of bleeding, although the whole of the vessels over the face of the stump appeared all in forcible activity. Cicatrization was eventually accomplished without the least unfavourable symptom or appearance of hemorrhage.

Disorders of the Nervous System during Pregnancy and Parturition.—Dr. Lever says, in Guy's Hospital Reports.—1. That pregnancy is occasionally associated with chorea, or convulsive movements, with paralysis of various parts of the body, of the extremities, and of the nerves of special sense; and with mania. 2. That the varying symptoms of such complications may be produced at any period of pregnancy; but when produced, although modified by treatment, are rarely removed during the existence of gravidity. 3. That the patients in whom these complications exist, are women of a highly-nervous temperament, of great irritability, or whose constitutional powers have been reduced by some long-continued but serious cause of exhaustion. 4. That in the treatment of such cases heroic measures are not to be employed; that the curative means consists in improving the secretions, keeping the bowels free, administering those medicines and employing that diet which will increase the tone and energy of the nervous system. 5. That although, in most instances, the symptoms will continue so long as pregnancy exists, yet, in the majority of cases, we are not justified in inducing a premature evacuation of the uterine contents.

Corroding Ulcer of the Uterus.—Mr. Boulton exhibited to the Bath Pathological Society a specimen of disease which occurred in a woman aged fifty-two. She had enjoyed generally good health during the greater part of her life, had menstruated regularly until six months of her death, at which time the periodical discharge was supplanted by a constant sanguineous drain, with occasional attacks of profuse hemorrhage, which brought her into a very low condition. She suffered severe pains in the back, and occasionally in the hypogastrium. On examination after death, the uterus was found somewhat increased in size, adherent superiorly to the sigmoid flexure of the colon; anteriorly to the posterior aspect of the bladder; posteriorly to the rectum, with which there was a communication formed, though it did not appear that this communication had been discovered during life; there were considerable traces of inflammation of the peritoneum adjacent to these parts. On slitting open the colon and rectum the mucous membrane was seen in a peculiar state of partial erosion, which gave it a somewhat reticulated appearance, and, whilst the mucous membrane was thus engaged, the peritoneum did not seem to participate, inasmuch as this membrane could be elevated in many places, and the disease seen distinctly beneath it, the above-mentioned inflammation being apparently of a diffusive character, unconnected with the original disease. In the uterus the ulceration appeared to have commenced internally in the neighbourhood of the cervix, and to have gradually eaten its way posteriorly into the rectum; the usual appearance of the os tincæ was gone, the lips being destroyed, and the upper

part of the vagina, contiguous, implicated; the upper portion of the uterus had escaped ulceration, but when cut into the fundus was found hard, and resembled in appearance an unripe pear. The disease had tended to a fatal termination by anæmia, and by peritoneal inflammation, the former being the immediate cause of death. It was remarked, that this case resembled much more the character of lupus, than that of true cancerous disease.

On the Presence of Fibrine in the Urine.—Dr. Heinrich, of Bonn, describes four conditions in which fibrine occurs in the urine:—1. The urine coagulates spontaneously, separating in a serous and an elastic solid portion. 2. Worms, or vermicelli-like conglua, are evacuated along with the urine. These conglua are considered as coming from the kidney, and moulded during their passage through the ureters; they cannot come from the bladder, because exudation within it shows no disposition to put on such forms, probably from the well-known causes that induce exudation in pleuritis, arachnitis, &c., to assume flattened forms corresponding to the exuding surface. 3. It is frequently found in a loose aggregate of very fine granules or molecules; this is considered a sign of qualitative disease of the fibrine. 4. The microscopic moulds of the Belinian tubes, occurring in the urine during irritation of the kidneys, are fibrinous, though tubes containing albumen, fat, and uric acid, are likewise found in the urine in similar diseased conditions.

True Hydatid of the Heart.—Mr. Nathaniel Ward exhibited to the London Pathological Society a specimen of this disease. The patient, aged twenty-two, a barman, who had been in the habit of drinking to an immoderate extent for several years, was admitted into the London Hospital, having three days previously received a severe blow on the abdomen, resulting in peritonitis, which rapidly subsided under the usual treatment. It being found on examination that the heart was excessively turbulent and irregular in action, the man was placed under the care of the physician, and died four days afterwards from a very acute attack of double pleurisy. The pericardium contained two ounces of fluid; the heart was larger than natural, with mitral and aortic disease; and on the posterior and upper part of the left ventricle, beneath the superficial muscular fibres, was a hydatid cyst of the size of a French walnut, containing numerous other cysts, varying from the size of a nut to a mustard-seed. The echinococcus was observed studding the inner aspect of the cysts. Neither the liver (which was in a state of cirrhosis), kidneys, or spleen, presented a similar affection.

REVIEWS.

Observations on some of the Parts of Surgical Practice. To which is prefixed an Inquiry into the Claims that Surgery may be supposed to have for being classed as a Science. By JOHN P. VINCENT, late Senior Surgeon to Bartholomew's Hospital. Longman and Co. 1847.

[SECOND NOTICE.]

In proceeding to the practical matter of Mr. Vincent's observations, we may remark at once, that, in almost every part of the work, there is a great deal that is good and true, in close juxtaposition with something which we hold to be at least doubtful; and thus an incautious reader may possibly, we think, with much wheat, gather a few tares. In devoting the remaining space to some of these passages, the task is somewhat ungracious, but we do it in no spirit that would desire to point to the blots only of a book that, on the whole, we can conscientiously recommend for perusal, but rather that we may, so far as in us lies, increase its utility.

The author delivers his experience, in the first place, on accidents to the bones and their articulations, and appropriately introduces the subject by some remarks on "muscular associa-

tions"; the bearing that these have on the replacing the injured parts, and on keeping them in apposition. The chief practical conclusions arrived at on this subject are, first, that, *ceteris paribus*, side positions are generally to be preferred, because there is less chance of any motion arising out of the laws of muscular association; and, secondly, that the most quiet position of a given muscle is not, as is usually supposed, the "greatest approximation of its attachments," but by "attending to their position, when they are required to throw out their strongest exertions." There is good deal of suggestive matter in this chapter, and upon a very interesting subject, viz., the best means, so far as position is concerned, in tranquillizing muscles concerned in accidents; but, although we should admit that, in a case of broken arm, the tranquillity of the deltoid muscle would be best secured by allowing the limb to hang at the side of the body, yet we think that gravitation is here the agent of apposition—a constantly-acting power, in opposition to a voluntary muscle temporarily disturbed by the accident. We should also offer a very different explanation of the urine passing through the urethra, in certain cases of fistula in perineo, and after lithotomy, before the external wound was healed, than that which supposes any power in the system "setting aside the laws of matter," or before we concluded that the laws of "hydraulics had little influence on the circulation."

Our author may, we think, be assured that in the diseases of the urinary organs to which he alludes, although the circumstances will vary in different cases, yet that the fluid always passes, in strict conformity with the known laws of hydraulics, viz., where it meets with least resistance; and, in regard to the hydraulics of the circulation, we hold that no part of certain influential physiological works is more erroneous than that which overlooks, or nearly, the numerous applications of the laws of hydraulics in the distribution of the fluids of the body: with which laws the phenomena of the circulation are not only perfectly consistent, but which they most beautifully illustrate. Every fact in the circulation—whether it be the distribution of the vessels, the acceleration or retardation of the current, the greater or less elasticity of the arteries, the modified structure of the veins, or the phenomena of venous circulation; all are beautifully clear, when viewed on hydraulic principles, but wholly unintelligible on any other. Let any one consider some of the miserable attempts which have been made to explain the venous circulation, independently of the laws of hydraulics, and he will immediately perceive the utter worthlessness of a physiology merely anatomical.

Our author's remarks on periostitis are interesting and judicious. We have long counselled and practised the early division of the membrane, and we extend it to all cases where we are led to believe that the disease is essentially seated in the periosteum. We are not quite sure whether we do or do not recognise that case in which Mr. Vincent compares the sensation afforded by the division of membrane to parchment, people's sensations differ so much in these things; but of this we feel certain (albeit that our admiration of local surgery is somewhat measured), that very few persons labouring under periostitis, whether sequent on accident, or the result of disease, are in sufficiently good condition to dispense with that assistance which the division of the periosteum affords, without at least very unnecessarily prolonging the case, and adding to their suffering. Besides which, we believe that, in many cases, the division of the periosteum may and does cut short processes which occasionally terminate in Necrosis.

Our space obliges us to leave almost unnoticed Mr. Vincent's remarks on carbuncle and similar affections. His practical directions are, we think, sound; but there is something to us very misleading in saying that carbuncle or furuncle either "seems to be the result of some affection

of which the skin is particularly the subject," although, after all, in one sense it is true enough; but it would be much clearer if (as Mr. Vincent's own remarks fully demonstrate) it were stated that they were generally the result of the disorders of some one or more of the internal organs, and that they were placed on the skin, which was so far subject to them, in conformity with the law which determines the effects of internal disorder so frequently to the surface of the body.

The rationale of the incision in carbuncle, as stated by Mr. Vincent, appears to us scarcely intelligible: if intelligible, not sound. We must, however, restrict our remarks to the caution here implied, and proceed to more important matters.

Our author treats rather shortly of fracture of the neck of the femur. He would prefer the position on the side, after Mr. Abernethy, where the advanced age of the patient, or other circumstances, did not preclude a reasonable hope of maintaining it. We infer that our author entertains the opinion now generally held, that fracture of the neck within the capsule is not necessarily a bar to ossific union. He does not say so expressly; but observes that fractures of the "actual" neck he thinks he has seen do better on the side.

The reader will find a good deal on the subject of scrofula which will well repay perusal; and of much of the more important points our own experience has afforded us abundant corroboration. The book, however, on some of the more serious scrofulous affections is not so satisfactory as we trust Mr. Vincent could have made it.

Unquestionably the practical steps we take in various scrofulous affections are to be referred to the same general principles; still, in many respects, cases vary in a manner extremely puzzling to young practitioners, especially in regard to certain local proceedings, unless the principles are very definitely enunciated. We will endeavour to show what we mean, by taking the case of lumbar abscess; and we select this from its great importance, and from our experience having led us to somewhat different conclusions from those arrived at by our author. For example, a very considerable and anxious experience of such cases entirely forbids us from agreeing (however unsuccessful that or any other plan must necessarily be in some cases), that the advantages held out by Mr. Abernethy's plan "have proved fallacious;" on the contrary, there is nothing that to us has proved more satisfactory or successful; and we cannot but think that, when it has proved otherwise, it has in many cases been held responsible for consequences which were necessarily the result of the extent of the disease, whilst in others it has not been conducted with a clear or comprehensive perception of the principles on which it is based. This we think certain, not only from what we have ourselves observed, but also from the manner in which those who have lauded Mr. Abernethy's plan have recommended its adoption.

Sir A. Cooper, when speaking of the constitutional disturbance too common in the ordinary opening of lumbar abscesses, says that Mr. Abernethy's mode is the best "invented by any surgeon" for the prevention of these occurrences; and he proceeds to say, "therefore, when the skin becomes red, you should open them," &c.; whereas it would have been much more to the purpose, had he said, if you wait until the skin becomes red, you will risk your chief object, which is "healing your puncture." To sketch what we believe to be the correct view of the surgery of these cases, we would remark, that the irritation in the loins, whether involving disease of the vertebrae or not, is the proximate cause of the abscess, no doubt; but the lumbar mischief itself is an effect of imperfection in some of the nutritive processes (we use the phrase in its extended sense). The defect may be in one or more of the organs through which these processes are

executed. Now, the real treatment consists in discovering and ministering to the particular organs most at fault, combining, indeed, such local management as shall not, mechanically or otherwise, impede the locally curative processes; in other words, which shall relieve the disturbed structures from their ordinary functions, until their disturbance shall have ceased, or their injury have been repaired. The abscess is merely an attempt to relieve the irritation, or to determine it to the surface—itsself an effect, but which it is very important to conduct to a healthy issue, or to render unnecessary. In the former case our object is to procure its discharge without the occurrence of any constitutional disturbance; in the latter we induce its absorption. The health, therefore, should be thoroughly examined, and those very useful general attentions suggested by Mr. Abernethy enforced by that more sweeping and analytical examination of, and ministering to, the various functions which modern surgery has insisted on, although it may not yet have characterized "hospital practice." If the success in adjusting what is wrong in the various functions be very nearly complete, the matter will become absorbed. We have ourselves procured this even with angular curvature of the spine; but, as the constitutions of patients with large chronic abscesses are seldom energetic, and as the attainment of even their maximum of power is extremely difficult under the restrictions as to air and exercise which the local circumstances usually impose, so we generally find that the abscess slowly approaches the surface, and we open it before any such thinning of the integuments shall have taken place as may risk or prevent the healing of the puncture. A third state of things, however, sometimes occurs, much more puzzling, and on no account more so than from the differences of opinion amongst eminent surgeons, as to whether it should be opened or not; and, again, the exact time when it should be done. We have witnessed all this; and it is a position not only embarrassing to the surgeon, but one which, without some decision of character on his part, may prove very damaging to the case. The condition to which we refer is the following:—The abscess shall have gone on increasing, sometimes suggesting an early approach to the surface, at others exhibiting such a diminution as to justify the hope that it will be absorbed. At length, however, it appears to be pretty stationary, and now decision is required: for on the one hand the symptoms do not appear to press for interference, so as to induce a surgeon to proceed in the face of conflicting opinions; on the other, if he do not proceed, we fear he will in many cases withhold that assistance which will practically prove a necessary economy of power. For, although we would not wish him to do so in the absence of any symptoms suggesting it, yet he must not wait for any of a very decided character. If he find that the pulse, which had been regular, begins to "snap" a little, even though its frequency be not augmented; or if he finds the appetite, which had been satisfied with a simple diet, begins to fail, or to require the excitement of dainty food, or the tongue at all less clean, or the bowels becoming irregular, especially if there be any easily excited tendency to relaxation; though the patient do not complain, though the rest remains perfect, he may rely on it these are declarations that a contest is going on; let him therefore open the abscess without delay, and strictly in Abernethy's manner. Although we have selected lumbar abscesses for our remarks, yet we apply them to large chronic abscesses, wherever they occur. The puncture should not be made in a dependent position, because, whilst it can easily be rendered so, by position, during the evacuation of the abscess, it is desirable to avoid disturbance of it afterwards, which, in cases where the abscess partially fills again rapidly, might readily happen from the matter gravitating against it.

We have always employed the common abscess

lancet, as it seems to us well calculated to ensure just that relation of size and position between the opening in the sac and in the integuments which we desire. Our author, we observe, prefers the trocar, of which in such cases we have had no experience. We regard all possible exclusion of air from the sac as important, which we find very practicable with the abscess lancet; nor have we ever met with those inconveniences in its use, from the subsequent interposition of fat, lymph, or cellular tissue between the lips of the wound, which Mr. Vincent mentions. The *rationale* of issues, as delivered by our author, requires to be received with great caution.

Our author has some remarks on hemorrhage, and on the presence of coagula in exciting it, which will be received with some difference of opinion. No doubt there will be many, too, who would rather employ other measures than place quite as much confidence in turpentine as our author. For ourselves, we have often seen the confinement of coagula (the result of a little weeping from a considerable surface) the cause, as we believe, of a real secondary hemorrhage; but the reader will see that Mr. Vincent's idea of the influence of coagula goes far beyond cases of this description. We select one more subject for remark on account of its great importance.

Mr. Vincent retains the old doctrine of the relations of mercury to syphilis, and regards the notion, that many cases of what are called secondary symptoms are produced by mercury, as erroneous. Were it not that affirmatives on such cases are worth any number of negatives, we should regard such an opinion from an experienced surgeon as very mischievous; but we think the facts on which we would maintain that "mercury will produce diseases of bone, not distinguishable from those called syphilitic," are so clear that nothing can possibly refute them. As for the diagnoses of peculiarity of fœtus, the *slowness* and other so-called peculiarity of *syphilitic* necrosis, we can assure our author that we have over and over again seen cases presenting all these features where there were no grounds for supposing that syphilis had ever existed; but where plenty of mercury had been administered for inflammatory affections. The purest case we ever met with was one in which the mercury was first administered for an affection of the membranes of the brain, immediately consequent on a violent mental emotion, occasioned by a sudden family affliction. Long before we had seen cases of this decisive character, we had little doubt on the subject; still the great difficulty which laid in the way of any positive conclusion was that, in almost every case of the suspected mercurial affection, inquiry elicited, that at some period or other the mineral has been exhibited for supposed syphilis. Advancing years, however, though they were characterized by a general repression of the previously free use of mercury in syphilis, were no less distinguished by a remarkable extension of the employment of this mineral in many other, and especially inflammatory, affections; and thus, with an ample field for observation, we very soon found cases of a most unequivocal character. Further investigation unfolded also the still more interesting fact, that neither mercury nor syphilis could be proved to act in virtue of any special property, which might not be, under peculiar circumstances, exerted by things having no known affinity to either. As we do not know that any of these facts may have reached the reader, we will state that we have seen what would be called a true mercurial salivation from aloes, from scammony, and from a peculiar condition of health, engendered we know not how, but certainly exclusive of any mercurial agency. In short, the facts of our experience have strongly suggested, that almost any form of matter which the system usually recognises as a poison to be ejected by one or other of the excreting organs, might, if confined in the system by narcotic or other combinations, give rise to what may be, for shortness, called mercurial phenomena. One corollary we will add to the foregoing: that it has appeared to us that influences of any kind

which have the power of simulating mercury, have seemed, like it, to have a very decided action on the portal system. We are therefore surprised at the confidence which Mr. Vincent seems to repose in the fœtus and the slowness of syphilitic necrosis as points of diagnosis: the former having occurred so frequently to us in other cases; and the latter seeming to be constant where *from any cause* we deal with deficient power. Neither can we at all refer the ill success of mercury in certain cases of *alleged* secondary symptoms to the remedy not having "been administered with sufficient perseverance. Many years ago, before we understood these matters in the light we do now, certainly the very worst cases were those in which we had every reason to believe that mercury had been most liberally employed. Nor should we exceed the truth if we add that it was this class of cases that made us first distrust the dogma which rested mainly on the authority of Hunter, and which Mr. Vincent's views would perpetuate—a dogma which we have always viewed as the example which Mr. Hunter afforded of the mischief of for one moment laying aside that inductive spirit which so much distinguished his more successful investigations. There is no single point on which we have touched, in regard to mercury and syphilis, that we could not relate cases in evidence; but it would require a volume, and not a very small one either, to put forth our facts on this subject; we have, however, said enough to put the young reader on his guard, and to induce him to observe them for himself.

Had our space permitted, we should have had pleasure in touching on many other points wherein our experience and opinions coincide with those of our author. We the less regret this, as the book will probably be perused by most practical surgeons. We hope that the time will arrive when the summary of the opinions of so experienced a surgeon as our author, however acceptable in their present form, will be a book of higher character—when it will be nothing less than a series of interesting facts closely tied to the principles which they exemplify, as well as to the natural laws of structure and function, in obedience to which they occur. We fear, however, that there is too much truth in what Mr. Vincent has said of surgical science, to justify us in expecting this from any records of experience merely, or indeed from any other source, for some time to come. So long as surgery is anything but a science, books like Mr. Vincent's must be very acceptable. A compilation it may be, but it is compiled from the bedpans of patients. Such books, amidst the responsible and not unfrequently puzzling realities of practice—the multifarious phases under which diseases essentially the same are presented to them—enable surgeons to compare their respective experiences; and thus, if they cannot educe a law to direct, furnish them in most cases with a precedent to suggest, the most eligible mode of dealing with difficulty.

But we think we see around us elements of better things. What we require, in the present state of science in this country, is a man of sufficient "perceptivity," or, to use Mr. Vincent's word, "perceptuousness," to see the evils of the present state of things, and the vast good that would necessarily result from the conversion of medicine and surgery into a science; one, too, who would have sufficient independence of mind to think for himself, and who was furnished with an arena whence he could boldly enunciate what he did think; and further, he should have sufficient independence of position to raise him above those worldly wants which must ever impede, though they may not prevent, the labours of men of science. This last the great hospitals can and should provide. Moreover, pioneers in science must not only have a degree of that enthusiasm which it is the fashion to ridicule, but must regard it as a feeling without which very little of advance has hitherto been attained. It is in some sort necessary to that missionary spirit which would break through the money-getting routine of a cold conventionalism, which,

though it receive a new medicine, a new operation, or even a new instrument with respect and attention, would regard any serious attempt to reduce surgery to a science as too theoretical for "practical men," or too troublesome for examination. If to such appliances were added that lamp which Bacon has left us, the splendid opportunities afforded by public institutions would soon furnish the foundation of a real science. Medicine and surgery would soon cease to be things of conjecture and opinion: medical science would have a lustre thrown around its progress of which few others can boast. Instead of every advance having been purchased at the expense of the poverty, the ill health, the broken spirit, the ruined fortune, or even the persecution of the individual; that of medicine and surgery would be distinguished only by a progressive diminution of human calamities. We believe that a more elevated system of hospital policy would not only promote these objects, but that no persons would be ultimately more benefited than those very men who, as it appears to us, now misled by the time-worn fallacy of present fruition (the devil's own bait), uphold a system which can degrade no one so certainly as themselves. The requisitions of science are not necessarily opposed to common worldly prudence, nor are we so Quixotic as to expect that men will entirely discard selfishness or any other principle inherent in human nature. We desire only that they should see their *true* interests; but, if they *will* have it that prudence is "conciliare sibi animos hominum et ad usus suos adjungere," let them recollect that an equally astute observer has said—

"Quanto quisque sibi plura negaverit
A illis plura letet."

THE MEDICAL TIMES.

SATURDAY, DECEMBER 4, 1847.

THE POOR-LAW MOVEMENT.

We have all sorts of facts to show that our work is already not without some fruits.

In Southwark Union an increase of salary has been given to the different medical officers.

The Holborn Union, so vigorously called to account by Mr. White at the Convention, has handsomely atoned for its short comings. The guardians have raised the salary from £115 to £150 per annum. Such is the reward of Mr. White's honesty in a good cause! Such the result of a wise combination by men having a good cause really at heart!

The changes in Southwark and the Holborn district are but types of what is elsewhere going on with more or less success. The public voice has been secured in our favour: the press in all parts of the country is coming forward as its echo: and guardians of all phases of character are influenced by the movement.

Not all alike, however. In the Chesterfield Union there have been guardians who have heart enough—or rather, not enough—to grind down the sick poor and their medical attendant with the same iron hand. But, fortunately, we have so placed the strength of our cause in public view, that the opponent must be ingenious indeed who will avow himself against us and not be ridiculous. Fancy the guardian—a gentleman of Ashover—who could gravely submit for adoption a document of this kind:—

"To the Poor-law Commissioners, Somerset-house, London.

"The board of guardians of the Chesterfield Union have, with surprise and indignation, observed in the public press that medical officers of

unions have resolved to communicate with Government, with yourselves, and with the College of Physicians and Surgeons, on the subject of what they call 'the very inadequate remuneration of boards of guardians for their services.' The feelings of the board are the more excited when it is called to mind that little more than two-thirds of the money raised by assessment for the relief of the poor ever reaches that class, the other third being swallowed up in salaries, repayment of workhouse loans and interest, and in other contingencies, and that almost £30,000 are expended annually in England and Wales for vaccination fees only.

"This board is therefore of opinion that such a proceeding is unnecessary and uncalled for; and, in order to put this opinion to the test, it is recommended that in future duly authorized medical practitioners be required to compete for their appointments, in like manner as other supplies and requirements of the board are competed for, being fully convinced that public competition in this, as in all cases of like character, is the most effectual means of ensuring to the public, to boards, and to the paupers under their care, the most active and effective medical practitioners."

Could "indignation" and "surprise" be better employed? The man "*indignant*" at the virtuous efforts of gentlemen in their own behalf and that of the poor, must be "content" with such a state of things as makes us tremble for the wretches really at the mercy of his guardianship.

DR. HODGKIN AND MEDICAL REFORM.

DR. HODGKIN (a) has just placed before the public some additional remarks on a subject which an able paper, published some time since in this journal, shows he has very attentively considered—viz., Medical Reform. The amiable and enlightened author, after a general review of the present classification of medical men, gives the College of Physicians credit for some of their recent improvements in the following terms:—

"It is not my object to give a narrative of these feuds, the more remarkable of which took place before our time, and, as matter of history, are much more amusing than instructive. I have never understood that they produced any important accessions to our scientific knowledge; although I have heard that the learned fellows assembled in Warwick-lane once proved the sedative effects of cold water by copious affusions from a fire-engine on the persons of the too-ardently petitioning licentiates, and thus anticipated the discoveries and triumphs of our modern hydropathists. The remonstrances of the licentiates, pressed in a quiet, but steady and persevering manner, together with the growing influence of liberal opinions on public affairs in general, contributed, however, to the introduction of reforms in this direction within the penetralia of the College of Physicians; which reforms were, I believe, proposed and successfully advocated by Dr. Kidd, Dr. Billing, Dr. Elliotson, Dr. Clendinning, and some other fellows, distinguished alike by the extent of their acquirements and the liberality of their views. A considerable number of those who were neither graduates of Oxford, nor of Cambridge, nor of Trinity College, Dublin, were admitted to the full title of fellows; and a still more important step was taken in effecting a change in the laws of the College, by which the distinctions of licentiates, inceptor-candidates, and candidates were abolished, so that all the fellows are now selected from one comprehensive class of licentiates; and the impartial and well-selected creations of fellows which have since taken place evince that the change has been not merely apparent but real."

(a) Medical Reform; an address read to the Harveian Society, at the opening of its seventeenth session, by Thomas Hodgkin, M.D., one of its annual presidents, 1847.

The compliments to the individuals and to their success are neither ungraceful nor undeserved. The complaint registered in the subjoined passage is one which does not win our assent so fully:—

"The College, which is not a university, which has no power to confer degrees, and which, by its laws and long-established custom, required that those who presented themselves for examination in order to obtain the licence should, amongst other qualifications, be furnished with the degree of doctor of medicine legitimately obtained in a recognised university, has departed from this practice, and admitted to the licentiate, and, by courtesy, to the distinction of doctor, those who have no academic degree, and whose education may have been received at one of the merely medical schools. Far be it from me to insinuate that, in the exercise of this innovation, the licence of the College has been granted to any unworthy person. The grievance is, that an injurious principle is adopted. Those who thus receive the licence may be qualified to receive the doctor's degree with the greatest *éclat*; but the examination of the College is not a test of this. Such creation of licentiates is not merely to some extent an act of injustice to those who received the licence prior to this innovation, but is not fair to the regularly constituted universities, and, perhaps, is not strictly honest to the public. That the fellows of the College would not be insensible to such an innovation, were it to affect themselves, may be inferred from their late memorial to the Government."

Although we know the danger of differing with so careful a thinker as Dr. Hodgkin, we yet do not yield to the force of this reasoning. Under the present system of public education, we are not averse to the rigid exaction of a university degree from the applicants for a licence to the College of Physicians. In some universities the courses are not good, and the test for matriculation in others are of too exclusive a character. Besides, it has been too much a complaint that physicians have been more remarkable for their classical erudition than skill by the bedside; and we see many advantages in adding to their body men who, if they have less scholastic attainments, have those far higher qualities in the physician—those, indeed, which made the greatness of a Hippocrates and a Sydenham—large, expansive powers of observation, and a comprehensive judgment.

The following are his observations on the present movement of the general practitioners:—

"The great body of general practitioners, acting through the Council of the National Institute, has two principal objects in view:—First, protection against indignities to which it is exposed from other professional bodies, or from the public, as likewise, against the encroachments of irregular practice on the part of the druggists and empirics; and, secondly, the elevation of the general character of the body, and the establishment of a principle of self-government; for which purposes the general practitioners desire to take into their own hands the education, the examination, and the licensing of the future members of their body; and to place their government, legislative and administrative, on a representative and elective principle.

"Whilst I cordially wish them success, as respects the promotion of science, and the increase of harmonious co-operation among the members of the medical profession of all classes, I entertain very serious doubts respecting the means by which these ends are sought to be attained. Will the circumstance of membership in the new body of general practitioners have any effect in preventing the unequal distribution of honours and favours on the part of the College of Surgeons? Those who possess these distinctions will naturally magnify their importance, whilst the equal value and credit of the general practitioner's diploma will be similarly applauded by

those who have obtained it. The desire of connection with the College of Surgeons, and the advantages accruing from it, will cease to exist for a large proportion of the profession; yet conformity to established usage, or the by-laws of institutions to which they wish to become attached, may still compel many to seek it. The danger of schism will, therefore, be rather increased than diminished, since the new body will be more obviously a rival to the College than the old Company of Apothecaries has been. I do not think that there is at present any danger of a collision with the College of Physicians, owing to the fact, which I by no means intend to state offensively, that the functions of that body have virtually become a sinecure; being, with the exception of acts affecting the fellows themselves, almost confined to the exaction of fees. Were it, however, to become more active, by doing which I am far from thinking that it would increase either the prosperity or the comforts connected with it, it is very probable that it might come into collision with a body such as the general practitioners propose to constitute.

"With respect to protection against quacks and irregular practitioners, I do not see how any new body can effect more than the Apothecaries' Company and the College of Physicians are by law qualified to undertake. The difficulty of performance arises not so much from any defect in the law, as from the predilection for quackery which pervades a large portion of the public of all classes. Hence, though the unintentional homicide in a case of extreme malpractice may be vindictively prosecuted and punished, there is no such sympathy with the medical profession, as would render their protection against the numerous instances of quackery at all popular. The effectual suppression of quackery must, therefore, be brought about by the public mind being enlightened on the subject; and, when this is accomplished, the patient will be as unwilling to trust his life in the hands of an ignorant practitioner, as the sportsman would be to discharge an untried gun-barrel.

"The proposal to establish a distinct medical school, and a distinct system of examination for general practitioners, appears to be of very questionable utility. The several branches of education are so essentially the same for all classes of the profession, that there does not seem to be any perceptible advantage in such a plan, to counterbalance the probable inconvenience which might arise from there being separate schools of anatomy, physiology, and chemistry, for the general practitioner, the surgeon, and the physician; and the institution of a distinct examining board would confirm the evil, by carrying the peculiarities of teachers into the class-books and preparations for examination."

