

between surgical and medical practice is often extremely difficult; parties who are patients cannot make the distinction, and even medical men are often at a loss. I do not consider that it would be possible by law to point out the distinction between the lines of practice. I object to the certificate because it does not express the true state of facts. The College of Surgeons has the duty of examining parties respecting their qualification to practise surgery; the College of Physicians inquires into the candidate's knowledge of medicine; and the Society of Apothecaries has been intrusted with the power to license apothecaries. The certificate, which is a legal document, should not go beyond the truth, namely, the legal fact of the person having been examined by a particular body, and thereby having been found competent to practise that branch of the profession. If it be the particular object of the certificate to legalize indiscriminate medical and surgical practice by all surgeons or all physicians, it appears well calculated to do so. Then there is another point: in the list containing the residences the particular qualification is not stated; for example, under the head of London, everybody would be put as a party qualified to practise medicine, and there would be no distinction between physicians and surgeons and general practitioners. I refer to the latter half of schedule (C); there is an alphabetical list for towns, and under the head of London, all parties, physicians, surgeons, apothecaries, and persons who were in practice before the Apothecaries' Act, appear in one list, as persons qualified to practise medicine. Now, suppose a party was ill, and he wanted to look at the register (although I think people do not call in their medical practitioners from looking at registers), if a person from the country is taken ill in London, and he asks for this register, he looks, and he sees a name; he has a fever; some person comes to him, whose name he sees in the register, and asks him, "What is the matter with you?" He says, "I have a fever." The reply is, "You should not have sent for me; I should have been very glad to attend your wife, if she was going to be delivered; I am an accoucheur." He then sends for two or three others; he may send for a surgeon, who would attend him if he had a broken head, but who cannot attend him in fever, but who, under the certificate, is qualified to practise medicine; or he may send to a mere apothecary, who would say, "If you had a slight cold I could prescribe for you, but as you have a fever you must send for a physician." That would be the fate of a person looking at this register. He finds a number of people huddled together, who are all represented as persons qualified to practise medicine. I am now confining my remarks to the registration of the place of residence, coupled with the certificate. Then this person with a fever must ask the medical man to show him his certificate before he will find out whether he is a person duly qualified to take care of him. People do not like to take a great deal of trouble in matters of this kind. I do not think that a person who was ill would be likely to look beyond the name in the first list. As to Mr. Wakley's remark, "that that would not occupy a single moment," I do not think that it would be done, and therefore it does not signify if it would occupy no time.

GOOD REGISTRATION.—I see no objection to, and there are conveniences in, a good system of registration. The qualified practitioners are all registered. I think there is nothing easier than to discover that there is a regular list of persons licensed by the Colleges of Physicians and Surgeons. In our list there are a great many parties who have never sent in their residence, and many who are dead are on the list, but they are put separately on the list. As to Mr. Wakley's question, "Without any place of residence?" the dead people have no place of residence. We have taken every pains to get the residences of all the members of the college. We have put advertisements in the paper, and taken all other measures to get the residences,

and the residences are put to the list as far as they are known, and the parties whose residences are not known are in a separate list. We have thousands of names without any residence attached to them, and the same inconvenience must attach to any registration. The members of the College of Surgeons are dispersed all over the British empire; you cannot tell whether they are dead, or where they are residing, in a vast number of instances; and you never can under any system of registration. All parties are entitled to be put upon the register by the present bill; and then I think there is clause 9, which repeals all restrictions and penalties, other than those contained in the bill, and clause 17, which renders the holders of the certificate eligible to every professional situation. I know of no statute law at present to render it unlawful for any person to hold the office of physician in a public institution who is only a member of our college: but the bill seems to me to confer a legal sanction on a thing which would be improper, and which, in fact, is absurd.

PROFESSIONAL GRADES.—I do not see that it would be fit and proper that all medical men should undergo exactly the same examination; there are different departments of the profession, those of the physician, surgeon, and apothecary, or general practitioner; and the same qualifications are not required in all those departments. As to whether I am for rigidly maintaining the distinctions which now exist, I am not for anything rigid in the matter at all. The distinctions which now exist are not the offspring of law, but they are arrangements which have gradually arisen in the course of things, with a view to supply the wants of the community; they are found to answer their purpose, and they are in accordance with the habits of the public. I consider that a gentleman who is to practise as a general practitioner in the country should receive an efficient medical as well as surgical education; and as to "seeing any objection to his practising all branches of the profession," he must do so in the ordinary course of things in the country. I do not object to it, it is what is established, and answers the purpose very well. I consider that the operation of the bill is designed to melt down the profession into a single faculty. I rather think that the distinctions at present existing would subsist in spite of the bill; but that seems to be the object as far as the bill can do it, to reduce the profession to a single faculty. There is nothing in the bill to prevent our continuing the examinations for the fellowship as we do now, except the indirect discouragement from this common certificate. This certificate seems to be put in the place of the particular evidences derived from the present governing bodies of the particular examinations that the individual has undergone. By our internal arrangements in the college, we hold out inducements to men of high mental attainments to belong to our institution, and to acquire those honours which we consider our institution is calculated to confer; and I think that this common certificate, and the whole state of things under this common list, is calculated as far as legislative provisions can go to discourage us. Before our new charter we had one list of members of our college. The names of Sir Astley Cooper, Mr. Abernethy, and John Hunter, appeared as members upon that one list. My objection to the registration part of the bill is, that it is calculated to do away with the existing distinctions of the profession, physicians, surgeons, and general practitioners, and to confound them all in one common mass of persons, "qualified to practise medicine." I do not object to the existing arrangements of the profession, or the existing modes of practice. I do not think it possible to confine physicians strictly to medical cases, or surgeons to surgical cases, nor do I think that it would be any advantage that they should be so confined. I think it is desirable that they should be well educated, and that the public should have the choice of being attended by those in whom they have the greatest confidence. I think that the qualification should be

according to the department of the profession that the parties belong to. I see no reason for interfering with the existing division of the profession into physicians, surgeons, and general practitioners; the public do not complain of that division, and the profession are not dissatisfied with it; and I see no reason whatever for the very important alteration which is indirectly attempted by this bill. If the present certificate denotes that a person has undergone an examination as a surgeon, and he is practising medicine, that is, treating medical cases, there is not impropriety of conduct; the public choose to be attended and to intrust their health to those in whom they place the greatest confidence, and if those parties have been well educated and examined, I see no objection to a party in a surgical case putting himself under the care of a physician if he chooses, or *vice versa*. The general course of practice is in that particular branch to which the individual belongs, but the boundaries are indistinct, and you cannot define them by law. I object to giving one certificate to all members of the profession as being duly qualified to practise medicine; I do not object to a certificate that shall express what the qualification is, because it is expressed in the letters testimonial which the individual possesses, that he has been examined as a surgeon, and that he is qualified to practise surgery, or that he has been examined as a physician, and that he is qualified to practise medicine, or that he has been examined as a general practitioner. I conceive that the surgeon ought to be specially educated in the performance of surgical operations, the management of accidents, and a great deal of manual work; those are things which physicians never undertake. I do not think that there is any branch of medical science that the physician is educated in, in which the surgeon ought not to be informed. Those scientific principles which are the basis of the practical art as conducted by physicians are common to the physician and the surgeon; the extra education must be that of the surgeon in the manual part of the profession.

RELATIVE RANK.—I think the public consider the physicians to be the highest department in medicine. I do not think the public are incapable of judging upon such a point as that; the public are not capable of judging of the amount of medical skill of individuals. But in point of rank the Herald's College would put physicians first. They study and obtain degrees in universities, and have always been justly respected as learned men. English physicians have generally been educated at Oxford or Cambridge with the nobility and gentry of the realm, and thus in public estimation they hold the highest social rank in the profession. I should be inclined to put physicians and surgeons on a par, but I am not at all unwilling to concede the priority to the physicians; they are more learned and receive a better education. I wish surgeons received as good an education as they do.

THE NEW CHARTER, THE CIRCUMSTANCES UNDER WHICH IT WAS CONFERRED.—The new charter I think has worked very well. I remember a member of her Majesty's Government considered that it might be expedient to make some change in the profession, and I suppose that led to the new charter of the college, which, as I apprehend, was intended to form part of a more general measure relative to the medical profession. I do not suppose that the charter of the college would have been granted in reference to the college alone; I should think it was part of a general scheme. The council did not take the initiative in this matter. The preamble of the charter states that we presented a memorial to the Crown, praying that it might be granted, and I dare say we did; but that was not the first step. That memorial might be apparently the first, when you came to see the public representation of the affair, but that was not the very commencement of the business. If a charter is to be granted, you must present a certain petition asking for it. I think the first proceeding in the business was, that the Secretary of State for the

Home Department was kind enough to send to the college a sort of sketch of an intended bill for the reform of the medical profession, in which this change in the constitution of the college was included. I do not think the heads of the charter were furnished to the council; I think that some of the heads of the general measure were furnished. The first proceeding was to do what the Secretary of State intimated to the council; viz., to see those heads and to form an opinion respecting them. I think the Secretary of State had more to do with the charter than the council as to the general plan of the charter, but it was ultimately determined upon after a great deal of consideration and many conferences. I will not pretend to distinguish accurately between the amount which was contributed by the Secretary of State and the modifications or alterations which might have arisen from conferences with, or consideration by, the council. I dare say suggestions were made by the council, but this was a considerable time ago, and it was a complicated business; there have been a good many meetings of the council on many other matters, and I cannot therefore pretend to say exactly. Persons are ineligible to be admitted on the council who are practitioners in midwifery; and that proposal, I think it is very likely, originated with the council. I recollect that it was discussed, because there was a difference of opinion upon it. I do not think that suggestion was contained in the original sketch which we received from the Secretary of State; but I cannot speak positively upon that, and I would not wish to speak to it without being sure that I was correct. The charter required the council within three months to nominate a certain number, not fewer than 250 and not more than 300; and then the charter further empowered the college to nominate other members within a year, apparently under the consideration that there might be omissions and something wanting to be rectified, and under that power 300 more were nominated before the end of the year. The words of the charter are,—"The council of the said college with all convenient speed after the date of these our letters patent, and before the expiration of three calendar months from the date hereof, and in such manner as the said council shall deem best, shall elect to be fellows of the said college any such number of persons, being members of the said college, and not being in the whole less than 250 nor more than 300, as the said council shall think proper. It shall also be lawful for the council of the said college, at any time or times after the expiration of the said three calendar months, and before the expiration of one year from the date hereof, by diploma or diplomas under the seal of the said college, and in such form as the said council shall think fit, and without any fee, to appoint any other person or persons, being a member or members of the said college, to be a fellow or fellows of the said Royal College of Surgeons of England." Several have come in for examination since those were nominated; the latter were the older members of the profession, and many of them have died.

RULES OF SELECTION.—I would say in the first place that the council determined not to make the nomination an individual question in any case, but to take them by classes. In the first place they took the surgeons of all the hospitals in England and Wales, which are recognised by the council as schools of surgery; all recognised teachers of anatomy and surgery; then persons having considerable reputation as surgeons, and called in to consultation in surgical cases by the practitioners in their neighbourhood, although they had no connection with hospitals. Then next they took a certain number of medical officers in the military and naval service of the country, recommended by the heads of the respective departments; the council had not a knowledge of the qualifications of those gentlemen, and therefore referred upon that subject to the director-general of the army, and to the physician-general of the navy. Next they took gentlemen practising as surgeons in London, who,

though not connected with hospitals, were considered eligible to the council under the former charter, and according to former usages; those were parties who generally had practised surgery simply under that denomination, and parties who had a kind of right recognised by usage to come on in their turn for nomination to the council; some of those were put upon the list of fellows. Next they took persons distinguished for the cultivation of the kindred sciences of anatomy, physiology, and natural history, such as Professor Owen, Mr. Mantell, a gentleman of the name of Newport, a general practitioner, who had gained the medal of the Royal Society, and some other members who had distinguished themselves in the cultivation of science. Lastly, other names were inserted for special reasons, being principally those of teachers who had been recognised by former acts of the council; for instance, persons who had been teachers of anatomy and surgery, or persons holding important public offices; among the latter were four senators of the London University. I think the surgeons of dispensaries in London were admitted. The surgeons of those infirmaries recognised by the college were all placed on the first list. Subsequently the college put upon the second list the surgeons of hospitals in the country, which were not recognised by the college, and also surgeons of dispensaries. There may be particular rules in each case on the appointments of surgeons to infirmaries and hospitals in the country. I do not know of any general rules that are applicable. They are in general elected by the subscribers, in the same way as in London by the governors. The public having appointed those persons to these institutions, the council approved of the proposition of making them fellows of the college. We institute no inquiry in such cases to ascertain whether the public had made a good choice. Such an inquiry would have been impracticable; they were appointed on the ground of their holding important public situations. The case of a subscriber to an hospital voting for a surgeon is totally different from that of a patient sending for a medical man. Although unable to estimate professional skill, the public can judge well enough of professional character. In the case of public professional appointments they usually select the persons best qualified. I am not acquainted with any instance of their being obtained by improper means. I cannot deny the possibility of such a thing; the question is a very general one. I cannot state any particular instances. I can state generally my belief that the best qualified men get those situations; it has been so as a general result. I am sure of it, because I know the individuals. The college having to confer an honorary title and an important privilege, adopted no course of inquiry to ascertain what was the competency of the individual in each particular case, otherwise than the approval which had been bestowed upon him as regards his professional reputation by the public who were living in his immediate vicinity. We considered that the best criterion. I think the public will generally select the persons best qualified. I do not think that mankind are capable of judging of the skillfulness or unskillfulness of a medical man: if a person is ill and sends for a physician or surgeon, if he has administered to him a quantity of medicine, he does not know whether that is or is not the proper treatment; but a gentleman living in the country, and subscribing to an infirmary, is pretty well acquainted with the general reputation for skill of the medical men who live around him. As to the question, "If you can rely upon the judgment of the public to the extent you have described, what danger do you fear can arise to the character of the profession from the adoption of the certificate as it is found in the schedule of the bill before the House?" I have said that I think that the good sense of the public would neutralize the effect of your Registration Bill. (Mr. Wakley here sat down.) The practice of a surgeon in a public hospital, in the face of his professional brethren, affords the

strongest test of professional competency which the profession has. The selection of fellows under the new charter, while it was allowed to be nominative, was made once for all, and under the charter it could not be repeated after the expiration of twelve months; it was at an end then. It was necessary to form a constituent body under the charter, and there would not have been a constituency unless parties had been so nominated. The fellowship is now confined to those who have undergone a more extensive education, have a higher degree of qualification, and have attained a greater age. Whatever defect may have existed in the nomination granted for a year has now ceased entirely. Henceforth for ever, under the charter, admission must be obtained by test of merit. The nomination was only a temporary contrivance to produce a constituency at the moment, which could not have been created in the regular course of examination for a long time. The evils and imperfections of the thing, if impartially looked into, will be found to have been exceedingly few. I am rather surprised that they were not more, considering the nature and difficulty of the affair. I think the efficiency of the college and its utility as a public institution have been much increased in the last twenty years.

(To be continued.)

LETTER ADDRESSED TO WM. LAWRENCE, ESQ., F.R.S., PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS, LONDON.

SIR,—I have just read in the *Medical Times* for the 16th inst. an account, which I presume to be correct, of part of your evidence taken before a select committee of the House of Commons on medical legislation. You there make several statements most disparaging to the medical graduates of the University of St. Andrew's, and among other things you assert that "there would not be any evidence to my mind to prove such a person (viz., a graduate of St. Andrew's) would be a fit candidate for the office of surgeon or of general practitioner in the smallest poor-law unions in England." Now, Sir, permit me to ask if you have taken the smallest trouble to ascertain what are the qualifications required of the candidates for the degree of M.D. in the University of St. Andrew's, the nature of the examinations, and the number of rejections? That you have not done so, I do you the justice to believe, for I am infinitely more disposed to infer that an individual of your reputation and character may fall into the error of making reckless and rash assertions, than be guilty of a deliberate attempt to blast the prospects and debase the professional character of a considerable number of respectable and deserving practitioners in medicine, a large proportion of whom, as shall appear in the sequel, are members of the college in which you hold so prominent a place. I am convinced, Sir, that I can prove to your entire satisfaction that your statements on this subject are at total variance with facts; and I think that, after informing yourself better, you will deeply regret that you ever gave utterance to such remarks without previously inquiring how far they were founded on truth.

It is quite true that the University of St. Andrew's possesses no complete school of medicine, or any hospital, and the only branches of a strictly medical education taught there are anatomy and chemistry; but all that portion of a good medical education which she cannot herself give she by no means dispenses with, for no one can become a candidate for the degree of M.D. (the only degree in medicine conferred at St. Andrew's) without having satisfactorily proved that he has received a regular medical education in respectable medical schools for at least four complete winter sessions, or three winter and three summer sessions, and attendance at a public hospital, containing not less than eighty beds, for at least eighteen months, where clinical lectures are delivered. In proof of this I need

only refer to the various medical almanacs, and to the printed regulations of the university for granting degrees in medicine.

The university has appointed a board of competent examiners, similar to the boards appointed by the royal colleges of surgery and medicine, in the three kingdoms, for testing the qualifications of candidates; and no degree is granted without a regular and stringent examination. These regulations have been in force since 1826.

That the board of examiners does its duty to the public and to the university, the following short statistical statement, part of which was published nearly two years ago and widely circulated, will abundantly prove. In the year 1846 thirty candidates presented themselves for examination; and of these twenty-four passed, and six, or one out of every five, were rejected. Of the six rejected, *four were members of the Royal College of Surgeons of London*; one was a licentiate of the Royal College of Surgeons of Edinburgh; and one possessed no diploma, but had all the preliminary qualifications prescribed by the university in their printed regulations.

The university has already made it publicly known, in a series of resolutions unanimously adopted by the senate, at a meeting held on the 11th Jan., 1846, and extensively advertised, that, "at the three last examinations, seventy-one candidates were examined; and of these twelve, or more than one out of every six, were rejected. Of these, seventy-one candidates there were thirteen who presented no diploma from any of the licensing boards of the three kingdoms, but who had all the preliminary qualifications required by the university in their published regulations, and six of these, or nearly one half, were rejected. The other six rejected candidates were all members of the Royal College of Surgeons of London, and one also held the diploma of the London Apothecaries' Company;" and one of them, it might have been mentioned, was remitted to his studies for the second time. Of the whole seventy-one candidates, forty were members of the Royal College of Surgeons of London, so that rather more than one out of every seven of the members of the college of which you are president who presented themselves as candidates for the medical degree of the University of St. Andrews, were deemed unworthy of the honour that you hold so cheap. The statistics of graduation since 1845 would furnish results similar to those given for that period; but I shall content myself by giving those of the present year. Before doing this, I may mention that, in the August examination of 1846, five licentiates of the Royal College of Surgeons of Edinburgh presented themselves for examination; and three out of the five were remitted to their studies. These three gentlemen had received their diplomas from the Edinburgh College very shortly before their rejection at St. Andrews; and one of them was remitted to his studies for the second time, he having presented himself for examination here previous to his successful attempt in Edinburgh. During the present year forty-nine candidates presented themselves for examination. Of these,

- 36 were members of the Royal College of Surgeons of London.
- 2 " licentiates of the Royal College of Surgeons of Edinburgh.
- 1 was a licentiate of the College of Surgeons of Dublin.
- 1 " of the Apothecaries' Company of Ireland.
- 1 " of the Apothecaries' Company of London.
- 1 " of the Faculty of Physicians and Surgeons of Glasgow.
- 1 was a native of Germany, who had studied medicine for four years in Halle, where he had graduated.
- 6 had no diploma, but had the qualifications prescribed by the university in their printed regulations.