CHLOROFORM.

THE NEW ANÆSTHETIC AGENT.

SCARCELY have twelve months elapsed since the world was first astonished by the announcement that the inhalation of ether vapour was capable of rendering a patient insensible to pain during the performance of a surgical operation. Such an extraordinary discovery was received by many with no small degree of credulity; but, experiment after experiment having been tried with success, the rage for operating became so great that numbers of surgeons, whose instruments were rusting in their scabbards for want of use, boldly drew them forth, resolving now to let no opportunity pass without testing their own skill as operators, and the powers of ether as an anæsthetic agent. Legs and arms, toes and teeth, succumbed to the surgeon's instruments, and the *fortunate* patients experienced no terrors in sight of the "cold steel," when they had near them a *dea bona* in the shape of an inhaler. The inspirations from the goddess scared away every pain, and the patients often felt after an

operation a surprise as great and as agreeable as that which Abon Assan experienced when he awoke in the palace and on the couch of the illustrious Caliph Haroun Al-Rasched. The glory of ether has now, however, departed, and all the complicated apparatus connected with its administration will be consigned to an ignominious oblivion, for chloroform has superseded the one, and the simple pocket-handkerchief the other.

This sudden revolution has been brought about by Dr. Simpson, of Edinburgh, who, in experimenting upon the inhalation of different volatile chemical liquids, discovered that the perchloride of formyle possessed superior qualities to the American anæsthetic for temporarily annulling sensation. In most of the experiments which have been since tried with this new agent, it has been found that Dr. Simpson's statements in reference to its superior virtues are founded in truth; and we know of no case in which it has failed to do all that ether has accomplished, without the trouble and expense which attend its exhibition. In five instances we have administered it ourselves with the most complete success; the only apparatus used being a pocket-handkerchief, and the quantity of chloroform employed in each case under a drachm. In two cases the full effect of the agent was produced in one minute; in the other three, under two minutes and a half. The pulse of each was quickened at the first inspiration, but afterwards fell to its natural condition. In one patient there were spasmodic twitchings of the muscles of the right arm for five minutes after the return insensibility, but these gradually subsided; and none of the patients complained of any unpleasant feelings upon the return of consciousness. The duration of the state of insensibility was about two minutes.

Chloroform produces, after two or three full inspirations, a feeling of warmth and exaltation in the chest, which then extends throughout the body; this is quickly followed by noises in the ears and a sensation of numbness in the whole system, with a speedy loss of sensation, motion, and consciousness. Dr. Simpson, in speaking of the effects, says, "During the full anæsthetic sleep sometimes no mental action goes on or, at least, is remembered; in many others the mind is active as in dreams. The respiration is usually at first soporose; the pupil sometimes natural, in others slightly contracted, in others dilated; the pulse is usually quickened ten or twenty beats at first, but afterwards falls to its normal state, and, if the vapour is exhibited very long in very powerful doses, it comes down more and more below the natural standard; muscles of voluntary motion in general relaxed; more rarely cataleptic; still more rarely clonically contracted, as happens also occasionally with ether. In small doses, given slowly, its effects are exhilaratory, and exactly like those generally following the inhalation of nitrous oxide gas."

It is necessary, however, that the agent employed be chloroform, if the administrator is to meet with no disappointment. Already a variety of articles has appeared in the market, called by this name, but possessing very few of its good qualities; it is well, therefore, that the profession should be acquainted with the chemical properties and external characteristics of a fluid which they may hereafter wish to use. There are two other chemical compounds with which the new anæsthetic agent may be confounded: these are the hydrochlorate of chloride of acetylene (oil of olefant gas, $C_2H_2Cl + HCl$); and the

chloride of ethyle (hydrochloric ether) C_2H_5Cl . The former is a colourless, mobile liquid of an agreeable ethereal odour and sweet taste, boiling at 180° , and, when ignited, burns with a luminous flame edged with green. It communicates to water its smell without being perceptibly dissolved, and it is miscible in all proportions with alcohol and ether. The specific gravity of its vapour is 3.4484. The latter (chloride of ethyle) is a colourless liquid, having a penetrating aromatic smell, somewhat resembling that of garlic. It has the sp. g. 0.874 at 40° , and boils at 51° . Chloride of formyle, or chloroform, however, differs greatly from these in its chemical and physical properties. It is a colourless, limpid fluid, *not inflammable*, having an agreeable ethereal smell, and sweet taste. Its specific gravity 1.480, and it boils at about 140° . The formula is $C^2HCl_3 = Po Cl_3$. The process recommended by Dumas is that which at present ought to be observed: this is to distil chloral with milk of lime; or alcohol, pyroxylic spirit, or acetone, with hypochlorate of lime. The product is mixed with water, which separates the perchloride. It is rectified in the water-bath, dried by digestion with chloride of calcium, and finally distilled with oil of vitriol.

We have been thus particular in mentioning the mode of preparation, the chemical and physical characteristics, of chloroform, in order that our professional brethren may be guarded against imposition, and that this new anæsthetic agent may not unjustly be brought into disrepute. Every surgeon who purposes using it should be able to test its qualities, for the mercantile magicians are skilful enough to be able, by their enchantments, to imitate so closely genuine articles, that the hand of science alone can detect and expose them.

But, while we thus speak in praise of the new agent for producing insensibility, we think that it may also be employed with very great facility in the perpetration of crime. The volatile nature of the fluid, and the ease with which it produces insensibility, will suggest it as a suitable agent to injure or destroy individuals with little fear of guilty parties being detected. In this respect it is more dangerous than ether, which produces greater irritation upon the air-tubes when inhaled, is slower in its operation, and can be detected in the system for a longer period after its use, than chloroform. We think that, under these circumstances, this latter agent ought not to be permitted to pass into the hands of unprofessional individuals without its being known for what purpose they intend to use it. There can be no excuse at the present time for the sale of such an article to any others than the members of the medical profession, as the public are perfectly ignorant of any of its qualities save those which produce exhilaration and insensibility.

We trust, moreover, that none of our medical brethren will be tempted to use the knife prematurely to diseased members, in consequence of their being now possessed of an agent so easily applied to annul the pain of an operation. It oftentimes requires far greater skill to save a limb than to amputate one; and it will certainly afford a much higher satisfaction to the mind of the surgeon when he is able to establish the health of his patient without having recourse to a formidable operation.

In the obstetric department of the profession, however, the chloroform may be, perhaps, legitimately, and advantageously employed. Dr. Simpson has for some time constantly used it,

without his patients experiencing unfavourable symptoms afterwards; and we understand that some of the London accoucheurs are beginning to follow his example. Here it possesses this singular advantage, that, while it renders the patient insensible to pain, it does not prevent the uterus from contracting with its accustomed force. In the employment of such a powerful agent, however, there should be exercised great judgment and discrimination; human life is infinitely valuable, and it is a high crime to place it in danger. While, therefore, the members of the profession are right in seeking out and employing means to alleviate human suffering, they are bound to use both wisdom and discretion when they select agents which have not only the singular property of annulling pain, but the dangerous one of producing death.

THE LAST EDITION OF THE APOTHECARIES' MANIFESTO.

THE Apothecaries' Company has again made known to all quacks and unlicensed practitioners of medicine, that it is very wrong for them to be engaged in administering drugs to the sick public, and that the Society possesses the power of punishing them for their infringement of the law. Doubtless, this fresh announcement of an old tale will produce as much terror in the minds of unlawful practitioners as on former occasions, and they will continue to physic all who will permit them with the same vigour as ever. These official declarations the Society may think very efficient in restraining parties from poaching on the domain of medicine, and yet there is an impression amongst the licentiates that the parties against whom fulminations are launched fear them about as much as schoolboys do pellets from popguns.

Now, there is no doubt that at the present time there are great numbers who are practising as apothecaries without a licence, and are, therefore, exposed to the danger of prosecution; but the fact that the Company appears so unwilling to undertake the duty of bringing them before the legal tribunals of the country, not only makes those who are already engaged in unlawful practice increasingly bold, but encourages others to follow their example. Within the last few years it is well known that there has been a great increase of unqualified and uneducated medical practitioners, and, as a natural consequence, not only has the public been grossly imposed on, but the licentiates of the Company have suffered pecuniary losses. A spirit of discontent has, therefore, been experienced amongst them, and an earnest desire to obtain such a change in the laws relating to the profession as shall effectually protect them from the competition of those who have neither expended time nor money to obtain a suitable education.

The excuse which the Company makes for not prosecuting these persons is, that they do not possess the funds. This, indeed, is a declaration which the profession receives with a great deal of mistrust, as it is well known that great numbers pass an examination and receive a certificate, for which they pay either six or ten guineas. Now, the question naturally arises, What becomes of the money? Is it thrown into the Company's stock in trade, in order to swell the per centage which the members receive for their money invested? If so, then must we say that it is not exactly employed in the way it ought to be. The licentiates receive no favours from the Company whatever after they are ad-

mitted, but are turned adrift upon the world to do what they can for themselves; and they have not even the privilege of entering the Botanical Garden at Chelsea, without receiving a written permission from the master. But justice demands that the money paid for certificates ought certainly to be first employed in protecting individuals who have received authority to practise; and should there be any overplus, no one would then object to its being carried to the Company's account, to make a better per centage for the members. As poverty has been pleaded for the non-fulfilment of an imperative duty, it behoves the corporation immediately to place before the profession an account of the moneys received for licences, and the manner they have been expended since the year 1816. Should it be found that a vast expense has been incurred in devising and carrying out means for the improvement and protection of the profession, then we are quite sure that every general practitioner will come forward and help, so far as may be in his power, to establish a fund which shall be employed expressly to meet all expenses incurred in prosecuting those who practise the healing art without authority. But if, on the other hand, it should be seen that the licentiates' money has been used simply for the benefit of the Company, then will the plea of poverty be considered as only aggravating corporate guilt, because it has been brought about by a division of money which justice, if not law, required should have been first employed in protecting those from whom it had been received.

The time will speedily come when the Society will be called to resign the trust which for two-and-thirty years has been committed to it; and our earnest hope is that it will be enabled to do so gracefully, and with a clear conscience. We counsel them to prepare for such a period by at once commencing prosecutions against all uneducated individuals who are infringing on the privileges of the licentiates. These require protection—have long asked it—let them now have it.

MR. FERGUSSON, F.R.S.E.

We hear with gratification that it is proposed to publish a series of lithographic portraits of the most eminent members of the profession. The first of this series has appeared, and presents us with an excellent portrait of a distinguished contributor to our columns, the Surgeon Professor of King's College, a gentleman known to most members of the profession, and wherever known, respected. We cannot doubt that, if equal skill and happiness characterize the subsequent portraits, the series will meet with a very general encouragement.

CHLOROFORM.

[To the Editor of the Medical Times.]

SIR,—As there may be many medical practitioners in the country who cannot readily obtain supplies of this substance, the anæsthetic properties of which have recently been discovered by Dr. Simpson, (a) I think it not out of place to describe the way in which these gentlemen may prepare it for themselves, especially since neither are the apparatus or the materials expensive, nor does the process occupy much time.

The only chemical apparatus necessary are a spirit-lamp; a long-beaked stoppered retort; and a small funnel, to pour a liquid into the body of the retort without soiling the beak. The place of a retort-stand may easily be supplied by a kind of three-

legged stool of fir, having a sufficient aperture in the top to support the retort steadily; and the lamp may be adjusted below it by pieces of wood, or a pile of books. The distilled liquid may be received in a flask, or a wide-mouthed bottle, into which the beak of the retort is loosely inserted a considerable way; and it will be proper to keep the receiver cool by covering it with a piece of blotting-paper constantly moistened with water.

These things being provided, we first put into the retort a quantity of fresh chloride of lime (calx chlorinata, "Edinburgh Pharmacopœia"), and then pour over this a mixture of water and rectified spirit. This is the method proposed by Dumas in the 56th volume of the "Annales de Chimie et de Physique;" and the materials are to be in the proportion of an ounce measure of rectified spirit, four ounces (by weight) of the chloride, and twelve ounces of water. The retort ought to be so capacious as not to be above a fourth filled with the ingredients.

The materials being introduced, we must now mix them the best way we can, or at least get all the chloride made wet, which will be the easier if it has been pretty well powdered. Shaking does not answer the purpose very well at first, and it is scarcely safe to introduce any kind of stirrer into a glass retort. A rod of light wood, or a strong goose-plume, may be cautiously drawn several times across the bottom of the vessel, and then agitation will accomplish the rest.

The heat of the lamp must at first be very sparingly applied, and it is not long till the removal of the retort-stopper discloses the peculiar odour of the chloroform. As we slowly increase the heat, we observe the mixture beginning to froth up, the odour issues from the mouth of the receiver, and drops begin to distil. All is now going on well; and it is only necessary on our part to watch, and be ready to reduce the heat when the frothing threatens to rise too high.

The products of the distillation are water, along with chloroform. But these at once separate by their difference of gravity; the chloroform settling at the bottom of the receiver like a clear heavy oil, while water, impregnated with its odour, swims on the top; and the distillation is to be continued as long as this appearance can be produced, which may be ascertained by applying a fresh receiver. The supernatant water is easily decanted; and our chloroform is then ready for use. For though, in chemical books, it is directed to be washed in strong vitriol, and then redistilled from carbonate of barytes, I apprehend this additional preparation to be quite unnecessary towards the medicinal application of the substance, since all that is aimed at is the removal of a trifling adherence of watery particles, which it is important to get rid of, only for the nice purposes of chemical research. I can, at least, certify that some I had myself prepared, without this further process, in the way described above, was administered with complete success at the New Town Dispensary in this city.

I am, Sir, yours, &c.,

SAMUEL THOMSON, M.D.

47, Castle-street, Edinburgh, Nov. 25.

CHLOROFORM IN SURGICAL OPERATIONS.

[To the Editor of the Medical Times.]

SIR,—Believing that the value of any discovery is to be tested by the aggregate of its results, I venture to offer my humble testimony, founded on experience, as to the benefit to be derived from the employment of the new anæsthetic agent which has been brought into public notice by Dr. Simpson, of Edinburgh.

It cannot be doubted that suffering humanity is deeply indebted to this distinguished physician for the introduction of chloroform as an agent in annihilating the sense of pain, since it leaves nothing to be desired, whether we consider its rapidity of action, the completeness of its narcotic effect, or the persistence of its sedative influence.

On the 22nd inst. I removed three painful molar teeth from a gentleman; on the 24th inst. I extracted two very painful stumps of bicuspid teeth from the mouth of a lady; and I have this day removed seven decayed and broken teeth from a young lady of a highly nervous temperament, and suffering from hysteria in a severe degree. In all these cases the patients were brought under the influence of the vapour of pure chloroform, and with perfect success.

It was gratifying to observe the complete absence of all excitement during the whole period of its effect; and that distressing difficulty of breathing

which often accompanies the inhalation of the vapour of ether was in all these cases unfelt.

In employing chloroform, the extreme simplicity in the manner of using it with advantage is of singular value.

On a small sponge I poured about eighty drops of the perchloride of formyle; and, using the handkerchief of the patient to enclose it, I applied it gradually to the mouth and nostrils; in less than a minute the narcotic effect of the vapour was evident, and about thirty inspirations sufficed to produce complete somnolency. The return of consciousness in the majority of the patients was gradual, natural, and resembled the act of awakening from a deep slumber. In one case only I remarked a slight tendency to nausea.

I am, Sir, your obedient servant,

C. STOKES, M.R.C.S.,
Dental Surgeon.

65, Lower Brook-street.

CHLOROFORM A SUBSTITUTE FOR ETHER IN SURGERY AND MIDWIFERY.

In a paper recently communicated by Professor Simpson to the Medico-Chirurgical Society of Edinburgh, and still more recently printed and widely circulated among his proselytes, he recommends chloroform in preference to ether, and adduces in its favour as an anæsthetic agent, among others too numerous to name, the following reasons:—1. Much less quantity being required to produce the desired effect; 100 to 120 drops sufficient; and, in some instances, much less. 2. Its action is more rapid and permanent, hence much time is saved. 3. Its inhalation is more agreeable, possessing an agreeable, fragrant, fruit-like odour, and a saccharine, pleasant taste. Lastly, it produces none of the unpleasant symptoms of ether inhalation; it is likely to be much cheaper, requiring no special sort of inhaler, a few drops upon a pocket-handkerchief rolled into the shape of a common funnel, and so adapted to the mouth, answering every purpose.

Whether the exhibition of ether, or any such compounds, will, in a few years hence, be deemed as blessings or curses to human flesh, I will not pretend to prophesy; it appears to me that its claims, like many other novelties, mesmerism and a host of others, has been far over-estimated.

I have given ether, and seen it given by others, in a great number of instances, from the simple matter of extracting a tooth to that of extracting a stone, amputation of a finger to that of the leg and thigh; and in no instance of a capital operation have its after effects been so pleasant as would induce me to submit myself to its influence, should I ever be doomed to undergo a severe mutilation.

My objections to it may be summed up in a very few words. In all the instances where its soporific effects were well marked—that is to say, when the patients themselves spoke as to its undoubted efficacy in deadening the pain during the performance of the operation—the agonies after recovering from its effects have been of the most heartrending description; the writer has been driven to prescribe, lately, half an ounce of laudanum before the patient experienced any decided relief, and in many more instances half that quantity; distressing sickness has also been a common symptom, and venous and arterial hemorrhage, I think, oftener than when not employed.

I may state, further, that every precaution was used in procuring pure ether, as well as in selecting the best inhalers, and the utmost vigilance exercised in not allowing the patient to inhale more than what was deemed necessary to be effectual; yet, when the severed limbs were examined eight or ten hours afterwards, the presence of ether in the textures has been unequivocal.

For my part, I do not see so much likeness as to anticipate like effects: between the condition of a lady about to become a mother, and another, less fortunate, about to lose the better part of one of the extremities for the cure of a chronic disease of five or ten years' standing, ether or chloroform may serve to amuse as well as to ease the one, but not the other.

I abridge the Professor's details of the first case in which he employed the chloroform with so much eclat. The lady had been previously delivered in the country by the crotchet, this being the second confinement; in three hours and a half after the commencement of the labour, and before the termination of the first stage, a pocket-handkerchief, rolled into the shape of a common funnel, was moistened with half a teaspoonful of the fluid, and its open end adjusted to the mouth; in ten minutes the same

(a) See "Account of a New Anæsthetic Agent," by J. Y. Simpson, M.D., &c. &c. Edinburgh, 1847.

quantity was repeated; the child was expelled in twenty-five minutes after the inhalation was begun, and the placenta soon followed. The lady was astonished, soon afterwards, to find that the child presented to her was "her own living baby;" and so the account goes on *usque ad nauseam*.

The Professor sincerely believes that some years hence the practice will be general, though, as he truly writes, obstetricians may oppose it; he is even so sanguine as to believe that the patients themselves will force the use of it upon the profession: I calculate no very safe guarantee of its utility if its use is to be forced upon them by the patients themselves. In a footnote to the same page is this piece of puff; for puff I will call it until I am convinced of my error:—"I am told that the London physicians, with two or three exceptions, have not used it in their midwifery practice;" and, from what follows, the physicians in the Irish metropolises are a century behind.

The motives which led the Professor to make these comments upon the practice of other men are best known to himself: does the Professor imagine that, by making these brochures, he will attract a few fair ones into his clutches? I am disposed to consider the affair no better than it should be, and certainly anything but redounding credit upon the author.

I am, Sir, yours,
AN HOSPITAL SURGEON.

[We have inserted our correspondent's letter, but we must not be considered, in doing so, as entirely agreeing with him in his opinions.—Ed. *Medical Times*.]

POOR-LAW MEDICAL RELIEF.

[To the Editor of the Medical Times.]

SIR,—My letter to Sir George Grey, in your number of Nov. 20th, has called forth a letter from Mr. Garlick, for which I beg to thank him, and at the same time would invite rather than shrink from the criticisms of my professional brethren. One of my suggestions—the establishment of union dispensaries—he assumes to be "altogether impracticable." He says, "In his own district there are thirteen medical officers, three of whom reside in the town; the remainder are stationed in villages, at a distance of three, four, or five miles. The poor have first to travel to the relieving officer for an order; then they have to travel back to the medical officer to present the same; and, last of all, have to travel again for the medicine." Such is Mr. Garlick's description of the "wearisome travel" under the present system in his own neighbourhood. Under the system I would wish adopted "the wearisome travel" would be vastly abridged. In the first place, the visit to the relieving officer (who is generally from home four or five days in the week) is quite unnecessary, and would be abolished altogether by proper regulations from a central board of medical directors. The medical officer should be at once applied to, without any order from the relieving officer, unless the relieving officer is first applied to for sustenance. In nineteen cases out of twenty the parties applying for medical relief are proper objects for the charity, for the relieving officers assure me they do not refuse a medical order in one case out of twenty. In the case of a party applying to the medical officer whom the board may deem improper or illegitimate applicants, the medical man who has been summoned can legally and equitably claim a remuneration from the party who has applied to him, and if he is in circumstances which induce the board of guardians deliberately to refuse such relief, he must be competent to pay the medical man whose services on a false pretence he has required. If the board supply the medicines to the poor from their own dispensary, it would induce them to guard their own interests in cases of improper application. At present the guardians have no such interest, and, of course, care little, though their medical officers be saddled with cases of doubtful pauperism. I have always thought it a cruel regulation to oblige the poor to find out the relieving officer for an order before he applies to the medical officer, who, in cases of sudden sickness, ought to be the first person applied to. In my own practice I never refuse a pauper's personal application, and only demand an order afterwards in compliance with the regulations of the board. The pauper ought certainly to have free access to the medical officer, and that officer must exercise his own discretion as to the immediate emergency of the case. His own character is at stake if he refuses a case of real emergency, and it is only necessary for overseers and relieving officers to exercise the power of sending a medical order in case of the medical officer refusing to do his duty on the first ap-

plication. Now, if the medical man knows he can recover by law from a person not a pauper for any attendance he may make under the false pretence of destitution, he will be ever ready to attend to cases of real or alleged emergency. Such, then, would be my plan to relieve the pauper of his "wearisome travel" to the relieving officer, who half his time is not at home. I have had considerable experience in pauper cases, and I am quite sure the medical man can relieve immediately in a great majority of cases with his lancet and instrument-case, and a little pocket-box of pills and powders ready prepared for use. For the continued treatment of the patient a prescription, written by the medical man at the house of the pauper, may be despatched to the dispensary, either on the same day or the day following, according to the circumstances of the case. If the dispensary is centrally situated, as at the post town of the union, the ordinary postman can carry the packets of physic to those of the poor who prefer the postage to the journey. Such is the case in my own district, and some of my parishes are situated five miles from my own private dispensary. I cannot, therefore, conclude with Mr. Garlick, that a public union dispensary would be impracticable for the village districts. I think Mr. Garlick's thirteen medical officers for his thirteen districts, within five miles, afford thirteen reasons for the employment of a central dispenser.

If Mr. Garlick thinks "poverty of payment" the only evil connected with poor-law medical relief, he cannot have taken an enlarged view of the subject; and I would recommend to his reperusal "the much that is good" and "the much that is true" which he says he has found in my letter to Sir G. Grey. I am happy to inform him that Sir George Grey has assured me by letter, received last week from the Home-office, that my suggestions shall be brought under the consideration of the new board as soon as constituted.

I am, Sir, your most humble servant,
Blandford, Nov. 29. E. O. SPOONER.

P.S. I believe the medical officers are perfectly satisfied with the extra fees allowed by the last orders of the poor-law commissioners; the fixed salary is the only bone of contention, which Mr. Garlick properly calls "poverty of payment." The central medical board, according to my plan, would adjust these difficulties on receiving the reports and complaints of their medical officers. Mr. Garlick says—"Leeches, quinine, and sarsaparilla would be furnished in abundance if the proper pay were made by the guardians." I am surprised to find he makes an "if" of the matter, as he is so sensitive of a libel on his medical brethren. It only shows, however, that the plan of dispensaries would render certain that which now depends on an "if."

I am sorry Mr. Garlick, while assuming the impracticability of these dispensaries, should have launched beyond his depth into political economy, and deplored an equally imaginary mare's nest—the duty on leeches—as pressing hard on the union surgeons. Why, Sir, the duty on leeches was abolished altogether by the tariff of 1845. They have been since admitted duty free. Union surgeons should be careful not to mix up imaginary with real grievances. Incautious statements only do injury to their cause.

POOR-LAW MEDICAL RELIEF.

[To the Editor of the Medical Times.]

SIR,—Having been engaged in parochial medical attendance in different unions for the last twelve years, I am induced to offer a few brief remarks on some of the points referred to in the petition of Mr. Spooner, of Blandford, contained in your last number.

It is undoubtedly most desirable that a medical board should be connected with the poor-law administration, to which professional questions might be referred when necessary. Boards of guardians, however well constituted, are necessarily incompetent to solve the purely medical questions which occasionally come before them, and would generally willingly refer them to such an appropriate tribunal; and from thence a due measure of justice might be anticipated either for or against a medical man, even in accordance with the merits of the case. That some such arrangement should exist is certainly the feeling of the whole body of union medical officers.

The establishment of parochial dispensaries, so that the medical officer should no longer have any interest in the cost of the drugs, nor the burden of pharmaceutical duty, may probably be advantageous in thickly-populated town districts, and in many, I believe, such institutions have been made available;

but the adoption of such a system in rural districts is very objectionable, partly for the same reasons which militate against the analogous arrangement in private practice. The sending backwards and forwards, first to the surgery, then to the dispensary, would greatly enhance the trouble and inconvenience of the pauper, at the same time that the medical man would not have the advantage of being able to act immediately in accordance with the last information received, where the patient was resident at a distance. For example: I hold an outlying district, and reside at the distance of two miles from the spot, which, under an arrangement like that proposed, would probably be the central station for an area of eight square miles, containing 6000 or 7000 inhabitants. Now, I am this day in attendance on a distant pauper patient, suffering with nephralgia and obstructed bowels: I have been able to see him once only, but I have also twice received messages, and, consequently, on each occasion have been able at once to send the necessary medicines, which, under the other arrangement, must have been sent for at a further distance of two miles hence, causing much delay and other inconvenience. Also, like other medical men, I have numerous parish patients in attendance each morning, both from a distance, as well as belonging to the immediate neighbourhood, and who suffer with chronic or subacute complaints: it is little trouble for me to dispense the medicines they require; but to refer them to a different locality for the dispensing of my prescriptions would of necessity entail much detention and other inconvenience upon them. I feel assured, indeed, that district dispensaries in rural neighbourhoods would be far from rendering the medical relief more efficient, at the same time that the expense would be much augmented thereby. It is, I think, very rare for a medical man to incur the suspicion of withholding any necessary medicines, however expensive, and in none of the unions with which I have been connected have I ever heard such an imputation raised. It is, however, but right and proper that union medical officers should keep a daybook for the entry of medicines, &c., supplied to their pauper patients; it is necessary even for their own reference; and, if a proper register for the purpose were supplied, it might be made available by the guardians, and more especially the medical board, for reference when desirable, affording some evidence and guarantee as to the nature of the medical treatment, and at the same time our present unsatisfactory and complicated returns might thereby be facilitated and simplified.

The remuneration of medical officers has always been a question of much difficulty, both as to amount and the mode of computation. Fixed salaries and per-case payment have each been advocated, and I think the two systems may be advantageously combined. The rural district to which I am appointed is of moderate extent, and the remuneration is above the average. I find that I receive, besides extras, nearly 3s. 6d. per case. With 6s. I should be well satisfied, and so I fancy would most of my medical brethren, though, of course, such remuneration should vary according to the nature of the district. There can, however, be no doubt that, when payment is in immediate contingency on the number of orders, there is a direct motive for harsh and parsimonious guardians and their unfeeling subordinates to curtail the amount given as far as possible; whereas, under the fixed-salary system, on the other hand, our services are often most unfairly trespassed on; but, were this immediate contingency removed, it might be otherwise. Now, I would propose that, under fresh regulations, at the commencement of 1848, an estimate should be made for each district of the number of cases which shall have occurred in 1847, and that such a calculation, in connection with so much per case, according to a table constructed for the purpose, embracing the consideration of population, distance, &c., should furnish the basis of a computation of the salary for the current year, and that such calculation should undergo renewal and revision each succeeding year in a similar manner. During the intervals between the board days, relieving officers and overseers ought then at their discretion to be empowered to issue what might be termed half orders, which should be in force until the guardians, at their weekly meeting, could decide on their confirmation or discountenance; and this would prevent the chance of the paupers being neglected, at the same time that it would ensure some prospective advantage to the medical man, who would, of course, only attend under official direction. The present system of fixed medical salaries for attendance in gross certainly promotes pauperism, for it is not the popular feeling that a person makes

a pauper of himself by receiving a medical order; and it is too frequently the case, especially with overseers, that a person seeking an order, whether fairly or unfairly, has only to ask and to have. An arrangement such as I propose would certainly save the medical officer much trouble and annoyance, and occasion some increase of salary. Enclosing my card,

I am, Sir, your obedient servant,
Surrey, Nov. 23. O. P. Q.

NOTE FROM MR. TEEVAN.

[To the Editor of the Medical Times.]

SIR,—A pamphlet, entitled "An Exposure, &c.," by J. Teevan, B.A., having been of late industriously circulated for the express purpose of puffing into notoriety a practitioner of the name of —, whose mode of treating certain diseases it extols, you will allow me, I hope, to state in the *Medical Times* that the said pamphlet has not emanated from any person bearing the name of Teevan, and that no person of the name has ever resided at the address given in the pamphlet. I am anxious to disclaim any connection with the pamphlet from the fact of the name being an uncommon one, and myself and brothers being medical men, and the only persons of the name, I believe, in this metropolis—circumstances calculated to produce, and which have already produced, misapprehension as to its authorship.

I have the honour to be, Sir, your very obedient
rwant, WILLIAM TEEVAN.
23, Bryanston-square, Dec. 2.

ROYAL SOCIETY.

This (Nov. 30) being St. Andrew's Day, the Royal Society held its anniversary meeting, the Marquis of Northampton, President, in the chair. There was a large assemblage of the fellows present.

After the Noble President had awarded the Copley Medal to Sir John W. Herschel; and the two Royal Medals, the one to Mr. Grove, and the other to Dr. Fownes; Dr. Roget, the senior secretary, addressed the meeting to the following effect:—

"MY LOAN,—I wish to take the opportunity afforded me by the present assemblage of the fellows, to announce to them my intention of retiring, at the next anniversary, from the office I have so long had the honour of holding in the Royal Society. This determination, as many of my friends well know, has not been formed hastily, and I would have carried it into effect some time ago, had it not been for the peculiar circumstances in which I found myself placed.

"The duties required of the senior secretary have, in the process of time, become much more laborious and much more arduous than they were at the time of my appointment to that office, when I succeeded Sir John Herschel in the year 1827, which is just twenty years ago. During this long period, which, I may be allowed to remark, constitutes a large portion of human life, I have witnessed considerable changes in the society. There have been changes of presidents, of secretaries, of librarians, of assistant-secretaries—in fact, all the offices in every department, from the highest to the lowest, have undergone repeated changes. I have seen, in the course of these events, various changes of administration, and many important alterations in the mode of carrying on the business, both of the society and of the council; and these alterations have been constantly attended with increased labour to the secretaries.

"It is since the period of my first appointment that the council have undertaken the office of assigning the channel through which the royal favour is to flow, in the distribution of the Royal Medals—an office the proper performance of which, as your lordship well knows, is generally difficult, often delicate, and sometimes invidious, and of which the trouble and responsibility have been felt by the council to be so great, that they have found it expedient to delegate the larger portion of that responsibility and trouble to separate standing scientific committees, which

they appoint from year to year. To these committees they have also consigned the task of determining the selection of papers for publication in 'The Philosophical Transactions.'

"Another circumstance which has added considerably to the labour of my office, is the practice now adopted of having all the proceedings, both of the society and of the council, printed and published to the world. Upon me has devolved the whole of the editorial labour of these publications, and the superintendence of the minutiae of the press; not to speak of the far greater care and attention required in preparing the abstracts of the papers read to the society, compared with what was sufficient for the purpose when these abstracts were merely read at the meeting, and then consigned to oblivion in the archives. All these causes, and many more that I might mention, have concurred in rendering my office anything but a sinecure. In fact, every new measure that was adopted entailed on me greater toil, made larger encroachments on my time, and imposed on me more extended responsibility. Notwithstanding these additional burdens, and amidst the breezes I have weathered, and the battles I have been compelled to fight—for your lordship can bear witness that occasions have not been wanting to put my zeal for the society to the proof—I have never shrunk from those duties, but have devoted my best energies to the service of the society, and the promotion of its interests. Having now grown grey in that service, I think it best to retire while my strength is yet unbroken, and before the changes which the society is now undergoing shall cause fresh demands to be made upon it; that I may dedicate the remaining term of life that may yet be spared me to those pursuits of science to which I have ever been warmly attached, and with which the labours and the cares of office have seriously interfered.

"I have alluded to the existence of some peculiar circumstances which had prevented my taking this step some time ago. These circumstances must be fresh in the memory of most of those who now hear me: they sprang from a series of malignant attacks, carried on with extraordinary pertinacity during nearly two years, against the society and your lordship, but principally against the Committee of Physiology; and these attacks were pointed more particularly against myself, under the erroneous notion that I was especially responsible for the proceedings of that committee; whereas, in reality, of all its members, I was the one who was least implicated in them. While the battle was raging I could not, in honour, withdraw from the field; my duty was to remain at my post and abide the pelting of the storm. But, these squalls having now blown over, I feel at liberty to retreat, and to resign into your hands the trust you have so long and so liberally reposed in me. I should have tendered this resignation on the present day, had I not considered that the interests of the society might suffer by your being suddenly called upon to choose a secretary; and that the more proper and respectful course for me to adopt, was to give due notice of the vacancy; and I have accordingly allowed my name to be placed before you as candidate for re-election in the balloting list recommended by the council. If you are pleased to accept the tender of my services for another year, ample time will be afforded the society for making selection, at the end of that period, of the person best qualified to fulfil the duties of secretary."

Dr. Roget then read the biography of some of the deceased fellows; and the meeting afterwards proceeded to ballot for the officers and council for the ensuing year, when the following noblemen and gentlemen were elected:—President, the Marquis of Northampton; treasurer, G. Rennie, Esq.; secretaries, Dr. Roget and S. H. Christie, Esq.; foreign secretary, Lieut.-Colonel Sabine; members of council, T. Bell, Esq., R. Brown, Esq., Sir J. Clark, Bart., S. Cooper, Esq., Sir H. De la Beche, Professor E. Forbes, J. P. Gassiot, Esq., Professor Graham, J. T. Graves, Esq., Sir

J. F. W. Herschel, Bart., Sir R. H. Inglis, Bart., W. Hopkins, Esq., C. Lyell, Esq., the Duke of Northumberland, G. R. Porter, Esq., Lieut.-Colonel Sykes.

The fellows afterwards dined together at the Crown and Anchor Tavern.

THE CHOLERA.

The *Prussian Universal Gazette* contains the following, dated St. Petersburg, 17th ult., relative to the progress of the cholera in the Russian empire:—"The cholera was decreasing at Moscow since the 3d of November. On the 5th there were 94 patients, 49 of whom died, and 39 recovered; and on the 9th, out of 77, 32 recovered, and 22 died. Since the 30th of September, the day on which the epidemic first manifested itself, 2,011 inhabitants were attacked, 930 of whom died, 422 recovered, 639 were under medical treatment, and most of them were expected to survive. From Moscow the scourge extended to several districts of that government. At Kiew it was on the increase. At Kasan it rapidly decreased; and on various other points of the empire it presented a less pernicious character. During its passage from the government of Astrakan to that of Saratov it was observed—1. That in its march towards Saratov it constantly advanced against the wind. 2. That, as in 1830, it again spared the colony of Sarepta, although the communication of the latter with the neighbourhood had not been interrupted—a fact which cannot be attributed to the position of Sarepta, for it nowise differs from that of the other localities watered by the Wolga. It is, no doubt, owing to the absence of an indigent class, which is usually the most dangerously affected by the cholera. The inhabitants of Sarepta are industrious, in comfortable circumstances, and remarkable for their cleanliness and sobriety; they descend from a Moravian colony, founded in 1766, in a country full of salt springs. 3. That in passing from Kamuchin to Saratov the cholera had spared the foreign colonies on its passage, but had returned thither later, when it had lost much of its intensity at Saratov. The distemper manifested itself in those villages of colonists immediately after the arrival of travellers coming from Saratov, who already laboured under it on their arrival, or were attacked with it shortly afterwards. The period of its incubation did not, in any case, exceed four days. This would prove that the epidemic is communicated by the persons. It was also observed at Saratov that the inhabitants of the localities visited with the cholera were less liable to catch it in their intercourse with the patients than those who arrived from a district in which it had not yet appeared. The epidemic character of the disease was particularly proved by persons suffering during its prevalence from pain in the pit of the stomach, from a general feeling of uneasiness and want of sleep although the rest of the body experienced no derangement. According to the most recent accounts, the cholera appeared in the government of Kaluga, in the district of Lichwin, on the 29th of September; and on the 21st of October in the town of Kaluga, where during the first week seven cases occurred, five of which proved fatal. On the 1st of November it broke out at Kechitz, in the government of Minsk, where it attacked during the first day four persons, three of whom died."

"We did not think proper," says the *Sémaphore de Marseilles* of the 27th ult., "to mention the occurrence of a case of cholera on board the Mentor steamer during her passage from Constantinople to Malta, for fear of uselessly alarming the population. We can now announce that the first lieutenant of the vessel died from the visitation of that dreadful malady, and that the Mentor, after landing her passengers in the lazaretto of Malta, is now undergoing quarantine at the Frioul. The sanitary board of our city, on the declaration of the commander of the packet, adopted the necessary precautions. On

the arrival of the *Mentor* on the 23d it decided that she should be subjected to a rigorous quarantine of twelve days, and that the cargo should be landed in the lazaretto. The sanitary board, moreover, decided that all steamers without distinction arriving from countries where the cholera prevails, although no cases or deaths occurred on the passage, should be held to perform a quarantine of ten days. That quarantine is to be augmented in proportion to the number of cases that may have manifested themselves on board."

GOSSIP OF THE WEEK.

THE CHOLERA.—The *Sémaphore de Marseilles* of the 24th inst. contains the following notice of the supreme magistrate of the Board of Health of Naples:—"Whereas the cholera is now ravaging the harbours of the Black Sea; considering that, by the activity of the trade carried on between those harbours and the French harbours, vessels may arrive in the latter having on board men attacked with cholera, who might compromise public salubrity in his kingdom, and also in Sicily; considering that the steam-packets of the Austrian Lloyd, in their periodical passage between Greece, the Ionian Islands, the Austrian harbours, and those of the Black Sea, may have communicated, in those localities, with vessels on board of which cases of cholera have manifested themselves; considering that under those commercial circumstances it is indispensable likewise to include Malta: the supreme magistrate of the Board of Health of Naples has decided that all vessels having left, or leaving, France and Malta, for the kingdom of the Two Sicilies, after the 1st of November, must be furnished with a certificate of the Royal Consul of his Majesty, stating not only that no epidemic prevails in the port of departure, but that no vessel has entered it with cases of cholera on board; and, in the event of such cases having occurred, the certificate must indicate what measures have been adopted; and if the vessels in question bring a certificate with such an affirmative declaration, or if they be not furnished with that certificate, free pratique shall be suspended until further orders. The supreme magistrate also desires that the above-mentioned measure be applied to vessels arriving from Greece and the Ionian Islands."

INFLUENZA AT MARSEILLES.—Individuals arriving from Marseilles inform us, that of a population of 160,000 souls, the half at least is confined to bed through the influenza, which has broken out in this town within the last week. Persons of an apprehensive nature—and Marseilles is full of such—remembering that the influenza preceded the cholera morbus, and reading in the journals the new itinerary of the Asiatic scourge, feel their terrors increase, though the present epidemic is as inoffensive as the former one. A very curious fact connected with the influenza at Marseilles is, that the *Luxor*, a steamer from Alexandria to Marseilles, arrived in Egypt, having the influenza on board. Its progress was such that the steamer could not continue its voyage as far as Syria.—*La Presse*.

FEVER ON BOARD THE SYREN SLOOP.—Intelligence has reached England that African or yellow fever has lately committed fearful ravages on board the *Syren*, 18, Commander Challoner, west coast of Africa. The vessel had touched at Sierra Leone and the Bahamas, and had also sent her boats up the Sherbro; it is, therefore, uncertain whence the fever was brought on board. Lieutenant Probert, the first lieutenant, and six men, have died, and there were still ten cases of fever in the *Syren* when she was last spoken with on her way to Ascension. The *Syren* was some months since sent to the coast of Africa station from the Mediterranean.

CHLOROFORM.—Operations have been performed, while patients were under the influence of this agent, by Messrs. Liston, Fergusson, Aston Key, and by almost all practitioners; and by Mr. Robinson, Mr. Waite, and Mr. Cartwright, dentists.

MEDICAL APPOINTMENTS.—On Nov. 26, H. Haynes Walton, Esq. was unanimously elected as surgeon to the Saint Pancras Royal General Dispensary.

APOTHECARIES' HALL.—Gentlemen admitted members on Nov. 25: Ezra Harle, William Faithfull, John Pince Challacombe, George Hodges, and Thomas Park.

CHOLERA.—The *Frankfort Gazette* announces that this disease has appeared on the frontiers of Prussia. At Constantinople a death from cholera had occurred previously to Oct. 27.

The influenza continues to spread in an alarming manner in Paris, where it is calculated the cholera would arrive in a few months. Already in Marseilles precautionary measures were ordered by the authorities against the epidemic. The accounts of the progress of the disease in Russia (given elsewhere) show that it had carried off considerable numbers of persons in its progress.

OBITUARY.—On the 25th ult., suddenly, at 40, Guildford-street, Scrope Hutchinson, M.D., in his 66th year.—On the 28th ult., Dr. William Wilson, surgeon R.N. (1802), aged 66.

MORTALITY TABLE.

For the Week ending Saturday, Nov. 27; 1847.

Causes of Death.	Total.	Average of 5 Summers.
ALL CAUSES.....	1677	1046
SPECIFIED CAUSES...	1678	1039
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	415	211
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat.....	160	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	174	167
Diseases of the Lungs, and of the other Organs of Respiration.....	634	333
Diseases of the Heart and Blood-vessels.....	52	34
Diseases of the Stomach, Liver, and other organs of Digestion.....	96	74
Diseases of the Kidneys, &c.	16	9
Childbirth, Diseases of the Uterus, &c.	11	14
Rheumatism, Diseases of the Bones, Joints, &c. ...	10	7
Diseases of the Skin, Cellular Tissue, &c.	6	2
Old Age.....	87	65
Violence, Privation, Cold, and Intemperance.....	25	29

TO CORRESPONDENTS.

THE "MEDICAL TIMES" may be procured by an order on any Newsmen or Bookseller, or it will be sent direct by post from the Office of the "Medical Times" to Subscribers sending by a Post-office order, directed James Angerstein Carfax, or an order on some party in town. One Pound Five Shillings IN ADVANCE, which will free them for Twelve Months. Half-yearly Subscription, 15s.; Quarterly, 7s. 6d.

"Limericensis."—We cannot allow the remarks of our correspondent to appear in our columns without our being in possession of his name. The parties whom he has attacked have very properly replied to his former remarks, and appended their names to the letter. If "Limericensis" has truth on his side he will not fear to follow their example in this respect.

"Dr. Thomas Little, Sligo Royal Infirmary."—The subject shall receive a very early notice from us.

"A Subscriber."—We should feel obliged if our correspondents would adopt some more expressive term than that here used, in order that they may be distinguished in the notices to them. We have so many communications from subscribers that we fear oftentimes that some confusion must arise. In reference to the question proposed, we should say that it would be dangerous to en-

gage in general practice without the apothecaries' licence, for, though the Company might not prosecute, there may be others who would.

"Mr. Kaye, Surgeon, 17, Marchmont-street, Russell-square."—There is no doubt that blind persons can be taught the art of writing. The desired information in reference to apparatus may be obtained at the Blind School in the Borough.

"A Young Subscriber," writes:—"I shall feel much obliged if you, in your next, or in some future number of your valuable paper, will enumerate for me the number of schools of surgery in Glasgow; their respective respectability, and the terms of each. Also, whether the Andersonian and the Glasgow Universities are one, or different establishments; and will certificates received at the Andersonian be admitted at the Glasgow University?" Consult the "Students' Number" of the *Medical Times*.

"Senex, Bridgewater," sends us a long article "On the dangers arising from the exhibition of anæsthetic agents." He says, "The present age is characterized by a temerity perfectly unknown to practitioners who lived in the time of John Hunter; and I have no doubt that much mischief will result from the use of agents sufficiently powerful to produce insensibility and even death. I am sure that, if persons are to be made dead drunk by a few inhalations from a pocket-handkerchief, the Government ought to interfere to prevent the use of such a thing as chloroform, except under the superintendence of a medical practitioner." Our correspondent's fears are mostly groundless, as we believe that all due caution will be exercised by the members of the profession in the uses of chloroform. We think also that the public ought not to be permitted to have and to use of their own free will so dangerous a commodity.

"Mr. Belmont."—The communication was received too late for insertion. We have, therefore, according to request, returned it.

"Mr. Baird, Manchester."—The communication has been received.

"Medicus."—The chloroform has been repeatedly used in Paris, and with complete success. M. Flourens, we believe, was the first who noticed its anæsthetic properties; but to Dr. Simpson the credit is due of having first brought it into practical employment in surgery and midwifery.

"Tyro."—No other apparatus is necessary for the administration of chloroform than a pocket-handkerchief. Insensibility frequently manifests itself in less than two minutes. A feeling of nausea is often experienced on a return of consciousness.

"A Member of the Profession."—A list of the members of the Institute was published last September, and may be had on application to Mr. Ross, Sec., Hauser-square Rooms.

"Beta."—The subject of medical reform is not forgotten either by its friends or foes: the former are making preparations in order that some good measure may be carried, if possible, this session; the latter are busily engaged in laying plans for the purpose of hindering the great body of the profession from attaining their just rights.

"Examiner."—The case is not drawn up with sufficient care, yet there are many good points in it.

"Mr. T. B. Benton."—The paper, by some mistake, has not reached us.

"Alpha."—The complaint ought to be addressed to the governors of the hospital, who have the power of redressing the grievances complained of.

"T. B. B., Edinburgh."—The College of Surgeons will admit to examination with the certificates mentioned. The immense mass of communications on the poor-law must be deferred, but will not be overlooked.

"Lancet" writes us as follows:—"I have been for years a qualified surgeon, and, although not an apothecary, have recently become a general practitioner. I intend going up for my examination, and qualifying as an apothecary, next month, and have been for some time working hard for that purpose. Of this fact the Court are apprised. Would you kindly inform me, whether it is likely criminal proceedings, for practising without licence, could, in the mean time, be effectively instituted against me? If so, what are the best means I could adopt to protect myself from the consequences of an arrest; and whether the Hall, whose aid I apprehend would be indispensable to sustain such a proceeding, would, under the circumstances, assist in its institution against me?" We have no doubt that a prosecution could be maintained under the circumstances, but we think the Company would not sanction it, with a knowledge that the party intends to apply for the certificate.

"M. A."—The attack of our correspondent is certainly undeserved.

"F. G. P." (Exeter) should reconsider his communication. If the main fact of the statement be well stated, we shall not object to the publication.

"Amator Republicæ."—The paper is unsuitable.

"M. D."—A defence of Dr. Burrows can surely not be expected from attacks in such a quarter. Much abuse, unscrupulously used, is explained by the fact, that Dr. Burrows, at the head of a deputation from the College of Physicians, protested to Sir George Grey against the unnecessary presence of the man that now assails him. Personal attacks, originating in such causes, cannot be too sharply reprehended by sensible persons.

Letters and communications have been received from Mr. Peechey, Bury; Mr. Waddie, Liverpool; Mr. Lauden, Shiffhall; Dr. Moses, St. Asaph; Dr. Fenton, Hallgate; Dr. Cameron; Dr. Fraser; Mr. Griffiths; Limericensis; Dr. Thomas Little, Sligo Royal Infirmary; A Subscriber; Mr. Kaye, Surgeon, 17, Marchmont-street, Russell-square; A Young Subscriber; Senex, Bridgewater; Mr. Belmont; Mr. Baird, Manchester; Medicus; Tyro; A Member of the Profession; Beta; Examiner; Mr. T. B. Benton; Alpha; T. B. B., Edinburgh; Lancet; M. A.; F. G. P., Exeter; Amator Republicæ; M. D.

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ORIGINAL LECTURES.

A COURSE
OF
LECTURES ON SURGERY.BY
SAMUEL COOPER, Esq., F.R.S.,Professor of Surgery to University College, London;
Consulting Surgeon to London University Hospital, &c.

LECTURE XX.

GENTLEMEN,—I mentioned, at the close of my last lecture, that, in your estimate of the probable degree of your patient's recovery from the effects of burns, you should have regard to the disfigurement which generally remains after extensive injuries of this kind. In the figure on my right hand you see represented dislocation of the finger succeeding a burn of the wrist and hand. Sometimes a joint is dislocated, or permanently fixed in a useless position, by the violent contraction of the cicatrix; the forearm is often contracted in this manner, the thumb or fingers are drawn back against the bones of the carpus. In other cases you have the lip drawn away from the mouth, or the eyelid is very much distorted. On the table is a cast exhibiting the chin drawn and fixed upon the sternum by the operation of the same principle. It is an advantage to have the burn situated on the back of the limb or trunk, because the flexor muscles preponderate there, and their movements oppose the contraction of the cicatrix. The contraction is, however, sometimes so violent as to produce effects of a far more marked and serious character than those I have named. Dupuytren relates a case where the penis was drawn up to the abdomen, and retained there in a position resembling that of a quadruped. In another case the thigh was drawn up in a bent position, and the skin of the abdomen became attached to the upper part of the thigh. This patient had also a hernia, and the position of the thigh prevented him wearing his truss; upon every attempt to extend the limb thick folds of the cicatrix projected, and made it impossible to apply the truss. Cases occasionally transpire where the surfaces in contact become covered by a skin or web, the eyelids grow together, the ears adhere to the scalp, or the fingers are united by a web; and these, after division, have a tendency to reproduce themselves a hundred times if the surgeon does not know how to go to work to prevent that result. In burns of the fifth degree the consequences are usually very serious, and spring from many causes; the muscles and tendons being destroyed, the use of the limb is in danger of being lost for ever; the bones, being denuded and exposed to the air, are liable to necrosis; copious suppuration taking place, the patient is rendered hectic; the synovial membranes are injured, and the joints are likely to inflame.

In no branch of surgery is there more variety of practice than in the treatment of burns. Some are very much in favour of cold applications, but you would not employ them in the case of an extensive injury on the trunk; if you should, the degree of depression of the system produced, showing itself in the fall of the pulse, and similar symptoms, would be so great as to diminish very much the patient's chance of recovery. In my opinion, you should not use cold applications to the head and face at any time. If you have a burn on the hand, or any other part removed from the centre of the system, or if the injury is slight and superficial, the case is different, and you may use the evaporating lead lotion, with a small quantity of camphorated spirit in it; or, what Dupuytren recommends, sulphate of zinc, with laudanum in it. In such cases the indication is to keep down the inflammation, and, where possible, to prevent or limit the formation of vesicles. But this cannot always be done, and the surgeon's duty is then to mitigate the severe character of those vesicles, so as to prevent them from becoming painful and troublesome ulcers. In our own hospital, as well as in several others in the metropolis, flour is very much used, being sprinkled on the surface with a dredger, not only in superficial burns, but in those of the third and fourth degree. It is considered that the absorption of the discharge and the exclusion of the air are by this means promoted, and there can be no doubt that it is a very good application, as any one may easily understand who reflects that it is very soft, and does not need very frequent changing, which is detrimental. It is well known that when ulcers are frequently uncovered, or much exposed, an unfavourable effect is produced, and the same is true of burns. The flour should be continued until the cuticle is formed and the parts evince a healthy and sound state, when it may be loosened preparatory to its removal by poulticing. In some cases you must remove the flour before the usual time, because, being blended with the discharge, it becomes harsh, and produces irritation, which must not be allowed. After the removal of the flour, there is generally a tendency to luxuriant granulation; but, if there should not, flour may be again employed, or a liniment of equal parts of lime-water and olive oil may be used, a dressing to which Sir Astley Cooper was very partial, in cases where cold applications were thought objectionable. The turpentine liniment, or yellow basilicon thinned with turpentine, was a successful application, we may infer from its general use, as it forms a coating for the burnt surface and keeps it from exposure to the air, which I told you was detrimental; but since flour came into use, it has not been so much thought of. In America and in Scotland, raw and carded cotton has been very much used for dressing superficial burns. A thin layer of carded cotton is spread out and laid upon the burnt surface, and, like the flour, it is retained there until cleanliness and the patient's sensations dictate its removal. Dr. Anderson tried it at Glasgow, and speaks highly

of it, but I do not think it has been much used in London. The cotton is sometimes covered with a collar, drawn moderately tight.

Burns of the second class, attended with vesication, admit of the same treatment by flour, carded cotton, or lime-water, and linseed-oil ointment, as those of the first class. But you will have in addition to deal with the vesicles which are present in burns of this degree, and the question will then arise, what are you to do with them—leave them undisturbed, or make an opening in them? Whichever plan be followed, you will often have ulceration of the cutis under them. I usually, when the vesicles are large, let out the fluid by making a puncture with a very fine-pointed instrument, as the air is thus admitted in as small degree as possible; this method has the sanction of Dupuytren. When the cutis is exposed we may promote the formation of a new cuticle by applying the liquor plumbi acetatis, or a lotion composed of two grains of the sulphate of zinc to each ounce.

Burns of the third and fourth degree, in which eschars and ulcerations are unavoidable, may also be treated with lime-water and linseed-oil liniment, poultices and fomentations, flour and the turpentine liniment, until healthy pus begins to be secreted, and granulations form, after which they should be discontinued, and a mildly astringent ointment, such as the calamine cerate, or the zinc and spermaceti ointments, mixed in equal proportions, may be used. You will find that burns, above all other sores, have a tendency to produce high fungous granulations, which not only retard the healing process, but also, if not dealt with in time, produce a very ugly, thick protuberance, almost as hard as cartilage, and very difficult to be got rid of. To hinder the formation of such a mass, you should apply the nitrate of silver, or sprinkle the part with a powder of myrrh and calamine; or, if the situation of the burn admit of it, apply straps of adhesive plaster. When the parts are reduced to the condition of eschars at the time of the accident, or are so injured as afterwards to slough, the treatment will not differ greatly from that of mortification; emollient applications, poultices, and fomentations will then be serviceable. Some practitioners consider that the turpentine liniment has a specific virtue in these cases. Dr. Kentish, who was the first to introduce it, used first to bathe the parts with warm camphorated spirit, and then cover them with the turpentine liniment. When pus commences to be secreted he discontinues the liniment, and uses a milder dressing, as the calamine cerate, or the ceratum plumbi acetatis. In order to repress exuberant granulation, he introduces powdered chalk into the cavities left by the separated eschars.

I stated that much difference of opinion prevailed upon some points in the treatment of burns. There are, however, some leading principles, well established, which it will be your duty to keep in view. All surgeons coincide in the propriety of preventing, by a suitable covering, the access of air to the burnt part. They

also agree in the necessity of removing the dressing as little as possible, and many will not suffer the dressing to be removed until the suppuration is well established. When it is necessary to expose the surface by removing the dressing, it will be advisable to do so by degrees, instead of taking them off all at once.

The constitutional treatment next claims our attention, and this depends very much upon the particular stage in which you have to treat the patient. If you have to do with the first period—the period of irritation, as Dupuytren calls it—in which danger arises from the shock of the system, often accompanied by violent agitation, shivering paleness, coldness, stupor, and collapse, you will not think of doing anything which might depress the system, but rather put every means in motion to bring about reaction, raise the pulse, and strengthen respiration, by keeping the body warm; administer opium, brandy, wine and water, ether, and add a dose of opium. If your patient be a child a warm bath may be used, and this is a method which Dupuytren adopted extensively with advantage. There are, however, many cases in which the removal implied in this remedy would do a positive injury. When the collapse recedes, and inflammation comes on, antiphlogistic treatment must be adopted. The second period of suffering and danger is marked by the loosening of the sloughs and eschars; and here antiphlogistic treatment is necessary, as in ulcers; bleeding must be resorted to, with leeches, although some surgeons of whom I have heard have had recourse to venesection. At this time opium must not be neglected, and the saline mixtures are of great value. The third period of danger is marked by profuse suppuration, which will cause an exhaustion of the system, to check which all your exertions must be directed. For this purpose you must administer purgatives, apply astringent lotions, and afterwards follow with bark, diluted sulphuric acid, and opium and wine, in small quantities. There is a rule respecting diet in cases of burns, which requires that it should not be lowered too suddenly or to too great an extent. In the hectic or fourth stage of danger, the treatment is the same as has already been explained in speaking of hectic fever. The diarrhoea, which is common at this period, Dupuytren successfully treated, according to his statement, by giving half a grain of opium and one of sulphate of zinc, three or four times a day.

The disfigurements which follow the healing of burnt surfaces call for especial remark before quitting the subject of burns. I informed you that the cause of such disfigurements was the tendency of the cicatrix to draw the opposite parts of the burn towards a centre. I also warned you of the propriety of estimating this fact in the opinion which you express to the friends of the patient. You know that, from their greater mobility, the different parts of the head and face are peculiarly liable to be affected by the contraction of the cicatrix, and no position of the head has the effect of counteracting the contraction. It is frequently the case that the eyelids, mouth, and lips are turned out in a most disgusting manner, and, what is worse, the surgeon is able to do very little effectually to prevent these consequences. Bandages, splints, or, indeed, any mechanical contrivances whatsoever, are utterly useless. You may indeed sometimes do a little good by placing straps of adhesive plaster so as to draw the skin in the opposite direction of the contraction. Such is the plan recommended by Dupuytren. Another plan is, to freely apply the nitrate of silver to the granulations, and thus to expedite the healing of the burn as much as possible. But, if the burn be on the neck or limbs, much may be accomplished by mechanical means, applied so as to fix the head or limb in a position contrary to that to which it is the tendency of the contraction to draw it. Supposing that the burn be on the forearm and near to the joint, there would be almost a certainty of ankylosis taking place, if measures

were not taken to prevent it; but if you fix the arm in an extended position, by means of boards, from the time when the eschars have separated to its healing, the cicatrix cannot diminish in the long axis but transversely, and permanent flexion of the arm will be prevented. The use of mechanical means must be continued for a long while, at least for the space of two months. You may, however, and should, take off the boards from time to time, and have recourse to passive motion at the end of the first three weeks. By passive motion in surgery is meant the moving of a patient's joint by another person, and it is intended to prevent that stiffness of joint from taking place, which is the result of some tendency in the part or in its neighbourhood. After burns of the face, the nostrils sometimes close up entirely or partially by contraction, and become impervious; you must then make an opening if the obliteration is complete, or enlarge the aperture if it is merely contracted, and into the opening insert a tent or ivory tube, of much greater diameter than the natural orifice, which must be worn until the contraction has ceased. When two opposite burnt surfaces come in contact, a connection takes place of the nature of a web, and the parts become permanently united. In dividing these uniting substances, care will be necessary, or they will grow together again. I have seen this occur repeatedly, and the want of success has arisen from neglect of one particular principle. They must not only be divided and kept apart by means of lint, but pressure must be made and maintained at the angle of union, in which a small dossil of lint must be placed, and, the whole being covered with adhesive plaster, no further union will take place.

CLINICAL OBSERVATIONS ON SOME OF THE MORE FREQUENT DISEASES OF CHILDREN.

By W. HUGHES WILLSHIRE, M.D. (Edin.), M.B.S.,
Physician to the Royal Infirmary for Children, &c.

(Continued from p. 131.)