Of the thirty-six candidates who were members of the Royal College of Surgeons of London, seven, or nearly one in every five, were rejected; and one of the rejected was a surgeon, and another an assistant-surgeon, in the navy. More than one half of the candidates belonging to the London College were also licentiates of the London Apothecaries' Company. One of the two licentiates of the Edinburgh Royal College, who also possessed the diploma of the London Apothecaries' Company, two of the six who held no diploma, and the licentiate of the Dublin Apothecaries' Company, were also rejected. Out of the whole forty-nine candidates, eleven, or rather more than one out of every five, were remitted to their studies.

If, then, according to your recorded testimony, graduates of the University of St. Andrews "are unfit to practise their profession anywhere," what must be your opinion of the professional qualifications of the members of the college over which you preside, seeing that one out of every five or six of them is rejected when they become candidates for the diploma of the University of St. Andrews? The bitterest enemy of the Royal College of Surgeons would not have ventured to slander its members in the manner you have thoughtlessly done in your endeavours to injure the reputation of the University of St. Andrews.

I could readily adduce, in evidence of the respectability and professional standing of the members of the board of examiners for this university, the names of gentlemen now occupying medical chairs in the other three Scottish universities; and of one holding a high place in one of the universities of London, who acted as examiners before they received their present appointments; and it would be equally easy to mention the names of professors in established universities, and others occupying the foremost ranks as physicians and surgeons, who held the diploma of this university, had I not said more than enough to satisfy you that you have most unjustly, and I have no doubt unwittingly, aspersed the professional attainments of the graduates of St. Andrews, and that they are entitled to reparation at your hands.

I have the honour to be, Sir,

Your most obedient servant,

JOHN RAE, M.D.

Fellow of the Royal College of Physicians in Edinburgh, and Professor of Anatomy in the University of St. Andrews.
St. Andrews, Oct. 23.

THE PRESENT DEGRADED STATE OF THE MEDICAL PROFESSION.

[To the Editor of the Medical Times.]

SIR,—Knowing the readiness with which upon all occasions you use your powerful influence in advancing the dignity and respectability of our unfortunate profession, I beg leave to call your attention to the following advertisement which appeared in the *Times* newspaper of yesterday, Oct. 20:—

"MEDICAL.—A gentleman, twenty-eight years of age, M.R.C.S. and L.A.C., wishes for a permanent situation as *out-door* visiting or dispensing assistant to a respectable practitioner within a mile and a half of the Strand. Salary £50 per annum. No one connected with the retail need apply. Apply by letter, prepaid, to M—, 18, — street, S—."

This is indeed a sad example of the degraded condition of the present race of medical practitioners, when a gentleman possessed of the double qualification, and twenty-eight years of age, can so far lower himself as to offer his services for the miserable pittance of £50 per annum—less than £1 per week. Why, a journeyman carpenter can with ease earn his 6s. a day, or 30s. per week; a police constable 18s. to £1; and the wages of a guard-man's footman are £40 per annum, with board, lodging, and sometimes a suit or two of livery; but here is an educated man toiling, both mentally and physically, and that at all hours, for less remuneration than is

accorded to a servant or journeyman mechanic. It is much to be regretted that any member of the medical body could send forth such an advertisement—not that it matters much at what price an individual may estimate his services, but because it tends greatly to lower the respectability of the profession generally in the public eye. Trusting you will think these remarks worthy of insertion in your widely-circulated journal.

I have the honour to be, Sir,

Your most obedient humble servant,

A. GENERAL REACTIONER.

Oct. 21.

ANDOVER UNION.

At a meeting of the medical officers of the Andover Union, held at Andover on the 26th day of October, 1847, the following resolution was unanimously adopted:—

That this meeting, representing the opinions of the medical officers of the Andover Union, deprecates the present inadequate salaries of medical officers sanctioned by the poor-law commissioners. And that this meeting pledges itself to support the Convention of Poor-law Surgeons about to assemble in London, for the purpose of securing more adequate and just remuneration to the union medical officers throughout this country."

George S. Payne.

Oswald Richmond.

Henry Ryder.

John Smith.

John V. Medhurst.

Frederick Burdidge.

A SEVERE SURGERY CASE.

At the Morley Petty Sessions the magistrates were occupied in a long investigation on certain differences between Mr. David Phillips, surgeon, of Newhouse, near Totnes, and Mr. Thomas Daykin, surgeon, of the same place. Mr. Bryett, of Totnes, solicitor, appeared for the complainant; and Mr. Lavers, solicitor, of Plymouth, for the defendant. It appeared, from the statement of the complainant's solicitor and from the evidence, that the complainant and defendant had been at variance for some time past; and that the complainant had made different representations to the poor-law commissioners to prevent the defendant from acting as a surgeon in various parishes in the Totnes Union, in which representations had failed to produce the effect he desired. On the 9th of September defendant was at Buckfastleigh fair in company with Mr. Cornish, another surgeon. Mr. Cornish was finding fault with the defendant in some professional matters, when complainant entered the room of the White Hart Inn, where defendant and Mr. Cornish were in conversation. Defendant joined in the conversation, and told complainant he had acted very scandalously towards him, and expressed to Mr. Cornish his surprise that he should be talking to a person who was insane. It appeared that defendant left the room, and the complainant took the chair in which Mr. Daykin had been sitting. On defendant's return he requested complainant to move; which he declined to do; defendant then told complainant if he did not move, he would make him. Upon this the complainant left the room, saying on the way "You are a blackguard; I did not expect to come into such blackguard company." Upon that Mr. Cornish said to Mr. Daykin, "You are not going to stand that?" and the defendant then followed the complainant into the kitchen, and there pulled his nose, saying "That is the way I treat such fellows as you." Many witnesses were examined for the complainant and defendant, and Mr. Lavers addressed the bench, stating that it was quite admitted by the defendant that he had assaulted Mr. Phillips, and that he had been obliged to resort to these measures in order to teach him that he (complainant) would not be permitted to attack his character in any way he thought proper.

Mr. Lavers commented at considerable length on the system of annoyance which the complainant had attempted towards the defendant, and the result of which had not been as complainant desired; but the only satisfaction that complainant could ever get from defendant was the expression of his readiness at all times to make an apology if he was in the wrong. Mr. Lavers assured the magistrates that the course the complainant had adopted would only give complainant's right of action against him in case he could prove special damage; and that such a remedy would be in this case utterly useless. As regards defendant he had naturally to regret ever having made acquaintance with the complainant, for the complainant had used every opportunity to injure and annoy him behind his back. Mr. Lavers called on the magistrates to dismiss the application; but should this decision be against his client he was satisfied the penalty they would impose would be such a one as, considering the nature of the aggravation, they thought the case merited, and not such as the complainant's attorney sought.

The magistrates consulted together for a short time, and said they greatly regretted that a misunderstanding should arise between professional men on whom the public relied for their services in time of need, and under all the circumstances of the case, they thought that if they fined the defendant in the penalty of 10s. and costs that would be sufficient. They declined, however, to require defendant to find sureties. The fine was immediately paid. The case lasted upwards of three hours.

THE EMIGRANT FEVER IN CANADA.

THE HEALTH OF THE CITY OF TORONTO.—We cannot say a great deal on this subject. Both town and country still remain sickly, but the prevalent disease is putting on a more modified type. Intermittents and remittents are also more common than typhus; and quotidian ague, not much known in this vicinity hitherto, is now seen very frequently. Opinions gain strength that most of the cases of fever in and about Kingston this summer have been occasioned, not so much by the importation of the ship fever, as by the miasma or malaria generated by the untoward lowering of the waters of the Rideau Canal, thereby exposing to the action of the heated atmosphere the mud bottoms of many thousand acres of drowned land.—*British Whig*.

(From the *Toronto Patriot*.)

We learn from an intelligent friend, who has just come down from the vicinity of the Grand River, that, though sickness has prevailed to a great extent in that neighbourhood, very little has been traceable to the emigrants. The cases of fever have almost all been of the remittent or intermittent character. Dysentery has been also very prevalent and severe, but our informant states positively that in no respect, but severity have the prevalent diseases varied from the ordinary epidemics connected with the season of the year.

EMIGRANT HOSPITAL, POINT ST. CHARLES.
Number of sick on the 10th of September, 1847:—

Men	437
Women	366
Children	203
Total	1006
Died during the last twenty-four hours:—	
Men	4
Women	1
Children	8
Total	13

(From the *Quebec Mercury*.)

Understanding the many remonstrances of the Canadian press, and in the face of the awful details of misery, sickness, and death hitherto attendant upon the emigration of this year, we

find renewed instances (of the most melancholy description) of the recklessness with which the lower classes in Ireland, England, and Scotland are sent off to find an early grave in Canada, or to drag out a miserable existence here for a briefly-protracted period.

The last case in point is the ship *Superior*, from Londonderry, now at Grosse Isle. This vessel left with 366 passengers. Her deaths on the passage amount to 20, and 120 sick (of typhus fever and dysentery) have been landed at the quarantine station. Of the number (not positively ill) sent to the sheds for the reception of the healthy, the inspecting medical officer is of opinion that no more than twelve can be said to be free from the disease. The whole of these poor creatures are said to exceed in squalor, wretchedness, filth, and misery, any that have arrived from the old country during this season of misery and death. One fact will suffice to illustrate the wretched condition of these poor creatures, and to convey a fearful idea of the miserable position in which they are about to find themselves. It is given in a few words:—So destitute were they, the captain had to cut up the canvas bread-bags to furnish clothing for some of them! Is not this truly appalling? What hearts must those possess who could deliberately expose their fellow-creatures to misery such as we now detail? Man cries shame upon his fellow-man for such cool, calculating, and mercenary atrocity.

A second vessel, freighted with Highlanders, equally as miserable and filthy in condition as any hitherto reported, is also at Grosse Isle at this moment—the *Bliza Jones*, from Glasgow, with 349 passengers. She has landed 30 sick at the station, and lost 30 during the voyage.

(From the *Quebec Chronicle*, Sept. 16.)

Our advices from Grosse Isle are up to yesterday. All the tents were struck some days since. On Tuesday last the churches were emptied of their sick, have been thoroughly cleansed and fumigated, and now revert to their original purposes. On Wednesday the old passengers' sheds were vacated (they had been converted into hospitals about the end of May), and the number of sick reduced to 1327; of whom 150 were convalescents, who have been sent to the east end of the island, where there have been established male and female convalescent wards. All the sick are now in hospital. The medical and hospital staffs have been reduced. The services of Drs. McGrath, Sauve, and Jamieson have been dispensed with, and Dr. Wallace will leave the ensuing week. The reduction has likewise extended to the orderlies and nurses. The hospital state on the 10th was as follows:—

Men	483
Women	472
Children	352
	1307

Between the 5th and the 9th inst., the deaths were 104.

GOSSIP OF THE WEEK.

NAVAL PROMOTIONS AND APPOINTMENTS.—Surgeons: R. McCormick, to the *Fisgard*; T. W. Jewell, to the *Victory*; Benj. Bunce, to the *Ocean*.—Assistant-Surgeons: Alexander Browning, and Evan Evans (1842), to the rank of Surgeon—the latter promoted and appointed to the *Bellerophon*, for his services in the *Gorgon* steamer, while in the *Parana* River; Dr. R. Fulton, to *Cockatrice*; W. G. McClare, to *Poitiers*; William Ellis Hamby, to *Caledonia*.

APOTHECARIES' HALL.—Gentlemen admitted members on Oct. 14: Theodore Romney Willan, Humphry Sandwith, Henry William Hayward Richardson, William Beedler Deacon, and William Parker Shipton.—Oct. 21: Frederick Farr, Charles Gage Brown, Joseph Holmes Buxton, John Fisher, Henry Harris Muggeridge, John Newton, and William Bannister.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS

OF MEDICAL MEN IN LONDON AND ITS VICINITY.

—A half-yearly general court of the members of this society was held at the Gray's-inn Coffee-house, Holborn, on Wednesday evening, the 20th inst., Sir Charles Mansfield Clarke, Bart., the president, in the chair. It appeared from the minutes which were read, that between November and May last twenty-two widows had received half-yearly grants at the rate of £85 per annum, nine widows at the rate of £50 per annum, three orphans at £25, and one at £10; that eight children had received smaller grants, and one widow a grant of £10 for immediate relief. Two applications for relief had been received and awarded to, and the court of directors had appointed a committee to consider whether the sums granted to widows and orphans might with safety be increased. A bequest of £100, by the late Dr. Kerrison, had been received duty free. A ballot then took place for the election of officers and directors for the ensuing year. Dr. Turner, late treasurer, was elected a vice-president in place of Dr. Mann Burrows, deceased; Thomas A. Stone, Esq., was elected treasurer in place of Dr. Turner; and, in place of the six senior directors who retire in rotation, the following gentlemen were elected directors, viz., Drs. George Burrows and Ferguson; Messrs. Wormald, Lucas, Law, and H. Sturley.

THE LATE SIR ASTLEY COOPER.—The following inscription has recently been engraved on the pedestal of the monument by Bailey, erected to the memory of Sir A. Cooper, in St. Paul's Cathedral, by the subscriptions of the friends and pupils of the late baronet:—

Sir Astley Paston Cooper, Bart.,

K.C.H., F.R.S., D.C.L.,

Member of the National Institute of France,

Sergeant Surgeon to their late Majesties

George IV., William IV.

To her present Majesty Queen Victoria,

And for a period of forty-two years

Surgeon to Guy's Hospital.

Born 1768. Died 1842.

Animated by a fervent attachment

To the science and practice of his profession,
It was the study of his life to augment and exemplify

The resources of Surgery.

And by a most assiduous, benevolent, and successful

Application of his time and talents

To this noble department of the Healing art,
Not his country alone, but the world
Became indebted to his exertions
And familiar with his fame.

As a memorial of his excellence and their admiration,

His contemporaries and pupils

Have erected this monument to perpetuate

His name and his example.

BASFORD BOARD OF GUARDIANS, Oct. 5.—

Present: H. Sleight, Esq. (chairman), and Messrs. Bailey, Pyatt, Burrows, Elliott, Barrow, Morrison, Faulconbridge (Bulwell), Widdowson, Mellows, Bennett, and Nuttall. Paupers in the house, 312, being an increase of eight over the preceding week; out-relief to 2842 persons, £198. 11s. 2½d. A report from a committee appointed with reference to the salaries of three of the medical officers was read, and ordered to be considered next Tuesday.—Oct. 12. Present: Henry Sleight, Esq. (chairman), and Messrs. Birkin, Bailey, Nuttall, Faulconbridge (Bulwell), Hemsley (Gotham), Ward, Hewitt, Barrow, Hobson, Bennett, Poole, Teplis, Martin, and Widdowson. In the house, 303; admitted during the week, 14; discharged, 21; dead, 2. Out-relief to 2906 persons, £200. 4s. 6½d. The report above referred to was received and adopted, and the recommendation contained in it of increasing the salaries of two of the medical officers to the amount together of £23 per annum, will be reported to the poor-law commissioners for their sanction. The following resolutions were unanimously adopted:—Resolved—"That this board having taken into consideration a series of resolutions passed at a meeting of

the medical officers of this union, at the Flying Hotel, Nottingham, on the 2nd instant; as likewise a communication from Mr. Ebsworth, received this morning, on the same subject; and finding, on reference to the union accounts, that the payments for medical officers for attendance on poor persons have been steadily on the advance for several years past, and have now reached so large an amount as £700 per annum—being an advance of about 70 per cent. on the same description of charges from the year 1842—decline, in the present depressed state of affairs throughout a large portion of this union, and the consequent inability of the ratepayers to meet the demands made upon them, to make any further advance upon the salaries of their medical officers, except in the special cases referred to in a subsequent resolution; but they are quite prepared to release the medical officers from engagements for which they represent themselves to be inadequately remunerated, by accepting their resignations at the termination of the current quarter.—Resolved—That it appearing further to this board that two of the medical officers connected with the passing of the resolution above referred to, received, during the year terminating the 29th of September last, £156 for attendance on poor persons, exclusive of the whole cost of maintenance of horses and charge for drugs (as per account rendered by themselves), the board therefore consider they have in this fact an additional reason for refusing any further advance of salary to such officers.—Resolved—That the board having taken into consideration a previous application for advance of salary, by Messrs. Burrows and Orton, have agreed to add to the salary of Mr. Burrows the sum of £15 per annum, and to that of Mr. Orton the sum of £8 per annum, to commence from the termination of the last quarter."

MEDICAL RELIEF.—A married woman of the name of Dament died recently, after a short and sharp illness, at Waldringfield, in the Woodbridge Union. She was visited by no medical man, though the husband, having an order for his attendance, waited upon the district surgeon, stated the urgent symptoms of his dying wife, and begged the medical gentleman in question (Mr. Moore) to visit her. With that request Mr. Moore did not comply. The woman died at eleven o'clock the same night. The board of guardians meet, and the Waldringfield guardian brings the case before them. He produces the husband of the deceased and the nurse who attended her, and complains of gross neglect on the part of the medical officer. The board deliberates, divides, and, after much discussion, adopts this as its final decision:—"That Mr. Moore be reprimanded." The following embrace the main facts of the husband's (Dament) statement. Though couched in simple phrase, there are points in his narrative which suggest matter for reflection:—James Dament, the husband of the deceased, said: On Friday, the 1st of October last, I left my wife at home in good health. At half-past six o'clock, when I came home, I found her lying on the bed, but not undressed, extremely ill and suffering great pain. She said to me, "I am very ill;" I said, "I see you are." She continued ill. I sat up with her all night. She had violent pain, sickness, and bowel complaint. At three o'clock in the morning the symptoms abated—both sickness and purging—and she seemed rather better. From three o'clock till six this improvement lasted. At six she asked me to go and call Nurse Button to come to her, to make her a cup of tea. I went to Nurse Button. She was not stirring. I called at the window and told her that my wife was very ill. She said, "She would come;" and, to the best of my knowledge and belief, Nurse Button went to her about six o'clock. I went to my work. At half-past two o'clock in the afternoon Nurse Button came to me while I was at my work in the fields; told me that my wife was very bad; that she saw a great change in her for the worse between one and two o'clock. I came home directly. I saw my wife, and was sure she was a great deal worse. I went directly to the overseer

for an order for the doctor (Mr. Moore). Mr. Salters, the overseer, was not at home. I stated to Mrs. Salters how bad my wife was, and the danger she was in, and Mrs. Salters gave me an order to Mr. Moore for his attendance. I came on to Woolbridge to Mr. Moore as quick as I could. I got to Mr. Moore's house about half-past four. I saw Mr. Moore a few minutes after I came. I gave Mr. Moore the order, and I told him my wife was very dangerously ill. He asked me when my wife was taken ill? I told him, "on Friday afternoon." "Why," said he, "did you not come to me in the morning?" I said that, though she was very ill over night, she seemed a trifle better towards the morning, and that I did not wish to trouble him without great occasion. Mr. Moore said "he had been close by; he had not been home more than ten minutes; his horse had been out, and that he would not go to my wife; if he did he might always be riding about!" He asked the particulars of her complaint, and I told him as clearly as I could what they were. He then said he knew what to do for her as well as if he had seen her. He asked me if she had much fever? I said yes, and that she was very thirsty. Mr. Moore ordered me some medicine to take home with me. Mr. Moore's young man told me the effect was to make my wife sick, and when it operated to give the sick woman plenty of warm water. I had also some fever powders given me. My wife was to take one of them every two or three hours in a little cold water. I got home about half-past six, and gave the medicine to Nurse Button. Nurse Button said my wife was so low and weak she dared not give her the emetic. A fever powder was given her about two hours after I got home. About eleven o'clock the same night she died. The next morning—Sunday morning—at a quarter past seven o'clock, I went to Mr. Moore to tell him that my wife was dead. I saw his stable-man, and told him to tell his master that my wife was dead, so that he need not trouble himself to come over to Waldringfield, for she was gone. I went on to Melton; and between eight and nine o'clock, as I came back, I saw Mr. Moore. I told him my wife was gone. He seemed struck and said, "If he'd a known she a been so bad he would have come last night."