GENTLEMEN,—I have now to explain to you those anatomical changes which are observed in infants and young children after death, from severe forms of uncomplicated diarrhoea. You will remember I said that in the *catarrhal* varieties, although no appreciable change existed, yet we might, with great probability towards the truth, suppose that a change of some kind occurred in the mucous crypts and follicles, by which they were made to pour out a more or less altered kind, and greater quantity, of their usual secretions. In the form of diarrhoea at present before us, the first appreciable change which occurs is but an exaggeration, if I may so call it, of the former in the same structures, viz., *hypertrophy of the mucous follicles of the large intestine*; the second is *inflammation* of them; and the third is their *ulceration*. Conjoined with the latter is observed extension of the inflammatory and ulcerative action to the mucous coat itself of the larger bowel, with more or less similar involvement of the proximate extremity of the smaller one. These, in few words, indicate to you the essentials of the lesional changes seen in the inflammatory diarrhoea we have been talking of; the others, and subsidiary ones, you will learn immediately.

I shall first detail to you the amount of my own observations, and then add to it something from the minute morbid anatomists of France, the more especially as some of the latter have paid particular attention to our present subject. I must again impress upon you that we are speaking alone of uncomplicated diarrhoea, not of it as associated with any other disorder, or with the mucro-enteritis of older children.

On opening the abdomen you will find the peritoneum and its cavity normal. In one case I have seen a very slight amount of serosity in the latter. The intestines look very pale externally. On separating them, in one class of cases, you will be struck with the great thick-

ening and straitening of the colon, so that it will often feel as if the calibre of its tube had diminished or contracted on itself, and its hollow become filled up with new matter, giving quite a cord-like appearance to this portion of the larger bowel. This was very remarkable in a case which Mr. Delves, the house-surgeon, and myself, examined a few weeks ago. Bouchut, in alluding to this point, remarks that the transformations which ensue in the submucous cellular tissue take place at the moment when the spasm of the muscular coat diminishes the calibre of the intestine. From this results an inextensible envelope around a contracted organ—an envelope which compresses the viscera with force, and prevents its assuming its original volume.

On slitting up the intestines you will find the mucous lining of the smaller one very pale, often without any appreciable change in it until within half a dozen inches or so of the ileo-cæcal valve, where you will observe slight vascularity commencing, which increases in intensity as you get nearer the valve. Now and then you will find hypertrophy of the isolated follicles, and in rarer cases near the valve, ulceration of them. Bouchut and Legendre deny the occurrence of the latter; but it certainly existed in a case I lately examined along with Mr. Delves. Now and then you will find the glands of Peyer largely developed. It is on passing into the colon that you will be most struck with the anatomical changes which have occurred. In the upper part of it you will observe the internal face of the mucous lining highly injected, very vascular, sometimes all over blood red; if you hold it up and look at it obliquely against the light, you will see the little hypertrophied follicles rising up and throwing their shadows towards you; if you pass your finger delicately over them you will experience a sensation as produced by granulations. On looking down upon the face of the mucous lining you will notice here and there irregular spots where the vascularity I alluded to is wanting, spots having something of a greyish colour; hold the membrane up to the window, and view these spots or patches by transmitted light instead of reflected, and then you will perceive that they are small oval ulcerations. As you proceed lower down the great intestine, the vascularity diminishes, but here and there a long bundle of vessels is plainly seen expanding at its extremity into a sort of network, close upon which is to be found a small oval ulceration. Scattered over the lower bowel, more or less close and abundant, more or less evident, as the case may be, will be observed the very much enlarged greyish-yellow follicles, having a dark spot in their centre. Here and there, too, will be found a patch of ulceration.

In another class of cases you will not discover the great vascularity of the colon of which I have been speaking, but will notice that in the contracted and thickened bowel, the mucous lining forms a number of folds, along the sides of which exist bundles of vessels, with expanding extremities at the top of these folds, as if there most inflammation had existed. In the spaces between these folds are to be found enlarged follicles and small oval ulcerations, which latter, as in the former case, are formed at the expense of the follicles. In the rectum, which is pale, you will find the hypertrophied follicles with the dark central spot. Both these forms of the disorder I have seen within the last few weeks at the infirmary.

In some instances you will find, as an accidental complication, invagination of the small intestine. Mr. Delves will recollect that we found this change beautifully exemplified in the child we examined in Holland-street. I made these notes on the case:—Intestines pale; four invaginations of small intestine, the first at the beginning of the ileum, the second six inches from it, the third three inches from the second, the fourth about four inches from the third; edges of valvule conniventes considerably inflamed, and both external and internal inflammation at the invaginated portions; then the intestine pale until within a short distance from the cæcum, where

vascular patches are observed; in the large intestine hypertrophied follicles exist, here and there ulcerated in lower part of colon, where there is some inflammation; glands of mesentery hypertrophied; calculus in infundibulum of left kidney. Much vomiting before death; no sustenance taken for several days. The only other intestinal change which I have observed has been now and then thickening and softening of the mucous lining.

I shall now tell you what some others say upon the subject. Bouchut remarks that the cellular tissue separating the muscular and mucous coats rarely participates in the anatomical modification of the acute form of enterocolitis. In the chronic its texture is always modified. The change is, however, limited to induration, the tissue becoming semi-transparent and inextensible. The alterations of the muscular coat are very slight, almost confined to the retraction I before alluded to. In a very few cases Bouchut has observed thickening of the subperitoneal cellular tissue. In the small intestines, extending through their whole length. In two cases this writer found coloration and tumefaction of the mucous lining, with hypertrophy of the muciparous crypts and enlargement of the glands of Peyer. M. Legendre puts more stress on the change which these glands undergo than other writers do.

In some cases of enterocolitis you will find softening of the mucous coat of the stomach; and in many works you will find described gelatiniform or pultaceous ramollissement of this viscus as a distinct disease following upon inflammation, and the disorder hence denominated gastro-enteritis, the symptom of vomiting and gastric instability which existed being alone presumed sufficient to indicate such affection. I shall not enter into the discussion of the question, but will refer you to Bouchut (*"Maladies des Nouveaux Nés,"* &c.), who, however, I may remark, maintains that this softening of the gastric mucous lining is not a special malady, because—1. The presumed pathological alterations are but the result of decomposition; 2. Because this lining is easily dissolved by the acids of the stomach, very abundant in certain affections like phthisis, enterocolitis, &c.; 3. Because observation shows that this softening never exists alone, but, on the contrary, is always connected with other alterations, and which are its causes.

M. Braconnot has shown that in the healthy state the liver always contains a very small amount of fatty matter. Louis and others have demonstrated that, in France especially, this is much increased in cases of pulmonary tuberculosis; whilst Rilliet and Barthez have proved that the increase is now and then met with in children not tuberculous. But M. Legendre has gone further, and says, that in fourteen cases out of twenty-eight of diarrhoea he has observed this fatty degeneration of the liver. This degeneration in its evident state is more especially observed when the diarrhoea has been of long continuance.

In some cases you will find the mesenteric glands enlarged, they having become secondarily affected when the diarrhoea has been of long standing. In those cases, of course, in which they are very early enlarged and tuberculous, the disorder has been one of an entirely different character.

I shall conclude what I have to say on the *post-mortem* appearance of inflammatory diarrhoea with the following remarks from Legendre. Under the head of "general, but superficial inflammation of the mucous lining," he says, "All these characters, redness, thickening, and softening, indicate that in such cases the mucous lining is inflamed; in all cases also this inflammation is more remarkable for its extent than for its intensity, and does not sufficiently explain the obstinate persistency of the diarrhoea. This circumstance leads us to believe that here the anatomical change is the *effect*, and not the cause, of the continuance of the diarrhoea."

I have now to consider the more *general causes* of diarrhoea. I have already told you that the

idiopathic diarrhoea, if I may so call them, are chiefly met with in the earlier period of our existence, and we may say from six months until about two years of age is the period in which they are most frequently seen. In the earlier epochs of our life the constitution, you know, is very liable to suffer from the effects of circumstances, which at later periods either do not all so affect it, or do so in a different manner. Thus, during the first stage of existence, the delicate and sensitive lining of the digestive apparatus is at once excited and put out of order by any variation from the normal state of the mild and demulcent fluid—the mother's milk; and, if such variation long continue, the general vital powers are soon knocked down. So, too, after the infant has ceased to depend upon this fluid and draws from other sources new material to repair the wear and tear of the body, and to build up and help in the formation of new organs and parts; if the nature of such material be bad, so do the digestive apparatus, and then the constitution, suffer accordingly.

In early infancy the preservation of the due degree of animal heat is with difficulty kept up, save with great care and attention on the part of the mother, and a very modified amount of depressing causes, in comparison with that necessary to produce mischief in after years, will give what is called "cold" to the external portion of the body; and then the comparatively highly-developed capillary system and mesh-work of the cellular tissue of the internal organs in children at once evince engorgement, if not inflammation. (a)

It is at this period of life, too, that one of the most important evolutions of new parts ensues: an evolution which is to influence the whole future life of the child, in the developing of parts which are intimately linked with already evolved though distant ones. I allude to the evolution of the teeth, the most important of the preparative digestive structures.

The body in early life is also subject to a series of hidden powers, intangible, unappreciable to us, but yet exercising the most universal and remarkable domination over infantile and youthful existence—a domination which diminishes its energetic influence, the more advanced the progression of the individual on the pathway of humanity. What these powers are I cannot tell you, but, when I mention the evidences of their existence, they will then be familiar enough. Call to mind hooping-cough, measles, chicken-pox, and scarlatina, and you will reason on them at once. As we suppose that the propagation and epidemic evolution of these affections are much influenced by a peculiar condition of the air, so do we imagine that the diarrhoea to which, at certain seasons of the year, the young child is liable, has for its cause some such powers too.

It is also the youthful body which in certain countries or particular tracts of districts is so liable to engender within itself parasitical growths; and of these, those that have their birthplace in the intestinal canal, influence most importantly the various functions of the body.

To one or other of the causes which may be classed under the influences I have just alluded to, are to be ascribed the various forms of infantile diarrhoea. These causes may be, in few words, expressed by bad food, the application of cold and damp, difficult dentition, atmospheric changes, worms. Of each of these causes of diarrhoea I shall say a few words in detail.

The influence of improper nourishment in causing diarrhoea in children at the breast, and in those who are just weaned, is to be constantly found in force; and you will often find it one of the most difficult sources of the disorder to remove, either on account of the obstinacy of the parent, or her inability to procure for her infant more fit and proper food. An infant may be subjected to this cause of manifold disorder either from the milk of the mother not being of

due nature and kind, or from her *feeding* it with vegetable aliments too soon, or whilst it is yet at the breast. So, too, after it is weaned, the diet not being of the right kind, either as to quality or quantity, will induce the disordered condition alluded to; and nothing more readily also than bringing up a child by hand, as it is termed.

An alteration of the maternal fluid, rendering it unfit for the child, and productive of intestinal disorder, may ensue from various causes; and such alteration may be permanent, by which the child's health is slowly but gradually undermined; or quite temporary, but yet of so marked a character that a fatal result shall happen to the infant soon after its removal from the breast. Nothing is more common than to see amongst the poor an infant gradually pining away, afflicted with exhausting diarrhoea, is kept at the flaccid, half-empty breast of its destitute mother, who, perhaps, is either menstruating or affected with profuse leucorrhoea, or is even pregnant. The child is constantly sucking, but gets neither in quantity nor quality that which it should have. The milk is slight in quantity and serous in quality. The child, in fact, has nothing to live upon, nor has had for a long while. In cases of sudden temporary alteration of the milk, the change is generally brought about by some intense mental emotion on the mother's part, and the modified secretion acts detrimentally on the nervous system of the child; although in other cases the administration of particular drugs, or the occurrence of some disorder on the part of the mother, adduces a temporary effect, though not a fatal one, on the child. Bouchut quotes a case in which a woman, witnessing a quarrel between her husband and a soldier, saw the latter draw his sword upon him, and to whose rescue she went. Afterwards she put her child, who was healthy and eleven months old, to her breast, who, after sucking but for a short time, quitted it in a state of agitation, and died in a few moments. The same author remarks that a lascivious young mother sent her child into violent convulsions if she nursed it after indulging in the performance of the connubial right. I myself have seen a mother so affected for the safety of her child, who was labouring under diarrhoea, that on placing the child at the breast, it went into convulsions. Such facts as these and many others I could mention to you, will be sufficient to prove how readily a child may be affected by changes in the milk it consumes, whether by constitutional weakness or disorder on the part of the mother, mental emotions, or the ingestion by the parent of drugs, particular articles of diet, &c. &c.

ORIGINAL CONTRIBUTIONS.

DR. RIGBY ON CHLOROFORM.

I tried the effects of chloroform, in a case of labour, last week, and take the liberty of communicating them to you, in the hope that they will not be uninteresting to your readers.

Mrs. A., aged about twenty-three; primipara; brunette, small, but well made. Has carefully attended to the state of her bowels for some weeks. Slight pains commenced on the morning of the 2nd, but were very trifling until the afternoon, when they became stronger; the os uteri was two-thirds dilated at about six P.M. No liquor amnii had collected. A large head was presenting, but I did not ascertain its precise position, as the vagina was remarkably small, and the patient rather nervous and excitable. As the pains were not satisfactory, being a good deal in front, and as she now owned that during the previous twenty-four hours the bowels had not been so well relieved as usual, I directed the nurse to give her an enema of warm water; it brought away little or nothing, but the pains instantly altered their character, and pursued a bearing-down character, the os uter being now fully dilated.

As the head approached the os externum the pains became powerful, and she expressed much

(a) See the observations of M. Bery, Physician to the Stockholm Asylum for Orphans.

dread of their recurrence. The perineum was now considerably distended by the head during a pain, and the labia somewhat separated by it. A sponge, with fifty or sixty drops of Hooper's chloroform, was applied to the nose with a pocket-handkerchief, and she was almost immediately under its influence. Up to this moment the head, even during the most complete interval between the pains, had not receded to any considerable extent, but the moment she was insensible the head receded further than I have ever noticed before, all detrusive pressure upon the child, whether from the uterus or abdominal muscles, having ceased. The pains up to this moment had recurred every two or three minutes, but now there was an entire cessation for nearly ten minutes; when, however, pain came on, it seemed as powerful as before, and I decidedly think that the parts did not present so much resistance; they seemed more soft and flaccid, almost as they are known to be in syncope from severe hemorrhage. Consciousness returned, as from a deep sleep, and she begged to have it repeated, which was done, and, as she gradually lapsed again into deep sopor, she murmured faintly, "It is so delicious." The pains returned at the same long intervals, and in about an hour the child was born, the chloroform having been renewed occasionally. She was slightly sensible from time to time, but seemed to suffer little, and fainted that she had been but a few minutes under the influence of the chloroform. I am aware that an opinion given on a single trial of this remarkable agent must be taken with caution, but every person present, with myself, felt convinced that but for it the child would have been born late on the evening of the 2nd, instead of at a quarter past twelve, and therefore just into the morning of the 3rd instant. There can be no doubt that, besides allaying pain in obstetric operations, the perfect flaccidity and relaxation which it produces in the soft parts will prove of considerable service.

Dec. 7.

FIRST CASES OF CHLOROFORM IN IRISH OBSTETRIC PRACTICE.

By THOMAS E. MITCHELL, M.D., F.R.C.S.I., Master of the South-Eastern Lying-In Hospital, and Lecturer on Midwifery in the Dublin School of Medicine.

CASE 1.—Julia Denning, aged thirty, admitted into the South-Eastern Lying-in Hospital, Nov. 30. Has had one child; never miscarried; but had rather a tedious labour the last time; has been in pain the last two nights, which come on at regular intervals of about half an hour. She is up to her full time. About five o'clock this morning she first observed blood flowing from the vagina, which has continued until this time (ten o'clock); stomach was sick a short time ago, but is not at present; pains are more frequent, coming on every quarter of an hour. Os uteri is dilated to about the size of half a crown, very soft, and dilatable; head presenting in the first position. I ruptured the membranes at ten minutes past eleven. Pulse full and strong, 80. Administration of chloroform began twenty-five minutes after eleven; became insensible in less than two minutes; pulse 72, full; the effect lasted about a minute and a half. Inhaled again, and became very violent, calling out loud. In about a minute began to talk incoherently, in a lower tone, asking the nurse to come and speak to her. Shortly after this she felt a pain, and cried out loudly. Inspired the chloroform again, and it had the same effect as before, making her violently delirious, but for a shorter time. Quarter to twelve, the child's head is beginning to press on the perineum; she is quite insensible, raving most violently; two minutes after this the child was born. Still has pains at intervals; no pain in the head; still raving at times; placenta in the vagina, extracted.

CHLOROFORM USED SUCCESSFULLY—FORCEPS REQUIRED—CHILD SAVED.

CASE 2.—Catherine Cook, 18, Sandwith-lane, an extern patient at the South-Eastern Lying-in Hospital, aged 40, mother of six children, was seized with labour on the night of Dec. 2; the

membranes ruptured at six A.M. of Dec. 3, and I saw her at 10 A.M. The following was her condition:—The pains were brisk, and recurred at intervals of about ten minutes; on examination, per vagina, the anterior lip of the uterus was found occupying the whole front part of the vagina, which was dilated, and very soft, cool, and moist; the child's head presented in the first position; the bowels had been recently evacuated, and the bladder emptied; the pulse was full and strong, 86 in the minute. She had always had severe labours in her previous confinements; the pains were very distressing, and caused her to shriek out with agony. Judging it a good case for the exhibition of chloroform, assisted by my very intelligent pupil, Mr. Cummins, I proceeded to put her under its influence. After sixteen inspirations she went off in a quiet doze, in which state she continued three minutes, and on her showing signs of sensibility the sponge was again applied to the mouth and nose, during which time she had a severe pain, which she bore without the slightest symptom of suffering; her arms lay tranquil and relaxed, and were insensible to pain on being pinched; her pulse now increased in frequency to 100, but weakened. On the third application of the sponge she became very excited, attempted to sit up in the bed, and talked incoherently in a rather loud voice; this state of excitement lasted for about half a minute, when she went off to sleep again. The pains now recurred every five minutes, and the sponge was applied at the commencement of each pain; she was allowed to make six or eight inspirations at a time; during the intervals the sponge was removed, and she continued in a placid sleep, not having experienced any excitement, with the exception of the one above mentioned, and a second slight one, which was very evanescent. During the time her mind occasionally wandered, and under its influence her pulse mounted to 100.

REMARKS.

From the degree of excitement produced in the first case, I should (judging from it alone) be induced to say that the chloroform was by no means fitted for obstetric practice; but I do not think it would be fair to draw such a conclusion, as there were circumstances which rendered the application doubtful. In the first place, the woman had lost a good deal of blood, and the chloroform acted in a similar manner to spirits in producing delirium tremens; secondly, she was much excited, being surrounded by a large number of pupils, some of whom asked her questions—conditions which Professor Simpson holds to be injurious. In the second case the success was perfect; the woman was kept very quiet, and perfect stillness observed.

I have given it to several persons in health, in some of whom it also produced much excitement; in one pupil a state of hysteria was induced, and I am of opinion that much depends upon the rapidity with which a person is brought under its influence, as well as the quality of the fluid used. What I employed was very good, and procured from Mr. Hooper, of London. At the Surgical Society of Ireland, on Saturday night last, Dr. Byrne, of Dublin, suggested the heating of the sponge, and also placing it, when heated, in a hot towel prior to its application, by which means the fluid was more quickly vaporized; he stated that he had succeeded with great rapidity by this method. From the hint thus given, I have directed a respirator to be made, which, I think, will possess many advantages over the present simple method, but, until its utility be tested, will not say more about it.

I cannot conclude these remarks without acknowledging the debt of gratitude that the profession and public owe to Professor Simpson for this most valuable discovery, and, although the cases now published are the first in which the remedy has been tried in Ireland, I am determined that they shall not be the last.

UNIVERSITY OF LONDON.—The gold medal for a commentary on a case in medicine was last week awarded to Dr. Redfern, of Aberdeen.

THE PHYSIOGNOMY OF DISEASES OR SEMEIOTICS IN THEIR ASSIMILATIVE CHARACTERS.

By GEORGE CORFE (Author of "A Popular Treatise on the Kidney," &c.), of the Middlesex Hospital.

[Illustrated by Portraits of Cases.] (a)

(Continued from page 114.)

DELIRIUM IN FEVER.

It occasionally happens that a poor fellow is brought here by some friends or lodgers from a low and dirty neighbourhood, who have found him so destitute, ill, and filthy, that they have willingly defrayed the expenses of his carriage here, in order to get "the fever" out of the house. They know nothing of his history, or of the symptoms and duration of his illness; that difficulty is left for us to surmount. The patient is insensible; the countenance stupid and dusky; pupils dilated; eyes closed; skin hot; and pulse rapid. Who can pronounce an accurate diagnosis in such an emergency, so as to lay down a distinct line of treatment?

He is placed in a warm bath and well washed, his head is shaved, and he then has a clean pair of sheets and a freely-ventilated ward to breathe in. A dose of calomel with some purgative is administered, and cold lotion is applied to the shaved head; he is made to swallow a little beef-tea from time to time, and thus he passes the first twenty-four hours, perhaps. The disease now begins to develop itself. Delirium, more or less severe, sets in, with intervals of rationality; the tongue is seen to be transversely fissured, red, and raw; the eyes become flushed; the pulse regains some strength; sordes appear about the lips; the skin is sprinkled with a few papular eruptions, and we soon are enabled to decide that it is "simple continued fever," accompanied with severe head symptoms; and thus the case progresses favourably under very mild treatment, good nursing, and watchfulness, without any severe measures on our parts.

Whereas, I regret to state, that many are the instances where the same condition has existed, and a medical man has been called in (a novice in the treatment of the low form of fever of London and other large towns), and has thought proper to tie up his patient's arm, take away a pint or more of blood, and then send him to the hospital, without, perhaps, prescribing a grain of medicine; and I need not add that such cases have usually terminated fatally in a few days. The bleeding, as we have been subsequently told, was performed on account of the cerebral symptoms, but the patient having no one to nurse him, it was deemed more prudent to send him to an hospital. Alas! I would there were but a few of such sad instances of malpractice. Let the following serve as a sample:—

Christiana Smith, aged eighteen, a servant, admitted Aug. 8. Countenance wild and flushed; eyes projecting and suffused; lips dry and covered with a viscid mucus; head very hot, as is also the whole body, which is covered with a rubeloid eruption; occasionally screaming and talking incoherently, but answers all our questions in a rational manner; pulse 120, and very feeble, undulating; tongue ruddy and dry in the centre; abdomen full, but bears pressure; bowels relaxed; does not acknowledge that she is in any pain. This attack set in six days ago, with rigors and heats alternating; and a doctor was called in, who bled her to thirty ounces, and in a few days afterwards sent her to the hospital. Surely I need scarcely inform my readers that the poor girl lingered on in the hospital, and sunk in a few days more.

DELIRIUM FROM PNEUMONIA.

There is no form of disease to which the human frame is liable in the investigation of which the valuable aid of consultation is more manifest, more satisfactory, and more instructive

(a) These portraits, which are painted from the life, by that eminent artist, George Fogg, Esq., are to be seen in the museum of the Middlesex Hospital School of Medicine, a woodcut being deemed inefficient to carry out the peculiar features and tint of each countenance.

them in pneumonia. There is no form of inflammation either, which, if improperly treated at the onset, or overlooked in its progress, is so destructive of life and so rapid in its various stages as that of pneumonia. A clear and accurate diagnosis is of the utmost importance here. A few hours lost will oftentimes bring the patients into the jaws of death. If there was no other consideration why auscultation should be publicly taught in the schools, the rapid progress of this fearful disease, and the deceitful symptoms that it often presents to a practitioner, are sufficient grounds for earnestly pressing upon pupils the importance of the study of this branch of medical practice.

I cannot instance my remarks better than by describing a case amongst many that occurred here. A strong-built German baker, John Treuter, aged twenty-six, was admitted as a case of fever, November 30, as the medical man so termed it; and as he was delirious, and they had no means of keeping watch over him, he was accordingly sent to us. When we had got him fairly into bed, which was done with no small difficulty, I observed his face was flushed; conjunctivæ injected; a wild, anxious, but inexpressive eye; some delineation of uneasiness in the contraction of the features; skin hot; pulse full, but oppressed.

We ordered his head to be shaved, and cold lotion was applied to the forehead; but I was soon summoned to the ward, for the nurse had no power over him; he was jumping over the beds like an excited patient with delirium tremens. There was no cough and no expectoration. I got him to bed with firm language and an authoritative tone, and immediately strapped him down; he looked like a man, at this period, with phrenitis, and I was loth to bleed him from the head, knowing, by experience, how ill bakers and such like artisans bear lowering by blood-letting, &c. Still our minds were set upon the supposition of its being fever, with severe cerebral congestion.

We left him for the night, and, on the following morning, when I made my usual visit, the man was more tranquil, though he had but little sleep. As I stood questioning him as to his symptoms, he suddenly was stopped by a tight and harsh, but short, cough. Immediately I set him up in bed, and, on putting my ear over the chest behind, found extensive bronchophony; tubular, or bronchial breathing, very general; small crepitation, and total dullness on percussion. Now, the whole case was made clear to my mind. "Acute and violent pneumonia, which had run into the second stage of red hepatization," and the whole lung was in a fair way of being solidified, probably to the patient's destruction. I tied up his arm; the pulse was weak, but then it was so from oppression, carbonized blood circulating to such an extent that his system was, it may be said, poisoned with it. I allowed the blood to flow *pleno rivo*; the pulse rose, and when he had lost thirty ounces he fell flat on his back, burst out into a profuse sweat, and there I left him. Soon afterwards he took half a grain of tartar emetic, and continued it every half hour until he was thoroughly nauseated, and then he continued it at longer intervals, with three grains of calomel. He was cupped freely over the inflamed lung; and in one week the patient was convalescing, the lung rapidly regained its permeability, and vesicular breathing was heard throughout it before he left the hospital to resume his work.

The physiognomy of such cases as those I have now related is sometimes very marked. In delirium from fever there is a dusky, heavy, and expressionless countenance; the eyes are half closed, and, as the patient lies in bed, he rarely lifts his lids upward, so as to look at the individual who is interrogating him about his sufferings. Whilst in the severer form of delirium from pneumonia, there may be flushed eye and face, and, what I have so frequently noticed in London, an herpetic eruption over the lips; an excited manner, but a dullness in comprehending your questions; and you find a difficulty in ob-

taining clear or satisfactory answers to your inquiries about his sufferings, history, &c.

I am anxious to present to the minds of my readers a distinct group of instances of cerebral disturbance, arising from acute disease in other organs, in as trite a manner as possible, in order that the assimilative characters of these diseases may be fully estimated, whilst the observing eye of a practical man will readily notice the various phases of these characters as they are severally laid before him.

Delirium from pericarditis, therefore, must next come under our observation, since this disease is oftentimes attended with no other marked symptoms, except fierce delirium; and this feature is frequently so great, or so prominent, that the practitioner is incautiously led astray from the consideration of the real disease, to the organ which is sympathetically affected by the inflammation, rather than to the inflamed organ itself. The subjoined case may serve to illustrate my meaning, perhaps, in few words.

Elizabeth Plumbe, aged seventeen, admitted Jan. 5; maid of all work. Pains and swellings of all the larger joints; tongue furred; pulse full; catamenia due a fortnight ago. Just at this period she was seized with weakness and inability to work, and her pains and swellings gradually arose; there was no cardiac disturbance. She was going on favourably under the influence of colchicum until the evening of the 9th, when she was found propped up in bed. Countenance wan and very anxious, and, if asked a question, she looks at you with a vacant stare, smiles, and then turns her head away, and gives some evasive answer, and not in the sharp, ready manner which she did on her admission. There is (says the note) a very peculiar, and rather pleasing, idiotic cast of features (*risus sardonius*); she is very low-spirited, often fixing her eyes on the ceiling, and lying for the most part on the right side. The nurse states that she has got out of bed three or four times under pretence of wishing to pass her water, but that she has not done so when placed on the night-chair. A distinct attrition sound was heard over the base of the heart, and subsequently a bellows, mitral, murmur over the left scapula.

The case terminated fatally on the 31st of March, and there were found at the autopsy evident traces of recent acute pericarditis and endo-carditis.

In very many of such insidious attacks of rheumatic carditis, there is no complaint made of pain in the præcordial region, either by pressure in the epigastrium or on a deep inspiration; and this fact, without the aid of auscultation, necessarily renders the case more obscure and perplexing to the practitioner, who is not conversant with the morbid sounds elicited by the heart, under this acute inflammation.

If another instance of acute pericarditis which terminated fatally on the female side of the hospital, the patient, forty years of age, was admitted for mere disorder of the digestive organs, when I was hastily summoned to the ward, in consequence of the woman being in "a fit." When I arrived at the bedside I witnessed one of the most frightful series of contortions of countenance which the most horrifying form of epilepsy ever produced; and, as this train of symptoms was altogether new in the patient's history, I ordered the head to be shaved, leeches to the temples, and a smart dose of calomel, with colocynth, and an aperient draught. She rallied somewhat, but never became perfectly sensible; another fit succeeded the former, and a third, when she was carried off in the most frightful struggles of epileptic convulsions I ever witnessed.

At the post-mortem examination we could not trace the slightest morbid alteration in the brain or in its membranes, but the heart was covered with firm and recent coagulable lymph, and there was a large quantity of whey-like fluid in the pericardium.

In the early stages of endo-carditis I have repeatedly noticed that the first or systolic sound of the heart became sharp, prolonged, and loud,

whilst the diastole is dull, muffled, and distant; this morbid change in the rhythm of the heart can only be attributable to a stiffened condition of the valves, which results from the early stages of inflammation, and which inflammatory action, if it continue unabated, will soon induce a puff, whiz, or murmur, and thus the unequivocal evidences of permanent valvular disease are plainly manifest. Such a damaged heart never regains its wonted elasticity and equal action; yet the patient may survive many years, especially the young, and never be sensible of dyspnoea, palpitation, or thoracic distress, until some exciting cause brings up fresh inflammatory action, and the organic changes of this once nicely-balanced engine are sensibly experienced in the sufferings of the patient.

It was observed in the course of the prefatory remarks which were made at the commencement of these papers, that the hospital practitioner is often placed under the most disadvantageous circumstances, to enable him to form a correct diagnosis of the severe cases which present themselves before him. A poor creature, as it often happens, has been labouring under an acute attack of inflammation, which has run its course even to ulceration on the one hand, or to serous effusion on the other, before he is removed from his home to be brought here. The exertion, agitation, and worry of this journey, oftentimes proves fatal to them, and the last shilling is spent to procure a conveyance to the hospital; so that when they appear before the physician of the week, there is no one to inform us of the rise and progress of the disease, and the patient is unable to do so from the exhausted state of his mental faculties, and thus are we left to conjecture upon many important points of the disease. This evil, in a great measure, springs from the difficulty these poor objects meet with in finding a friend who is willing to try and procure a letter of admission to the hospitals of the metropolis, so that delay is in such cases most dangerous and destructive to life. These things ought not to be allowed, as they tend to exclude the most deserving class of individuals from these charities, namely, those who are labouring under alarming and mortal diseases. But I would observe that the fatigue of bringing patients, labouring under some advanced form of acute disease, from a distance to the hospital, is oftentimes the means of setting up another train of symptoms, which wholly mask the original attack; thus, in the instance about to be recorded, the onset of the disease was doubtless acute inflammation and ulceration of the bowels; but the exertion of the journey here induced perforation of the intestine, and then another series of symptoms sprang up which preponderated over the former ones, and gave rise to an incorrect diagnosis. It is on this account that I would rank delirium from *enteritis* under this division of cerebral sympathies.

Elizabeth Cremen, aged twenty-eight, with an infant eleven weeks old at the breast, admitted May 15. Countenance dusky, or of a pale, livid hue; features pointed, and expressive of acute suffering; eyes half closed; pupils contracted, and scarcely sensible to light; constant delirium, and unable to describe her sufferings; and there is no one who accompanied her to the hospital who can inform us of the rise and progress of her illness. Appears to refer her pain to the abdomen, which is not tense nor full, but resents pressure. Incessantly getting out of bed, so as to require restraint; extremities cold and mottled. Under the above circumstances it was looked upon as a case of fever, with severe cerebral disturbance, and she was treated according to this supposition; but she rapidly sank and died in three days from her admission.

Post-mortem Examination Twenty Hours after Death.—Abdomen. The peritoneal cavity was filled with lymph and fecal matter. There was acute peritonitis and enteritis. Eight or ten ulcers, varying in size from a pea to a sixpence, were found along the transverse portion of the ilium; the upper ones were in an advanced stage of reparation; the lower ones were not so. One of the

larger ones, a foot from the cœcum, had perforated the bowel, and allowed its contents to escape. There was no ulceration on the edge of the cœcal valve, as in ordinary fever; and the transverse form of the ulcers gave them the character of tubercular excavations, rather than of those ulcerations ordinarily observed in fatal cases of fever.

Just about the same period that the above case terminated, a man, aged forty-six, was operated upon by Mr. Arnott for inguinal hernia, May 13. The case went on most favourably until the 25th, or twelve days after the operation, when I was requested by that gentleman to see the patient, in consequence of a sudden attack of delirium which had come on. He was found lying on his back, with his features pinched and sunken, his countenance dusky and livid, with a faint outline of the "facies Hippocratica"; eyes wandering about the bed wildly, but without animation or expression; incessant talking, swearing, and a determined obstinacy in refusing to answer any question, or to allow himself to be touched. The respirations were wholly thoracic. Notwithstanding repeated doses of calomel and opium, fomentations, &c. &c., he died in sixteen hours from the time of the accession of the delirium. We were fully convinced that the bowel must have given way, or else that there was acute enteritis; and so it proved to be, for at the *post-mortem* examination it was found that the stricture had gripped a portion of bowel above the strangulated knuckle of intestine, and this ulcer had not undergone any reparation, but it had given way; and the result was acute inflammation of the whole ilium and jejunum.

FACTS AND ARGUMENTS IN SUPPORT OF "THE HUMANE SYSTEM OF NON-RESTRAINT AND NON-SECLUSION."

By WILLIAM SMITH, M.R.C.S.E.

Formerly House-Surgeon to the Lincoln Lunatic Asylum, Member of the Association of Medical Officers of Hospitals for the Insane.

"Nil sine magno
Vita labore dedit mortalibus."—HOR.

Observing in *Medical Times* for November 20 a letter from Dr. Nicholson, of Lincoln, reflecting upon the non-restraint system of treating the insane—a system which has now been in operation at the Lincoln Asylum (without any intervallum) for more than seven years—I trust the editor will (in a spirit of strict impartiality) allow me to offer a few practical observations thereupon.

I would, however, remark (*in limine*) that my object in writing is not to defend the brutal treatment of insane persons by their attendants, quasi keepers, nor to sanction the practice of breaking four or five of their ribs during a maniacal paroxysm—a mode of treatment which latterly (I regret to observe) has not been unfrequently practised at Lincoln, at least if we are to receive as evidence the statements contained in the *Medical Times*. My object is to show that "the humane system of non-restraint," when carried out in a proper spirit, and with that vigilance of supervision, both on the part of the medical superintendents and the immediate attendants upon the insane, which the founders and supporters of that system have always insisted upon as necessary, is not only safe and practicable, but that it is without exception one of the greatest boons ever yet conferred upon the insane.

The abuse of any remedy is no argument against its use. The governors of the Lincoln Asylum have truly remarked, in their Seventeenth Annual Report, page 15, "The arguments used in favour of instrumental restraint are equally cogent against the most valuable improvements in medicine, and would justify the continuation of those dreadful drastic and kill-or-cure medicines which have been long exploded by enlightened and humane practitioners, and superseded by others more mild, more safe, more efficient, and more in harmony with the natural habit and physiology of man. . . . Restraint gives exaggerated notions and high-wrought feelings to the patient; whereas the ideas impressed should be those of quiet, orderly domestic life.

. . . The very act of restraint is an admission of fear on the part of the attendant, and gives the patient an impression of the tremendous nature of his own power—a feeling which all lunatics love to indulge—and further tempts him to use that power when he can, it being a universal principle of animal instinct, and one particularly observable in the insane, to attack whatever shows fear or seems to give way. . . . There seems to be a notion that, in dispensing with instruments of restraint, the attendants are to be 'perpetually' holding the patients fast by the limbs to prevent them from moving about. Such may be the case in a private house, where proper accommodation can seldom exist, and where instrumental restraint may, therefore, become necessary; whereas, in an asylum, the bodily power of the attendant is employed solely to prevent mischief, the patient being otherwise permitted to indulge his whims and dispose of his accumulated irritability; *there is this peculiar benefit in it, that the attendant, for his own convenience, will cease from interference the first moment that it can be dispensed with.* Irritation is, perhaps, frequently and, perhaps, generally the direct exciting cause of lunacy, and any attempt at cure which involves a system of irritation must exaggerate the complaint, and, above all, that bodily confinement which prevents the patient from getting rid, by the free motion of the limbs, of his accumulated excitability, engendering a state of mind morose, rancorous, ferocious, and deadly; as was too clearly proved by the frightful scenes of assassination and outrage which habitually occurred at Bedlam and elsewhere, when restraints of the most dreadful accumulation and power which human ingenuity could devise were in constant and general use, morning, noon, and night, often for twenty years in succession, or for a whole life. Such cases are now extremely rare, and are always most frequent where coercion is most general and severe."

According to my experience "the humane system of non-restraint" requires more than common vigilance upon the part of the medical superintendent, as well as those placed under his authority; there must be no difference of opinion: all should be actuated by one feeling, or how can we expect an institution to flourish? Turn to the past history of Lincoln and Hanwell, and see what happened. Dr. Conolly, in his valuable reports to the visiting justices, has not omitted to mention this important matter. In his Third Report, 1841, page 128, he observes "that the abolition of restraints cannot be successful without a vigilant and constant superintendence, exercised by a competent number of attendants, under the direction of officers zealously united in the determination to meet every variety of difficulty by every possible resource that may render bodily coercion unnecessary. That the attendants must be attached to the use of restraints will be the least alert in carrying these resources into practice, and the most prone to use secret violence, and to abuse seclusion until it becomes as objectionable as restraint itself. That in a properly-arranged asylum, with efficient officers and attendants, acting under one uniform system, scarcely any conceivable case can occur in which the security, cleanliness, and comfort of the patients may not be provided for, and the safety of all the other patients secured, without mechanical or bodily restraint, and with fewer troublesome consequences than when restraints are employed."

Dr. Nesbitt, the experienced superintendent of the Northampton General Lunatic Asylum, adds his testimony, also, to the complete practicability of the "non-restraint system." In the Sixth Annual Report of that establishment, for the year 1846, pages 2 and 3, he remarks—"On the bearings of this question, in connection with the management of the institution during the past year, and indeed during the whole period of my connection with it, it is gratifying to be able to state that there has been no faltering or compromise; such difficulties as have presented themselves have been efficiently controlled by such agents as the non-restraint system recog-

nises, without a solitary departure. The application of a strait-waistcoat by day, or a strap at night, has also been dispensed with; and, if such contrivances there be, they are interred in the subterranean parts of the establishment, for the gratification of some future antiquarian. It is true no extraordinary cases have presented themselves, of any one obstinately bent on gouging out his eyes, or biting off his tongue, or standing on his head—cases said to be of occasional occurrence in America; but the number of actively maniacal, suicidal, and destructive patients admitted has been by no means small; and to have successfully grappled with them, without mechanical restraint, without encountering a single death by violence, or attempt at suicide, or a casualty more severe than a black eye, is no mean tribute to the efficacy of the treatment."

Dr. Conolly in his Eighth Report to the Visiting Justices of the Hanwell Asylum, Dec. 31, 1846, pages 23, 24, and 25, remarks:—

"There are still some asylums in England, Ireland, and Scotland, in which such means of restraint are employed and defended; and travellers from various parts of the Continent and from the United States of America, apparently prepossessed in favour of such ancient and forcible methods of control, continue to pay hasty visits to Hanwell, and to publish opinions condemnatory of the non-restraint system. In the annual reports of past years, when the experiment was but in an early stage of its progress, and when it was embarrassed by many difficulties, I refrained from engaging in any controversy on the subject; being satisfied that the results would furnish the best test of its being rational and judicious, as well as humane. If such results had not appeared, it would have been my duty to modify or abandon the system, as, in similar circumstances, it would have been my duty to alter or relinquish any other particular in the treatment of the patients. Now, after seven years' patient trial, during which the non-restraint system has been introduced into many other asylums, without the occurrence of any accident against which mechanical restraint would have afforded security, I do not think it desirable, more particularly, to notice the opinions of writers who have sometimes appeared to visit Hanwell more prepared to argue than disposed to observe; nor should I deem it necessary to refer to this part of treatment, if it were not that I consider it still requisite to remind those who are most anxious to adopt it, that certain conditions are essential to its being successfully maintained.

"One of the first of these is a properly constructed building, in which the patients enjoy the advantages of light and air, and a cheerful prospect and ample space for exercise, and for classification and means of occupation and recreation. The next is the constant and watchful superintendence of humane and intelligent officers, exercising free but considerate and just control over an efficient body of attendants. Other conditions are connected with such attention to the diet, clothing, lodging, and general cleanliness of the patients, as may exclude all avoidable sources of physical and mental uneasiness. Various employments, a certain extent of instruction, judicious religious attentions, and frequent opportunities of recreation, are indispensable and powerful auxiliaries. The whole treatment, management, and government of the patients and of the asylum must, in short, be primarily adapted to the cure or improvement of infirm and disordered minds and bodies, and as far removed, on the one hand, from the economy and organization of a workhouse, as, on the other, from the restrictions of a prison.

"In any public asylum constructed and conducted on these principles, and provided with proper resources against accidents incidental to all houses in which a number of insane persons are collected, the practicability and safety of the non-restraint system have now been satisfactorily proved by trials made in some of the largest of such institutions, and continued for several

years. Every year, in such asylums, shows the possibility of removing more restrictions, and of dispensing with some of the precautions for which several measures constituted the real necessity; so that in every year the comfort and freedom of the patients admit of some further augmentation, and their condition becomes more assimilated to that of the sane, except in points for which their malady intrinsically disqualifies them; and for which an eventual remedy is sought by the indirect operation of a treatment calculated to relieve the feeble from responsibilities they are unable to perform, and all the unavoidable excitements of social life which the morbidly irritable brain cannot endure."

These extracts having reached to an unexpected length, I am compelled to postpone the concluding part, in which I shall enter more minutely into Dr. Nicholson's charges.

King-street, Belper, Wednesday, Dec. 8.
(To be continued.)

SPASMA GLOTTIDIS.

By THOMAS BROWN, Esq. M.R.C.S., Castle Donnington.

On the 1st of Nov., nine A.M., a breathless messenger requested my immediate attendance on Miss H., Borough street, in this town. I found my patient (a young lady, aged twenty-four, strongly built and full of flesh), gasping for breath, supported in the sitting posture by two females, whose arms she convulsively grasped; her face was tumefied and livid, the countenance anxious, the vessels of the neck turgid, and the carotid artery throbbing violently; pulse 84, full and bounding; inspiration hissing, voice hoarse and weak, and her answers to my questions hurried; sounds in the chest normal, save the evidence of increased vascular action; some slight dyspnoea and hoarseness had been perceived a few days, but the orthopnoea had only manifested itself within the last few hours. Venæ sectio ad 3xx., which was tolerated. Appl. hirudine viij. gutturi.

Rx. Hyd. chloridi, gr. viij.; pulv. Doveri, gr. x. M. ft. pulv. stat. sumend. Antimonti potassio tartat, gr. viij.; tr. camphoræ comp., 3 ij.; mist. camphoræ, 3vj. M. ft. mist. cap. coch. Mag. l, secund. quaq. hora.

Eleven A.M. Symptoms continue urgent, but less imminent. Appl. empl. lyttæ nuchæ ex aure ad aurem.

Four P.M. Symptoms much relieved; there still remains distressing dyspnoea, but the patient is enabled to recline on the bed supported by pillows; the blister is beginning to act; bowels acted upon twice by the calomel.

2. Passed a restless night; perspired profusely; dyspnoea milder; pulse 70; evident depression from remedies; no vomiting or nausea; tongue furred; bowels sluggish.

Rx. Hyd. chloridi, gr. x.; pulv. rhei, 3j. M. ft. pulv. s.s. Postea horas duas hab. Pot. tart., 3ij.; pot. sulph., 3j.; tr. jalapæ, 3ij.; infus. sennæ, 3jss. ft. haust.

3. Slight dyspnoea remains; complaints of feeling very feeble and having a metallic taste in her mouth; bowels well acted upon.

Rx. Pot. nitratis, 3ij.; tr. myrrhæ, 3iv.; inf. rose, 3vj. ft. gargarisma sepe utend. Continue the mixture every four hours.

4. No dyspnoea; in other respects progressing to convalescence. Oint. ant. pot. tart.

Rx. Decoct. cinchonæ, 3vij.; sp. lavend. co., 3iv. M. cap. coch. duo mag. ter die. Pil. aloes co. myrrhæ, gr. viij. bis in die.

6. Miss H. was able to remove to her home in the country, ten miles distant, and has remained free from disease since.

CASE IN WHICH NUMEROUS LUMBRICI WERE EXPELLED FROM THE INTESTINES.

Communicated by H. HASTINGS, M.R.C.S. and L.A.C., Stokenchurch.

On the 13th ult. I was called upon, at one

o'clock in the morning, to attend B. Barney, aged thirty-eight years, who was represented to me as dying. When I arrived I found him suffering most excruciating pain; his countenance expressive of the greatest anxiety and suffering; eyes fixed; tongue white; thirst excessive; pulse 108; bowels constipated; urine scanty, and highly coloured. He lay upon his back; his knees drawn up; abdomen very tender to the touch, exceedingly painful, and hard; skin hot and very rough.

Upon inquiring into the case, I found that he had had, previously, slight attacks, but not so severe as to prevent him following his work (labouring). I ordered fomentations to the bowels; gave him chlorid. hyd. gr. iv. statim sumend, and, in two hours after, haust. cathart. 3jss. In the morning the bowels were freely moved and appeared slimy; pain rather easier, but fever little abated. Ordered him a diaphoretic mixture. Next day pain as aggravated as at first; bowels in the interim not opened; former pulv. et haustus repeated, and fomentations continued. About three o'clock, same day, passed all at once forty-five lumbrici; in the evening much better. Twelve o'clock P.M., again passed thirty more lumbrici, and next day five more, thus making in all eighty! measuring ninety feet!

Oct. 24. Patient recovering rapidly. Complaints of nothing save being at night annoyed with unpleasant dreams, fancying that he is lying among heaps of worms.

I am aware that a great deal of talent, ingenuity, and research have been exercised by both ancient and modern pathologists as to the theory of intestinal worms, but, so far as I know, nothing has yet been definitely agreed upon. Therefore, I shall forbear any observations thereon. But I cannot omit to make some remarks upon the curious train of symptoms which presented themselves in this case, and the therapeutic agents which were found effectual. I must confess that, from the symptoms, I was not a little puzzled to determine whether I should have recourse to bloodletting, as they presented to me something analogous to peritoneal inflammation. But the patient appeared to be anything but strong and healthy, ergo, I did not use the lancet. Perhaps, from the symptoms, some may be ready to question this; but my opinion is, the less we use the lancet in doubtful cases, so much the better. This case has certainly struck me forcibly, and has showed me how very cautious medical men ought to be in first thoroughly examining every ambiguous case, before forming a diagnosis, and pursuing a treatment accordingly. I think that in all such cases we ought to give the *vis medicatrix naturæ* the preference to the *vis medicatrix medicinae*. In this case I fancy that the former had a considerable influence.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF SCIENCES.

Meetings of Nov. 29; M. BRONGNIART in the Chair.

CHLOROFORM.—M. Gerdy communicated the results of his experiments on the new anæsthetic agent. M. Gerdy was of opinion that the inhalation of this substance should be performed with an instrument, because the contact of chloroform with the skin and lips often produced excoriations. In his experiments, as in those of Professor Simpson, unconsciousness was obtained more rapidly than by the use of ether. M. Amussat had also arrived at the same conclusion; but he had further remarked, in animals and in man, that chloroform, like ether, caused the arterial blood to assume a dark colour, and to resemble closely venous blood. M. Charrière presented to the academy for its approbation an inhaler which he had constructed for the exhibition of chloroform.

ACADEMY OF MEDICINE.

Meetings of Nov. 27 and 30; M. BÉGIN in the Chair.

LITHOTRITY.—M. Roux again addressed the

academy on this question; and M. Bouillaud remarked that the society was fairly tired of the discussion of a subject from which there seemed nothing to be expected. On the motion of M. Marjolin, the debate was closed.

CHLOROFORM.—Dr. Philippe, surgeon of the hospital of Rheims; Dr. Sandras, of the Hôpital Beaujon; and M. Delabane, a dentist, forwarded an account of their experiments on this substance. They had all been successful.

ALBUMINOUS URINE AFTER THE APPLICATION OF BLISTERS.—M. Bouillaud communicated to the academy another case in which the urine became albuminous after the application of a blister. The patient having died, the bladder and ureters were found to be lined with false membranes.

ANGINA PECTORIS.

The following case, with the anatomical preparation, was laid before the academy by M. Pédelaborde:—

A physician, aged sixty, enjoying habitually good health, was suddenly seized on October 27 with alarming symptoms of syncope and suffocation, together with pain in the sternal region. The paroxysm lasted only a few minutes, but recurred one hour after. The sounds of the heart were not changed. No further attacks took place during the next three days, when, on Oct. 31, a fresh paroxysm took place, during which the patient expired. On dissection the pericardium was found to contain 3x. of blood, partly coagulated. On the anterior aspect of the heart existed an ecchymotic patch, and a distinct fissure of the serous membrane. The anterior coronary artery was lacerated, and presented a series of dilatations and strictures. Several collateral branches were obstructed by ossifications.

Meeting adjourned at half-past four.

FACULTY OF MEDICINE.

LECTURES ON GENERAL PATHOLOGY, BY PROFESSOR ANDRAL.

CHAPTER I. (continued):

SIGNS FURNISHED BY THE INVESTIGATION OF THE DIGESTIVE ORGANS.

In the other regions of the mouth we find few signs of disease deserving of attention. The velum, however, may be modified in its motion, and deviated to one or the other side, a diagnostic sign of some importance, and which should always be consulted in cases of facial paralysis, and does not exist when that disorder is the result of a change in the cerebrum. The tonsils are often hypertrophied in lymphatic and scrofulous subjects; their secretion not unfrequently becomes fetid, and, being expectorated in a dry state, might, if the possibility of an error was not pointed out, be mistaken for tubercular matter. The lips are usually enlarged, particularly the superior, in scrofula; we also may notice an accidental increase of their size in asphyxia. The colour of the lips is changed in various diseases: in acute gastritis they are, like the tongue, red and dry; whenever the free return of venous blood to the heart is impeded, as in disease of the heart, or in the paroxysms of suffocation which occur in pulmonary emphysema, they acquire a livid and bluish hue; in the chill of intermittent fever, they are cold and pale, but that paleness is permanent in chlorosis and anemia, and is often better marked on the inner face of the lips than on the outside. The lips may be dry, or covered with a crust of desiccated blood, a circumstance often observed in fevers; after ephemeral fevers, the labial region is the seat of an herpetic eruption, which in ancient doctrines was considered critical of synocha; it is a singular phenomenon, which as yet remains unexplained in any satisfactory manner.

In fevers of a serious character, in meningitis, and when the nervous system is deeply affected, the movements of the lips are tremulous, and sometimes convulsive. In cerebral hemorrhage, ramollissement, paralysis of the portio dura, the mouth is deviated and dragged towards the side of the face which is not paralyzed, by the destruction of that muscular antagonism which maintained its rectitude. But the lips may be

deviated from their natural direction without the other parts of the face being paralyzed: this may happen in two very distinct cases:—First, in inflammatory softening of the brain, when muscular contraction (contracture) is observed on the side of the body opposed to the diseased side of the cerebrum; in such cases, similar contractions are also noticed in the limbs. Secondly, when the facial nerve is pressed upon and inflamed, the mouth is dragged by convulsive action towards the diseased side.

The gums are generally altered in acute disease in the same manner as the tongue and lips. Dr. Ranque, of Orleans, asserts that in typhoid fever they are constantly covered with a white pellicle of variable thickness. This sign does not exclusively belong to typhoid fever, but may frequently be noticed in acute diseases, accompanied with a considerable degree of debility. The gums are subject to passive congestions, attended with softening and hemorrhage: we have even seen hemorrhage, due to this cause, occurring in the morning, and mistaken for hemoptysis; the blood is mixed with saliva, and presents most of the characters of pulmonary hemorrhage. In scorbutic subjects the gums are also turgid and soft; they may suppurate in consequence of decay of the teeth; and in saturnine intoxication present a bluish fringe, a slate-coloured edging, of considerable value to the diagnosis.

Alterations of the teeth may point to certain local conditions of the mouth, or belong to acute diseases; in pyrexia, for instance, we find that typhoid fever causes dryness, and a fuliginous deposit upon the teeth, the enamel of which is often destroyed. Dyspepsia also changes their appearance. In scrofula, their form, colour, and direction are likewise modified, and they decay readily. Scurvy, syphilis, and the abuse of hydrargyric preparations are also causes which produce changes in the aspect of the teeth.

Examining the mouth in general, we may say that stomatitis is sometimes idiopathic, but more usually symptomatic of numerous and very variable morbid conditions of the system. It may be connected with gastro-intestinal diseases; thus aphthous stomatitis often points to dyspepsia, chronic gastritis, &c. Symptomatic inflammation of the mouth is more frequent in childhood, particularly if debility be present. Thus, after acute and weakening maladies, the gums, the tongue, the inside of the cheeks of children are covered with a creamy, half-fluid deposit, which, when removed, leaves the mucous membrane pale, or more frequently red and shining. In the last stage of pulmonary consumption of adults, in the diarrhoea or obstinate vomiting of little children, this form of stomatitis is often observed. It is also noticed when debilitating causes have acted upon the constitution before the invasion of disease; thus, when individuals have for a long time been deprived of good air, sufficient light, or nutritious food, pseudo-membranous stomatitis may make its appearance at the onset of any acute affection, and should always induce the physician to be very guarded in his prognosis. It is to the influence of these debilitating causes that we must attribute the enormous difference which exists between the mortality in the diseases of children in hospital and in private practice. Syphilis has a tendency to produce ulcerous stomatitis, and the effects of mercury upon the constitution bring on an inflammation of the mouth, attended with salivation and a characteristic fetid odor.

Passing from the mouth to the pharynx, we find here again that the redness of its mucous membrane often points to a general disease. In scarlatina, for instance, before any eruption has appeared on the skin, the fauces are congested and of a red colour. This hyperemia is generally not very intense, but it may increase, and, as in some epidemics, rapidly occasion diphtheritic inflammation or gangrene. This redness does not persist in the pharynx after the eruption has ceased so long as the redness of the bronchi after measles. It often happens in scarlatina that the eruption of the throat is much more marked than that of the skin; and, if an epidemic

were not present, an error of diagnosis might easily be committed. It is common, and, according to Bretonneau, constant, before croup to notice redness of the pharynx; and, consequently, the illustrious professor of Tours lays down as a rule that in all cases of the sort the throat should be cauterized, in order to modify the nature of the inflammation and to change its diphtheritic tendency. The observation is, doubtless, true in most cases, but we believe that M. Bretonneau went somewhat too far in stating this premonitory redness of the pharynx to be constant in croup; we have sometimes known the disease to begin in the bronchi, and rise thence to the larynx.

Vesicular and pustular eruptions may occur spontaneously in the oesophagus or pharynx, but in general they are the result of the exhibition of large doses of tartar emetic. Much depends upon the dose: when less than ten grains have been taken in the twenty-four hours we have never noticed these bad effects of the medicine, and we believe that dose capable of producing all the contra-stimulant results which can be expected from the drug.

Difficulty of deglutition, or dysphagia, shows itself as a sign of many diseases—of inflammations of the mucous membrane of the pharynx or oesophagus, for instance. It is transitory when the diameter of the tube is not diminished; permanent, on the contrary, when the passage is more or less strictured. Destruction or disease of the neighbouring parts may also produce dysphagia; thus, when the velum, tonsils, epiglottis, or larynx are affected, dysphagia appears. When the larynx is diseased, the voice is also altered, and cough and suffocation attend the efforts of deglutition. In syphilis we find chronic laryngitis bringing on dysphagia, and yielding to special treatment. Alterations of the parts situated near the oesophagus or pharynx may gradually extend to the latter, and occasion great difficulty in the accomplishment of their functions. This we observe in abscesses, tumours, caries of the vertebrae, &c. In aneurism of the arch or thoracic portion of the aorta, dysphagia is a frequent symptom. Professor Green, of Dublin, states that out of twelve cases of aortic aneurism, dysphagia was present in nine.

Organic disease may bring on communication of the oesophagus, with the trachea, the right bronchus, or the pulmonary parenchyma. The disease, usually cancer, may have originated in the oesophagus and the lung participate secondarily in the alteration. A case of the kind was published in the "Archives" of Oct., 1846, by Dr. Vigla; in this instance the voice was gone, cough was present, emaciation had taken place, and hectic fever occurred every evening: pulmonary consumption was diagnosed, and the error rectified only after dissection of the body. Instead of arising primarily in the oesophagus, the disease may originate in the lung—a circumstance observed in phthisis, and occasionally in gangrene of the lung. A case of the kind was recently observed by Dr. Boudet: a little girl, aged twelve years, was, after scarlatina, affected with pneumonia; gangrene of the lung took place, and on dissection the oesophagus was found perforated, and communicating with the gangrenous cavity through four minute apertures.

Dysphagia may have its cause in a physical or a dynamical change in the nervous system. Thus, in the first place, cerebral hemorrhage, or softening, or morbid alterations of the spinal cord, may occasion it. In diseases of the spinal cord, it is generally one of the latest symptoms, and has been preceded by paralysis of the limbs and of the abdominal muscles; but it may also be an early and a fatal sign of organic disease of the spinal marrow. Neurosis or dynamical changes in the nervous system may also, as we have said, occasion dysphagia. Mental emotions, such as anger or fear, may produce it; but it is met with also in hysteria, hypochondria, and hydrophobia, whether the latter be observed as a simple phenomenon of certain acute disorders, or as the characteristic symptoms of rabies

canina. In prolonged illness, where great prostration is noticed, the pharynx and oesophagus may be paralyzed, and permit the passage of fluids, as if they were inert tubes—a fact betrayed by the gurgling sound produced by fluids as they pass into the stomach; or real dysphagia may show itself as an atoxic sign of the most serious character.

We now turn to the study of the signs furnished by the infra-diaphragmatic portion of the digestive tube. The stomach is usually considered as the seat of two important phenomena, the alterations of which must first occupy our attention, viz., hunger and thirst; physiological differences are found in various individuals, with regard to the necessity for reparation: in childhood it is great and frequent; in the adult this necessity decreases; the aged require less food, but cannot bear prolonged abstinence. A sanguineous temperament, great muscular exertion, habit, the influence of a cold and bracing atmosphere, increase the appetite and the necessity for food; it is, on the contrary, diminished by opposite circumstances. In the pathological state, hunger may be increased, diminished, or perverted.

Morbid increase of hunger (bulimia) may be the symptom of gastralgia, or of an incipient organic disease of the stomach, which has not yet invaded its mucous membrane. When bulimia is connected with neurosis it is relieved by eating; but is, on the contrary, followed by pain, if it is caused by an organic disease, and if food be taken into the stomach. Bulimia sometimes accompanies chronic diarrhoea; it is often produced by the presence of tenia, and is mentioned as a premonitory sign of various diseases, and, finally, as one of the symptoms of convalescence.