POISONING BY A SOMNAMBULIST.—The subject of animal magnetism is about to come before a criminal court of law in Belgium, in reference to a charge of manslaughter against a mesmeric practitioner, Mlle. W.—, who professed to discover by mesmerism inward diseases and their remedies. This woman prescribed, while in a mesmeric trance, a certain medicinal compound for one of her patients at Antwerp. The prescription was made up, and taken according to order, and the patient died very shortly afterwards, obviously from the effects of some very active poison. The woman is to be tried for the crime. It appears to be rather against clairvoyance that, while the mesmerist professed to have power of detecting inward disease, she was unable to foresee that her medicine would infallibly destroy the life of her patient!

THE CHOLERA.—MALTA, Oct. 7.—The Board of Health have come to a determination that vessels arriving from ports where the cholera exists, having actually on board cases of sickness or death, or having had either the one or the other within twelve days previous to arrival at Malta, will not be permitted to enter even the quarantine harbour, but must remain cruising in and off the harbour for such a number of days as the Board of Health may decide. Upon the report of the quarantine physicians, who will go alongside such vessels, and obtain the necessary information as to the nature of the disease, the Board of Health will then fix the number of days before such vessels can be allowed to enter the quarantine harbour, and they will be subject then to perform such period of quarantine as the board may, under the circumstances of the case, think proper to impose.

THE CHOLERA IN RUSSIA.—Letters from St. Petersburg of the 5th state that, on the

authority of the official reports received by the Government, the cholera continued to advance towards the north and east. Cases of it had occurred at Orel, at Toula, and even in the village of Penas, situated at only fifty leagues from Moscow. In the province of Astrakan, in which there were 31,300 inhabitants, 5915 cases had occurred, and 3131 deaths. The disease still rages with great severity at Tscherno-Jarsk, and in the environs. At Saratoff, the capital of the province of that name, 2500 persons had been attacked, 1991 of whom died. In the country of the Cossacks of the Don there had been 12,651 cases, of which 7017 terminated fatally. At Charcow 53 persons had been carried off, and on Sept. 15 there were 588 sick at Kursk. At Woronesch, a town with a population of 44,000, the cholera broke out on the 4th of September, with 420 new cases, and 150 deaths had occurred daily. On the 16th there were 1019 persons ill of the cholera in the hospital, 418 of whom were attacked the same day. The number of deaths on that day was 162.

CHOLERA.—Some years ago, when Asiatic cholera was in the south of France, a physician of Marseilles, having noticed that charcoal-men were exempt from the disease, determined to try charcoal as a remedy for it, and was eminently successful in his practice. As no effectual remedy for the disease appears to have been hitherto discovered, and as charcoal would at any rate be harmless, it might be well worth a trial, both in Asiatic and other cholera. Its action is understood to be antiseptic: by correcting the putrid condition of the bowels the disease is said to be checked.

A number of young medical men have left Berlin for the Russian provinces, to study the progress of the malady.

The *Augsburg Gazette* contradicts the report of the cholera having appeared in Moravia and Silesia.

The Scientific Congress at Tours, of which the session is just terminated, have assembled nearly a thousand learned men of all nations. Those parts of the programme relating to the medical science have been the subject of numerous communications and spirited discussions.

MORTALITY TABLE

For the Week ending Saturday, Oct. 23, 1847.

Causes of Death.	Total.	Average of 5 Summers.
ALL CAUSES.....	967	1040
SPECIFIED CAUSES...	965	1039
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	296	211
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat.....	96	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	132	157
Diseases of the Lungs, and of the other Organs of Respiration....	233	333
Diseases of the Heart and Blood-vessels.....	34	34
Diseases of the Stomach, Liver, and other organs of Digestion.....	87	74
Diseases of the Kidneys, &c. Childbirth, Diseases of the Uterus, &c.	10.	9
	13	14
Rheumatism, Diseases of the Bones, Joints, &c....	5	7
Diseases of the Skin, Cellular Tissue, &c.	3	2
Old Age.....	38	65
Violence, Privation, Cold, and Intemperance.....	19	29

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ORIGINAL CONTRIBUTIONS.

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. 637.)

I come now to consider the causes of death after the operation for hernia—a subject replete with much interest to every member of the profession; as it is an operation which any one may be called upon without warning to perform, it is, therefore, highly necessary to have a correct knowledge of the dangers which attend it, and of those circumstances which have an influence in bringing about a fatal result. The mortality from this operation is, unfortunately, strikingly large; and one who has had no experience on the subject, or has not made himself acquainted with the recorded experience of others, might naturally wonder at the little amount of success which usually attends this operation—not in itself half so formidable or dangerous as many other operations in which the mortality is much less. Thus Dr. Inman has shown in the *Lancet* for Oct. 5, 1844, that the mortality in hernia was one in two; whilst in lithotomy, that most difficult and formidable operation, the mortality was one in seven. When we come, however, to look into the causes of death in those cases I shall mention, and in operations for hernia generally, we shall find that it is not to the mere operation that death is due, but that it is generally owing to circumstances which have nothing to do with the operation, and which I may with truth say are *allowed* to take place mostly through the neglect of the patients themselves, but sometimes through a want of care and decision on the part of the medical attendant.

Out of ten cases of strangulated hernia, which are down on my list, where the operation was performed there were six deaths; and we shall find that they sufficiently illustrate the various modes of death after this operation.

The first case, although it happened some years ago, I recollect well. The subject of it was an old, healthy man, between sixty and seventy. He had a hernia which became strangulated, and remained so for two or three days without proper measures being resorted to for relief. The consequence was, that when brought under the notice of the surgeon who operated, he was in a very bad condition, exhausted with suffering. Further delay was, unfortunately, permitted ere the operation was done. It was difficult and tedious; the man died whilst the operator was in the act of returning the liberated gut.

The second case was an aged female, who, I may say, lost her life through the unpardonable neglect of the surgeon who first attended her. She had been under his care for several days, for inflammation of the bowels; as she did not improve under his treatment she was sent into King's College Hospital; when a small, tense, and painful femoral hernia was detected. Her

state was very serious: however, Mr. Fergusson deemed it right to give her the only chance of recovery. On opening the sac it was found that the bowel had become gangrenous, and had given way. Death ensued in ten hours.

The third case was somewhat similar, inasmuch as there had been great neglect and delay. The operation was performed, but the patient sank within a few hours, purely from exhaustion.

The fourth case was that of a young man, who had had symptoms of strangulated hernia for some time. He bore the operation very well, but symptoms of peritonitis set in, and he quickly was carried off.

The fifth case I have not the particulars of.

The sixth case was an elderly woman, who had laboured under symptoms of strangulation for some days before remedial measures were employed. The local symptoms were not severe, and the tumour was lax and not very painful; the surgeon, thinking that the operation might be dispensed with, unfortunately deferred it some twenty-four hours. The operation was long and tedious; she sank in a few hours entirely from the shock.

Now, most of these patients died from shock, one would say, carelessly and technically speaking, from the shock of the operation; we find that one poor fellow actually died under the knife of the operator—a thing rarely witnessed now-a-days. Is, then, the shock after this operation so dreadful and so much more severe than that from other operations? If not, how are these deaths to be accounted for?

There is a certain amount of collapse after this operation, as after all other severe operations; but we must inquire a little more closely, and then we shall find a true cause for the mortality. In all those cases where the patients died from exhaustion, there had been neglect, and the strangulation had existed for a considerable time before the operation was performed for its relief. In one case it had existed for five or six days, and was treated by the careless practitioner for inflammation of the bowels; it apparently never entered his mind to put his hand on to the abdomen and endeavour to ascertain what was producing all the mischief. I suppose he was one of those practitioners who, in their treatment of disease, confine themselves to symptoms only, and do not bother themselves about causes.

In the other cases the patients had neglected themselves until the time for a successful operation had passed by; we can thus readily understand how it is that such cases as these prove fatal. During the time that strangulation has existed there must necessarily have been great suffering; the powers of life were gradually getting depressed, and acute morbid actions were going on. In no one disease, perhaps, does exhaustion so soon show itself as in acute obstruction of the bowels, and in none are prompt measures of relief more imperatively demanded. The next effect to this great exhaustion is inflammation of the peritoneum; and, should not relief be soon afforded, the last and most serious occurrence—namely, gangrene of the intestine—

will take place, and then little or no hope can be held out to the patient.

A surgeon is called to such a case. He finds his patient has been ill for some days; he is vomiting constantly; his belly is swelled and tender, and his pulse is rapid and small. He feels it his duty to operate; he does so, and, in some apparently desperate cases, recovery takes place: but, in the majority of cases, as in those I have mentioned, the slighter shock of the operation, added to the tremendous shock of the disease, is sufficient to carry the patient off. He may, in such cases, be said to die, not in consequence of the operation, but after the operation. It is the delay, and not the surgeon's knife, which destroys the patient. I believe that most of such cases would recover were the operation resorted to at an early period; but many persons, especially the poor and ignorant, do not apply until they feel their symptoms becoming intolerable, and great prostration of strength has ensued. But it is not in all cases the fault of the patient. It must be confessed that sometimes the medical attendant is much to blame: either through some inconceivable carelessness, or a natural timidity and dislike to using the knife, he allows the favourable opportunity to go by. If, through this extraordinary mental opacity, the hernia is not looked for, and consequently not discovered (and every one who has been much amongst the poor knows that some people, especially old women, although having a knowledge of the existence of a swelling in the groin, will not mention the circumstance), the patient is treated by calomel, croton oil, black draughts, and turpentine, with no benefit, to the great amazement of the attendant; or, if it is discovered, and the surgeon be a hesitating and undecided man, not trusting to his own resources, but flying to others for assistance, the hernia is squeezed and pushed about, and the symptoms aggravated, or valuable time is lost in preparing and trying various remedial measures for its reduction, and hoping against hope.

The dangers of this delay cannot be too strongly impressed upon our minds. That illustrious surgeon, Sir Astley Cooper (whose opinions on every point of surgery, and particularly on this subject, should be received with reverence), was strongly impressed with the truth of this when he said, "It is the most egregious ignorance possible to delay the operation so long, as is often done, thereby wasting those precious moments which, if properly used, might have been spent in saving the life of the patient. The delay is the cause of the danger, and not the operation."

If we look over the reports of the various hospitals, we shall find that the majority of cases where death ensued after the operation for hernia were those in which strangulation had existed for some time, and the patients had become much exhausted.

We see, then, that a great number of persons die purely from shock after the operation, and that, too, unconnected with any particular lesion. But there is another condition which causes a fatal result; and, although it produces death by

shock or collapse, yet it is peculiar, and requires a slight notice. I mean gangrene of the bowel. The second case I have mentioned illustrates this. When, as in this case, strangulation is allowed to continue for several days, the probability is that mortification of the bowel will take place; and, should the operation be performed, the patient will in most cases die, not certainly from the operation, but from the exhaustion caused by gangrene having taken place. If, as in this case, the bowel has become perforated, the contents will be extravasated into the abdomen, and peritonitis be caused; but the patient will probably die before this becomes extensive.

Out of six cases which my friend Mr. Haynes Walton operated on, there were two deaths. One of them was produced by gangrene of the bowel; it was not perforated, and there were only very slight traces of peritonitis. In this case strangulation had existed five days before my friend was called; the patient sank next day entirely from collapse, produced by the morbid state of the bowel.

In one of the cases I mentioned death was produced speedily and entirely by an acute attack of peritonitis after the operation. This is a frequent cause of death after all operations performed on the abdomen and pelvis, but especially so after hernia. Even in those operations where the peritoneum is not wounded, as in ligature of arteries and lithotomy, death is not unfrequently due to this cause, and we cannot wonder that it should frequently occur when the lining membrane of the abdomen is cut through; and thus it is we find that, although a patient may recover from the collapse of the disease and the operation, he may be carried off by peritonitis.

The surgeon is always anxious on this score, and fearful for the result when symptoms show themselves.

In a great majority of instances the inflammation which carries the patient off is not due merely to the operation itself, but it has existed previously, as one of the effects of strangulation; and, although by the operation the cause is removed, the effect is not in all instances controlled.

If peritonitis exists in a case where the surgeon is about to operate, he will feel much more anxiety, and will give a more guarded prognosis; the more severe the already existing inflammation, the more likelihood is there of its persistence, and *vice versa*. These facts again show what lamentable consequences arise from delaying the operation; so long as strangulation exists inflammation will go on increasing; and, when the surgeon is determined to act, he will probably only have the disagreeable task of performing a useless operation, where otherwise life might have been saved.

This peritonitis may, I believe, often be brought about by the remedial measures which are too frequently carelessly and unscientifically employed before the operation, such as strong purgatives used before the hernia is discovered, and the repeated application of the taxis by various parties. In Mr. Walton's second fatal case, most extensive peritonitis, with considerable effusion of serum and lymph, existed. In his account of the case he says:—"The taxis had been applied by several surgeons, much force used, and the intestines terribly squeezed about." Injury to the intestines by means of pressing and squeezing will cause as much, and more, mischief than opening the peritoneum by the knife.

It may not be out of place here to dwell a little upon a subject which is, or ought to be, extremely interesting to every practical surgeon—namely, the propriety or not of opening the peritoneal sac, and to consider how far wounding the peritoneum influences the fatality after the operation for hernia.

There can be little doubt that operations on the abdomen are attended with more danger when the delicate and highly-vascular investing membrane is wounded, than when it is not; and there can be little doubt that a vast amount of patients die from inflammation of this membrane

after the operation for hernia, in which the peritoneum is wounded; and it is this circumstance which has led some eminent foreign and British surgeons—Petit, Astley Cooper, Aston Key, and Luke—to find out a method, by altering the operating process, of obviating this danger; and their experience, especially that of Mr. Aston Key (whose monograph on the subject should be in the library of every surgeon) and of Mr. Luke, has been sufficient to show that this mode of proceeding may be in many instances followed with great advantage to the patient. At the same time it must be admitted that the objections which have been advanced against it by good authorities cannot be reasoned away. Any one who has had but a very limited experience in cases of hernia cannot help being convinced of the truth of this; and it, perhaps, is a question whether the greatly-to-be-feared danger from opening the sac—namely, peritonitis—is not in the majority of cases which prove fatal dependent, not upon the surgeon's knife and fingers, but on causes existing and acting antecedent to the operation, for in most of the fatal cases, especially when there has been delay, inflammation has already set in to a great extent; and, if so, it is not subdued, although the cause may be removed.

The objections against returning a hernia without opening the sac are, that adhesions may exist between the gut and sac, or between the convolutions of the gut itself, and thus that the strangulation may continue, although the external stricture may have been divided. Another serious objection is, that gangrene may have already taken place; and, should this be the case, returning the diseased bowel with the sac into the abdomen would be certain death. I have lately seen an instance where the operation was performed without opening the sac, and where death ensued. Upon post-mortem examination the bowel was found perforated by ulceration.

If the surgeon knew beforehand of the existence of gangrene, of course he would, in such case, open the sac; but, unfortunately, it is impossible to tell by symptoms whether or not this occurrence has taken place. The length of time the gut has been strangulated, together with some other prominent symptoms, may guide him to an accurate diagnosis; but not in all cases, as mortification of the gut depends more upon the tightness of the stricture than anything else. However, with whatever objections there are against this mode of operation, it appears evident that, in general, it lessens the fatality; although, in some individual cases not adapted for it, death may take place where otherwise a favourable result might have been brought about.

Another cause of death after this operation remains to be considered—I mean hemorrhage, which, either in a primary or secondary form, is one cause of death after all capital operations of surgery; but in this case there is a peculiarity, as it always occurs from direct injury of the vessels themselves during the operation, and these vessels are generally, but not always, irregular distributions of branches. In the operation for hernia, under ordinary circumstances, the bleeding is trifling; that which comes from the superficial pudic and epigastric is rarely troublesome to the surgeon. But it is from the deep-seated vessels that a fatal hemorrhage may take place. Those liable to injury are the internal epigastric and obturator arteries, and the spermatic is also sometimes in danger. If the surgeon is not cautious in his incisions he may wound the epigastric and cause a fatal hemorrhage. Sir Astley Cooper mentions one or two such cases. I have never heard of a case in which the spermatic was wounded, but it is unquestionably in a dangerous proximity. Sir Astley Cooper makes mention of a case where the femoral vein was wounded, the hemorrhage from which caused death.

The vessel most liable to be wounded, however, is the obturator artery. When it is irregular, instead of coming from the internal iliac, it arises with the epigastric, and runs either in front of or behind Gimbernat's ligament to reach the

sub-pubic foramen. Thus it is placed directly in the way of the operator's knife, and it will almost be impossible to do otherwise than wound it.

I have now, I think, considered all the important causes of death after the operation for hernia, and I have dwelt upon this particular subject more fully because I think that, by a more careful attention to those conditions which bring about a fatal result, the mortality which is now so great in this disease may be materially lessened. There are many circumstances connected with the treatment of hernia, before and after the operation, which, doubtless, have much to do with the success or fatality of the operation, such as the employment of the taxis, the administration of purgatives after the operation, and bleeding. It would be quite out of my province, even had I the ability, to enter upon the merits or demerits of these remedial means; as it has only been my object in these papers to inquire into those causes of fatality which are produced by the operation itself. I cannot, however, finish this subject better than by adding a quotation from a gentleman who has had considerable experience in hernia, and who has written some interesting and truly practical papers on the effects of various remedial measures, adopted for the relief of this disease, "I have in bringing about an unsuccessful result," says Mr. Macdwin in the *Lancet* for March 23, 1855, "I have met always with some fatal cases of an operation so often performed under favourable circumstances, which we have had no power of controlling; but, at the same time, I am satisfied that an innumerable number of lives will be saved by any one who will simply secure the ligature on the bowel as the cause of the malady, and who will restrict his treatment, whether before the operation or afterwards, as closely as possible to such measures as have a speedy and direct tendency to liberate the bowel, and especially if he will avoid unnecessary delay, coarse, unskilful, and repeated taxis, bleeding, and purgatives."

In the next paper I shall consider the causes of death after amputations.

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GENERAL REMARKS ON ANOMALIES OF THE VENOUS SYSTEM.

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The venous system of the human body, like all the other systems, is liable to deviate in one or more of its parts from what is termed the normal state. Such deviations are, by no means uncommon; but the frequency with which they occur, more especially when considered in relation to the deviations of the arterial system, has been differently stated by different anatomists. Some assert that anomalies of the veins are more common than anomalies of the arteries; while others are equally confident that they are not more frequently met with, and even not so numerous. We find Haller stating ("De Fabr. Corp. Hum." vol. i., p. 235) that he has found "many more varieties in the divisions of the veins, the origin and number of their branches, than in the arteries." Boerhaave ("Gefass-lehre," p. 77) believing that "the branches of the arteries are more constant in their course, unions, and distribution than those of the veins;" and Walther considering ("Physiologie," vol. ii., p. 404) that, "in consequence of this apparent superior constancy of the arteries," they are the more noble vessels. This, indeed, is the opinion entertained by almost all anatomists, respecting the relative frequency of anomalies in the arterial and venous systems; but, notwithstanding the support it has received from the high authorities just quoted, other anatomists, whose experience could not have been less, and was, probably greater, than that of their predecessors and contemporaries, have made contrary statements, and attempted to show that the two systems of vessels are nearly on a par in the number of their irregu-

larities. Thus, Bichat (a) asserts that the veins and arteries are "equally" variable in the arrangement of the brachies and twigs; while J. F. Meemel (b), who has prosecuted this subject with his usual success, shows, by the enumeration of numerous anomalies in the same parts of both systems of vessels, that "the veins are less liable to variation than the arteries."