Loss of appetite is more common in disease than the contrary symptom. Except in cases of pure neurosis, it is met with in most gastric affections: in simple, acute, or chronic gastritis, in bilious synocha, the appetite may persist, it is true, but cannot be satisfied with impunity; in cancer of the stomach, appetite is lost always at a certain period of the malady. The prolonged use of demulcent drinks also impairs the digestive powers of the stomach. In general, anorexia shows itself in the prodromate or in the first stage of acute disorders; whenever febrile excitement is present, it is also observed; but in hectic fever the appetite may still continue to exist. At an advanced period of chronic maladies, when great debility has been induced, or after considerable loss of blood, the desire for food usually ceases; sometimes, however, patients express a disgust for all kinds of food, and this disgust must be overcome by an exertion of will. Although no appetite whatever be felt, nature occasionally expresses its wants by epigastric anxieties and faintings, symptoms which are immediately relieved by the ingestion of food. Absolute loss of appetite may also result from over-exertion, from mental emotion, or intellectual labour; from the abuse of fermented fluids or of narcotics; it is sometimes observed in hysteria, some subjects remaining so long as ten, twelve, or even fifteen days without taking any nutriment; and in some cases of insanity the monomania consists in a resolute determination to take no food.

The appetite may, further, be perverted. Chlorotic and hysterical patients sometimes take a disgust to animal food, and a morbid desire for crude vegetable diet. Others acquire a fondness for substances which have no nutritious properties, and in this request the most unaccountable eccentricities are observed: we have, in one case, met with a patient who was in the habit of devouring paper; another who would constantly eat matches. In pregnancy these singular tastes are also frequently noticed, and in the asylums for the insane this perversion of the appetite is by no means rare. M. de Humboldt states in his "Tableaux de la Nature," that in the torrid zone earth-eaters are very common; and Dr. Levocher observes that in the Antilles the negroes frequently display a similar inclination.

In healthy subjects, thirst is observed only during meals; when it exists at any other time it may, therefore, be considered as a pathological fact. In general it is connected only with one form of gastric alteration, viz., congestion and its consequence, inflammation. When feverishness is present in any degree, thirst instantly appears. When the blood has lost some of its water, when any secretion is morbidly increased, or even accidentally—perspiration or urine, for instance, or abundant diarrhoea also—thirst makes its appearance. In diabetes mellitus it is a constant sign, but diminishes by the use of meat and stimulant diet, increasing, on the contrary, after the ingestion of vegetable food. In nervous subjects a peculiar form of disease is constituted by the mere increase of thirst: it is called polydipsia, a disorder more common in the female than in the male sex.

Thirst may occasionally be abolished—a fact of rare occurrence. It may also be diagnosed: thus the insane are not unfrequently found to have a perversion of the intellect which induces them to drink their own urine; and in some persons a singular tendency is noticed to periodical intoxication, brought on by an irrepresable desire, at stated intervals, for the use of fermented fluids.

D. McCARTHY, D.M.P.

Ununited Fracture Treated by Galvanism.—Mr. J. Burman, of Wath, near Rotherham, relates, in "The Provincial Journal," the case of a man, thirty-five years of age, a teetotaler, of robust constitution, who received a fracture of the leg by being thrown from his gig. The surgeon who attended him put the limb in a good position, and everything appeared to go on well, till on the removal of the splints it was found no union had taken place. Fourteen weeks after, when he came under the care of Mr. Burman, there was found a transverse ununited fracture of the lower third of both tibia and fibula; there was no formation of callus, and the fractured ends of the bones were quite movable, but could be readily adapted to each other; neither was there any inflammatory action about the parts, although, having been advised to rub the two ends of the bones together, he had very assiduously followed that advice. He was ordered a kind of boot made of sheet iron, which, when applied, might embrace the whole leg, ankle, and foot. This was well adapted to the limb by means of padding, so as to prevent any lateral motion—an object which was the more readily accomplished as the fracture was transverse; and that part of the boot which was over the fracture was made to turn back upon a hinge, so that at any time the injured part could be reached without disturbing the limb. With this apparatus firmly fixed, he was directed to take daily exercise in the open air; to partake freely of wine, porter, and animal food, and, when sitting, to have the fractured ends firmly pressed against each other, by means of a broad band passed over the knee and under the footboard, capable of being tightened by a strap and buckle, the leg being bent at the same time at a right angle with the thigh. In addition to this, for nearly half an hour every day, an electro-magnetic current was made to pass directly through the fracture by means of needles attached to the two poles of the apparatus, their points being inserted just under the skin, on each side of the fracture. This plan of treatment was commenced on the 9th of October; by the 22nd, sufficient inflammatory action had been set up to render the further application of galvanism unnecessary; and by the 30th, the deposit of callus was so copious, and the union of the fracture so firm, that the patient was permitted to return to his duties. The electro-magnetic apparatus used was a double-coil machine, exerted by two electrometers, on Professor Daniel's principle; two needles connected with this, being introduced obliquely just under the skin on each side of the fracture, thereby causing the galvanic current to pass directly between the ends of the fractured bone; and an acute pain was experienced when the circuit was just completed, but in a minute or two the pain became

bearable, and the patient was able to sit under it for from fifteen minutes to half an hour.

Poisoning by Vinegar.—Dr. David, of Montreal, relates, in "The British American Journal," the case of a woman who swallowed nearly a quart of common vinegar. She had been very dull and low-spirited for two or three days previously. When she was seen, two or three hours after taking the vinegar, she was in bed covered with a cold perspiration, trembling from head to foot, and apparently alarmed at everybody and everything about her. Her breathing was very laborious and hurried; countenance perfectly wild; pupils dilated; tongue dry and cold; pulse 96, and full; abdomen much distended, with extremely acute pain at the epigastrium and cordis on the slightest pressure. She knew no one about her, nor had she any recollection of what had happened from the time of taking the vinegar, which was about eleven o'clock at night. At one the inmates of the house were awakened by her shrieking for cold water, of which she had drunk an enormous quantity before Dr. David was called to see her. There was not any pain, heat, or constriction of the throat or fauces, but there were slight efforts to vomit. Two scruples of sulphate of zinc were given in a cup of water, which soon produced full vomiting with great straining. Full and repeated doses of carbonate of magnesia were ordered, and in six hours after she was much relieved, complaining only of headache, which left her after the operation of a dose of castor-oil. Two days after she was seized with a slight attack of continued fever, but is now doing well. The only case of poisoning which Dr. David has been able to find is the one related by Orfila, in the "Annales d'Hygiène," and quoted both by Beck and Christison. The experiments instituted by Orfila prove that common vinegar in large quantities was found destructive to dogs when vomiting was prevented.

Insanity Cured by the Use of the Trephine.—Dr. Robertson, physician to the Yarmouth Military Lunatic Asylum, relates the case of a sailor, aged twenty-three, admitted into the Cumberland Lunatic Asylum in February, 1845. Ten years previously he fell from the mast of a ship, and the accident was followed by an attack of mania. In six weeks he recovered his intellectual faculties, but continued so ungovernable in his temper and conduct that he was removed to the asylum. He there complained of frequent pains in the part of the head on which he fell, and he had the delusion that these pains were caused by his mother beating him. He was morose, taciturn, and insolent, entertained great dislike to his relations, and was subject to violent fits of passion. On an examination of his head a very distinct depression was discovered on the posterior superior margin of the right parietal bone, the situation to which he referred the pains. It was resolved that the depressed portion of bone should be removed by trephine, and Mr. Furness performed it, the patient bearing it well, and the wound afterwards healing without an unfavourable symptom. The portion of cranium removed was apparently healthy on both its surfaces. It adhered very firmly to the dura mater, requiring considerable force for its removal. It was altered considerably in form, appearing to have been indented rather than fractured, which is not improbable, seeing the accident occurred when the patient was only thirteen years of age. After the operation his conduct became in every way improved: he had no bursts of passion, was grateful for the relief afforded him, and answered civilly when spoken to. Since the operation he expressed himself as free from pain in the head. He was eventually discharged from the hospital, showing no symptoms of his previous malady.

Deafness in Scarlatina and Measles.—Dr. N. Morrell, in the Annual Report to the Board of Directors of the New York Institution for the Deaf and Dumb, remarks that in twenty-five cases of death from scarlatina, wherein deafness had been a common symptom, the lining membrane of the Eustachian tube, on being examined, presented a character similar to the throat and nostril, being more or less changed, probably

very red during life, but after death pale and thickened or softened, and uniformly covered with a thin glairy secretion, in which floated a great number of ash-colored shreds, probably changed coagulable lymph, certainly not the natural mucous secretion of these membranes. This state extended uniformly through the Eustachian tubes quite into the tympanum, in which some of this changed secretion was always discoverable. The membranes lining the external meatus partook of the state of the skin: the natural secretion of wax seemed to have been nearly or quite suspended, and the membrane covered with many minute points, from which issued a sero-purulent secretion instead of wax. In fifteen cases of death from measles, where symptoms of deafness occurred during their progress, the membranes of the Eustachian tube and tympanum exhibited, on examination, traces of red vessels ramifying in all directions, together with a remarkable dryness, as if the mucous secretion had been suspended some time before death. The membrane of the external meatus showed that the secretion of wax had been interrupted also. So the exanthemata affect every portion of the tegumentary system. The lining membranes of the auditory passages of the vagina, uterus, and bladder, suffer alike with the skin. In the cure of deafness produced by the exanthemata, syrup of sarsaparilla, made after the old formula—to which may be advantageously added the root of rumex crispus, and the tinctures of the bark of *prinos verticillatus* and *chymaphilla umbellata*—is a remedy of the first importance; next, the muriate of lime, an old remedy now much neglected; and lastly, iodine and its preparations as internal remedies. Blisters kept perpetually discharging, placed behind the ears or on the arms alternately, form the remedies to be applied externally. The fauces must be well rubbed with a smooth piece of alum twice a week, to be occasionally alternated with a solution of nitrate of silver, or, when the tonsils are prominent, with the solid caustic not too heavily applied. Lastly, the external meatus must be cleansed once a day with warm brandy, or warm brandy and water, or a solution of iodine, or a decoction of the bark of *prinos verticillatus*. Perseverance in the course for months, sometimes for more than a year, finally ends with complete success, if the treatment have commenced before disorganization of the external or internal ear.

Proper Cancer Cells.—Dr. Hannover says these cells are round or oval, and only appear angular when closely pressed together. They are pale and finely granular on the surface, and form vesicles filled with a very pale fluid, as can best be shown by setting the whole mass in motion, when the cells may be observed to roll. Their contour is never sharply defined. Within the walls of the cancer-cells we observe one or more nuclei, which proportionally are of considerable size. They appear somewhat darker than the containing cell, and are more sharply defined. We almost always observe several nuclei in one cancer-cell. These nuclei appear also to be hollow bodies. They are sometimes grooved in the centre, and exhibit a tendency to subdivision. The molecules of which the nucleus is composed cluster about the little, round, semi-transparent nucleolus, of which one or two are to be found enclosed in each nucleus.

Causes and Nature of Winter Sleep.—This occurs in animals with the most different forms and degrees of development of the nervous system, and with the most different forms of the vascular system. Nor in the blood is there any peculiarity which can be considered as a cause of winter sleep. Dr. Barkon, of the Royal University of Breslau, thinks that imperfect respiration is the principal condition of the phenomenon referred to. He found that young toads and hedgehogs do not grow in this state, and that regeneration of lost parts in snails is arrested. Retardation is the general character of the organic as well as of the animal functions. The fully developed animal passes slowly into winter sleep, and comes forth from it in a state of rejuvenescence. The tame marmot is found to

have forgotten its education, and to have become wild again. Winter sleep is not of the nature of asphyxia. Hedgehogs in winter sleep, if kept a long time under water, become asphyxiated; but the animal does not pass directly from the state of winter sleep to that of asphyxia, as from a lower to a higher degree of one and the same state, but first awakes, though imperfectly, and endeavours to escape. Again, the asphyxiated animal does not, on the return of life, pass through the state of winter sleep into the waking state, but directly into the latter, and only again falls into the winter sleep from the waking state. Nor has winter sleep any analogy to the embryonic state, seeing that in this, development is most active, whilst in that, the activity of development is arrested. Winter sleep differs essentially from common sleep. The most important differences between the two refer to digestion, growth, nutrition, reproduction, and formation of fat, almost all secretions, circulation, respiration, and evolution of heat. In common sleep, chymification goes on unchanged. Only at the beginning of incomplete winter sleep, or on interruption of it, does digestion go on. In perfect winter sleep the stomach is empty. If animals with their stomachs full are surprised by the sudden occurrence of cold, and put into winter sleep too soon, chymification stops. The common sleep of winter-sleepers powerfully promotes the formation of fat; during their winter sleep the fat is exhausted.

Thrush a Parasite.—Dr. Fr. Berg, physician to the General Children's Hospital, Stockholm, considers it to be perfectly established that a parasitic growth is a constituent part of thrush, and that this is to be seen at the very earliest appearance of the aphthae, and continues present throughout the whole of their existence in the mucous membrane. He does not consider these affections aphthous when this parasitic growth is not to be found. The aphthous parasite, he says, can propagate itself in appropriate menstrua out of the body, and this not only when the aphthous crust is mingled with various animal fluids, but also when completely separated and cleansed from them. Its growth in such cases proceeds not only in a temperature equal to that of the human body, but likewise in one that is much lower. Aphthae seem to require for their growth the presence of a body containing azote, such as albumen, as also that of materials for the generation of acid. Out of the body, aphthae seem to develop themselves in two different forms: either in that of a great preponderance of sporules, when a white filmy membrane forms on the surface of the fluid; or, again, they appear chiefly as stems ramifying through the fluid, or aggregated into a felt-like mass. A solution of potass will always dissolve the molecular deposit of albumen, leaving the fibres and cells of the parasite totally unchanged.

Anteroversion of the Uterus during Labour.—Dr. Müller, of Hamburg, having been called to a woman in the country said to have been three days in labour, found the parts of the child unusually distinct on examination *ab externo*, while the most careful examination could discover no os uteri. The woman was small, and of a lax habit of body, and the child seemed only to be covered by the abdominal parietes. Abdominal pregnancy was diagnosed, which was confirmed by two older and more experienced men, called in for consultation. The question of the Cesarean section was already agitated, and anxiety as to what was to be done with the placenta was strongly felt, when one of the advisers recommended a search after the os uteri. After great exertion, it was discovered on the fifth day of labour lying above the promontory of the sacrum, and sufficiently dilated to allow the membranes to protrude, and the child to be distinctly felt. The nature of the case being discovered, the woman was placed on her hands and knees, the uterus then raised by a towel, the membranes ruptured, and the child extracted by the feet. Both mother and child did well.

Birth of Disproportionate Twins.—**Inefficacy of Ergotine.**—Drs. Stadler and Hensinger relate

the case of a woman who, in the pregnancy of her second child, received a blow on the right side of the abdomen on March 18, from which she narrowly escaped abortion. A fixed pain in the right hypochondrium and a constant bearing down of the bladder remained, however, throughout the pregnancy, which, otherwise, proceeded normally. During the night of the 2nd and 3rd of October she was delivered of a weakly and asphyxiated male child, which was easily revived. The placenta was returned, and, after several hours' violent vomiting, uterine hemorrhage occurred, with pain in the uterus, especially on the right side. Her face was flushed; skin warm and moist; pulse 80, and full; the uterus extended to the umbilicus. On examination the umbilical cord was found lying in a mass of coagulated blood, and on removing this a solid body was felt, which was found to be a three months' foetus, measuring 4½" from the crown of the head to the foot, and had evidently been long dead; the sex could not be discovered. The foetus was connected by a withered cord six inches long, to an evidently newly separated and normal placenta, measuring in diameter 4", and in thickness ½". The placenta of the first child being retained by spasmodic contraction of the neck of the uterus, ext. sec. corn. aquos. (ergotine) was administered, eighty grains within ten hours, two to five grains every half hour, but without effect. The bleeding continued to recur in sudden gushes till four P.M. of the 3rd, when the placenta was removed by the hand; a small portion, however, was retained, which came away next day without hemorrhage. No adhesion of the placenta was found, nor any valve in the uterus. Metritis occurred, but the mother recovered perfectly. It is considered that the children were the product of one impregnation; and that from this and other failures ergot must be considered as a most uncertain medicine.

REVIEWS.

On the Inhalation of the Vapour of Ether in Surgical Operations: containing a Description of the various Stages of Etherization, and a Statement of the Results of nearly Eighty Operations in which Ether has been employed. By JOHN SNOW, M.D. Lond. London: J. Churchill, 1847.

Scarcely have six weeks elapsed since Dr. Snow's work before us issued from the press, and since that time a new anæsthetic agent has been discovered, which promises not only to supersede the vapour of ether in surgical operations, but those complicated apparatus which were considered necessary to bring a patient effectually and quickly into the state of insensibility. Surgeons had begun to feel that there were powerful objections to the use of ether in capital operations, and many were consequently performed without the patient being compelled to inhale the intoxicating vapour. The interest which the discovery first excited had greatly declined, and the medical periodicals rarely contained announcements of limbs amputated, stones extracted, or other great surgical feats performed on the human body, without those attendant sufferings which were wont to accompany the use of the knife.

Chloroform has not only superseded ether, but has also taken considerably from the interest and utility of the work before us; still, as the author has had very great experience in the administration of the vapour of ether, his opinions upon the effects produced by it are worthy of consideration.

He has divided these into four stages or degrees, acknowledging at the same time that the division is arbitrary, as the different stages run gradually into each other, and are not always clearly to be distinguished. In the first degree the person retains a correct consciousness of where he is, and what is occurring around him, and a capacity to direct his voluntary movements. In the second, mental functions may be exercised, and voluntary actions performed, but

in a disordered manner. In the third degree there is no evidence afforded of mental functions being performed, and therefore no voluntary motions occur; muscular contractions, however, in addition to those concerned in respiration, may take place, as the effect of the ether or of external impressions. In the fourth degree there are no movements seen except those of respiration, and they are incapable of being influenced by external impressions. In the fifth degree (not witnessed in man), the respiratory movements become difficult, feeble, or irregular. Patients often experience pleasing sensations in the first degree; but in this stage Dr. Snow considers that it is not practicable to perform operations, without the absence of pain. Even in the second degree a surgical operation would cause pain, and it would be more difficult for the surgeon to operate with this amount of etherization than without ether. There can be no doubt that in this stage operations have been performed, and the patients have in consequence endured a great amount of physical suffering, the recollection of which has passed away with the influence of the vapour. In the third stage the performance of an operation might cause the patient to groan and flinch, but in this stage he utters no articulate sounds. If this stage be not well established, the first cut may cause a sudden contraction of the whole muscular system. If the exhibition of ether is discontinued in the third degree, the patient speedily goes back into the second degree. In the fourth degree the patient is passive under every kind of operation. The eyelids fall down over the eyes, or remain as they are placed by the finger; the breathing is deep, regular, and automatic, and there is often snoring and blowing of the lips in respiration. This degree seldom continues more than two or three minutes after the process of inhalation is left off.

Dr. Snow considers that a patient may be kept under the influence of ether for a considerable length of time without any serious consequences resulting, and he has met with but few cases where complete recovery has been delayed. This, however, has not been the experience of all who have administered the vapour; and some practitioners have been fearful of employing it, from the circumstance of their having had difficulties in this respect.

The experience of the author has been considerable, for he tells us, "The patients to whom I have given it have been of all ages, from early childhood to nearly eighty years—six of them being upwards of seventy. They have been in the most different states of general health: two or three had symptoms of tubercles in the lungs; one had extensive disease of the heart; two or three had been subject to attacks of congestion of the head: and yet there have been no ill consequences from the ether in any case, and not even any unpleasant effects to counterbalance its advantages, except sickness and vomiting in a few instances." He admits, however, that there are certain states of the body in which ether acts less pleasantly and favourably than in others; but that it fortunately happens these states are those in which patients are seldom found who require operations. Those of robust health are occasionally less promptly and easily made insensible than others, and are more liable to excitement in the second degree of etherization, and to struggling in the third, and often suffer from headache afterwards. These persons are thought not often to require even a trifling operation, and should they on account of an accident require to come under the hand of a surgeon, the temporary depression produced by the injury and usually, also, a loss of blood, would serve as a preparation. On the other hand, insensibility is produced with great ease in persons debilitated by long illness. Children, also, are considered very favourable subjects for ether, being quickly brought under its influence, and recovering from its effects promptly.

Dr. Snow states that "the blood that flows in operations under the influence of ether is not much altered in colour. The blood which spirits

from a divided artery is sometimes of its usual vermilion tint at the very time when the inhalation is going on; frequently, however, under these circumstances the arterial blood is rather less bright than usual, but the venous blood being at the same time less dark than common, the flow of mixed blood is of the ordinary colour of such blood, and the patient's lips remain unchanged in hue. It has been only when the patient has been holding his breath, or coughing, that I have observed the arterial blood to be of a dark colour; and I consider that those writers who have described it as being usually or always of a venous appearance, must have used inhalers that did not allow of a proper supply of air. The blood always coagulates on the floor of the operating theatre, and the black blood which flows during an amputation when the tourniquet is applied constantly becomes afterwards red on the surface, from exposure to the air. There has not been any considerable secondary hemorrhage, except in one case, after an amputation; and, therefore, I cannot look upon ether as causing any increased liability to it; nor, indeed, is there anything to prevent every vessel large enough to require a ligature being tied at the time of the operation, for there is a good pulse—a better pulse, indeed, generally, than there would be if the operation were performed without ether."

As the value of an anæsthetic agent in surgical operations can only be determined by the ultimate success of the cases on which it has been employed, Dr. Snow very properly gives a list of all the operations in which he administered the ether in St. George's and University College Hospitals. We find from the tables, that out of twenty-six amputations there were five deaths, which is a little below twenty per cent. This is lower than the average mortality after the removal of diseased limbs. Dr. Lawrie's return of the Glasgow Infirmary gives twenty-four per cent. There are four cases of lithotomy in the table, all of which ended in recovery. In six operations on the female breast, in which the whole gland was removed, all the patients recovered. Out of fifty-six at St. George's, there were but four deaths; and after twenty-two operations in University College, but two deaths. The results, therefore, so far as they go, are satisfactory.

We have not entered into a description of Dr. Snow's apparatus for the administration of ether, as the introduction of chloroform as an anæsthetic agent will supersede, to a very great extent, the use of instruments; and we are glad to find that our author, at a recent meeting of the Westminster Medical Society, fully admitted the superiority of the newly-discovered agent to ether. He there stated it as his opinion, that the action of chloroform on the nervous system was identical with that of ether, and that he had produced the same effects on animals by both agents. At St. George's Hospital he administered the chloroform with his usual apparatus, in an amputation of the breast; the water-bath being 55°, and the quantity of vapour in the air inhaled not more than ten per cent. by measure; yet the patient was ready for the operation in less than a minute, and it was performed without the least sign of pain, being equal to the best cases of etherization. Only one fluid drachm of the material was used, although about ten fluid drachms of ether would probably have been used in the same operation. Dr. Snow, himself, has inhaled chloroform until he has become unconscious, and was very sick afterwards, as on the only occasion on which he inhaled ether to the same extent. He has ascertained the quantity of vapour of chloroform that air would hold in solution at various temperatures. The following table shows, according to his experiments, the quantity that 100 cubic inches of air will take up:—

Temp.	Cubic inches.
50	9
55	11
60	14
65	19
70	24
75	29

80	36
85	44
90	55

The quantity of this vapour inhaled by a patient at ordinary temperatures was only about a quarter as much by measure as there would be of ether, being, however, nearly twice as heavy, there was nearly half as much by weight. Dr. Snow prefers an apparatus, to the simple means recommended by Dr. Simpson, of a sponge or handkerchief.

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SATURDAY, DECEMBER 11, 1847.

THE CHESTERFIELD UNION.

THE slightness of the notice which we last week took of the motion submitted to the Chesterfield board of guardians was founded upon the idea, which subsequent facts have not supported, that the resolution was too absurd to receive a minute's consideration from any head out of Bedlam but one—his that proposed it. That excellent *guardian* was "indignant" that medical men should "meet;" "felt surprised" that, suffering, they should complain; and, knowing about as much of literature as he appears to know of common sense, of common justice, or of common charity, must needs perk the expression of his ludicrous and diseased feelings before his board of guardians, and, through them, before the country. We regret to find that this singular gentleman is not singular in his anti-pauper insanity. His brother guardians, with more literature, have shown just as little learning, and, while throwing out much that was objectionable in the form of his propositions, have accepted all that was hateful in their substance. The following is the document agreed to by the Chesterfield board of guardians:—

"TO THE POOR-LAW COMMISSIONERS FOR ENGLAND AND WALES.

"GENTLEMEN,—The Board of Guardians of the Chesterfield Union having learned that a combination of certain medical officers, acting under the poor-law, has been formed with the avowed object of making an increase of their salaries compulsory upon the several boards by whom they are appointed, beg leave to state the reasons which, as it appears to them, render any regulation or enactment having that object, at least for the present, unnecessary or inexpedient.

"First,—We think that the medical officers in question have no *just* ground of complaint; because their connection with their respective boards is simply of the nature of an agreement betwixt two parties, whereby the one undertakes to perform a specified work for a stated sum to be paid by the other—this agreement being terminable at the option of either party. And if it be so that the competition which exists in the medical profession reduces the standard of prices, as it does often in similar cases, even below the remunerating point, we think it would be more reasonable to let the medical practitioners right themselves in the natural course of things, than that a board should be compelled to offer more for medical services than the common market price; unless, indeed, it can be shown that the usual mode of dealing produces an obstacle and manifest evil in this particular case.

"Secondly,—Although we are prepared to admit that the money payment made to medical officers by boards of guardians is of itself, *apart from other considerations*, sometimes clearly insufficient as a remuneration for their services, we cannot forbear noticing that whenever a vacancy occurs there is seldom any lack of duly qualified candidates for the office, and often much pains taken

to obtain it, thereby proving to us that, in addition to the money payment, there are some *indirect* advantages annexed to the office which in the estimation of medical men are of no inconsiderable amount.

"Thirdly,—We think it is not yet proved that, whatever be the evils which are found to exist under the present rate of salaries to medical officers, the same would not also remain under an increased rate. We are of opinion that every case of neglect or wrong treatment on the part of medical officers which has come under our notice would not have been quite so likely to occur under a more liberal scale of remuneration; and most anxious as we are at all times not to let any notion of a paltry economy hinder us from supporting alterations which will be certainly beneficial to the *poor*, we declare, notwithstanding, that we know of no single advantage that we can positively ensure to *them* by increasing the salaries of the medical officers.

"Lastly,—We believe that the medical relief at present furnished under the poor-law will be found in the main to be superior to that which the poor have enjoyed at any former period; and we earnestly repudiate the notion that the defects of the present system, whatever they be, are to be attributed to the inadequate remuneration of the medical officers."

A circumstance that may well excuse on our part "the surprise and indignation" so thrown away by the Chesterfield guardian, is the fact that a meeting like that of the Convention could have stimulated any body of men not out of their senses to such a measure as that adopted by the Chesterfield board of guardians. The meeting was not aggressive. The Chesterfield board escaped at it all animadversion. No one heard a word descriptive of the very peculiar principles of honesty on which it now appears to guard its poor and pay its doctors. Then what could have stimulated the men to the extraordinary act of buckling on their armour to tilt at our windmill—uninvited to bring to bear upon us all the troublesome apparatus of fierce and horrid war? Certainly the *animus* which makes them go off, so to speak, at half-cock against us, is one of the most incomprehensible of psychological phenomena developed since the days of Don Quixote; and, if it happen that the due care of their pauper poor leaves them a leisure which they do not know how to make better use of, they would confer a favour on poor-law surgeons, on themselves, and, indeed, on science generally, by devoting their extra time to the communication of their mental experience to some Conolly, or Costello, or Sutherland, to whom new psychological phenomena are matters of curious and useful investigation.

These gentry offer "*reasons*" why a change is unnecessary or inexpedient, "*at least for the present.*" We presume from this that they are not quite so sure as to what may be necessary and expedient at an early day; and it is curious, that while they limit their objections to a change in the present, all their arguments, if they have any value, apply generally to the future. "Four" are the reasons they deign us—the first being so effectual, if accurate, as to make the other three quite supererogatory. "First," say they, "the medical officers have no *just* grounds of complaint." Now, why have they not? Because, forsooth, a bargain has been made! Then, "if one won't do it another will." Then "they are not sure that better payment would secure better attendance"; and, lastly, "doctors now give the poor better attendance than ever they did"! So that, apart from the absurd ludicrousness of those gentlemen, we have this constant characteristic continually: that wherever there is matter of fact there is *falsehood*, and wherever matter of reasoning a want

of logic. A bargain does *not* imply its own justice. There are bargains of all classes of moral worth, and, if ever there was one which involved immorality and wrong, it is the bargain which the medical officer is compelled to enter into with such hard-fisted guardians as those found at Chesterfield. Not more to be pitied is the man in embarrassment left at the discretion of the grinding usurer. The guardians have entirely the responsibility of the justice or injustice of the bargain, as they alone have the freedom of dictating its terms; and if they take advantage of circumstances, to extort from the medical officers an undue and an unfair consideration in time, in talent, and in commodities, for their money, they commit more than single injustice to the contracting party whom they defraud, for they assume on their own shoulders all those destructive consequences to the pauper sick which will inevitably follow a dishonest contract for their attendance. The very grounds, therefore, on which they base the justice of inadequate payment, are the very grounds which destroy their argument. The guardians seem conscious of this fact, for they admit that, if this mode of dealing produce an obstacle and manifest evil, it ought to be altered. Can it be doubted for a moment, that medical men receiving for their attendance and drugs, payments which do not even cover the expenses of the latter, cannot afford to supply by themselves or others all those agencies which a complete and satisfactory attention to the poor would require? And is it not in human nature that the unpaid will under-work, and that the man of good principles, feeling that the duties imposed upon him are not only imposed upon him by verbal contract, but by adequate remunerative sanction, will fulfil them? Besides, medical services can never be made a subject of contract on free-trade principles like the subjects of ordinary merchandise. Boards of guardians want in their medical officers not those ordinary commodities of which they themselves are competent judges; they want services at once enlightened and confidential; they want trust, skill, and character; and these are elements not to be provided by any system which recognises the person with the cheapest price as the best man. Character is no element in the commodity of the butcher or the baker, although even in their case, if beef and bread were offered at half the prices they must cost the venders, boards of guardians—the Chesterfield board always excepted—would recognise in such tradesmen, men too foolish or too roguish to be encountered in commercial dealing.

As to the argument that there are indirect advantages to be derived from a poor-law appointment, it is simply false, and, if true, would imply dishonesty in any one who should take advantage of it. The board of guardians require certain services, and, as men of reason and of candour, should be ashamed to accept them at any price below that which a reasonable estimate of their value would fix. Had they paid treasurers as they have paid secretaries and clerks, they would see at once that any system which would offer such appointments to the lowest bidder might secure temporary and apparent pecuniary economy, but would neither permanently serve the funds nor answer the obligations of such bodies.

Only one further statement is necessary for these literary guardians of Chesterfield. So fond are they of their intellectual progeny that, at their own expense or *that of the ratepayers*, this document has been sent free to every board of guardians!

THE ROYAL SOCIETY.

OUR readers have no doubt read with delight Dr. Roget's graceful address to the Royal Society (a)—an address made interesting to the scientific world by the important fact it announces, viz., his intended resignation of the post which he has, with so much distinction to himself and English science, held for the last twenty years. Dr. Roget's words have, of course, been daringly garbled by the Marshall Hall clique, and we are thus tempted to some little notice of the authorized misrepresentation that has been published on them.

We are prominently told that, on the conclusion of Dr. Roget's address, the Marquis of Northampton "*instantly* rose to explain." Now, first, he did not rise "*instantly*;" and, secondly, there was no explanation needed, or, indeed, given. The marquis, at a later stage, entirely limited his observations to the simple announcement, that he wished it to be understood that Dr. Roget had not *actually* resigned, but simply stated his intention of doing so next year, his lordship's object being to offer to the society some apology, as it were, for not proposing at that meeting the thanks of the Royal Society to Dr. Roget for his long and valuable services.

As to Dr. Roget being *pale* and *evidently deeply affected*—another cause of congratulation to the clique—the circumstance, if true, would be to us no great matter of surprise. Human nature must be obdurate and unimpressible indeed which, visited by the recollections of the malignity which has for some years been vexing and annoying a worthy man, could have sustained the retrospect without some little emotion.

We are again told, that "that there has been, for the past year especially, a general feeling of the necessity for Dr. Roget's resignation, if the credit of the society was to be preserved or retrieved." Need we say that this is *most* unfounded—most unfair? We know the *few* fellows who have, "for the past year especially," wished for Dr. Roget's resignation, and we know why. Do they—dare they express a wish to have their names, their motives, their *doings*, published?

But, then, the secretary is the "guardian of the honour of the society." Surely Dr. Marshall Hall and Dr. Lee would hardly impose upon Dr. Roget a responsibility which *their* fellowship must make so heavy? Honour! exclaims Dr. Hall, with the Middlesex Insurance Company as his referee! Honour! says Dr. Lee, with the Hunterian drawings backing his appeal! Well may the old proverb insist on "*honour*" under the most hopeless circumstances, and most unfortunate companionship!

We have, then, a statement, that "some of Dr. Roget's supporters proposed an increase of salary." Of course it is utterly false.

Much is added about a certain mysterious "baleful influence on anatomical and physiological science," which Dr. Roget has exercised. *Latet dolus in generalibus*; and your worst characters, will always have most verbal love of humanity, science, &c. Is it possible that the baleful influence to science was a certain baleful decision to the clique, by the Committee of Physiology, and by the Council, by which signal justice was done to a certain trio?

On the cool effrontery of assuming that the clique is "the press," and that "the press" has terminated Dr. Roget's scientific career, nothing need be said. The Secretary's address declares,

(a) *Medical Times*, Dec. 4.

"I retire in time," says Dr. Roget, "that I may devote the remainder of my days to science, to which I have always been particularly attached."

After twenty years' service the retirement of a worthy servant is no unlikely event: and it would be to little purpose to enlarge on the ill taste which can exult in such an event as the personal triumph of a duet of malignants, who audaciously lay claim to the circumstance as the creditable result of their suppositions influence.

MEDICAL REFORM FOUNDED ON PUBLIC UTILITY.

THE important subject of Medical Reform will again speedily be brought before the supreme Legislature, and certain measures proposed, in order that they may be enacted into laws, which shall for the future regulate the affairs of the profession in this country. Various attempts have been made at different times, and by different individuals, either holding official situations under the Government or not, to induce the Legislature to enact laws, which they who have drawn up bills have offered as the only means of advancing the interests of the science of medicine. Many of these have been marked by the most glaring imperfections, their authors either not understanding the great subject on which they have written, or being moved by some narrow principles which would rather advance certain personal interests, to the injury of the medical profession and the public. Any one who has examined the subject with moderate attention must acknowledge that it is beset with numerous difficulties, and that these can only be effectually overcome by enlightened and persevering efforts. It requires master-minds to understand reform in all its bearings, and indomitable spirits to carry it through to a successful termination.

Upwards of thirty years the medical profession has been in an unsettled condition, and more than one Home Secretary, who has attempted to do something to remedy its grievances, has been compelled to give up all attempts in consequence of the utter impossibility to effectually reconcile the conflicting interests which appear to be involved in the undertaking. Numerous abuses amongst us have become venerable from antiquity, and they have acquired additional strength in consequence of their being sanctioned by some one or other of the chartered medical institutions. These have hitherto proved strong opponents to the progress of Medical Reform, as they have considered it their interest to maintain in all their integrity the present order of things, and, animated by a spirit of selfishness, they have become apparently insensible to the feelings of pity or of shame. Possessed of power, they have employed it for ignoble purposes, and in the nineteenth century they have become burdens too grievous to be borne by an enlightened and liberal profession.

We must not place upon medical corporations, however, the entire blame of having prevented the Legislature expunging from the statute-book injurious enactments and substituting for them wholesome laws; the fact is, that the liberal members of the profession have not taken the right ground to enlist strongly in their favour public opinion. We cannot blind our eyes to the truth that, in our struggles for emancipation, the people have looked on with comparative indifference, and their apathy has been produced by their ignorance of the relation existing be-

tween sound medical reform and their own welfare. This circumstance has been nearly overlooked, or at least has not been brought prominently forward, by the advocates of a liberal policy; and the consequence is, that, up to the present time, the public has regarded medical reform as interesting to those only who are within the pale of the profession. Nay, more, there have been some dark suspicions entertained occasionally that medical men, in seeking to procure certain changes amongst themselves, with the sanction of the Legislature, have not in view the welfare of the people, but simply their own worldly interests.

It is to be regretted that many speeches and pamphlets on medical legislation have been the innocent means of leading the non-professional members of the community to suppose that their interest has never been consulted; and, indeed, on a perusal of some of these productions, we cannot avoid arriving at the conclusion that the authors themselves had but crude notions of the relation of the subject to the public welfare. In too many instances the question has been discussed upon mere professional grounds, and it has been apparently forgotten that, in order to accomplish medical reformation, it must be urged upon the plea of public utility. Some have been foolish enough to seek merely a greater security against the encroachments of unlawful practitioners, while others have with more enlarged vision advocated still further the necessity of a more liberal education and stringent examination for those who are to become the future practitioners of medicine. These have been considered necessary, first, to prevent the profession from being overstocked; and, second, to increase its respectability in society. The objects contemplated are good, so far as they go, not simply because they will confer certain benefits on a particular order of men, but because every class of society must be benefited by their being attained. Laws only are beneficial as they contemplate the advantage of the whole community, and to enact any which will only benefit a particular class would be to establish a monopoly which would confer privileges on a few to the injury of many.

It is a singular circumstance that many of the members of the medical profession in France, in seeking to obtain a measure of reform for themselves, were charged with a spirit of monopoly by a member of the House of Peers, Count de Montalambert. In a speech which he delivered to the French Chamber of Peers, on the subject of medical reform, on the 5th of last June, we find him using the following language:—"I cannot conceal the fact that, with few exceptions, such as the memorial of the graduates of Montpellier, and an essay by M. Loreau, on medical practice in the country, I found in the publications sent to us by medical practitioners little else than the inspirations of a corporate feeling—the reasonings of a caste, the selfish, almost greedy, demonstrations of a trade, which have shocked me. It is easy, indeed, to plead a cause in a narrow spirit, but this is not the way to gain and excite the sympathy of legislative assemblies, whose duty is to watch over the welfare of the general body of the nation, and not yield up the commonwealth to the depredation of special interests within its bosom. I will even admit to your lordships, that after rising from the perusal of all these trashy writings, were I not restrained by the respect I owe this illustrious assembly, I would gladly seek the works of Molière and

Lesage, the only answer these doctors deserve. I should thus, at least, make myself some amends for the weary labour I have undergone in wading through pages, where the only question is about the greater or smaller amount of doctors' fees, or the power and profit of medical corporations. Let me, however, be understood not to speak here of the time-honoured profession of physic, but only of such of its members as have taken part in these discussions."

This is the language of a man who had deeply studied his subject, and who, in many parts of his address, enunciated principles which ought to form the basis of all medical legislation. He was offended with many who had stood forth as champions of the profession, not because they girded on the armour to fight in a righteous cause, but in consequence of their erroneous views and sectarian principles. Taking their own statements as criteria from which he might form an opinion, he arrives at the conclusion that they are less concerned to promote the interests of the public, than to secure for themselves some great and permanent advantages. Such champions he indignantly rebukes, while he pays a well-merited compliment to the science of medicine. The peer of France should teach English medical reformers an important lesson, not to advocate their cause upon the narrow basis of professional aggrandizement, but upon the broad one of public utility.

All their demands can with the utmost propriety be urged by this important plea, for the members of the community are the parties who must be benefited by an improved system of medical polity. What is now sought is a better system of corporate government, a better system of medical education, and improved means of suppressing quackery. The members of the profession, in their endeavours to elevate their own condition, offer to society additional guarantees for the physical well-being of all its members. Chartered medical institutions were originally founded for the express purposes of preventing ignorant persons from exercising the healing art, and for promoting the cultivation of medical science. They have not faithfully discharged their important duties, and hence some alteration is imperatively required. At the present time the public are robbed and injured to an alarming extent by unprincipled men, who boast of the possession of nostrums which will cure the most fatal diseases. The members of the profession seek to restrain these unrighteous acts, and the parties who suffer injury in their purses and constitutions ought to know that, this accomplished, the most important advantages will result to themselves. It is a question whether quackery, as it now exists in this country, is at all injurious to the pecuniary interests of medical men. It may be otherwise: but of this there can be no doubt, that ignorant charlatans thrive at the expense of the unwary public.

Medical reformation is, therefore, not a thing whose benefits will be confined to a particular order, but extended to all classes of society. Upon this ground the profession should seek their support, and, this once obtained, all difficulties will be speedily overcome.

MEDICAL WITNESSES IN CORONERS' COURTS.—THE RELATION OF A SUMMONS TO A FEE.

"*Res magna est.*"—TERENCE.

THE friends of the profession are always known by the kindness which they manifest towards

its members; and its enemies can only be discovered by their hostile actions. It is possible for words of kindness to escape the lips of those who have not our welfare at heart; these, of course, no wise man would trust, when their actions more plainly declare that they are uttered merely with the intention to deceive.

The medical profession have had many professedly their friends who, if we are to judge by their conduct, have no pretensions to that character. It would be an ungracious task here to endeavour to analyze the motives of these individuals; and it is no pleasant undertaking, though it is an imperative duty, to place before the medical public sins against its members, committed either by corporations or individuals.

It has been the fashion for some time past for the medical periodicals to write in favour of a fair remuneration being granted to medical men for their important services. Justice and the interests of the public demand this, and we feel a pleasure in beholding the efforts of any to advance so desirable an object. It has been the hard fate of medical men to have experienced acts of oppression from persons in authority, and these have become in many instances so galling as to force the members of a peaceful profession to stand up in the defence of their just rights, and for the maintenance of their honour. That poor-law guardians should endeavour to obtain for parishes the services of medical men at a low price excites in us no astonishment, and credit must at least be given to most of them for not acting hypocrites in their attempts to curtail the fees of medical men; but we do feel indignation when other official persons, with less pretensions to liberality, should be found displaying a parsimonious spirit towards them.

Our attention has been recently directed to a dispute which has arisen between Mr. Robert Synnot, surgeon, of Cadogan-place, and Mr. G. S. Mills, the deputy coroner for Middlesex. It is a matter which interests all general practitioners, and which was to have been settled in the Bloomsbury County Court. It appears that, in September last, Mr. Synnot was called to see a child which was taken suddenly ill and died, and that he proceeded the next day, without the coroner's authority, to open the body. When he arrived at the residence of the parents, who were anxious that the cause of death should be ascertained, he found there the parish constable, who had, without the surgeon's knowledge, informed the father of the deceased that he intended applying to the coroner to hold an inquest. Without being armed with authority, the man in office desired Mr. Synnot not to touch the body, an order, however, he refused to obey, and so he proceeded with the *post-mortem* examination.

Some days afterwards a warrant was brought to him, commanding him to attend an inquest, then sitting, to give evidence as to the cause of death. This summons was obeyed, and evidence strictly medical was given, upon which, it appears, the jury returned a verdict. At the conclusion of the affair, however, when the fees came to be paid, Mr. Deputy Mills, the *locum tenens* of Mr. Wakley, refused, not only to give the usual sum for a *post-mortem* investigation, but also for the medical evidence. Feeling himself aggrieved at this circumstance, the medical witness wrote to the friend of the profession, Mr. Wakley, claiming remuneration, not for the autopsy, but for evidence as a surgeon. This, he states, was refused, and no grounds shown for the refusal. Mr. Synnot, with praiseworthy re-

solution, determining to see the matter out, summoned Mr. Mills to the County Court, whose reasons for not paying, Mr. Synnot gives, in one of the weekly journals, in the following words:—"First, I opened the body in contempt of the coroner. This I deny, as the body was not under the coroner's protection at the time I made my *post-mortem*. Secondly, he says, I attended and gave my evidence on an *ordinary summons*, and not on a *medical one*. This I did through ignorance, but whose fault was that? If I had for one moment suspected that such an unfair advantage would have been taken of me, I should most certainly have refused to appear till I was properly summoned. If the coroner had sent me a verbal message I should equally have attended. And I believe that many medical men have attended to a verbal message from the coroner, and been paid the usual fee; but I shall be wiser for the future." We have known many instances of this kind, and no demur whatever made to the surgeon receiving the fee allowed by law. It is necessary, however, that all members of the profession should now be on their guard, lest when summoned to attend a coroner's court, and the moment comes for payment, they may find a sum less than a guinea put into their hands, with the explanation, that the warrant was one for an *ordinary* witness, and as such they must receive *ordinary pay*. We trust that the County Court has by this time decided the matter in favour of the surgeon, and that the profession will henceforth learn how to value certain declarations coming from certain quarters, "on behalf of our injured brethren—the general practitioners of the United Kingdom."

ROBERT LISTON, F.R.S.

We regret to announce the death of this distinguished surgeon, which took place at his house in Clifford-street, on Tuesday last. Mr. Liston had for years been in the habit of rising at an early hour in the morning, and giving from four to five hours daily, before business, to active exercise in boating, walking, &c. It was his custom on returning from these excursions to take a cold shower-bath; but a few months since, while undergoing this process, a large vessel in the lungs gave way and poured out an enormous quantity of blood. The health, thus undermined at the very moment of, apparently, its greatest strength, was slowly recovering from the blow, when laryngitis supervened, which, after a short illness, carried off this distinguished ornament of the profession.

By his death the following offices are vacated:—Councillorship to the College of Surgeons, examinership to the College of Surgeons, surgeon to the University College Hospital, professor of surgery to University College.

DR. BURROWS AND HIS CLASS.

Some ill-tempered criticisms, founded on mistaken data, having led to some misapprehension among certain students of St. Bartholomew's Hospital, Dr. Burrows, on Tuesday last, thought it due to himself to make the following explanation. The address, it is a pleasure for us to say, gave general satisfaction, as was indeed well manifested by the loud applause which greeted the speaker both before and after the lecture.

TO THE STUDENTS OF ST. BARTHOLOMEW'S HOSPITAL.

GENTLEMEN,—I deeply regret to find that cer-

tain portions of my evidence, given before a committee of the House of Commons, were expressed in a manner calculated to disturb the good feeling which has hitherto subsisted between us, and that the intention has been imputed to me of wishing to disparage you in public estimation.

I am anxious to explain to you the real scope and purport of my remarks on the occasion referred to; being conscious that those remarks were inadvertently couched in terms which have rendered them liable to misinterpretation.

In answer to a question put to me by Sir James Graham, I attempted to show that no analogy exists between the condition of barristers and that of the majority of the young men who enter our profession; and I pointed out that barristers, being usually possessed of ample means, are enabled to devote a long period to their preliminary education; whereas the majority of the gentlemen who enter the medical profession are compelled, by the more limited extent of their pecuniary resources, to proceed at an earlier age to their professional studies, in order that they may the sooner obtain an independent maintenance: some, by the acceptance of public appointments, and others, by at once commencing private practice. These remarks were originally made in answer to question 442.

At a subsequent stage of my examination, a member of the committee read to me a part of that answer with two not unimportant inaccuracies—using the terms "*humble means*" for "*limited means*," and "*in a small way*" for "*as he may*." (Compare the answer to question 442 with question 833.) And it is to this incorrect version of part of one answer that attention has been publicly called.

It will be seen that in those remarks my aim was not to describe *absolutely* the station in society and the acquirements of the students of medicine, but to contrast their position with that of the highest section of the legal profession. In such a comparison (which the nature of the question forced me to draw), the circumstances of my professional brethren at the commencement of their career could not fail to appear at a disadvantage.

But in other parts of my evidence, where I had occasion to speak *absolutely* of the members of my profession, I maintained the right of every one of them to be regarded "*as a gentleman and a man of education*." (See the answer to question 479.) And I more than once repudiated terms of a degrading tendency when applied to them. Thus (in answer to question 830), I said, "I do not like that term '*POORER CLASS*'; it may mean to infer some degree of inferiority, when all classes are equally respectable."

In answers such as these I expressed the sentiments I have always entertained with regard to the great body of my professional brethren. I believe that, in the whole course of my evidence, not a word inconsistent with those sentiments had passed my lips; otherwise I would not have referred, in support of the statements I had made, to my long intercourse with the gentlemen educated at St. Bartholomew's Hospital—gentlemen with whose character and reputation my own, as a teacher of medicine, are identified, and of whom I have on many public occasions gladly testified, that no other body of students in this metropolis is more highly qualified by their acquirements and conduct to secure the respect of society for our useful and honourable profession.

In conclusion, gentlemen, let me assure you that nothing was further from my intention than to utter a word which could tend to disparage you in the estimation of our profession, or of the public. And let me further assure you of my sincere regret that any incautious expressions of mine have admitted of such interpretation as to wound the feelings of those whose esteem I have constantly desired to cultivate.

I remain, Gentlemen, yours very faithfully,
GEORGE BURROWS, M.D.
St. Bartholomew's Hospital, Dec. 6.

APOTHECARIES' HALL.—Gentlemen admitted members on Dec. 2: Edward Henry Malbon, T. Wm. Crosse, and James Horniblow Williams.

CHLOROFORM.

[To the Editor of the Medical Times.]

SIR,—Having employed chloroform in numerous cases, I have great pleasure in offering additional testimony of its superiority to ether, over which it certainly possesses all the advantages maintained for it by Dr. Simpson. I would also offer one or two remarks as to its mode of exhibition. Dr. Simpson advises a handkerchief twisted into a conical form. At most of the metropolitan hospitals, and by many practitioners, a sponge is used. All the various forms of ether inhalers seem to be employed, and an especial apparatus has now appeared, similar to that employed by Mr. Robinson; but whether this gratuitous information is correct I know not.

Now, Sir, the employment of any form of apparatus is certainly attended with inconvenience, is calculated to awaken the fears of the patient, and the use of a mouthpiece by one person after another disagreeable, to say the least. The use of the sponge has vesicated the lips, as at Bartholomew's; is equally unpleasant—in fact, disgusting—as being employed for different persons, and, if held close, causes an obstruction to respiration. The method adopted by Dr. Simpson is undoubtedly superior to either—pouring the chloroform upon a clean handkerchief or small napkin (preferable, as being stiffer), it can be rolled into a conical shape, but leaving an opening at the apex; held a short distance off at first, after two or three inspirations the base may be brought so as at once to cover the nose and mouth, and, being adjusted by the fingers of the left hand, will fit the face sufficiently for the air respired to pass through the opening at the apex.

The cleanliness of this method is sufficiently apparent; the attention of the patient is not attracted by the action of the valves; no obstruction is offered to free respiration; the air inspired is at a more favourable temperature; and, when the influence is effected, the operator, not having to place an instrument down with care, simply throws aside the napkin, and is at liberty; no time being lost, he need not so permanently soporize his patient, a matter not unworthy of consideration, particularly in minor operations. Since the introduction of etherization, I have constantly employed it in painful operations, if desired by my patient, but have never had a case occur in which its influence has been so lengthened as in many that have been reported to me; this naturally induces a supposition that a larger quantity is sometimes given, causing a more persistent action than there is any occasion for.

Here, then, is at once the simplest and the best means of exhibiting this agent. All that can be urged against it is simply that a portion of the chloroform must be dissipated also in expiration—a matter not worthy of consideration.

I am, Sir, your very obedient servant,

SAMUEL GHIMES,
Dentist to the Metropolitan Free Hospital.
71, Baker-street, Portman-square, Dec. 6.

POISONING BY OPIUM.

[To the Editor of the Medical Times.]

SIR,—Soon after the publication of the paper in the *Medical Times* on the subject of "Poisoning by Opium," I received a flattering letter from a general practitioner in North Wales, and I am induced to send you a short extract of the same. Should you deem it worthy of notice, or in any way likely to assist in the circulation of the *Medical Times*, you are perfectly at liberty to use it as your judgment may suggest.

I remain, dear Sir, yours faithfully,
GEORGE CORRE.

Middlesex Hospital.

"I cannot conclude this without thanking you most cordially for the benefit you are bestowing on the profession by the publication of those most excellent papers on the portraits of disease. Your account of the symptoms of poisoning by opium I am able to verify, unfortunately, in every particular, having accidentally had given to me an over-dose last month. I maintain it is the only true account on record; the history given in books of the symptoms is not correct. I tried tea and coffee, but not one instant would either remain on the stomach. I got well in seven hours."

P.S.—From the tenor of the remarks antecedent to this extract, I have but little doubts that the same agent, electro-galvanism, was employed as related in the paper in the *Medical Times*. I am not acquainted with the gentleman who thus writes to me.—G. C.

RHEUMATISM AND CHOREA.

[To the Editor of the Medical Times.]

SIR,—The interesting observations in your last number, on the connection between rheumatism and chorea, by Dr. Peacock, are not new. Probably the latest publication on the subject worth noticing is an elaborate paper by Dr. Begbie, in the seventh volume, p. 740 *et seq.*, of "The Monthly Journal of Medical Science." This writer seems to view both diseases as in some degree allied in their pathological conditions, inasmuch as they sometimes occur, conjointly or separately, in different individuals of the same family, thus denoting their dependence on the same morbid diathesis. The association of these diseases is also treated of by Bright, Copland, and others; but nowhere, so far as I know, is it insisted upon with such force of illustration and evidence as in the paper referred to. I am, Sir, &c.,

J. JONES.

Llanfair, Montgomeryshire, Nov. 27.

PHYSIOLOGICAL PROBLEMS.

"Think wrongly if you please, but in all cases think for yourself."—LESSING.

[To the Editor of the Medical Times.]

SIR,—1. Do the materials of which the blood is composed—the food and drink—pass from the alimentary tube through the lacteals, mesenteric glands, and thoracic duct, into the left subclavian vein? Or does the food only take that course, and is the drink absorbed by the radicles of the gastro-intestinal or mesenteric veins, and then transmitted by those veins into the vessel which takes the blood to the liver? Or are both the drink and the food—the fluids and the fluidified or digested solids—absorbed by the gastro-intestinal capillaries, and then transmitted by the gastro-intestinal or mesenteric veins into the vessel which takes the blood to the liver, and which vessel consists of the splenic vein and its roots, and the portal vein and its branches?

2. Are there, as Harvey taught, only two vascular systems: a lesser or pulmonic, and a greater or systemic? Or are there three vascular systems: an hepatic, a pulmonic, and a systemic; each system consisting of an afferent vessel, capillary or periferent vessels, and efferent vessels?

3. There are no less than nine organs which have no excretory ducts, and which, with the unimportant exceptions of nerves entering them, and lymph and lymphatics passing out of them, have nothing passing either into or out of them but blood and blood-vessels. These nine organs are the heart, the spleen, the thyroid gland, the pituitary gland, the pineal gland, the thymus, the placenta, and the renal capsules. Is the heart the only one of all these organs that is subservient to the motion of the blood? Or is every one of the eight others, as well as each half of the heart, part of a vessel, or of a set of vessels, the use of which is either to generate, or accelerate, or retard motion of blood? If so, which organs are parts of vessels which generate motion of blood? Which organs are parts of vessels which accelerate motion of blood? And which organ is a part of vessels which retard motion of blood?

Dec. 1.

J. J.

WHAT IS QUACKERY?

[To the Editor of the Medical Times.]

SIR,—I have occasionally read very angry denunciations of that something called "quackery," and in some of the journals those denunciations have been written in unmeasured terms; but amidst all the vulgar accompanying abuse I have not been able to discover that any one of the writers thereof ever attempted to define the correct meaning of that word "quackery"; at any rate they have not enlightened the uninitiated, and, therefore, I venture to appeal to you for a comprehensive definition of the term as pretended to be understood by the faculty.

With your well-known and estimable liberality you have opened your pages to many opposing writers on different subjects relating to the practice of medicine, and, amongst other subjects, the principles and practice of homœopathy.

I do not pretend to know anything of homœopathy, but I am anxious to learn whether it is "quackery," or a system of medicine?

If you say a system of medicine, how can it be proved to be so, since it is, I understand, impossible to analyze or weigh the infinitesimal quantities administered in a twelvemonth? And how would the

Royal College of Physicians, or the Society of Apothecaries, attempt to prove that the dispenser of homœopathic globules is a dispenser of medicine? Nay, more, who, and where is the chemist that can analyze a "homœopathic dose"?

If to practise homœopathy is to practise physic, we may soon look for more "Fallacies of the Faculty." Do enlighten us in your next number, but pray stick to the text throughout.

I am, Sir, your obedient servant,

F. F., M.R.C.S.E.

MR. BRAID AND MR. WAKLEY.

[To the Editor of the Medical Times.]

SIR,—I beg to thank you for your kindness in so promptly inserting my last communication in your columns. May I crave your indulgence once more in order that I may vindicate myself from a still graver charge, which Mr. Wakley brought against me in the same paper, than that which he preferred against Dr. Elliotson? Mr. Wakley stated that my experiments with the key were not original experiments; that their prototype was an experiment by Mr. Wakley on Elizabeth Okey (in 1838), when he substituted a bit of lead for nickel, and *vice versa*. I was thus represented as having attempted to plagiarise Mr. Wakley's original experiments.

In reply to this grave charge I beg to assure Mr. Wakley, and all whom it may concern, that in recording the adventures of my portmanteau, key, and ring, I had no notion whatever that I was thereby subjecting myself to the suspicion of desiring to rob Mr. Wakley of what he deemed his especial property. I meant simply to narrate a fact, and one which appeared to me a good example of the power of suggestion in eliciting certain mental and physical phenomena with some patients during the abnormal sleep-waking condition. In fact, I should as soon have thought that Dr. Haygarth's experiments with the fictitious tractors in 1799 were the prototype of Mr. Wakley's with the lead and nickel in 1838, as that these latter were the prototype of mine with my portmanteau, key, and ring. A hasty or careless view of the subject may lead to the mistaken notion that there is a similarity or identity in all these three sets of experiments; but a little careful reflection will be sufficient to prove that each set of experiments was original, distinct, and independent of the others. Thus, in Dr. Haygarth's experiments, whatever wooden instrument he used, all were followed by positive effects, and clearly proved that these effects were not produced by any magnetic influence inherent in metallic tractors, as had been alleged by Mr. Perkins, but that the effects were entirely mental in their origin.

Mr. Wakley's experiments again were positive or negative, according to the varied metals with which he operated; and according to his statement, when he operated with lead, the patient believing it to be nickel, the effects of nickel came (Dr. Elliotson denies this at page 208 of the "Zoiast" for July, 1847); and, on the contrary, that when he (Mr. Wakley) operated with nickel, the patient, believing it to be lead, that no effect followed. I am not aware that Dr. Elliotson has contradicted this last part of Mr. Wakley's statement. The results were thus active or passive according to the expectation or belief of the patient. Now, these experiments of Mr. Wakley have always appeared to me to have been well devised and adroitly managed for determining the physical fact as to whether or not Dr. Elliotson was correct in maintaining that nickel was powerfully mesmeric, whilst lead was wholly inert; and they clearly proved that Dr. Elliotson's hypothesis was erroneous in this respect. I by no means, however, consider that they warranted the conclusions which Mr. Wakley so hastily jumped to and published, that the patients he operated on gave the manifestations realized from sheer imposition; and, consequently, that the whole of what had been designated as the mesmeric state and mesmeric phenomena must be, or ought to be, denounced as unmitigated imposture. Even supposing these girls had been impostors (which I conscientiously believe they were not), still it would have been most unphilosophical to conclude that there could be no such thing as an honest individual in the world merely because Mr. Wakley had met with two rogues. If everything is to be set down for imposture which it is possible to feign, then there can be no such thing as natural or drug sleep; neither can there be any such thing as pain, spasm, or palsy; neither can there be loss of feeling or impaired function of any of the other organs of special sense; neither can there be such feelings as heat or cold, hunger or thirst;

neither can there be such diseases as mania, imbecility, or idiocy: for it is not only possible, but perfectly easy, to feign all these conditions.