It is not my purpose to enter fully into the details or the discussion of this question, which is undoubtedly one of importance in a surgical point of view; and I, therefore, refer the reader, who feels an interest in it, to the admirable memoir by Meemel, which has just been mentioned. In it the subject is fully discussed in all its bearings, and facts and arguments are adduced, most of which I have been able to verify. The conclusion, however, at which he arrives, is not of general application to the whole venous system: it can only be applied to the veins comites. Indeed, the differences of opinion concerning the relative frequency of anomalies in the two orders of vessels appear to me to have resulted chiefly from inattention to the fact that the veins consist of two distinct sets: viz. a set accompanying the arteries from their commencement to their ultimate divisions; and a set pursuing a course distinct from the arteries, or being only in relation with their minor branches. As will be immediately seen, the actual and relative frequency of anomalies in these two sets of veins differs materially; moreover, no comparison can possibly be instituted between veins so accompanying the arteries and the arteries themselves. There can be no doubt that the number of the veins surpasses those of the arteries in number; but, in attempting to make out the proportion, care must be taken to exclude all those anomalies which cannot possibly coincide with or have any relation whatever to those of either system. This has not been done, and in consequence of inattention to these circumstances, that the whole sum of the anomalies of both systems has been taken, an average drawn, and the result has been the general but, in some degree, erroneous opinion inculcated by the greater number of anatomists.

A careful revision of all that has been written on the subject, together with a large number of observations made by myself, lead me to believe that the following conclusions will be found to express correctly the relative frequency of anomalies of the different sets of veins to the arteries, and to one another.

1. The veins accompanying the larger arteries are less liable to deviate from the normal state than the arteries they accompany.

2. Veins accompanying the branches and twigs of the larger arteries are liable to deviate from the normal state, the corresponding arteries being less so.

3. Veins pursuing a course independent of any trunk, or branches of arteries, deviate very frequently from the normal state, are less constant than the veins comites, and appear to vary more than the arteries in the same part of the body.

That the larger veins are more constant than the arteries they accompany cannot be doubted. It may be as well to illustrate this by adducing some examples of anomalies which are most commonly met with; and, therefore, best adapted for the purpose either of fixing the rule on the memory, or testing the accuracy. The renal arteries are very liable to vary, both in their number and in their divisions; the renal veins, however, vary but seldom, even in those subjects which have the arteries anomalous. Those anatomists who have most strenuously supported the more general view are unanimous in stating this, although they have adduced the fact merely as an exception to the general rule. Thus, we find Meemel stating, in his "Element. Physiol." (vol. ii. p. 360), that the renal arteries vary

more than any, and even more than their accompanying veins; and again, that the form of the renal veins is much more simple and constant than that of the arteries. Soemmering (a) coincides with Haller, and states that the renal veins vary less than the arteries.

Meemel has shown, in the memoir already referred to, that whilst the brachial artery is subject to numerous anomalies, the veins are normal amongst all the anomalies of the artery or its divisions; and remarks that variations in the venous trunks are rarely found, unless there are corresponding anomalies in the arteries. This remark I have had frequent opportunities of verifying. In the same memoir he has adduced, in support of the rule, the great number of varieties presented by the trunks passing off from the arch of the aorta, the veins corresponding to them being subject to one anomaly only, namely, the non-union of the two veins innominate. Otto (b) and Isidore G. St. Hilaire (c) consider this to be the result of the difference in the form and distribution of the vessels, and, believing that this is a sufficient explanation of the fact, will not admit it in favour of the rule which Meemel was desirous of establishing, and which corresponds to the first of those given above. The objection they have advanced is not without its weight, but while admitting this, I am of opinion that the fact is greatly in favour of the rule, inasmuch as, while anomalies of the trunks arising from the arch of the aorta are comparatively of frequent occurrence, the single anomaly of the trunks entering into the formation of the vena cava superior is extremely rare—so rare, indeed, that an individual may spend many years in a dissecting-room without meeting with it once.

Were it necessary to bring a large number of examples in support of the rule, it would not be difficult to prove it on all the larger vessels in the body; this, however, is not required, and I shall, therefore, merely mention a few which have come under my notice. It is well known that the common femoral artery not unfrequently divides much higher than usual; indeed this occurs about once in every fifteen subjects; yet, in such cases, it is very uncommon to find the deep femoral vein join the superficial femoral vein higher up than ordinary. The obturator artery is one of the most remarkable as well as most interesting in the human body, in regard to the variations in its origin. I have had numerous opportunities of observing the more common varieties of that artery; the corresponding veins, however, were almost invariably normal, even when the artery was abnormal. The supra-scapular artery is not unfrequently derived from the axillary, instead of from the subclavian artery—an anomaly generally, if not always, found when the artery passes through the supra-scapular foramen; yet the accompanying vein enters the subclavian vein in its usual place. The irregularities in the origin of the mesenteric arteries, and the regularity of the termination of the mesenteric veins, might also be adduced in favour of the rule applicable to the larger vessels.

That the veins comites of the branches and twigs of the larger arteries are equally, but not more, inconstant than the corresponding arteries, is also certain. As far as my own observations will lead me to infer, I think myself justified in stating that in no case will any anomaly of the smaller veins be found where similar anomalies of the corresponding branches of the arteries do not exist; nor will any anomaly in the origin, course, or the distribution of the branches of the arteries be met with without anomalies in the corresponding veins. It is quite unnecessary to adduce any proofs of the validity of the rule just advanced, since those proofs would be merely a repetition of the rule in every individual anomaly of the smaller arteries and veins. Exceptions to the rule are nowhere to be met in the writings

of our best authors, nor have I ever seen any; and this, notwithstanding that exceptions are presumed to strengthen a general rule, is the strongest argument in its favour. The general opinion was, and probably is now, opposed to the view. I have taken up the matter in accordance with my own observations, and the high authority of Meemel and Bichat. Yet this opinion is not based on fact, and when advanced has not been supported, as it ought to have been, by the enumeration of numerous instances in which the veins were abnormal, while the arteries were normal. It is on this account that no weight can be attached to the statements of Isidore G. St. Hilaire (a), the latest writer on the subject, that the varieties of the smaller veins are more numerous than those of the smaller arteries; and, even were this true, allowance should be made, when instituting a comparison, for the great preponderance in point of number of the smaller veins over the vessels they accompany—a circumstance which has been entirely overlooked both by him and by other anatomists.

It is probable that the statement made at the beginning of the preceding paragraph, implying that anomalies of the smaller veins and arteries are invariably associated, may, after a more extended series of observations, require some slight qualification, but that would not in the least degree affect the general rule.

The third rule applies to the sinuses of the dura mater, the vena cava, the hepatic veins, the whole of the subcutaneous veins, and some few others. The variations presented by most of these will be pointed out hereafter, when I describe the special anomalies which have come under my notice; it will, therefore, suffice to say in this place, that those variations are in some instances so very common and so numerous that it is difficult to determine exactly what is the normal arrangement of some veins. Brachet (b) remarks that the varieties presented by the vena cava are so numerous that he seldom seen exactly the same in any two subjects: a remark which coincides with the experience of almost every anatomist. The subcutaneous veins at the bend of the elbow are also subject to numerous varieties, and the remark applied by Brachet to the vena cava is equally applicable to them. The same may be said of the anterior and external jugular veins, and of the subcutaneous veins of the thigh, although in the latter the veins are probably more constant in their number and arrangement than elsewhere on the superficial parts of the human body. It is worthy of remark that the places in which these veins are most frequently anomalous, are those in which a large number converge to unite in one common centre, or to distribute themselves in one or more large trunks. Examples of this will be found hereafter in the description of the anomalies of the confluence of the sinuses of the dura mater, the superficial veins at the bend of the elbow, and also amongst the hepatic veins, the anomalies of which, however, form an exception to the general rule, in being very uncommon and not numerous.

Having disposed of the question concerning the relative frequency of anomalies of the veins and arteries, and attempted to reconcile the contradictory statements which have been made from time to time by different anatomists, I may briefly notice an explanation that has been given, to account for the superior constancy of the veins comites, taken as a whole, over the arteries they accompany.

Meemel (c) has attempted to prove that the veins are more constant than the arteries, in consequence of the anteriority of formation of the veins. If this were actually the case, there would be no difficulty in accepting the explanation, as it would fully accord with the general laws regulating the formation of the body, and more especially with that which shows that the parts which are first formed are least liable to deviate

(a) Op. cit., p. 419.

(b) "Lehrbuch der Pathologischen Anat.,"

204.

(c) "Anomalies de l'Organisation,"

p. 448.

(a) Op. cit., p. 450.

(b) "Recherches sur le Système Veineux," p. 8.

(c) Loc. cit.

(a) Anatomie Générale, (vol. ii. p. 360).
(b) Über den Bau der Arterien und Venen, in: "Deutschland Archiv für die Physiologie," 1815, vol. i., p. 285, &c.

from the normal type. But this explanation cannot be received, since, as we now know from the recent researches of embryologists, the arteries and the veins appear at one and the same time in the vascular layer of the germinal membrane, and would seem to be formed contemporaneously in the different parts of the embryo during its development. Nor is it supported by comparative anatomy, for in the lowest animals in which a closed system of vessels can be distinctly traced, arteries are found as well as veins, although the latter always preponderate.

The venæ comites are even more constant than the veins, pursuing a course distinct from the arteries; but here there is no reason to believe that the former are evolved before the latter: no law of formation will account for the differences between the two orders of vessels. Were we better acquainted with the general anatomy of the venous system throughout the whole range of the animal kingdom, and more especially the vertebrata, than we are at present, we might be able to assign some satisfactory reason for the difference, but, wanting that, we must leave the facts as they are.

Anomalies of the venous system conform in all respects to the general laws regulating irregularities of all the other systems. They are of three kinds: anomalies by displacement, by deficiency, and by excess; and these are sometimes found associated in the same subject, although it is more common to find the anomalies in the same subject all of one kind. It may also be stated in this place, that it is usual to find more than one anomalous vein in an individual, and that such anomalies are not only associated in general with others of the arterial system, but also with others of the muscular and osseous systems: some individuals presenting numerous varieties in every part and region of the body.

Anomalies by displacement are by no means uncommon, and are principally met with amongst the smaller veins. In most cases, the anomaly consists of, or is characterized by, a variation in the termination of the vein: as, for instance, in the termination of the external jugular vein in the cephalic vein; the external saphenous vein in the internal saphenous vein, and a host of others. Such varieties are comparatively slight, and, from not altering the surgical anatomy of any particular region, are seldom noticed. But this is not always the case, for the simple variation in the termination of a vein sometimes gives rise to a very extensive and important alteration in the relative position of the principal artery, vein, and nerves, in some important surgical region: as an example of this, I shall have to describe hereafter a marked alteration in the relative anatomy of the parts in the axilla, consequent on a slight difference in the position and union of the veins uniting to form the axillary vein.

Whenever a vein is deficient, which is often the case, some other vein with which it normally has a free communication is invariably much more fully developed than usual. Thus, when the external jugular vein is entirely absent, the anterior jugular is much larger than ordinary, or the branches which form it pass into the internal jugular vein in the upper part of the neck and increase its dimensions. So, also, when one of the lateral sinuses of the dura mater is deficient, the occipital sinus of the same side is usually enormously developed—so much so as to give rise to the idea that the lateral sinus has been displaced and is taking a direct course towards the jugular foramen. We see here a repetition of the same law which applies to the arterial system: namely, that unless the absence of a vessel be accompanied with the deficiency of the organ or part to which it is normally connected, its place will be supplied by other vessels, and those usually vicariously with it.

Anomalies by excess do not appear to be so common as those by deficiency, and, like those by displacement, are found principally amongst the smaller veins. They are caused by the doubling of a vein usually single; and this takes place either by the formation of a septum, as in the case of a double lateral sinus on one or both

sides of the cranium: for this can be traced through various stages to the development of a complete septum passing horizontally across the sinus; or to the non-union of two veins which normally unite to produce the single trunk, each of them passing on to their destination distinct from each other, as in some cases of double external jugular vein. But, whatever may be the cause of the increase in number, the supernumerary vein is always very small, and, when united with that which may be called the normal one, their calibre seldom exceeds that of the normal vein.

All varieties of the veins are more frequently met with in the upper than in the lower half of the body; in the head and neck, and the thorax, oftener than in the abdomen and pelvis; and still more frequently in the superior than in the inferior extremities. There we find the venous system corresponding with the arterial, the muscular, and the osseous systems; and it is probable that they are all regulated by the same law: namely, that the parts which undergo the least change in the animal kingdom are the least liable to vary in the human body.

(To be continued.)

OBSERVATIONS ON OPHTHALMIC SURGERY.

By H. HAYNES WALTON, Esq.,
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This communication embodies an unusual case of congenital cataract, the operation that was performed, and the result, together with remarks thereon.

H. R., aged twenty-two, admitted at the Central London Ophthalmic Hospital Dec. 9, 1846.

SYMPTOMS.—His vision is nearly lost, there appears to be a dense mist before him. The left eye is less imperfect than the right. The irides light hazel. The pupils are of ordinary size and act healthily. The crystalline lenses are of a lightish-grey colour: scattered over them are a few small white spots; opacities of the capsules. Glasses of a high magnifying power benefit him nothing. There is no oscillation of the eyeballs.

HISTORY.—When at school, at six years of age, he could not see like the other boys, requiring books in a much larger print, neither could he join in the usual school games. Spectacles were given him, but, as they produced no decided advantage, he soon left off using them. Ever since he has had any distinct remembrance of himself his sight has been growing worse and worse. Of his state in infancy I cannot obtain information.

Dec. 10. Dilatation of the pupils with belladonna discovers preternaturally small lenses, each of which is more opaque in the centre than at the circumference. Around them is well displayed the black marginal line which always exists when, with an opaque lens, there is also an arrest of its growth, the condition constituting what is designated as "cataracta cum zonula." There are now visible more of those white spots on the capsules. The dilatation, though very great, does not ameliorate the imperfect sight.

11. There being no contra-indication, and the pupil having been dilated, I performed on the right eye the anterior operation for solution, lacerating the capsule but slightly. Ordered to continue with the solution of belladonna twice a day, so that effectual dilatation of the pupil shall be ensured.

12. The pupil is dilated. The lens has advanced so as almost to touch the cornea, and has become more opaque. The capsule is opaque in its outer half.

14. The entire capsule is opaque; there remains only sufficient power of vision to distinguish light from darkness; there is more space in the anterior chamber.

16. A small nucleus has escaped from the capsule and wedged itself between a portion of the dilated iris and the cornea.

30. The nucleus has not been productive of any irritation or inflammation, and is undergoing absorption. The capsule is contracting at a part of its circumference.

Jan. 18. The nucleus is nearly removed; the pupils clearing at the upper and inner portion; the patient can discern large objects.

27. There is slight conjunctival inflammation; a small piece of capsule has united to the iris; the nucleus no longer exists; the capsule is receding and contracting at its entire circumference, yet maintaining its normal connections by a few minute filaments. For the first time, it is apparent that its posterior hemisphere is opaque. Vision not much improved since his last visit.

Ordered R. Hyd. chlo., gr. iij.; ext. col. comp., gr. viij.; fiant pil. ij.; to be taken at once, and to be repeated two days after.

30. The inflammation of the conjunctiva has subsided.

Feb. 21. The capsule has contracted more at its circumference, as well as undergone interstitial absorption. Vision much improved.

March 1. Clear spaces have formed in the centre of the capsule.

20. All that remains of the capsule is an irregularly-disposed network of a few fibres, occupying the centre of the pupil, and a small circular band situated externally to the network, together with the minute filaments attached to it, and which were spoken of in the report of Jan. 27.

April 13. Two or three delicate fibres traverse the pupil; the circular band still remains.

20. The centre of the pupil is quite clear; its natural form is, however, interrupted by the adhesion; the little circular band has become smaller; its circumferential connections still exist. With glasses adapted for near and for distant objects the patient has excellent vision, and even without glasses he has tolerable sight, except for small objects. Discharged.

REMARKS.

There can be little question of the congenital origin of this case, and of the defect commencing in central opacities of the lenses. Considering it as such, is not a mere presumption founded on the want of its early history.

It is, however, very unusual for so long a time to be required for the completion of lenticular opacity, whether of congenital origin or otherwise. Ordinarily, when cataract is discovered in the child, it has already arrived at its limit, be it partial or complete. The partial congenital cataracts generally occupy the centre of the lens, and remain unchanged through life. Occasionally, however, after existing for several years, they increase, and ultimately the entire lens, or lens and capsule, become opaque. I was told by a gentleman of extensive experience, that it is at the age of puberty that this tendency for renewed morbid action develops itself. The following case induced me to make the inquiry:—

A female, aged twenty-two, who came under my observation eight years ago, had always possessed imperfect vision, but, within a short time of her application at the dispensary where I saw her, it had got much worse. In each eye there was a lenticular opacity, not central in either, but more so in the one than in the other. I watched the case for some time, but lost sight of it on my leaving London for a few months. When last she presented herself, the opacities had greatly increased, and, with the increase, vision was more impaired. I was enabled to ascertain unequivocally that in early life there were partial cataracts.

The central opacities might exist in so slight a degree as to produce little or no impediment to vision. Even when they are of large size the use of belladonna may often secure useful sight, when otherwise there is almost blindness. I have seen several such cases; the most remarkable occurred in two females, sisters, who with undilated pupils could see little or nothing, but, with the irides under the influence of belladonna, were able to perform the duties of house servants. In neither sister was her employer aware of any visual defect. A few drops of a strong solution of belladonna were used daily. But I must not proceed further on this part of the subject, as it

is any wish to introduce no remarks that do not bear directly on my case.

It may recur to the minds of many of my readers that the "ophthalmia neonatorum," or purulent ophthalmia of newborn infants, often leaves a central opacity in the pupil, and some ideas might be entertained concerning such an origin of the cataracts in this instance. I have been asked on many occasions by practitioners, if there is not danger of such opacities increasing and involving the entire pupil. Opacities the result of such a cause are never lenticular alone: they are always capsular, now and then capsulo-lenticular; and when the latter the capsule is, I believe, the structure first affected. I may mention, also, that such opacities are always central and have no tendency to increase, and there is sometimes a central opacity of the cornea in addition. Again "cataracta cum sonula" exists only as a congenital affection—a defective formation.

A question often arises whether the spots, or streaks, or specks, that are seen in the pupil are of the lens or its capsule. A correct knowledge of their true nature is now and then not without its practical bearing. I have known surgeons puzzled about them.

When of the capsules, they are of a dead chalky white, resembling much the white spots now and then seen on the finger nails, the result of injury to that portion of the nail, while yet at its matrix.

When of the lens, they may present many appearances, but a lenticular opacity is never of a chalky whiteness, except when there is a deposit of earthy matter, and then the whole lens partakes of the change. By making the patient look downwards, and examining the pupil obliquely, great assistance is added to the diagnosis. Opacities of the capsule will be seen to be well defined, and to be more opaque and more anterior than those of the lens, which will be of a cloudy or watery appearance, and may or may not be defined, this depending on their size, whether they pass far into the body of the lens or not.

Even when the entire capsule is opaque, the same chalky whiteness will be observed as when it is partially affected, although there may be degrees in the intensity of the whiteness, as it is more or less thick in different parts. When examining it obliquely there will not, of course, be the definition of the partial opacity, because it cannot be seen behind at any part.

In soft cataract uncomplicated with thickened capsule, as in the instance before us, I prefer the anterior operation, for solution—that of passing the needle through the cornea; by it, the eye is subjected to less violence; and I make but a small opening in the capsule.

In all needle operations, except where thickened capsule alone is concerned, I am always careful to do but little at a time, either at a first or any subsequent operation. I am of opinion that a large portion of unsuccessful needle cases owe their failure to the rough usage, so to speak, to which the eye is but too commonly subjected at individual operations, as well as to the too frequent repetition of the use of the needle.

I believe, moreover, that the success of operations for solutions is greatly overrated. If we consider success to consist merely in a removal of an opaque lens or capsule, and thus a clean pupil obtained, then my assertion is unfounded. But how frequently is it that, after the pupil is cleared, defective vision shows that during the treatment such changes have been effected within the organ as to render the surgeon's efforts useless, or nearly so; and this without there having appeared any external inflammation of any consequence! Various changes from the natural condition of the iris are common accompaniments of such failures. It must not be forgotten that the cases sometimes fail from the supervention of acute inflammation after the use of the needle; but such instances are, as far as my experience goes, fortunately rare.

I must now say a few words about the escape of the nucleus of the lens. Cases are recorded

of the presence of an entire lens, and even of large nuclei, in the anterior chamber producing serious ill; but, judging from my own experience, I do not regard the occurrence of such dislocations with much dread. The first case of the sort that I ever saw, occurred in a friend's practice. The needle was being used for solution, and the lens slipped into the anterior chamber. The operator immediately extracted it; he feared that destructive inflammation would ensue. Soon after that I saw another lens dislocated under similar circumstances by a different operator; it was left in its new situation, and in fourteen days was absorbed. Thrice I have known the lens dislocated from blows, and yet always absorbed; although in one of the instances the subject was a scrofulous female, in another an infant of three weeks old. When a lens with an opaque capsule is dislocated, it is not to be expected that the eye will remain in so quiescent a state. When absorption cannot proceed, irritation must be looked for.

I know of an instance which occurred under Mr. Tyrrell, of congenital cataract with its dense capsule dislocated into the anterior chamber; irritation ensued, and extraction was performed. As a rule, I should never remove a dislocated lens, or a dislocated nucleus, merely because it was dislocated. Even if irritation or inflammation ensued, I should first try corrective measures, before resorting to extraction. The testimony of others justifies this proceeding. The irritation or inflammation sometimes disappears, and absorption proceeds.

It is quite unaccountable why the lens is absorbed so much sooner in some instances than in others. Sometimes, without any apparent cause, there is a suspension of absorption, whether the lens be in its capsule or otherwise; and that, too, when the process of absorption does not seem interrupted by an accession of inflammation.

I had good reason for suspecting that the adhesion of the iris to the capsule was the result of the belladonna having been discontinued for a time, whereby the iris came into contact with a torn and irregular portion of capsule, caused by the escape of the nucleus. But even in the dilated state a pupil may become adherent, provided it be in contact with a capsule that is inflamed. I look on adhesion of iris and capsule as almost invariably the result of inflammation of one or other of these bodies previously to their coming into contact.

I have no doubt myself that, under certain circumstances, opaque capsule is absorbed; but what those conditions are I am unable positively to say. In the case before us, and in others that I have specially noticed, and more particularly one on which I operated a few months past, absorption of the capsule to a greater or less extent has taken place.

Although there was a shrivelling or a folding on itself of the capsule at the circumference, there was in the centre most undoubtedly a disintegration, a gradual interstitial absorption. I believe that at the circumference, too, there must have been absorption, as well as contraction or folding: for the little band that remained when the last report was made had become smaller and more delicate, and was evidently thinner and more attenuated, than it would have been had there been a mere rolling-up of opaque capsule. The same remarks hold good in other cases, where a small shreds roll in the centre of the pupil is all that remains of a once entire opaque capsule. Besides, what became of the posterior capsule which was seen to be opaque? It appears to me probable that the degree of inflammation that a capsule undergoes and I believe that it never gets opaque without first inflaming, considerably influences the absorption. To act on this theory is one of the reasons that deters me from lacerating extensively a transparent capsule. There can be no doubt that the more a capsule is injured and torn, the more it will inflame. I am always desirous to adopt any measure that appears likely to remove or mitigate the annoyance that one is pretty sure to encounter when having to rid the pupil of opaque capsule.

At the request of the patient, I defer operating on the left eye until next summer.

I wrote to my friend J. Browne, Esq., of Belfast, enclosing the foregoing case, and asking if he had met with any similar at his Ophthalmic Infirmary. Shortly after he sent me the details of a somewhat parallel case, which is so interesting, both in itself and on account of the correspondence that it bears to my own, that I shall submit it to the public, together with his accompanying remarks, in the next number of the *Medical Times*.

13, Bernard-street, Russell-square, Oct. 12.

ON TARDY DENTITION AND DEFECTIVE DENTITION.

By J. L. LEVISON, Esq., Brighton.

What we call *freaks of Nature* may be traced either to extreme action or to a defective power in the functions of some particular organs or tissues, or else to extreme action or feebleness in the organism itself. Hence TARDY DENTITION may be traced to some defective condition of the dental pulp, or a feebleness of its secretory power, which may be proved by a few examples.

Some time since a lady called upon me to request that I would see her daughter at her own residence, as she could neither walk nor ride, having been an invalid for some years past. I did see her, and found the young lady lying on a couch, looking very thin and emaciated; she appeared about twenty or twenty-two years old. On examining her mouth, I found the temporary *incisor* and *cuspidatus* on the right side in *status quo*, looking not only as intruders, but strikingly different in colour and size from their more recent associates on either side of them. On the left side of the mouth there appeared an open space instead of teeth of any kind, but I was told that she had been wearing a gold plate with two mineral teeth to fill the *vacancy*; that she had broken them, and had sent for me to renew them, &c. I then carefully examined the gums on the left side, and could feel the crowns of the *incisor*, and also of the *cuspidatus*, within their respective alveoli; and hence considered that this was one among many other cases I have seen of tardy dentition. By a more minute examination I ascertained that there were two stumps left in the temporary sockets on which the plate had rested, and requested the history of the case. In reply, I was told that the two milk teeth, which had occupied the now vacant space, had become dark and unpleasant to the eye, and, on application to a dentist, he had recommended their excision, and their loss to be supplied by the artificial method previously mentioned. But I declined following such injudicious practice, and urged the removal of the stumps of the temporary teeth, deeming it better to have the space in the mouth than interfering with the beneficent intentions of Nature: for having a plate resting on the stumps acted as a pad, and prevented the development of the two teeth, which, though very tardy, still they were gradually being matured. I should not, however, have thought this case sufficiently important in itself, but that it was connected with a deviation from the ordinary experience of the dental practitioner; that a great many of the members of this young lady's family had also a precisely similar defective state of mouth; the hereditary tendency being derived through the mother, as she had also for a number of years the temporary *incisors* and *cuspidatus* of the upper jaw; and all her children, who resembled her more than the father, had a similar defective state of the teeth, giving, from this peculiarity, to them "a family likeness," however actually modified the form of the features, stature, &c. One of the sons had, besides, his temporary molars of the upper and lower jaws after sixteen. (a) There did not exist anything to indicate what caused such apparent

(a) The *bi-cuspidatus* are substituted for the temporary molars.

caprice—the health in many of the family so circumstanced, although not robust, did not appear sickly, save and except the young invalid lady spoken of at the commencement of this article; and the osseous system of them seemed in a normal condition.

Another instance I would mention under this head; it was that of another young lady, the daughter of a retired physician. She had a great deficiency in the number of her teeth: for, instead of fourteen in the lower jaw at the age of sixteen, she had but eight, and nine only in the upper jaw. But in this case there was an evidence of some deficiency of osseous material, as she had suffered in her childhood from *molities ossium*; she was also very diminutive in stature, whilst the arms and legs were inconceivably small. The teeth, from their deficiency of bony matter, soon decayed; and her poor, thin lower maxillary seemed as if it were sure to break, should she require the teeth extracted. The father was a very sickly and feeble man, and the mother was also an invalid. In this instance we have some data for explaining the tardiness of the dental development. She had inherited a weak and enfeebled body, with feeble digestive functions; there was congenitally a deficiency of earthy matter in the bones, and all the functions for building up the bodily organs were tardy and ineffective. Hence her diminutive stature.

When in practice in Yorkshire, some years since, I took the model of the jaws of an old man, about seventy years old. He wished to have a set of artificial teeth. They were made to fit the models most accurately, and, when tried in the mouth, something obstructed them in the upper jaw; when the cause was sought, to my surprise I observed a beautiful white *cuspidatus*, with more than two-thirds of the crown visible. I proposed removing it, but, as my patient was in a second childhood, he positively refused, being assured that he should have a new set of teeth! His mouth was very narrow, and the lips small. In all probability the *cuspidatus* on the opposite side was yet in the jaws. But he died soon after, and so I had not any opportunity of proving this.

DEFECTIVE DENTITION may seem only another term for the latter kind of cases; but yet there seems to me a decided difference. In those we have cited, the teeth, though tardy in their development, still existed, and the gums gave evidence that such was the case; but in those now to be noticed, there is often one lateral or central incisor, or *cuspidatus*, or *bi-cuspidatus*, absent in whole families; and, from the most careful examination, it seemed evident that there did not exist any rudimentary pulp.

The practical use of a knowledge of cases of tardy or defective dentition is to impress the fact that temporary teeth ought to be extracted according to set rules: for although the teeth, like all other parts of human organism, are under fixed laws, in the order of their development—*ceteris paribus*, when the bodily health is vigorous—yet there are so many exceptions in the state of civilized society (where the jaws are rarely sufficiently expanded), that we repeat, it is injudicious merely to practise by the A B C rules laid down, but we must modify our practice by the particular circumstances of the case. Although, for example, the central incisors of the lower jaw have their temporary fangs absorbed by the sixth or seventh year, yet not unfrequently, in scrofulous or strumous subjects, these teeth are frequently not in a state for removal before the tenth or even twelfth year; or in other words, their permanent substitutes are not sufficiently developed. The only sure and correct practice is not to be influenced by the age, but rather by the state of the permanent teeth. And this information is to be obtained by an examination of the gums; not a mere superficial inspection, but by carefully feeling their anterior and posterior surfaces.

From this latter plan not being adopted, there results, also, often very great deformities. Lately I had one of this kind; from the temporary central and lateral incisors not being extracted in

time, (a) the permanent teeth took a direction, and made their appearance, anterior to the temporary ones. This not being attended to, a permanent deformity is the result: for when the jaws close, there is a space of full half an inch between the upper and lower central incisors; hence, for cutting the food, they are absolutely useless; and a very pretty girl is much distorted because the upper lip is thrust forward, giving her a very different expression to that which she would have had, had her mouth been attended to in time.

CASES OCCURRING IN PRIVATE PRACTICE.

Communicated by THOMAS HUNT, Esq., St. Day, Cornwall.

INJURY OF THE HEAD, ATTENDED WITH LOSS OF THE SENSES OF SMELL AND TASTE.

N. P., aged 40, a healthy miner. While at work under ground on the 18th of June last was struck by a stone on the vertex, which had fallen a distance of nine fathoms, but had touched the sides of the shaft in its descent. He fell, but did not become insensible, and was able in a short time to climb to the surface, a distance of 227 fathoms, with the assistance of a rope around his body. I saw him about two hours after the accident. He had vomited twice. On examining the head, a small longitudinal wound of the scalp, covering the upper part of the left parietal bone, was discovered, which I enlarged antero-posteriorly down to the cranium, but could not discover any fracture. A dossil of lint was placed in the wound, and he was sent home.

19. Complaints of headache, sickness of stomach, indistinctness of vision, and ringing in the ears. V.S. to Oj.; calomel and jalap purge; low diet.

20. Still complains, but in a less degree, of pain in the fore part of the head, &c. Ordered leeches to the forehead, and blue pill, gr. v., n. et m.

21. Cold lotion to the head.

July 2. The mouth having become sore, the pills have been discontinued. He sat up for the first time to-day, and finds that he can neither smell nor taste anything.

Aug. 18. A thin lamina of the parietal bone came away, and the wound, which up to that time had been open, healed in a few days.

He had returned to his employment under ground on the 4th of August, perfectly restored to health, and has continued well up to the present time, Oct. 27, but has lost the senses of smell and taste. He has sensation in the tongue and lining membrane of the nose perfect. Ammonia held to the nostrils produced irritation of the Schneiderian membrane and sneezing, but he cannot distinguish the odour or taste of any substance that is presented to him, though repeated trials have been made for the purpose of ascertaining the fact with every pungent substance contained in the surgery of kitchen.

CASE OF IMPERFORATE RECTUM AND URETHRA.

E. T.'s wife, confined with the fifth male child on Sunday, Oct. 24.

Tuesday, 26. Nurse reports that the child has not voided the meconium or made any water. Examination showed the anus perfectly well formed, but the finger introduced within detected a complete closeness of the rectum about three-quarters of an inch within the sphincter. A catheter introduced into the urethra could not be passed beyond the pubis; a large trochar was pushed about three inches in the direction of the guts, but no fæces following, nothing further was done.

27. Has had fæcal vomiting for the last twenty-four hours. Died about nine p.m.

RUSSIAN RECRUITING.—The Emperor of Russia has suspended the recruiting law until Jan. 1, in all those parts of the empire visited by the cholera.

(a) Their fangs were not absorbed.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF MEDICINE.

Meeting of Oct. 19; M. BÉGIN in the Chair.

LITHOTRITY.—The conclusion of Professor Roux's communication on this subject occupied the entire meeting. The learned professor remarked that the destruction of the stone by crushing should never be attempted in children under ten years of age; that considerable size or hardness of the concretions constituted also insurmountable obstacles to the method; and that it was, in his opinion, improper to adopt it when the calculi were numerous, and that great vesical pain or violent spasms of the reservoir of urine imperatively pointed to a speedy removal of the disease, and therefore precluded lithotripsy. After stating these (not very precise) counter-indications, Professor Roux proceeded to lay before the meeting the statistical results of cystotomy in his own private practice: he had altogether performed the operation upon fifty-four patients, six of which were under ten years of age, and all six recovered; of the remaining forty-eight cases, eleven terminated fatally. In one instance no calculus was found in the bladder, but fortunately the subject, a vigorous young man, recovered perfectly. The mortality in M. Roux's practice had, therefore, been rather more than one in five—a result agreeing perfectly with that of M. Civiale's statistical tables, and further showing that the results of the operation in hospital did not differ so widely as had been stated from those of private practice.

THYMIC ASTHMA—SPASMA GLOTTIDIS. BY DR. PURY.

In the "Abeille Médicale" we find several cases of asthma infantum terminating fatally. The author, Dr. Pury, found on dissection a remarkable development of the thymus gland, and does not hesitate to ascribe the disease to the pressure of this enlarged body upon one or both lungs. He conceives that the morbid condition of the thymus recognises for its principal cause a scrofulous hereditary predisposition, and a certain unknown and unhealthy condition of the maternal milk. These opinions being, in some measure, those generally adopted on this subject, we think it may not be uninteresting to the readers of the *Medical Times* to lay before them a very different view of the matter, which we read in a most valuable inaugural thesis by Dr. Hérard.

According to Dr. Hérard, the disease is characterized by short attacks of suffocation, separated by more or less prolonged intervals of apparently perfect health. Without any premonitory signs, the respiration is suddenly interrupted for ten, fifteen, or twenty seconds, at the close of which the attack is terminated by a sonorous and convulsive inspiration, which is pathognomonic of the disorder, and which has caused it to receive from some pathologists the name of laryngismus stridulus. During the fit the contractions of the heart are violent and irregular, the pulse small and frequent, and the hands and feet are thrown into a state of painful convulsion; the duration of each fit varies from a few seconds to one or two minutes. In the numerous instances of the disorder witnessed at the Children's Hospital by Dr. Hérard, he never saw any one attack last so long as eight, ten, or fifteen minutes, as it is asserted by Hauff and others. The fits, at first of rare occurrence, become gradually more and more frequent, and may be repeated so often as twenty-five times in one night; Hackman counted even fifty in the space of twelve hours. Dr. Hérard, considering the malady as the result of spasm of the glottis or of the diaphragm, recognises three forms, according as one or the other, or both, these organs are the seat of convulsion. When the spasmodic attack is limited to the glottis, the respiration is simply arrested for a few seconds, and is restored without the production of the special cry produced by inspiration during convulsion of the diaphragm. In the second form, in which the diaphragm alone

enters into spasmodic action, the attack is marked only by several successive and sonorous inspirations; the symptoms of asphyxia are not by any means so well marked as in the first variety which we have described, because the glottis does not participate in the convulsion. In the third form both the glottis and diaphragm are simultaneously convulsed, respiration is first suspended, and one or more sonorous inspirations are heard, and, not being followed by expiration, asphyxia is soon imminent; these sonorous inspirations resemble the crowing of hooping-cough, and are produced by the same cause. Death may occur—1, during the attack from asphyxia; 2, it may result from cerebral congestion; or, 3, be the consequence of gradually increasing debility.

On dissection of the bodies of children who have died of this disorder, M. Hérard asserts that no characteristic alteration can be detected. As to the hypertrophy of the thymus gland, Dr. Hérard refuses to admit that it has anything to do with the production of this form of asthma, and shows, from carefully drawn-up statistics, that the volume of the gland is in harmony with the state of health or weakness of the constitution, and not with the presence of asthma. It is not a little singular that anatomists should disagree on a point which would, at first sight, seem so easy to ascertain, as the question of the normal size of an organ; and it is not without surprise that we find Meekel averaging its weight at twenty grammes, Burdach at twelve grammes, Haller at eight or ten, and Haugsted positively asserting that in children of the same age the gland may weigh from four to twenty grammes! Haugsted is much nearer to the truth, according to Dr. Hérard, who attributes the great size of the thymus entirely to the vigorous constitution of the child. The Germans place in the brain the cause of this malady, and refer it to an "arrêt de développement," marked by the incomplete ossification of the fontanelles, the enlargement of the liver, the patency of the foramen ovale of the heart, the late evolution of the teeth, and the hypertrophy of the thymus. Dr. Hérard cannot adopt this view, and observes, with much reason, that it is precisely in large, well-formed children that the thymus is found in a state of hypertrophy. Dr. Corrigan has considered inflammation of the cervical part of the spinal chord as a cause of spasmodic glottitis, and has published an interesting case in the *London Medical and Surgical Journal* (1836), to illustrate this position. But this case, in which spinal irritation, at least, seems evidently to have produced the convulsive symptoms which now occupy our attention—this case has remained solitary; and, whilst it compels us to admit that it may occasionally bring on spasmodic contraction of the glottis, it leaves us at liberty to admit that it is far from being its only cause. The anatomical alteration which Dr. Hérard has met with constantly, viz., pulmonary emphysema, cannot by any means be looked upon as a cause, but as an effect of thymic asthma.

TREATMENT OF INTESTINAL PERFORATION. BY PROFESSOR PIORRY.

In the *Revue Médico-Chirurgicale* for October, we find a case of intestinal perforation recorded by the learned professor; and the treatment having very materially differed from that generally employed against the form of peritonitis caused by stercoral effusion, we translate the case, together with some of the professor's remarks.

A man, aged twenty, of a vigorous constitution, was admitted into hospital during the month of March, 1836, labouring under well-marked symptoms of typhoid fever. On April 14, the signs of an intestinal perforation showed themselves; a quantity of fluid became effused in the abdomen, gas being at the same time generated in the peritoneal cavity. These circumstances induced M. Piorry, notwithstanding the concomitant acute disorder, to perform paracentesis: three pints of fetid serum were removed; and the liver and heart, pressed upwards in the chest and interfering with respiration before the operation, now descended into their place,

thereby causing immediate relief. The peritoneal secretions having rapidly increased, the operation was repeated four times during the ensuing six days, and, after a temporary amelioration, more severe symptoms set in, and the patient died on the 14th of May, one month after the occurrence of the intestinal laceration. On dissection, the anatomical changes due to peritonitis were noticed, i. e., purulent fluids and false membranes; the odour of the effusion was stercoraceous; the intestines were united in the cæcal region by adhesions; and a perforation was found in the neighbourhood of the cæcum, in the centre of an inflamed Peyer's gland. On the liver and in the lungs tubercles were discovered.