My investigations have enabled me to arrive at the true solution of this problem, for determining the real cause of the remarkable results realized by Mr. Wakley in the experiments performed by him on the Okeys and others of such a nature, which is this, that many patients who are naturally highly susceptible of such influence (for there is great difference in this respect in different individuals) become at length liable to be affected entirely through the force of imagination, belief, and habit; and that they do not exhibit these manifestations from any desire to deceive others, but because they are self-deceived, through their implicit credulity, belief, and fixity of their attention on the idea suggested in their hearing, or in any way associated in their minds with certain processes and combinations of circumstances. Mr. Wakley may denounce me "soft" for believing and promulgating this opinion, still I hesitate not to say, most deliberately, that I feel confident that I am right and that he is wrong upon this point. In saying this I by no means wish to stand forth as the apologist of all mesmerists, and of all mesmeric, or alleged mesmeric, patients. I am perfectly well aware that there has been much imposture in this as in other departments of science; but I ground my opinion on the *bond fides* which have come under my own immediate observation, and been repeatedly proved with many of my relatives and valued friends, whose honour and veracity are unimpeachable. I have the honour and satisfaction to be in possession of letters from many of the brightest ornaments of the medical profession, and of general science, expressing the entire concurrence of the authors of these letters with my views, both as to the nature, cause, and extent of what are called the mesmeric phenomena.

If Mr. Wakley is really desirous of arriving at the truth in this matter, and not of hoodwinking his readers by furnishing them with only one side of the question, I shall be happy to name five or six distinguished individuals, and let him name a like number of equally respectable and competent gentlemen, to act as a committee to investigate the subject thoroughly, and publish in all the medical journals their final decision, as to whether his expressed unlimited scepticism, or the headlong enthusiasm and implicit credulity of the thorough mesmerists, or the moderate views contended for by myself and those who espouse my views, are nearer the truth. Would this not be more dignified conduct, and conduct more worthy of the high and sacred duties of the editor of a medical journal, whose duty it is to "hold the mirror up to nature," to seek and strive for truth and that only, than pandering to the prejudices of uninquiring dogmatic sceptics, by writing or publishing attacks upon mesmerism, written with all the art and dissingenuousness of the special pleader, who legitimately contends not for truth, but for victory?

And now, in respect to my own set of experiments with my portmanteau, key, and ring. They were all of them performed with the same material agent, and they were followed by positive or negative effects of many varieties of character, and that in exact accordance with my predictions or suggestions, on the principle which I have explained in the last paragraph. The selfsame substance and form of agent in my experiments having been followed by varied and opposite results, according to my auricular suggestions, clearly proved that they did not proceed from any physical influence inherent in the visible and tangible instrument used, but that they were entirely the result of a mental influence. Both my experiments and inferences, therefore, are quite distinct from those of Mr. Wakley: his results having been preceded by change of physical agent as well as ideas; whereas mine were preceded by change of ideas only; and I leave it to your readers and the public generally to decide whether my theoretical views on this point, or those of Mr. Wakley, are nearer the truth.

In conclusion, I would beg leave further to add that I feel quite certain that with many patients there is a reality and peculiarity in the sleep, and many varied phenomena which may be brought about and manifested by many patients by certain processes; and I feel equally confident that there is nothing occult either in the nature, cause, or extent of the phenomena as contended for by the mesmerists. I believe there is nothing to be accepted as well-established facts which does not admit of explanation on generally-admitted physiological and psychological principles.

I believe, moreover, that the greatest obstacles to the general acceptance of what is really true in this

inquiry, is the implicit credulity and headlong enthusiasm of many of its votaries, who contend for so much of the marvellous and supernatural as sets all reason and physical laws at defiance; and who attribute to the somnambulist faculties which, if true, would upset the whole fabric of society in the present state of our existence, and which, on this ground alone, may be safely set down as erroneous. Besides, the amount of evidence which is deemed sufficient proof by the mesmerists of such marvels is by no means adequate to satisfy the minds of mankind generally, who deem the amount of evidence in any intricate and fallacious case ought to be commensurate with the difficulties of the case, and competent to guard against all obvious sources of fallacy.

I remain, Sir, your most obedient servant,
JAMES BRAID, M.B.C.S. Edin., &c.
8, St. Peter's-square, Manchester, Nov. 27.

EVIDENCE TAKEN BEFORE THE SELECT COMMITTEE ON MEDICAL LEGISLATION.

(Mr. Lawrence's Examination continued from page 45.)

MR. DERMOTT'S CASE.—I should say that there is no one surgeon of great eminence that is out of the fellows' register; I do not mean to say that they are all eminent men that are in it. On the whole, the 600 most eminent surgeons in England and Wales are now fellows of the college; no doubt of it; I will state, without any hesitation at all, that there was not a single name put upon that list of fellows from any private feeling or favouritism, or a single name left out from any private feeling against that individual. It is not the fact that we are now receiving the certificates of the competency of individuals in anatomy and surgery from persons whose names have been excluded from the list of fellows of the college. It is the fact with regard to one individual. That individual was not excluded on account of personal prejudice, apart from demerit, as it appeared to the council; his competency as a teacher is admitted, and I believe that he is competent in the branches that he teaches. His demerit was not professional but personal.

QUALIFICATION OF PRACTITIONERS.—I think it desirable that practitioners should be as highly qualified as you can make them; that they should possess as much knowledge as possible. The council has not had to consider any plan for making the qualification equal throughout the different parts of the United Kingdom of Great Britain and Ireland. The council is the council of the College of Surgeons of England, acting under their charter, which defines the objects for which they are created, and it is not their business to endeavour to equalize the education throughout the whole of the profession. I will not speak to all the provisions of the bills; I do not recollect that that was one of the provisions of the bill. It was proposed that there should be a mode of equalizing the examinations and the education in the different colleges and universities, and that if that proved satisfactory, and they could act upon it, the right to practise should be general; supposing sufficient security is given for the amount of education, and the nature of the examination. I cannot state what the council thought upon a vast variety of things, and upon a vast variety of occasions, with reference to this matter. I am aware that all the curricula and ordinances and by-laws were to be submitted, under the right honourable gentleman's bill, to the Council of Health. I dare say that council had full power to prevent our laws and regulations from being carried into effect if it should disapprove of them. I do not remember the powers exactly, or whether they were absolutely defined. I rather think there was some very general power given, but there was nothing definite expressed as to that power, and one cannot say what would be the best form in which to give it. I think that the determination of the course of education, and the nature and extent of the examinations, would be best left to the examining bodies. I think that they can

regulate those matters in the best way. I have not expressed myself in favour of uniformity of qualification, because I do not know that it is possible to obtain it. It would be desirable that as good an education as possible should be maintained, but I imagine that in medical education, as in other things, we cannot have things uniform. In Scotland the course of education differs very much from ours, and so again in Ireland; but the education should be, in regard to length of time and the subjects taught, as nearly equal as possible, and as far as possible an equally good education. The system in our college is as perfect as possible. I think it answers all the purposes very well indeed. I think that it provides that the public shall have practitioners who are competent to discharge the duty entrusted to them. I do not mean to say that the diploma of the College of Physicians or Surgeons will be a guarantee that that individual is at once as competent to undertake the care of diseases or accidents as parties who have had larger experience. Medicine and surgery are practical arts, and before a person has begun to practise he cannot be thoroughly qualified, it requiring great experience to give a person complete skill in medicine or surgery. In my opinion we take sufficient steps to obtain full information with regard to persons applying.

THE PASTRYCOOK.—It is not true that a curious instance occurred lately in which a tradesman obtained a diploma, who had been studying medicine for about twelve months. The correct statement of the case would be to this extent, that a party presented false certificates to the college, containing incorrect representations on certain points, and the college was to a certain extent imposed upon, as to the character or previous position of that party; but by those certificates he had been studying the profession more than eleven months. It was more than thirteen; if you wish to have an explanation of the exact state of the case, I can give it you. In the first place, this was not a young man coming for his examination at the conclusion of his education, at the age of twenty-one years, but he was a person forty years of age; he presented himself for examination at the college as a person who had been some years engaged in practice. He was a pastrycook and confectioner. Heretofore it was not the practice of surgeons in the country to furnish themselves with the diploma of the Royal College of Surgeons of England; in fact, the majority, forty years ago, did not take out the diploma. It was not legally necessary; indeed it is not legally necessary to enable parties to practise now, and it then was not the custom; the diploma did not stand in the same estimation that it does now. The consequence is, that there have been many highly respectable practitioners in the country practising as surgeons who did not possess the diploma, and there are many now who do not possess the diploma of the College of Surgeons. The senior surgeon of the largest hospital in a large city in England at this moment is not a member of the College of Surgeons, and the late principal surgeon to the infirmary in another county town was not, and is not at this moment a member of the College of Surgeons, although a gentleman in large practice, and enjoying the confidence of the country; and no doubt there are others similarly circumstanced. In process of time the estimation of the diploma has so increased, that no man goes into practice without possessing it, and the party who has gone into practice previously now finds himself placed at a disadvantage; he is pointed at by his competitors as a party not having a diploma. Then, again, there is a recent order of the poor-law commissioners, requiring the diploma of the college as a qualification for the appointment of surgeon to any union, and many surgeons were in danger of losing their situations by not having that qualification, and they came to the college and said, "We want to be examined for the diploma." The college then said, "You have not received an

education according to our regulations." They said, "It is very hard upon us; these regulations did not exist when we were educated; we have been practising as surgeon to this or surgeon to that institution, and now we cannot be re-appointed, for it is an annual appointment, without your diploma." The Council of the College of Surgeons thereupon decided, in the first place, with respect to students, for there had been considerable alterations in the curriculum, that students should be examined under the curriculum in force at the time they began their education; and, secondly, that gentlemen who had been engaged some years in practice should be admitted to examination on such evidence of education as the Court of Examiners might think fit, the council considering that there was great hardship in those cases, many of those persons being kept out of situations which they had held for some time, and who ought, therefore, to have an opportunity of presenting themselves and getting the diploma of the college. The Court of Examiners have, therefore, admitted under that description several persons who came up as practitioners without exacting of them evidence of having gone through the existing curriculum, but they required evidence of a certain amount of education. The gentleman in question came up with evidence of fifteen months' study, and an extra certificate of diligence, and I believe that he had worked extremely hard, and made the very best use of his time, and he produced the certificates of a physician in large practice in Somersetshire, of another gentleman, physician to a lunatic asylum, and of a surgeon to the navy, that he had been in the study and practice of the profession ten or more years. Of course the college could not know whether this person, coming out of the country, was a practitioner or not. Here was a man of forty years of age, and he sent in his statement that his family were dependent upon his professional exertions, and, supported by those certificates (and there was also a certificate from a near relation of one of the highest men in this kingdom, who had been under his care, and his family, and other evidences of the same kind), the Court of Examiners saw no difficulty in admitting him to examination; he underwent an examination, and received a diploma. Now, the charter has of course contemplated this case, because it provides that, if any person has received a diploma in consequence of any fraud, false statement, or imposition, the diploma shall be recalled; the consequence of which is, that the council having inquired into the matter, having ascertained the incorrectness of these statements, and having heard the individual, has recalled his diploma. He has not given it up, and we cannot extract it from him, but his name will be omitted from the printed list. The diploma has been recalled, and the council have tendered him back the money that he paid upon receiving the diploma. The possibility of such a case has been anticipated by the charter. His name will be struck out of the list of the college. With regard to the observance of our own regulation with reference to study on this occasion, I have mentioned already that a discretionary power had been entrusted to the Court of Examiners, of admitting to examination for the diploma gentlemen who had been for some years engaged in practice, although they might not have passed through the course of education prescribed in the regulations. The council considered the case of these gentlemen hard in the circumstance of the diploma being suddenly required in cases where it had not previously been necessary, and they adopted the course I have mentioned as a remedy for the hardship. We have regarded persons in the situation of the individual with respect to whom I have just given evidence, in the same light as persons practising before the 1st of August, 1815, would be regarded, in the case of the Apothecaries' Society, and a great many have been examined and received diplomas in consequence of that circumstance. When the regulation of the poor-law commissioners first came out there were many applications to the college, and there

were several individuals who would have been hardly dealt with if they had not been considered and treated in that way. In the case of the pastrycook we had the certificates that I have mentioned to you, of a gentleman who had been physician to the King of Hanover, of the physician to a county lunatic asylum, of a surgeon in the royal navy, and of some very respectable persons who employed him. Whether any one of them stated that he had been a practitioner in surgery or not, I will not say, but that he had been practising in the profession for ten years. The truth is, that this gentleman is in considerable practice, and has the confidence of the people in the district where he lives, and I believe more so in consequence of the college having withdrawn the diploma. That fact rather confirms my general remark, that mankind are not the best judges of the real attainments of medical practitioners. He is practising as a general practitioner, but I believe he is more particularly devoted to homeopathy. He was examined in the usual way, and passed through a very fair examination. I believe he had been studying anatomy, that he had been fond of chemistry and of making experiments, that he had read medical books, and had not devoted much time to his business, which was conducted by his wife and assistants. I can read something which the council published in reference to that matter:—"The Court of Examiners having found that erroneous statements have lately been published respecting the mode in which gentlemen engaged in the practice of surgery may obtain the diploma of the college, and that other candidates for the diploma have experienced difficulty and inconvenience from inattention to the regulations, by which the required course of study has been from time to time augmented, or from inability to comply with those regulations, have resolved that gentlemen who were practising surgery prior to 1836, be admitted to examination on producing proofs of such anatomical and surgical education as may be deemed sufficient by the Court of Examiners." That gave a discretion which enabled the court to let in practitioners who had been unpleasantly and injuriously affected by the new regulations, especially in reference to the poor-law unions: "That other candidates be admitted to examination upon the production of the several certificates required by the regulations in force, when they began their professional education by apprenticeship or by attendance on lectures or hospital practice." It was under the dispensing power of that resolution that this party was examined. The date of that resolution is Nov., 1842; it was about the time that the poor-law commissioners published their resolution requiring the diploma; there were cases of great hardship brought before the Court of Examiners at that time. Compulsory apprenticeship I quite disapprove of. I said that I thought the bill would qualify a man to practise as a physician of St. Bartholomew's Hospital who was a surgeon or apothecary. I understand that certain parties are entitled to be put upon the register, and that thereupon they receive a certificate, and that no other legal qualification except that certificate is required to hold all kinds of public appointments in the profession. At the present moment, if the governors of that hospital chose to elect the pastrycook, who lately successfully underwent our examination, there is nothing to prevent their electing him as a medical officer of that institution, but this bill would give him a legal qualification to hold such office. I do not know that he is legally disqualified now. It seems a strange thing to say that a man, who is in practice as an apothecary, and who receives a certificate under this bill, shall be capable of holding every kind of medical appointment, from the highest to the lowest. I know that it is so at this moment, and that it is only prevented by the good sense of the managers of the particular institutions.

COLLEGE LISTS.—I think that the colleges might blend their lists into one, and would do so if Parliament desired it. The heads of

the college have not been consulted upon the subject. It is a considerable trouble to keep a list of the members of the college, but it would not give much more trouble to blend that with the two other London lists every year. The register might be alphabetical, specifying the qualifications under each name: "A. B., licensed by the Society of Apothecaries;" "C. D., diploma of the College of Surgeons," and so on. If a man held three qualifications, I should put them all in; you may have an alphabetical register of the whole, expressing the particular qualifications of each individual. The registration adopted in this bill is one part of it. I see no objection to physicians and surgeons and general practitioners being registered alphabetically, provided their qualifications are stated as in this bill.

RECIPROCITY OF PRIVILEGE.—If a man has undergone his examination and received his licence in Edinburgh or Ireland, and he desires to practise in England, I do not consider it necessary that he should undergo a further examination, if proper regulations are made to ensure equal education and equal examination. If that point is secured, I would wish him to be admitted as a member of the college here without examination. I do not say without the payment of a fee; there are various matters connected with the payment of fees that are of some consequence; if he comes for his advantage, I do not know why he should not pay a fee. A practitioner going to Scotland ought to pay a fee. I do not think Scotland will get many fees in that way. It would not necessarily be the same fee. It might or might not be right to make them pay the fees; fees are applicable to a variety of purposes. Take the case of the College of Surgeons of London; the fees afford the means of sustaining and increasing what may be called the great national museum of anatomy, physiology, and pathology, a collection which does honour to the country, for nothing similar to it exists anywhere else. The council have collected the most extensive medical library in the kingdom. The fees received by the college afford the means of accomplishing these and other important public purposes; both museum and library receive large additions every year. Since John Hunter's time that museum has been considerably more than doubled, entirely at the expense of the College of Surgeons. It appears to me that if persons coming from Scotland or Ireland to practise in London are admitted to equality of privilege here, if they enjoy the benefit of the museum and its library, they would purchase the privileges very cheaply by paying the fee; and the college has in its service the very first talent in the kingdom for managing, displaying, and illustrating the museum. The shades between the practice of the physician and the surgeon run into each other, and cannot be distinguished accurately. Though pure surgeons exist in London, there is no etiquette in the profession which prevents a pure surgeon being called in, by a patient suffering from an internal disease not requiring surgical aid, to prescribe and treat the malady. The surgeons and physicians meet in consultation reciprocally on medical and surgical cases. And there is no etiquette of the profession preventing or restraining surgeons and physicians being thus consulted reciprocally in medical cases. The public, therefore, enjoy the benefit of consultation of men of eminence in their separate departments, without any hesitation as to their aiding each other, in ministering to the wants of the patient. On the other hand, I am sure that subdivision, as a general rule, leads to excellence in each department. Whenever the science of medicine is cultivated to a great extent, and carried to the highest point, those divisions have been found necessary, as being conducive to the full promotion of science. But the distinction is not in practice carried so far as to cut off the patient from the free exercise of his choice in consulting medical men. I have stated that there is but one pure surgeon in Scotland, and that the surgeons belonging to

the College of Surgeons in Edinburgh correspond in some respects to the members of the Society of Apothecaries in this country. They are general practitioners, as I am given to understand. I have had occasion to examine the fellows or licentiates of the College of Surgeons of Edinburgh. I have not found them deficient as a body; of course individually there are some good and some bad, like those from other places. I do not consider the College of Surgeons of Edinburgh an institution of very considerable repute. There is no reason against surgeons practising midwifery; I do not approve of that disqualification for the fellowship.

OPINION ON THE BILL.—I have expressed a strong opinion against the present bill; but I am not aware of the first medical men in any branch of the profession having any personal interest that could be affected by the success of such a bill. My objection is founded more upon a view that it would injure the profession in future than that it would injure the leading men of the day. I stated that I wished the surgeons received as good an education as the physicians, and I also stated that, after the year 1850, we would require them to produce evidence of an education equal to the master of arts' degree; but I cannot say individually that I expect that by that time surgeons will be found to go to the university for their preliminary education. I think that, taking the expense and the time occupied, the profession does not hold out a sufficient prospect of remuneration to induce them to do it. If the degree were conferred under circumstances requiring a less amount of residence, that would facilitate the matter. The Secretary of State has not the power of revising all our by-laws, but a new by-law must be presented to the Secretary of State for his sanction. I think that every law that we have presented has been approved by the Secretary of State.

THE PASTRYCOOK AGAIN.—With regard to the pastrycook, I stated that we had recalled the diploma and tendered him back the money that he had paid; but we have not any power to make him give it back. We had not any answer from him. He appeared with certificates which would justify us in examining any gentleman, but these certificates were false; it was proved to our satisfaction, for the charter requires that the party shall be heard; that is, he is to be informed that a meeting will be called, at which he may attend and give an explanation, and he did attend; the party, therefore, is heard before his diploma is recalled. But we have no power of punishing a party who gives a false certificate.

ELECTION OF THE COUNCIL OF THE COLLEGE OF SURGEONS.—It would be, in my opinion, a hazardous experiment to confer upon the members of the college generally the right of electing the council. I do not know what the result of it might be. I think the right of election is much safer where it now is. I do not like universal suffrage in any way. Members of the college whom we have admitted by examination as qualified to practise surgery are, in my opinion, too numerous a body for election. I cannot tell what would be the result. I see that the institution goes on well as it is, and my wish in all cases is to maintain arrangements that answer their purpose well. Supposing a single faculty were admitted, and that the effect of the establishment of a single faculty were to raise the standard of medical education generally, provided we left the business of chemists and druggists unregulated as it now is, and without any check, empirical practice of chemists and druggists would of necessity be greatly increased on such a supposition.

CHEMISTS AND DRUGGISTS.—I think that chemists and druggists ought to be regulated by law; they have delicate and important duties; at present their knowledge is not in any way tested. Their practising over the counter is attended with danger. I doubt it is possible to prevent that. Poor people cannot afford to employ a well-qualified practitioner. For one-sixth of the expense, or even much less, they get what

seems to them to answer the purpose equally well from the chemist and druggist. I have stated that there is not sufficient remuneration to encourage medical men to undergo a very extended education; that is one reason why we should not attempt to raise the education of medical practitioners to too high a point. I think it has been carried as far as it can be safely.

(To be continued.)

GOSSIP OF THE WEEK.

UNIVERSITY OF LONDON.

SECOND EXAMINATION FOR THE DEGREE OF BACHELOR OF MEDICINE, 1847.

First Division.—Thomas Snow Beck, University College; Boas Bholanath, University College; William Brinton, King's College; Henry Cris, King's College; Peter Eade, King's College; John Cooper Forster, Guy's Hospital; Henry Isaac Fotherby, Guy's Hospital; Gopal Chunder Seal, University College; William Henry Greenwood, Guy's Hospital; John Braxton Hix, Guy's Hospital; William Henry Holman, London Hospital; Walter Johnson, Guy's Hospital; Nicholas Henry Littleton, University College; Stephen Monckton, King's College; Jabez Spence Ramskill, Guy's Hospital; William Henry Ransom, University College; John James Rygate, London Hospital; Henry Wiglesworth, University College.

Second Division.—Thomas Green, Royal College of Surgeons in Ireland; George Henry King, Guy's Hospital.

EXAMINATION FOR HONOURS.

The names are arranged in the order of proficiency.

Physiology and Comparative Anatomy.—Henry Wiglesworth (Scholarship and Gold Medal), University College; Peter Eade (Gold Medal), King's College; William Henry Greenwood, Guy's Hospital; John Braxton Hicks, Guy's Hospital.

Surgery.—Peter Eade (Scholarship and Gold Medal), King's College; John Cooper Forster (Gold Medal), Guy's Hospital; Henry Isaac Fotherby, Guy's Hospital; John Braxton Hicks, Guy's Hospital.

Medicine.—Peter Eade (Gold Medal), King's College; Walter Johnson (Gold Medal), Guy's Hospital; Gopal Chunder Seal, University College; Henry Isaac Fotherby, Guy's Hospital; John James Rygate, London Hospital; John Braxton Hicks, Guy's Hospital; William Henry Greenwood, Guy's Hospital.

Midwifery.—Henry Wiglesworth (Gold Medal), University College; John Cooper Forster, Guy's Hospital.

EXAMINATION FOR THE DEGREE OF DOCTOR OF MEDICINE, 1847.

First Division.—Thomas Herbert Barker, University College; Henry Bateson, Guy's Hospital; Boas Bholanath, University College; Arthur Hawdon, University College; Nicholas Parker, London Hospital; (a) Peter Redfern, 1, Surgeon's square, Edinburgh; William Henry Williams, University College.

Second Division.—Hugh Bell, Guy's Hospital; Thomas James Sturt, King's College.

ST. JAMES'S PALACE, NOV. 23.—The Queen has been pleased to appoint Dominic John Corrigan, M.D., to be Physician in Ordinary to her Majesty in Ireland.

ROYAL COLLEGE OF SURGEONS.—Gentlemen admitted members on Friday, the 26th ultimo, viz.:—R. Dowell, H. W. H. Richardson, M. T. Mason, T. H. Mitchell, J. Marshall, E. Stride, G. F. Banks, J. Robinson, and T. Smith.—On the 3rd inst.: W. England, W. S. Savory, H. B. Holl, J. Bustin, R. Montgomery, J. G. Doidge, J. F. Stevenson, T. G. Salt, W. Davies, C. Forbes, A. J. Gee, W. Morris, and A. D. Home.

(a) To Dr. Redfern was awarded a gold medal for his commentary on a case in medicine.

THE INFLUENZA.—This disease, which has within the last month prevailed so much on the Continent, has visited the metropolis, and at the present time there are great numbers suffering under its influence, though we have not heard of its having yet assumed a very fatal character.

WAR-OFFICE, NOV. 26.—Hospital-Staff: William Freeman Daniell, gent., to be Assist.-Surg. to the Forces.—Dec. 3. 92nd Foot: Charles Robert Robinson, gent., to be Assist.-Surg., vice Downes, appointed to the Staff.—Hospital-Staff: Assist.-Surg. Henry Downes, M.D., from the 92nd Foot, to be Assist.-Surg. to the Forces, vice O'Connor, promoted.

NAVAL APPOINTMENTS.—Surgeon: H. Jameson, to the Victory.—Assistant-Surgeons: W. E. Hambly, to the Vindictive; J. Lugton, to the Firefly; K. F. Williams, to the Blenheim; W. M. Saunders, J. C. Inglis, W. Patrick, and Dr. McEwen, to the Victory.

THE CHOLERA.—Our private accounts from Germany state that precautionary measures were everywhere being adopted against the invasion of the cholera. The medical men sent by the different Governments to study the nature of the malady all agreed that it pursued precisely the same course as in 1831. After making comparatively trifling ravages in Southern Russia, where it has now completely subsided, it advanced towards the north, sparing the same localities it had spared in 1831, and visiting those which it had decimated in that year. The mortality produced by it is less than in 1831-32, because fewer individuals are attacked, and because physicians are better acquainted with its treatment; but the symptoms are exactly similar, and in some instances the malady is more violent and its progress more rapid than formerly. In several districts, moreover, it is followed by typhus fever, the consequences of which are often more fatal. The cholera is now raging with a certain intensity in the government of Kiev and the adjoining provinces. Thence it has extended towards Galicia and Moldavia, as in 1831. Some cases were even said to have already manifested themselves at Kamenetz-Podolskoi. The Austrian Government had sent physicians to Galicia, furnished with extensive powers and orders to establish a rigorous sanitary cordon along the adjoining portion of the frontier. As far as the epidemic has been observed, it is invariably preceded by influenza.

Our Malta correspondent writes on the 24th ult. that, since the supposed case of cholera which he announced in his last letter, the island has been as healthy as before, and no other case has manifested itself.

THE CHOLERA: NOTICE TO MARINERS.—A notice has been issued from the office of the Swedish and Norwegian Consulate, London, stating that "all vessels departing from any foreign port on this side of Cape Finisterre, and destined to Sweden, must be provided with a bill of health, signed by the Swedish and Norwegian consul at the place, or, in the absence of such functionary, by the constituted authorities, in which it must be stated whether the cholera has been or is prevalent at the said port or in its neighbourhood, and as to the state of health of the crew and passengers on board. Should the vessel touch at any intermediate port on the voyage, it is the duty of the commander to provide himself with a similar document from thence."

A letter from Vienna of the 28th ult. states that the cholera had manifested itself with some violence in the circle of Tarnopol, in Galicia. The great scarcity of provisions prevailing in that district considerably favoured the development and propagation of the epidemic.

Our private correspondence from Malta, of the 18th inst., announces a case of Asiatic cholera on board the French steam-boat Mentor, which terminated fatally in Malta harbour on the 17th. The Mentor was in consequence not allowed to remain in the harbour of Valetta, but was ordered to Marseilles, where she is to perform quarantine.

THE CHOLERA IN RUSSIA.—Russian advices,

received on Wednesday, *via* Germany, state that the epidemic continues prevalent in Moscow, without, however, having yet developed any particularly malignant features. From the 17th of October the number of cases gradually declined. After the lapse of five days it rose once more. Up to the 25th of October (from the 30th of September), the number of cases amounted to 556, and that of consequent deaths to 167. The intelligence of the last week from the other parts of the empire visited by the pestilence is equally favourable. The epidemic, throughout, presents few malignant features.

Sudden deaths appear to multiply in Paris. M. Tschann, the Swiss Chargé d'Affaires, died suddenly on Monday morning. These occurrences, and the prevalence of the *grippe* (influenza), which rages at present in the French capital, recalled the recollection of similar events before the arrival of the cholera in 1832.

INFLUENZA.—This epidemic is extensively prevalent in Liverpool at the present moment, the juvenile members of the community, especially, having suffered severely from its attacks. Almost every family has some member or members afflicted by the disorder, and the medical gentlemen of our town have, in consequence, been kept in constant employment. Fortunately, the disease is of a mild character, usually yielding to judicious treatment in a few days. The disease seems prevalent all over England and France. In Edinburgh it has been so universal that almost all the seminaries, including the High School and new academy, have been closed in consequence of the non-attendance of the youths affected.

INFLUENZA.—Paris has been invaded with an epidemic of bronchitis, which the French denominate "*grippe*," but which at present does not bear the same characteristics as the influenza of 1831 and 1837. A great number of the population have been seized with it, and in many cases it has proved fatal.

KING'S COLLEGE HOSPITAL.—Some idea of the extent of the prevalence of influenza may be formed from the great increase of out-patients at the above hospital during the past two weeks. Many days little less than 800 apply, and on one occasion (Tuesday last) upwards of that number received medical treatment and medicine from the dispensary. The attendance of women and children on the same day was 250, of whom the larger proportion were suffering from the prevailing epidemic.

GATESHEAD DISPENSARY.—Mr. Samuel Wilson, house-surgeon of the Gateshead Dispensary, died of typhus fever, on Wednesday last, at the early age of twenty-eight. He was also one of the secretaries of the Gateshead Mechanics' Institute. He was of a modest and retiring disposition, and of studious habits. In the discharge of his professional duties he was faithful and assiduous, and ever ready, in the warmth of his heart, to exceed the requirements of his office, if he could thereby restore the health or soothe the pains of the afflicted poor. By the officers and governors of the dispensary, by the patients who have enjoyed its advantages, and by every one connected with the Mechanics' Institute, his death is sorely lamented. The sorrow of his more immediate friends we need not attempt to describe. His remains were interred in the St. Edmund's burial-ground.

HUDDERSFIELD CHURCHYARD.—An eyewitness states that he recently attended a funeral at the parish church of Huddersfield, when he was astonished to find that, in order to dig the grave in which the corpse had to be interred, no fewer than seven coffins had been cut through to effect the purpose.—*Globe*.

EPIDEMIC IN THE NORTH OF SCOTLAND.—During the last two weeks an epidemic of a most unprecedented and remarkable character has prevailed throughout the north of Scotland. It began in Dundee, and then swept over the whole of the east coast until it reached the extreme point of Kinnaird's-head, when it took a westerly direction, and is now extending along the shores of the Murray Frith, and inland through the