Such is, in a few lines, the case related in the "Revue." M. Piorry does not believe in the efficacy of the treatment of perforation by opium; indeed he asserts that, in the cases treated in Dublin and in Paris, the diagnosis was not based upon sufficient grounds. We are inclined to adopt a different opinion; and although we can readily concede the utility of removing, in a given case, irritating effusions from the peritoneal cavity, even during acute disease, still we would be tempted not to rest solely our hopes upon this one method; and we should most assuredly resort to the other therapeutic agents which experience has shown to be advantageous in similar cases. However, the success obtained in the treatment of acute hydrophthalmia by puncture of the eye, in pleurisy by paracentesis thoracis, &c., plainly shows that the dangers attending punctures of the large serous membranes are not in any respect so great as it was generally supposed some years since; and in the case recorded by Professor Piorry, we find that not only the five-times-repeated paracentesis was not productive of any unpleasant consequences, but that in all probability they delayed the fatal termination of the disease considerably beyond the period at which it might naturally have been expected.

CHRONIC HYDROCEPHALUS.—A child, aged five years, had since two years been affected with porrigo capitis, when, in the year 1835, its mother applied to the head an ointment, which caused the eruption to disappear rapidly. But from that time forward, headache, weakness of the legs, and crossness, made their appearance, together with a gradual increase in size of the head. The child was examined three months after the cessation of the disease of the scalp; the head measured fifty-nine centimètres and four millimètres. Eight grains of calomel were prescribed every five days; some nitre, and also a large blister upon the scalp, to be renewed every week; the head gradually diminished in size, and at the end of the third month measured fifty-one centimètres only. From that time forward the child enjoyed perfect health.—*Revue Méd. de Dijon*.

OBITUARY.—M. Coletti, Prime Minister of Greece, who has recently died, before attaining this elevated political position had practised medicine.—*Revue Médico-Chirurg.*—Dr. Miguel, the first editor of the "Bulletin de Thérapeutique," died at Nice on Oct. 9.—Burdach, the illustrious professor of physiology of Königsberg, has also died in the course of the present month, in his 80th year.

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

ACADEMY OF SCIENCES.

Meeting of Oct. 24.

The following communications were received:—

1. Researches concerning the periodical comets, by M. Leverrier; who also presented an extract from a letter from Mr. Hind, of London, announcing the discovery of a small planet of the eighth degree of magnitude, Oct. 18, and stating that the comet found by Madame Brüncker on Oct. 11 was discovered on Oct. 7, at Cranbrook, by the Rev. W. R. Dawes.

2. Reply of M. Becquerel to M. Claudet, on some peculiarities noticed with regard to the action of the solar rays in the use of the Daguerreotype process.

3. Paper from M. Legris, on a means of

raising a double quantity of water at half the expense at present employed.

4. Note on the degree of exactitude with which the orbits of planets and comets can be determined.

5. Observations on the yellow fever of the Port of Spain, by Dr. Audemard.

6. Additions to a note communicated Oct. 10, relative to the application of the formula of interpolation of Laplace to the calculation of the differences of various orders of geometric longitudes and latitudes.

7. New observations on the employment of mercurial unctions in the treatment of typhus fever, with four cases given at length, detailing the treatment and final cure, by Dr. Mazade.

8. A paper, by M. Lessier, on the nature of typhus fever, and its treatment by mercurials, stating that such treatment does not rest on good grounds, and is altogether empirical.

9. New system of transmission, by M. de Dequerville.

10. Continuation of a former communication from Dr. Gustave Crusell, of St. Petersburg, on the electrolytic treatment of syphilitic ulcers, cancers, &c.

11. Astronomical communication from M. Hoduit, of St. Louis, Missouri.

12. Memoir on elasticity, by M. Lesfaur.

13. Note from M. Barrel in reply to M. de Ruolz, relative to a communication from the latter at a former sitting, on the electro-gilding, and rejoinder of M. de Ruolz.

14. Communication from M. Foëx, of Marseilles, relative to locomotive engines.

15. Communication from MM. Bobiere and Moride, recommending the use of protochloride of tin in the place of hyposulphite of soda in removing traces of chlorine after the bleaching of rags for the manufacture of paper.

16. Paper from Dr. Bardeleben, of Giessen, on the action of salt when introduced directly into the stomach by means of a fistula, and its effect on the gastric juice.

17. Interesting memoir on the digestive organs of the culex pipiens, or water tiger, showing their analogy to those of the ruminantia, by M. Puchet.

18. Paper on the successful treatment of external hemorrhage by the application of ergotine, in cases where it was impossible to use ligatures, and compression was insufficient to arrest the hemorrhage, by M. J. Bonjean.

A Physical Sign of Pneumonia of the Apex of the Lungs.—Dr. Boling, of Montgomery, Ala., says, that pneumonia, commencing at the apex of the lung, is, in proportion to the number of cases, the most frequently fatal form of the disease. He also mentions a physical sign that was present in three cases which he attended, the observance of which may probably lead to a correct diagnosis at an earlier period, in some instances, than it would otherwise be made. This is a fine mucous or crepitant rhonchus, seemingly seated in the larynx, loud enough to be heard distinctly at the distance of two or three feet from the patient, and so persistent that it is not removable, or but momentarily, by an effort to expectorate which the patient may make, while at the same time there are present none of the signs of bronchitis or laryngitis. The patient seems perfectly indifferent to its presence, which would not be the case if the sound were produced by the presence of tenacious mucus in the larynx itself. The sound is only seemingly produced in the larynx, for in applying the stethoscope immediately under, or just above, the clavicles, it will be found to proceed from the apex of one or other lung, which will be found the seat of inflammatory action. It would seem that the sound there produced in the pulmonary vesicles must be conveyed by the larger bronchial ramifications, numerous and superficial at this point, to the larynx, where, in consequence of the thinness of the tube and its proximity to the surface, the deceptive impression of its production in this organ, from the presence of a small quantity of viscid mucus, is created. It is the indifference of the patient to the presence

of the sound, but especially its *persistence*, which constitutes its peculiar and distinctive feature, and upon which its value as an evidence of pneumonia commencing in the apex of the lung depends.

Onions in Dyspnoea caused by Rarefaction of the Atmosphere.—At the mines of Potosi, says Dr. Dick, which are 18,000 feet above the sea level, strangers suffer during the first year of their residence from a dyspnoic affection, called *puma*, in the language of the country; for this the natives recommend the use of onions. Endemic remedies of this kind are worth attention.

Inversion of the Uterus successfully treated.—Dr. M'Coy, of Harrisville, Ohio, was called to a woman, twenty-one years of age, that had been delivered by a midwife. When seen by him two days afterwards, her respiration was diaphragmatic; skin hot and dry; pulse small, wiry, incompressible, and 115 in a minute; mouth dry; tongue covered with a dark brown fur. There was extreme abdominal tenderness; the lochia suppressed, and continued bearing-down pains. The uterus on examination was found inverted, and the vagina reflected in the form of a ring round the pedicle of the tumour. The hand was introduced in a conical form, indenting the apex of the tumour, which was gradually but perseveringly carried up through the os uteri, which entirely relieved the expulsive after-pains. An infusion of chamomile was ordered to be thrown into the vagina every two hours, and the abdomen to be fomented with hops; five grains of pulv. antimon., two grains of calomel, and half a grain of opium, given in the form of a powder every two hours. Eighteen hours afterwards there was decided improvement in all the symptoms; the bowels relieved; the abdominal tenderness subsiding; the lochia returned; the pulse fallen to 90, soft, and full; the skin relaxed and moist; and the secretion of milk established. The patient speedily recovered.

Statistics of American Private Obstetric Practice.—Dr. J. C. Bliss has taken notes of 820 cases of delivery. The sex of 797 has been noted. Of this number 396 were males, and 402 females. This is considerably at variance with most reports, the number of male children generally preponderating from three to ten per cent. The presentation in 771 deliveries is recorded. Of this number there were:—

Natural presentations	738
Breech	16
Funis and breech	1
The foot	8
The face	1
The face towards pubis	7
The arm and abdomen	1

From this it will appear that in one case out of every twenty-two the presentation was preternatural. Of 820 cases, forty were premature births—one in twenty; twenty-one were born dead; in seventy-nine cases the membranes broke at the accession of labour; and the average duration of labour then was ten hours and three quarters; there were eight twin births—a proportion much less than occurs in the lying-in hospitals of Europe. Out of the whole number three were cases of instrumental delivery. Of these three cases, the forceps were used twice, and the perforator and crotchet once. In the arm presentation turning was resorted to, and delivery effected by the feet. Four cases were preceded by puerperal convulsions—a proportion of one to every 206 births. In one case only was the urine examined, when it was found to be albuminous. In one case, in which the attack occurred in the seventh month, labour came on and the fetus was delivered three days after the convulsions had ceased. The child was dead and partially decomposed. The placenta was attached over the mouth of the uterus in three instances. In one instance the edge of the after-birth was over the mouth of the womb. The patient had repeated hemorrhages for two months before delivery, but it was at no time alarming. Labour commenced with profuse flooding, followed by syncope. The vagina was plugged, which arrested the hemorrhage till the head ad-

vanced so as to make pressure. In the second case, a female had first attended, and there had been flooding for ten hours, which had produced a state of extreme exhaustion. The hand was immediately passed up through the edge of the placenta, the feet brought down, and the child delivered in three minutes. The mother lost less than a pint of blood at the time of the operation, but died in an hour and a half after. In the third case, flooding commenced on the Sunday, not profuse. On Wednesday a profuse hemorrhage occurred suddenly. A physician was called in, who found the os uteri dilated to the size of a shilling. An hour afterwards Dr. Bliss was called in, when the flooding was so great and the exhaustion so extreme that the patient appeared moribund. A small portion of placenta was found, on examination, to protrude from the mouth of the womb. The feet of the child were brought down, but a difficulty was experienced in accomplishing delivery in consequence of its death and partial decomposition. The mother survived only about twenty minutes. The loss of blood was inconsiderable during delivery.

Fracture of the Skull in Children.—Dr. F. H. Hamilton, of the United States, makes the following remarks in reference to fracture of the skull of children:—1. That if a fracture with depression occurs in a child, and no signs of compression follow, no operation is justifiable. 2. That if symptoms of compression do actually exist, and there is no external wound which will at once admit the elevator to the fracture, unless the coma has continued several hours, no operation, not even the incision of the scalp, is generally proper; and if, after the lapse of several hours, the coma continues, yet is not great, or appears gradually diminishing, it is still well to delay an operation. 3. If in connection with coma there exists also a considerable external wound, so that instruments can at once be applied to the skull, and the elevator has been used with skill and without effect, still the propriety of resorting to the saw or trephine may be doubtful, because at this period of life it is difficult to make a successful operation. The trephine must traverse the entire thickness of the skull (not nearly through, or only through at points, leaving the balance of the inner plate to be broken up with the elevator, since the bones are too soft to be broken up by the elevator; and then the teeth of the saw are almost certain to lacerate the dura mater, because at this age it is more closely attached. Having made a sufficient opening with the trephine to admit the elevator, the depressed fragments are not always easily raised, owing to the elastic nature of the part on which the instrument rests, so that it often becomes necessary to introduce it again at another point. With these difficulties, connected with the fact that the bones often come back spontaneously, an operation can be seldom necessary.

Strychnine in Chronic Bronchitis.—Dr. P. H. Clarke, of Port Washington, relates several cases of what he considers to be chronic bronchitis cured by the administration of strychnia. He first tried the remedy upon himself, after having been afflicted a number of years, and the medicine effected a perfect cure. When he commenced using it he was emaciated, had night-sweats and continued mucous expectoration, attended with cough, at times very severe, after which the muscles of the larynx became so completely relaxed that he could not speak above a whisper, but unattended with pain. The commencing dose of the strychnine was one-twentieth of a grain, suspended in mucilage, three times in a day, and increased the dose every third day until one-fifth of a grain was taken. The remedy was continued for about four weeks with complete success, and no difficulty of breathing has been since experienced.

Syphilitic Bubo.—Mr. Hamilton recommends that a bubo should, if possible, be discussed without opening, even when suppuration has taken place. This can be done even where the integuments are thinned and fluctuation is distinct. It is best effected by the ad-

ministration of mercury and the application of a few leeches; gentle compression at first, gradually increased by means of a compress of lint, wash with the lotio plumbi, and a spica bandage. As the bubo gets pale, and the inflammatory action is on the decline, the strong tincture of iodine painted on the surface tends very much to hasten the absorption. In this way many buboes have been put back when suppuration was fully formed.

Extra Uterine Fecundation within the Fallopian Tube.—Mr. S. Cobbold, of the Norwich Hospital, relates a case, in "The Provincial journal," of a woman who suffered from severe pain about the right iliac region, accompanied by general debility and slight constipation; her symptoms, when first brought under medical treatment, were those of great prostration, with slow and feeble pulse. Opium and ether were administered with some benefit, and the local pain was relieved by the application of two small successive blisters. Constipation yielded to gentle aperients. Medical services were discontinued for a few days, when they were again required, in consequence of a return of all the former symptoms: costiveness, however, presenting a more prominent feature. For this the croton oil was administered internally with good effect. In a week or two afterwards the patient, after sitting up for several hours, was suddenly seized with severe pain in the right iliac region, and shortly after expired. At the autopsy the abdomen appeared greatly distended, and there was a general exsanguine appearance of the corpse. The peritoneal cavity was loaded with dark coagulated blood. A tumour was also found, nearly the size of a cricket-ball, in the right iliac fossa, the external surface having a delicate greenish hue, and the whole being semi-transparent, allowing a fetus to be distinguished floating in a quantity of fluid. After separating the coagula from it, one third of the mass was observed to be enveloped by a cyst, the whole resembling the universal ball-and-socket joint; the pouch answering to the socket was evidently a part of the Fallopian tube, which had been enlarged and distended in so enormous a degree by the continued and increasing fetus and membranes, that at length it ruptured, giving rise to the hemorrhage. The uterus was a little larger than in the unimpregnated state, and its inner surface was coated with a semi-gelatinous deposit, which could be easily scraped off; it was about the eighth of an inch in thickness. The distended tube, after rupturing, had contracted at its base, so as to effect in part the expulsion of the fetus and its membranes. In the right ovary the corpus luteum was observable on section; no other change was noticed, except an increase in size. The passage between the cystic portion of the tube and the uterus was found impervious and obliterated. The left ovary and Fallopian tube had undergone no perceptible change.

Extirpation of both Ovaries.—Dr. F. Bird related to the Westminster Medical Society the case of a lady, aged thirty-two, from whom he had lately extirpated both ovaries. One was of nearly spherical form, of compound character, and had weighed about twenty pounds; the other was of a very irregular figure, consisting of several lobules or distinct cysts attached to a common base; these had been filled by different secretions, the larger of them having contained much cholesterine; it weighed about four pounds. Both tumours were adherent to the abdominal walls, the larger one having been in its upper portion covered by the firmly adherent omentum, one of the arteries of which was greatly enlarged, and was ligatured. The patient rapidly recovered, and has since menstruated. The probable cause of the disease in the left ovary was inflammation; and the diagnosis was rendered difficult from the uterus having been drawn up so far out of the pelvic cavity that it was impossible to make any satisfactory examination.

Beans as a Strengthening Aliment.—Dr. Robert Dick says, that it is usual for the copper miners in Central Chili to carry loads of ore of two hundred pounds' weight up eighty perpendicular

yards twelve times a day. When they reach the mouth of the pit they are apparently in a state of extreme exhaustion—covered with perspiration, their eyes almost starting from their sockets, the mouth open, the chest heaving. After a brief rest they cheerfully descend again. Their breakfast consists of sixteen figs and two small loaves of bread; their dinner of boiled beans; their supper of roasted wheat-grain. Meat is scarcely ever tasted. They would prefer to live on bread without beans; but, as it is found the latter fit them for great exertion, they are compelled to use them by their masters.

New Instrument for preventing Pressure on the Umbilical Cord.—Dr. Joos, of Schaffhausen, employs this instrument during the act of birth in cases in which delivery is effected by version and bringing down the feet, and in which a fatal pressure on the cord is to be feared when it is prolapsed and cannot be returned. The instrument consists partly of caoutchouc or leather, in which are embedded in the body of the tube a series of steel rings three lines broad, and applied in such a manner that between every two rings the space of a line remains. The rings are not entire, their periphery forming almost 11-12ths of a circle, the remaining twelfth corresponding to the slit. These rings are firmly united with the caoutchouc or leather, and that neither the surface of the interior of the tube nor the slit will present any irregularities, these parts being lined with any convenient substance. The instrument is just large enough to admit the cord, and its length may vary according to circumstances from four to eight inches. In order to maintain its situation in the pelvis after its introduction, a handle made of whalebone may be fixed to one extremity, or the tube itself lengthened in the manner of a pen, the half of which has been cut away. In order to introduce the umbilical cord, the tube is opened on one side at the slit by a finger or otherwise, and by means of the other fingers the cord is placed within, and when left the enlarged slit instantly returns to its natural position.

Treatment of Varices by Electro-puncture.—This remedy has been employed by MM. Bertani and Milani, in the following manner:—The limb is carefully bandaged from the toes to a point just below the knee, and also from the groin to within six fingers' breadth of the other bandage. The patient standing, the surgeon then pierces the loops of the venous trunk, just above the lower bandage, with a platinum needle, the point of which is left free in one of the loops. A second, third, and fourth needle are similarly disposed in other venous loops, two being on the outside of the leg. To the needles which are fixed on the inside the zinc pole of the battery is attached; to the other, the copper pole. A current is then continued for ten minutes through two needles, the inferior of the inside, and the superior of the outside, ones; after which it is changed for the other two needles. During the operation very little pain is experienced. In the first case reported, the patient only submitted to a single application of the needles, which produced coagula. A second and third case were completely successful—one in ten sittings, the other in two.

Tobacco and Erysipelas.—Mr. C. Arnecape mentions the case of a young man suffering from an attack of erysipelas of the head: the delirium was severe, and he had had no sleep for two nights. He happened at this time to ask for a pipe, and, as he was in the habit of smoking a great deal, he was permitted to have one. He seemed to enjoy it exceedingly, and sat up in bed, taking a few whiffs between his delirious ravings; the exertion, however, was too great for him, and before he had consumed more than two-thirds of the tobacco he was obliged to lay it aside; but he was now much calmer, and lay down more quietly than he had done before for some time. The composing effect continued to increase, and within twenty minutes he was sound asleep. From this time the case progressed favourably.

Perforation of the Stomach.—Dr. Fletcher

brought before the Birmingham Pathological Society a specimen of perforation of the stomach. The patient from whom it had been taken was a young female who was taken ill in the night with violent pain in the bowels. The case being considered one of acute enteritis, the abdomen was covered with leeches and medicine given. No relief, however, was experienced, and in a few hours the patient died. At the post-mortem examination extensive peritonitis and perforation of the stomach were manifested. The patient was quite well the night before she died, and had partaken of a hearty supper. For two years previously to her death, however, she had been occasionally attended for pain in the region of the stomach, but for the last three months of her life she had not required medical aid. —[To correctly diagnose perforation of the stomach is oftentimes no easy matter. Sometimes, however, the symptoms are sufficiently indicative of the nature of the internal injury. A few years ago we were called to a young woman, eighteen years of age, servant at an inn, who was seized with violent pain over the abdominal region after drinking a cup of tea. In order to relieve her agony she took another cup, which, however, only increased her pain, and so much distention followed that her dress was obliged to be immediately loosened. Shortly afterwards we saw her, and she was then in a state of complete prostration; pulse scarcely perceptible at the wrist; cold perspiration; distended abdomen, which was also exceedingly tender on being touched; occasional attempts at vomiting, without, however, ejecting anything. The case being suspected, little medicine was administered; leeches, however, were applied over the abdomen, and in nine hours after the occurrence of the pain she expired. The autopsy showed an opening near the cardiac orifice, perfectly round, and of a size to admit the end of the thumb, through which the contents of the stomach had escaped into the abdominal cavity. There were no other evidences of disease. The patient had complained for rather more than two years before her death of pain over the epigastric region, but while she had taken occasionally some medicine she had never been kept from her employment. —*Ed. Med. Times.*]

Delirium Tremens—Modes of Dying.—A young man suffered from delirium tremens. After fifty hours' violent raving, says Mr. Arnecape, during which he had taken large and repeated doses of laudanum, he sank into the calmest sleep possible. In this state the breathing was light, and without stertor; the pulse had lost its rapidity, but was quite regular; the pupil, on raising the eyelid, was observed to be much dilated. He continued in this state for five hours, when his brother, on looking at him, found him dead. In another case, the patient, who was a drayman, remained in a state of the most violent and active delirium, incessantly struggling with his attendants, and endeavouring to get out of bed. Upon this condition opium had no influence. The vital powers gradually failed, but, while asphyxiated with accumulated mucus in the trachea and bronchial tubes, he acted as though he were driving his team, and the death rattle was mingled with terms of encouragement to his horses.

Symblepharon Successfully Treated by Plastic Operation.—Dr. Hays, surgeon to Wells Hospital, U.S., attended a farmer, forty-six years of age, with adhesion of the lower lid of the right eye, at its inner portion, to the eyeball. He stated that this adhesion had followed an operation for the removal of a pterygium performed about eight years since. The band of adhesion was short, and greatly impeded the movements of the eye, rotation outwards being impossible. An operation was determined on and performed in the following manner:—The patient, being placed on his back on the operating table, and the lower lid depressed by an assistant, the operator raised the upper lid with his left hand, and with the right passed a probe at the external side of the band down to the point of reflection of the conjunctiva, pressed the point inwards, so as to

make it prominent, and drew the lid from the eyeball. The assistant now holding the probe, the operator with a scissors divided the whole extent of the band. The incision left a triangular space, the base of which was at the edge of the lid, uncovered by conjunctiva. With a very fine sewing needle, slightly bent, armed with fine silk, three ligatures were passed through the edges of the conjunctiva—one near the apex, a second at the base, and the third at the middle portion of the wound; the ligatures were then drawn tight, by which the conjunctiva was brought into complete coaptation, tied, and cut off close to the knot. Cold flaxseed mullage was ordered as a dressing to the eye; a dose of salts at night, and an antiphlogistic diet. Union promptly took place, and in a few days the ligatures were removed. A weak solution of copper was then directed as a collyrium. Under this treatment the enlarged vessels contracted, the mass left adhering to the eyeball was diminished by absorption, and the patient was discharged with the recovery of perfect freedom of motion of the eyeball.

Treatment of Acute Articular Rheumatism.—Dr. Ruschemberger, surgeon, United States navy, says, in a case of acute rheumatism accompanied with nodes and syphilis, an ineffectual attempt to obtain the specific effects of mercury had been made on the commencement. When in health the patient weighed 220 pounds. He had been confined to bed four months, and when admitted into hospital was unable to bend the knee, wrist, elbow, or finger joints, without great pain. Cold-water dressings were kept constantly applied to the painful joints, half diet was allowed, and he took at bedtime, every night, two pills composed of four grains of opium, and four of sulphate of quinine. On the tenth day of treatment he left his bed. His weight was 136 pounds. At the expiration of twenty days the pain had disappeared; the quinine and opium were discontinued. There still remained, however, thickening and stiffness about the joints. For this, phosphoric acid, in doses of about twelve minims, was prescribed every four hours in syrup of pumex virginiana. Under this treatment the functions of the joints were completely restored, the patient gained twenty pounds in weight in thirty days, and the nodes disappeared. While taking the quinine and opium, the bowels, which had been constipated, were regularly moved once in twenty-four hours; but, under the use of phosphoric acid, it was found necessary to occasionally prescribe castor-oil, and an anodyne at night. "I have," says Dr. Ruschemberger, "been in the habit of treating acute rheumatism, upwards of two years, by cold applications to the hot and swollen joints, and administering at night from three to six grains of opium, with an equal quantity of sulphate of quinine, regulating the quantity by the condition of the pupil alone. With a dilated pupil I found the patients to bear the largest dose without inconvenience; and I have not yet met with a single case in which pain was not completely removed in from twenty-four to thirty-six hours, provided the attack were recent or of not more than a week's duration. Large doses of opium, especially in combination with sulphate of quinine, do not tend to constipate, but rather to relax, the bowels. After the pain is removed by the opium, I then resort to the use of iodide of potassium in medium doses—say from five increased gradually to ten grains, three or four times daily."

Excision of the whole Genital Organs.—Dr. Beck, assistant-surgeon, U. S. army, reports the following case:—A man, thirty-six years of age, was confined in the guardhouse during a fit of delirium tremens. A few minutes after his confinement, with a short, thick, one-bladed pocket knife he completely excised the whole of the genital apparatus, close to the body. Flinging them violently into one corner of the room, he exclaimed, "Any fool can cut his throat, but it takes a soldier to cut his privates off." In ten minutes after, the regimental surgeon was in attendance, and endeavoured to secure the sper-

matic arteries, but their retraction was so great that he failed in getting them. As the bleeding was profuse it was considered necessary to apply the actual cautery, which was accordingly done. In five minutes the bleeding had nearly ceased; a large bunch of rags was then applied as a compress, and secured by appropriate bandages; his hips were a little elevated; cold applications to the abdomen, and perfect rest and quiet for three hours, after which he was removed into the general hospital. The amount of blood lost was estimated by those present at one gallon. One fact worthy of notice is, that eight or ten minutes after the bleeding commenced, complete consciousness was restored, nor did he exhibit a symptom of delirium tremens afterwards. The dressings were not touched all the following morning, when he evinced a disposition to pass water. He had been placed on antiphlogistic diet. There was some difficulty to find the urethra, which, however, was eventually done; a catheter passed, and the bladder evacuated, with but little blood from a single artery, which was staid by torsion. After this his water passed without artificial means. Dry dressings were applied, until a yellowish sloughy secretion came off, when the wound was dressed with chlorinated soda and simple cerate. The last few days of the healing process a silver catheter was introduced, to keep the urethra open; afterwards a tent, around which the orifice contracted with a hard callous edge. The man recovered without an unfavourable symptom.

REVIEWS.

A System of Surgery, by J. M. Chelius. Translated from the German, by JOHN F. SOUTH. 2 vols. 8vo.: vol. i., 814 pp.; vol. ii., 1009 pp. London: Henry Renshaw, 1847.

This is no ordinary work, whether we consider its size, the matter of which it is composed, or the information which it contains. When we reflect on the little that has been added to the literary fame of our country by the hospital surgeons of London since the days of Sir Astley Cooper, the appearance of such a work as the present deserves particular notice.

Of late years the medical press has brought forth little of importance connected with surgery; its productions have been confined, or nearly so, to laud books, manuals, elements, &c.; no new work having appeared worthy to succeed the labours of our predecessors, Sir Astley Cooper, Hume, Hunter, &c.

We do not intend by these observations to depreciate the value of the smaller or elementary works which have appeared of late years, many of which are most valuable, and contain much information; nor to deprecate their continuance, but rather to censure those whose position in the profession has placed the acquirement of much important knowledge within their reach, but who have nevertheless refrained from imparting such knowledge to their professional brethren through the press, and have thus failed to contribute their share to disseminate professional information and sustain the professional character of the country.

How different the conduct of Sir Astley Cooper! Who can behold his legacies to the profession—his works on hernia, diseases of the testis, the mamma, the thymus gland, &c.—and not regret that as yet a successor to him has not appeared amongst us? The profession and the public have a right to expect the performance of this task by our hospital surgeons; its non-performance cannot be considered otherwise than as a neglect of duty.

Chelius's *Surgery*, although professedly a translation from the German, is, in reality, composed of a translation, and an original work, by Mr. South, for in no other light can the great additions which he has made to Chelius be considered; the German treatise acts the part, as it were, of a nucleus, around which has been collected a large mass of important informa-

tion, in the form of original observations, and extracts from other writers.

This adds considerably to it; it does not form the principal value of the work, as the original observations of Chelius are so succinct and condensed as to require very copious explanations, having been written "as a text-book for his class, and published with the view of taking it with him into the class-room, where he should enlarge upon and explain it, and thus form his lecture."

This work is divided somewhat differently from all preceding medical treatises, the subjects being classed not alphabetically, as in a cyclopædia or dictionary, or according to the parts affected, but according to their deviation, either diseased or accidental, from the normal condition; it consists, in addition to some introductory observations, of eight divisions: the first being "Inflammation;" the second, "Diseases which result from the disturbance of physical continuity;" the third, "Diseases dependent on unnatural coherence;" and so on to the eighth and last. Diseases are thus classed according to the results which the diseased action has produced.

The first division treats of inflammation, and embraces not only the several doctrines regarding the physiology of this state, but also the inflammation of the different tissues of the body, with a share of the treatment necessary. The opinions of Mandt, Gusterbock, Gulliver, and others on the nature and character of the globules to be found in the blood, both in health and disease, are recorded at considerable length, and possess much interest.

Inflammation of the lining membrane of the arterial system is treated of in rather a short notice, under the head of "Arteritis." The importance of the subject, more especially in connection with the tying of these vessels, and the supervention of secondary hemorrhage, as first noticed by Dupuytren, would have justified more extensive observations.

In the treatment of erysipelas, Mr. South condemns the application of leeches "under any circumstances, as the irritation resulting from their use itself frequently excites erysipelas, or rather erythema." We do not think Mr. South speaks from actual experience in this matter, as we have known leeches applied most frequently, and with the most beneficial effect. It is possible that in hospital practice, amongst patients of broken-down constitutions, such objections may exist to their use, but certainly not under other and more usual circumstances. The concluding portion of this division contains much useful matter regarding inflammation of the joints and spine, in which the opinions and treatment of the most eminent foreign and English surgeons are recorded and considered.

The second division is the largest and most important portion of the work, occupying upwards of 800 pages of the first and second volumes; it treats of wounds, and includes in this term all solutions of continuity, in both the soft and hard parts, and some of the diseases consequent thereon, and the necessary treatment. Having considered the various kinds of wounds usually treated of, the author notices poisoned wounds, resulting from cuts received during dissection, bites from serpents and insane animals, and especially treats of hydrophobia, to which sixteen pages are devoted. Wounds and injuries of the head and brain are next considered, and, subsequently, wounds of the throat, chest, abdomen, and their contents; which are followed by fractures, syphilis, diseases of the bones, the treatment of fistula, dislocations, hernia, aneurism, &c.; the author regarding these several diseases as "resulting from the disturbance of physical continuity."

In noticing the treatment of fractures, the various instruments recommended by Desault, Brünninghausen, Boyer, Hagedoon, Sauter, Cooper, Earle, Amesbury, &c., are fully considered. With regard to the "questio vexata" of the treatment of fractures of the shaft of the femur, in the straight or flexed positions, Mr.

South inclines to the former, and recommends the use of "four long deal splints," well padded. He prefers this mode of treatment, "because the patient is generally very easy with it, and is capable of moving about a little in the bed, without disturbing the fracture." In treating of "unnatural joints resulting from the non-union of fractures," Mr. South has omitted the treatment, by mercury, as recommended by the late Mr. Colles, although one of much merit.

The following observations by Mr. South on the treatment of syphilis are extremely judicious:—"The surgeon now first takes care to discriminate between the syphilitic and non-syphilitic sore, and adapts his treatment accordingly, with mercury, under careful regulations—for the former as a specific, but for the latter either as an alternative, or simply as an occasional purge, taking care at the same time to improve the general health by medicine and good air."

The observations on hernia are confined, or nearly so, to the surgery of this disease; its anatomical characters, being but briefly noticed in them, will be found, many of much practical importance, interspersed with the opinions of the best authorities of the present day on the points of treatment which are still open to discussion. Mr. South has paid considerable attention to the mode of operating in cases of strangulation, by dividing the stricture without opening the sac. He assigns to Mr. Key the merit of having revived this mode of operating, but unjustly so, as Mr. Key recommended the return of the hernial sac.

Mr. South quotes largely from Mr. Luke's observations on the operation, which conclude in the following manner:—"The proportion of failures in the attempt is, from its nature, greater than that which is experienced in hernia strictured by the margins of the abdominal apertures; yet, inclusive of these failures, I have not any reason to consider their general amount large, having sustained only five failures out of thirty-two cases on which I have attempted to leave the sac unopened." It is somewhat surprising to find Mr. South remarking, "that the success resulting from this practice, so very far beyond what usually happens in cases of strangulated rupture, leads to the suspicion that some of the number mentioned might, perhaps, have been relieved with other operation than the taxis." Such remarks imply a want of judgment on the part of the operator, which, we are quite sure, cannot be imputed to him, and feel confident Mr. South did not intend to charge with.

That this operation for strangulated hernia will actually supersede the other in all but a few instances cannot be doubted; the great success which has attended its performance in the hands of many modern surgeons, both metropolitan and provincial, should have already established it as that generally adopted, instead of the old method of exposing the inner surface of the sac and general peritoneal cavity.

That this membrane may be, and often is, cut into with impunity under many circumstances, cannot be questioned; but it is not so in cases of strangulated hernia, where the membrane is already extensively inflamed, and approaches a fatal condition: under these circumstances the addition of an incision into, and exposure of, the inflamed surface cannot but be dangerous.

At the end of the chapter on hernia is a table of cases operated on by Mr. South during the years 1835-1840, in which time he operated upon fifteen cases, of which six terminated fatally, the mortality being somewhat more than double that attendant on Mr. Luke's cases. Mr. South's candour in recording these cases cannot be too highly commended; the contrast may induce him to adopt the operation of not opening the peritoneal sac.

Aneurism is treated at considerable length, the various opinions and modes of treatment being recorded. The mode of treatment by compression, which has lately been more successful than when formerly practised, is noticed, and some interesting cases of cure related. Much

judgment is shown, both by the author and annotator, in the selection of cases suited to the various modes of operating—a part of the treatment not sufficiently attended to. Chelius remarks, "The opening of the sac must be conceded, if the aneurism be diffused and accompanied with much extravasation of blood, and in aneurism at the bend of the arm," &c. From want of this discrimination in practice much injury has been done, and much unnecessary pain inflicted. When, and for many years after, Hunter first proposed his mode of operating, it was apprehended that the collateral circulation would seldom be sufficient to sustain the vitality of the limb; experience has proved it otherwise, and established the fact that, in the majority of instances, the supply of blood by the collateral circulation is so ample as not to interfere with the success of operation, whenever, as in wounded arteries, the vessel is free from disease, and indisposed to contract. The mode of tying the various arteries is detailed, along with some valuable hints on the several operations.

Amongst the subjects treated of in the remaining divisions of the work are, stricture of the rectum and urethra, stone in the bladder, lithotomy and lithotripsy (these operations being compared and their applicability to different cases considered), cancer, amputation; excision of the joints, lower jaw, &c. &c.

The diseases enumerated form but a small portion of those treated of in the work; most, if not all, affections within the province of surgery have received attention in proportion to their importance. Indeed some, not usually treated of in such works, have been well and carefully considered: we allude now to diseases of the womb, including mal-positions of this organ; vaginal fistule, and other affections, which the foolish objections of surgeons have frequently banished from surgical works. We know of no class of diseases more worthy of the highest surgical attention, and of receiving due consideration in all surgical treatises; we regard these chapters as adding much to the value of the work.

The position of the author of this work, one of the Professors in the University of Heidelberg; the circumstance of the original treatise having already passed through six editions; and the standing of the translator, one of the surgeons to St. Thomas's Hospital, might well guarantee the production of a work of much merit and considerable research: although not fulfilling our expectations in some particulars, it has surpassed them in others, and may be regarded as a valuable addition to the medical literature of the day. Its character is less brilliant than useful; and although, perhaps, less attractive than some of the productions of the French surgeons, it will be found a work of sound practical information.

Members of the profession, who reside at a distance from the metropolitan centres, or in the colonies; those who are, or purpose to be, connected with our military or naval departments; indeed, all who may desire or who, from their position, may find it necessary to have a book of reference at hand, which they may regard as an authority, will derive much assistance from this work, as supplying a desideratum long wanted in the profession.

There are, however, some defects in it, which we trust to see rectified in a future edition; and we have no doubt it will take its place as one of the standard works of the profession, and form, as it is intended it should, an "Encyclopedia of Surgery." The principal defects are in the style and composition of the work—a phraseology being frequently adapted, long since obsolete, and sometimes unintelligible; and in the limited notice that has been taken of some of the translator's British contemporaries in the metropolis and elsewhere. These defects are easily, and no doubt will be, remedied.

We cannot take leave of this work without bearing testimony to the fidelity exhibited by the publisher, in the regularity with which it has been brought to a conclusion, and its execution as regards mechanical details. These are matters

which are worthy of notice, as contrasting with the still unexecuted medical works which "drag their slow length along."

Appended to "Chelius" is an analytical index of unusual length: this was essential, and will be found most useful in enabling the inquirer to consult any part of the work without trouble or loss of time.

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 Guinea IN ADVANCE, which will free them for twelve months. Half-yearly Subscription, 13s.; Quarterly, 6s. 6d.

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.

Medicus, London, writes us that he has had considerable opportunities of studying the cholera. He says "that there is no doubt that the atmospheric influence acting upon the nervous system produce those symptoms which so clearly mark the disease." He recommends as remedies calomel and opium; also, the inhalation of oxygen gas.

Mr. Bains.—The true nature of the compound has not yet been correctly determined. The work referred to is one which is an authority on the subject of which it treats.

M. A., Oxon.—The licentiates of the College of Physicians may be examined in Latin or English; if in Latin, it is recorded to their honour in the archives of the institution. A knowledge of Greek is also necessary. The possession of a university degree does not entitle a person to become a licentiate without an examination.

An Inquirer.—We know nothing of the parties. They cannot be qualified practitioners.

Surgeon-Apothecary.—We believe there is some intention of issuing a new pharmacopæia. The advance of science requires that the physician's book should frequently undergo alteration, that it may not be entirely laid aside.

M.R.C.S.—The operation was performed by Sir Astley Cooper, at Guy's, and was successful, the patient surviving it many years.

A Medical Assistant.—Gutta percha may be easily obtained at the surgical-instrument-makers; the tree which yields it was entirely unknown to botanists; it is now ascertained that it belongs to the natural order Sapotaceæ.

S. O., Maidstone.—Gelatine, such as is used for capsules, is made from the cuttings of fresh skins; the inferior kind from common glue.

A Poor-law Surgeon.—The meeting was one where great unanimity of feeling prevailed. Our correspondent would no doubt have been much gratified had he been present. We are sorry for his disappointment. There is no doubt that the degrading pay will undergo revision, and that hereafter a little more liberality will be manifested towards union surgeons, at least by the Government.

A Student.—The letter not being authenticated was destroyed. It is necessary that correspondents should give their names and addresses when they make statements which are not calculated to elevate the character of individuals to whom they refer.

Mr. Edw. Stanmore.—The back numbers of the Pharmaceutical Times, having been reprinted, can now be obtained.

Zeta.—The case of compound fracture of the thigh will probably appear in an early number.

Mr. Farmer, Putney.—Communication received.

Mr. Macilwain, the Albany.—The request shall be attended to.

An Old Subscriber.—The degree of M.D., from

Rostock, can now only be obtained by a viva voce examination.

Mr. T. Campbell, Burton-crescent.—We consider that an inquest ought to have been held in both cases; but a post-mortem examination instituted, especially in the first. Medical evidence has often been dispensed with by coroners, with what effect we know, parties having escaped justice who had been guilty of murder.

M. S.—The course will be published in the Medical Times.

M. D.—We feel honoured in being aided to the honoured list of good men who have been subjected to the gross vulgarity of the worthy writer.

A Pupil.—We have arranged with a distinguished savant for a valuable course on the subject named.

Philistines desires to know "which is the best manual to prepare for passing the Scotch universities." Perhaps some of our correspondents will answer the question.

We have received two communications in reference to Mr. Goldsmith, of Liscaud, who, though requested by the coroner at an inquest held upon the body of a child named William Edward Harrison, produced no diploma. Mr. Goldsmith, it appears, said that he was a member of the Edinburgh College of Surgeons; but the secretary of the college stated that the name of John Henry Goldsmith was not enrolled on their books.

Letters and communications have been received from Mr. Hill, South Ouse; Dr. Kinloch; Mr. Slovin, Longford; Mr. Sanger, Alfreton; Mr. Cotterell, Charlebury; Medicus, London; Mr. Rains; M. A., Oxon; An Inquirer; Surgeon-Apothecary; M.R.C.S.; a Medical Assistant; S. O., Maidstone; a Poor-law Surgeon; a Student; Mr. Edge, Stanmore; Zeta; Mr. Farmer, Putney; Mr. Macilwain, the Albany; an Old Subscriber; Mr. T. Campbell, Burton-crescent; Philistines.

NOTICE.

The increasing pressure of scientific communications—many of which are compelled with much reluctance wholly to omit—has suggested to us the necessity of placing much of our miscellaneous correspondence in smaller type; and in order that none of our subscribers may pass without an acknowledgment of their letter, or an answer to their queries, we propose also to transpose our Correspondents column to the last page, using for it, likewise, a smaller and neater type. To meet the additional expense we are in this and other directions incurring in the improvement of The Medical Times, the future numbers of this journal, after this day, will be charged with an additional penny. Concomitant with these changes—which will only confirm any claims we may have to be the best of the medical journals—The Medical Times will still remain, as our readers know, not only the largest but the cheapest scientific periodical published in any part of the globe.

THE MEDICAL TIMES.

SATURDAY, NOVEMBER 6, 1847.

THE POOR-LAW.

THE meeting of the Committee of Union Surgeons, to be held to-day, will have to discharge itself of an important responsibility. The interests of two thousand gentlemen, and of the pauper sick of the empire, are placed in their hands under circumstances the most favourable to a triumphant issue: much is given them, and much will be expected.

One of the first decisions will, no doubt, be that of securing a complete tabular statement, showing the actual state of the medical payments throughout every union in the empire.

To this end, every medical officer must be

quickly communicated with, and supplied with a form to be filled up with a detailed statement of his own case.

We consider this a most important step, for it will establish for us an argument which, both to the country and the Government, must be irresistible. But there is no concealing the fact that it implies a tolerably large expenditure, which should not be allowed to fall on the shoulders of a few. The subscription being small, there is no surgeon interested in the movement whose name should not appear in the list.

Another early decision will probably refer to the utter hopelessness of establishing a per-case system of remuneration. It is a system that will not and cannot be fairly proportioned; and would fall in a very short time, if submitted extensively to the severe test of experience. The poor, under such a system, will not receive medical relief at all, except in cases which, in the opinion of the relieving officer, present features making out a *prima facie* "urgent necessity;" and thus danger to the pauper, and ultimate expense to the ratepayer, will arise from protracted illness owing to neglect of primary symptoms.

Again, the adjustment of the accounts between the guardians and the medical officers will be a scene of endless bickerings and constant appeal to the commissioners. Let it be added, too, that the numbers or distance of the cases are no proper test of the amount of remuneration which medical officers should be paid. There are also other disadvantages which may be urged by the guardians and the public. It will be suspected that the medical officer may make one case into two or three, *e. g.*, hepatic congestion, pneumonia; dropsy, consumption, &c. There may be two cases in one family, and so on *ad infinitum*. We will suggest also, with respect, that we ought to leave out of view every scheme of a sanitary nature in the first instance, and stick to the point as affecting the union medical officer, the pauper, and the rates. The committee will find work enough for themselves before pulling through with this load; and if they try to carry medical police, health of towns, or sanitary commissions, or any of the other proposals hinted at as to be connected with the Convention, they may have the strength of Hercules and not get through their difficulties.

LINCOLN'S-INN AND ST. ANDREW'S.

THE evidence of Mr. Lawrence and the letter of Dr. Reid leave clear one inference:—When "certain" people fall out, the readers of the *Medical Times* acquire their own. Take Lawrence on his oath as to the worth of St. Andrew's, and Dr. Reid on his word as to the value of the College in Lincoln's-inn—and we have a tolerably near approximation to the truth. Both are nearly as bad as they can be, but, of the two, St. Andrew's is probably the better concern. Its rulers are not so daring in their predatory habits; and are content for their week's wages with a less amount of corporate violence. There is a want of metropolitan expansion in their unprincipledness, and, as though smitten by the characteristic caution of their race, they timblerig with quaking consciences, and play fantastic tricks by mean-spirited halves.

Whosoever knows Lawrence, and the College of which he has been for so many years the autocrat, will make no such accusation as this against him. There is no vapid small-beer scruples or hesitations about his corporate *razzies*. No hair-splitting *bienveillance*, no coward-making con-

science stands between him and the heroic. Are there 10,000 members to be stripped of twenty guineas, value not received? Lawrence is exactly your man. Are there 10,000 members to be despoiled of a nominal corporate privilege, and external social position? Again, Lawrence is your man. Is it necessary to meet the poor despoiled victims, and, in answer to their vociferated groans, tell them to their faces—gentlemen as they are!—that they have been—and will be—(and that deservedly)—treated as a flock of geese—hissing, gabbling geese? Again, Lawrence is your man. While there are such things as a Genius of Impudence, and a Heroism of Odd-doing, who shall doubt that Lawrence and his College deserve high precedence—high footpad precedence—over Dr. Reid and his northern university?

Dr. Reid—who seems to have felt that, bad as might be his university, it was imperative on him, for decency's sake, to show that at all events it was a great deal more respectable than our College of Surgeons—tells us in his clever letter, that in the examinations held before Jan. 11, 1845, they had in their 71 candidates, forty members of Lawrence's College; and out of these forty members the university felt itself obliged to withhold its diploma from six—one of these six having been rejected by the university once before! During the present year, out of their forty-nine candidates, thirty-six were again members of Lawrence's College; and out of these thirty-six the university felt itself compelled to reject seven—nearly one in five! Now, to a certain extent, we believe Mr. Lawrence on his word—as we before said: and have no doubt that his very cheap estimate of St. Andrew's is certainly not 100 per cent. beneath its value; but, humble as are its pretensions, it would yet appear to turn up its nose at every twenty in Mr. Lawrence's hundred members! Bad as may be St. Andrew's, it is proved by statistics to be just twenty-five per cent. better than Lincoln's Inn!

Now, the members of the College have a right to some explanation here. Mr. Lawrence would raise the council and the body of fellows in social estimation; and the easier mode of doing this is unquestionably not raising the qualifications of himself and brother practitioners, but depressing that of the large body of members. Has this been his policy? Is this the explanation of that terrific facility with which of late years members have been admitted who could show the possession of the one great qualification—twenty guineas? Is this the reason that the College has now members—one in every five—unworthy of admission even to St. Andrew's? We ask an answer. Dr. Reid asks an answer. Perhaps, before we again address the public, Mr. Lawrence may think it worth his while to give one.

THE COLLEGE OF PHYSICIANS, AND THE GENERAL PRACTITIONERS.

"Like Eastern kings, a lazy state they keep,
And close confined in their own College sleep."

FORM.

It is a law of our nature, which most men discover, that whenever they have an opportunity of praising themselves, though at the expense of others, they will generally give themselves the full benefit of their own approbation. Some of the gentlemen representatives of the two corporations of Physicians and Surgeons in the metropolis gave a very striking exemplification of this law, when called to give evidence

before the parliamentary committee on the Finsbury member's Medical Registration Bill. When the worthy ex-president of the College of Surgeons appeared to show cause why the bill should not pass into a law, he made use of the opportunity to speak a good word on behalf of himself and fellows. This he did at the expense of the great body of college members, whom he characterized as persons of defective general education, and with but a very limited stock of professional knowledge; that they were, in fact, only fit to occupy certain country stations, or to exercise their slender abilities upon pauper patients.

In thus speaking disrespectfully of the surgeons of Great Britain in general practice, he had only followed the example set him by the illustrious president and censors of the College of Physicians, who had previously advertised themselves as being the lights of the professional world and the salt of the earth. The evidence of these gentlemen, holding the highest official stations in the College of Physicians; we have not yet had an opportunity of placing before our readers; we shall, however, shortly do so. In order that they may be prepared for a close and serious contemplation of the statements then made, we have considered it our duty to bring before them certain portions of it now, that the justice and liberality of the Pall-mall corporation may be always had in remembrance.

The College of Physicians, through its representatives, has declared that the ordinary practitioners of medical science are persons of inferior education, whom poverty compels to enter early upon the practice of the healing art. Dr. George Burrows says—"The majority of those who enter into the profession of medicine enter into what is commonly called the lower grade of the profession; and they are persons generally of limited means: their means have not allowed them to obtain an extended education; and they just get as much medical knowledge as will enable them to fill certain public situations, such as surgeons under the poor-law, or assistant-surgeons in the navy, or they commence practice as they may. They are compelled by the necessity of the case to seek to gain a livelihood as early as possible. It must be clear, that as science extends, and as more subjects must be cultivated in order to acquire a full knowledge of medicine, a longer time is required; and it is impossible, in the present day, for any young man of twenty-one or twenty-two really to have mastered the principles of his profession. He cannot have grasped the principles of the different sciences auxiliary to medicine, and if he goes into practice at that time he becomes little more than an empirical prescriber. There are a certain proportion of clever men who avail themselves of their opportunities of observation, and afterwards become able practitioners; but you do not find that they are the men who add to the science of their profession, however skilful they may be in the treatment of disease."

These are very humiliating statements for the general practitioners, made before the members of the British House of Commons, in order that they may be circulated amongst the aristocracy of the empire, so that, if any of them should ever be compelled to seek the services of one of the plebeian practitioners, he may be received with as little consideration as a barber or butcher. But how comes it to pass that the "lowest grade of the profession" is not more highly educated at the present time? We answer most emphatically,

through the reprehensible conduct of that college of whom Dr. Burrows was the representative before the medical-registration committee. The facts connected with the professional movement which resulted in the enactment of the Apothecaries' Bill of 1815 are not yet forgotten; and there are gentlemen still in the land of the living who are in the possession of secrets worth knowing in reference to the conduct of the corporation in Pall-mall. The sleeping Centaur was roused from the slumbers by the cry of reform sounding in the ears, and the giant put forth his strength to strangle in its birth the offspring of wisdom and liberality. Though the Apothecaries' Act was passed, it was not the measure originally proposed. Every inch of ground was disputed that was worth possessing, and it was absolutely necessary for the "Associated Surgeon-Apothecaries" to yield something if they were to gain anything.

There were two things in the Apothecaries' Bill of 1815 which prevented it from elevating general practitioners to the highest rank in the medical commonwealth: the first was a rigid enforcement of medical apprenticeship; and the second was, compelling the Company to have a court of examiners composed of certain individuals who were only to test candidates on certain subjects: and these injurious clauses were dovetailed in by the College of Physicians. There can be little doubt that this was done to keep down the general practitioners in a subordinate station; and it was scarcely anticipated that the Bill could be worked in any way to promote their welfare, either mentally or socially. If an apprenticeship of five years is to be submitted to—and there is no alternative where an individual intends to obtain the apothecaries' license—then, under ordinary circumstances, must the study of those branches of education be suspended which are of importance in disciplining and strengthening the mind. We do not mean to say that an entire abolition of the system referred to is to be desired, but we are confident that a modification of it would be infinitely beneficial—such a modification as would permit a youth so to pursue his education in classics and mathematics as to be able to pass an examination equal to that which B.A.'s are compelled to undergo for their degree. The great fault of apprenticeship is its interfering so materially with general instruction; this the College foresaw would certainly be the case; and yet it now turns round and reflects upon those whom it would not allow to enjoy the same advantages as its own members.

But another evil against which general practitioners have had to contend is connected with the constitution and functions of the Court of Examiners of the Company. We do not mean here to reflect upon those gentlemen who now compose it; but it is possible that individuals, not possessing the least particle of medical knowledge, might be placed there to certify that a candidate is fit to practise medicine and pharmacy. Non-professional individuals might constitute the society, and from these the law would require that the examiners be chosen. It has only been by the exercise of great care that the most disastrous consequences have not resulted; and we have no guarantee that at some future time, with the Registration Bill as law, possible evils may actually be realized. If, hereafter, the society should not be favoured with one sufficiently learned to translate a classic author, farewell to Latin and Greek; and if without a chemist the candidate for the certificate would perform a work of supererogation to

puzzle his brains about symbols, equivalents, or decompositions; and even now his knowledge of surgery is there never tested. Whatever defects are found in the Apothecaries' Act, they are to be chiefly attributed to the opposition which the bill of 1815 experienced from the College of Physicians; and if the practitioners of medicine and surgery have become a respectable body in the eyes of the public, no thanks are due to the antiquated corporation.

If we may judge from the language of Dr. Paris, we must be led to the conclusion that the College, in endeavouring to curtail the education of surgeons in general practice, has sinned against light and knowledge; he said before the committee:—"I think that the apothecary should understand, as far as he is able, every thing that the physician knows. He has to treat the same diseases, and, therefore, it is very desirable that the apothecary should be acquainted with all the circumstances of disease, and the mode of curing it, as well as a physician. When he is called upon to treat a case, it is highly desirable that he should have all the information which can be obtained. As physicians frequently are not at hand in remote country districts, it is most important for the interest and welfare of the public that the apothecary or general practitioner should be a highly-educated man. There is no information, medically speaking, that a London physician ought to possess which ought not to be possessed by such a practitioner; but, as far as my opinion goes, I think his medical education inferior."

We perfectly agree with Dr. Paris, as regards the education of general practitioners, that it should be of the highest order; and we think that this will be best accomplished by the Government granting them immediately a charter of incorporation—one not soiled with the defects of ancient institutions, but which will permit them to choose their own officers, regulate their own curricula of education, and give them that which they can scarcely now be said to possess, "a local habitation and a name." Registration alone is a mere delusion, and the general practitioner who advocates it sells his birthright for a mess of pottage. The statements made in the face of the House of Commons will not be easily obliterated from the memory of the august senators; and it ought to be the first duty of those who have been designated as "an inferior grade" to use every effort to raise themselves from their imputed degradation. Physicians blush at the idea of being booked with general practitioners, as the latter must, under the law, remain for ever second or third class passengers, with what the former would have us suppose first-class tickets. The fear is, that under these circumstances, the public would be deceived; alas! they have been long deceived by corporate pretensions and collegiate titles. What, we ask, has the College of Physicians ever done for science or mankind? Harvey it persecuted, Mason Good it despised, Armstrong it rejected; and to nearly the middle of the nineteenth century it kept at bay its own licentiates, not permitting many of them ever to aspire to the immunities and privileges which belong to fellows. It still needs reformation in order to make it an institution adapted to the spirit of the age. A new incorporation of general practitioners would be the means of infusing fresh life into the asphyxiated College; and, once fairly awake, it would endeavour to atone for past errors by zealously devoting itself to the promotion of science.

NECESSITY OF SANITARY REFORM.—THE REGISTRAR-GENERAL'S REPORT.

"Et causa quoque pestis sape morbum solvit."—CÆL.

THE Registrar-General has just published his quarterly return of the health and mortality in 117 districts in England; and the document must be viewed by the medical profession at the present time with considerable interest. The cholera has entered Europe, and is pursuing the identical course that it took when it visited this country in 1831. Its arrival here can, therefore, be no matter for speculation, and it only remains for those who are invested with authority, to use those means which science has shown to be most effectual in arresting its progress, or mitigating its virulence. Military operations and quarantine establishments have been proved by experience to be utterly futile in checking its advance, and civilized Governments are now beginning to perceive that their only hope rests in the rigid enforcement of sanitary regulations.

In the last visitation of the cholera, the densely-populated cities of this country suffered most severely from its influence, and, while no class was exempt, the poor, addicted to intemperance, and living amidst dirt and filth, were cut down on the right hand and on the left. From the reports which have reached us, we learn that victims of the same class are now especially selected, as in the previous epidemic; and when it reaches this densely-inhabited metropolis, like a destroying angel, it will take its stand especially over those districts where morality is at a low ebb and cleanliness little regarded.

The quarterly return informs us, that while there has been a slight improvement in the health of the country, London still remains as sickly as ever; and the high rate of mortality which prevails is ascribed principally to "the crowding, the want of water, decaying animal and vegetable matters unremoved, and the inefficiency of the sewers, which neither carry off the solid, liquid, or gaseous matters, poured into them or generated within them every day." It is evident, therefore, that the increased amount of disease and death, which at the present time prevails in the metropolis, is to be attributed to causes over which the inhabitants have entire control. They can, at will, increase or diminish the amount of disease amongst them; and they may be said, in no small degree, to hold their fate in their own hands. This great fact has been repeatedly forced upon public attention by the members of the medical profession; but, hitherto, such has been the apathy of the people to make efforts for their own safety, that the reforms which enlightened men have proposed to render people less obnoxious to the influence of epidemics have experienced obstructions of unusual extent and obstinacy. Medical men, from their extensive intercourse with the poor, are better acquainted with their habits and prejudices than any other class of society; and experience has taught them that sanitary reform has made little progress in consequence of the humbler ranks being infatuated with a love of filth to the utter dislike of that which is its opposite. Born and bred in the midst of uncleanness, they are so habituated to it that it never for a moment attracts their attention; while those more favoured by nature and education take little notice of evils which occasion them little present inconvenience. The middle and upper classes of society have given but little attention, hitherto, to the hard fate of those who live and die in the midst of an atmosphere perpetually exercising an injurious in-

fluence on their constitutions; and a strange credulity possesses them when they are told of the squalid misery of their poverty-stricken neighbours, and the horrors of the charnel-house.

Yet, hidden from the view of the teeming population of this great city, there are vaults crowded with bodies in all the different stages of decomposition—sewers abounding with filth, which, as stagnant and as abominable as the fabled Acheron, send forth their pestiferous exhalations to hurry out of life human beings, without regard to sex, age, or condition. Dr. Gavin, in a lecture before the Mechanics' Institute at Hackney, and which has been recently published, says, "It is impossible to read the accounts contained in the reports of the commissioners of the health of towns of the filthy and horrible state in which the houses and streets in the poorer localities are represented to exist, without being struck with amazement—that, in a town professing to be the centre of civilization, and the mightiest in the world, such abominations as everywhere present themselves should be allowed to exist even for a day." "In company with Mr. Taylor, I visited Lamb's Conduit-fields, after long-continued hot weather. In a place of about 300 square feet, being covered with putrid water, I found that all the space enclosed between a boarding on either side of the Eastern Counties Railway, and extending from part of arch No. 91 and the half of arch No. 92, up to the end of arch 88, a distance of 330 or 240 feet, and from 40 to 60 feet in width, was one enormous ditch, or stagnant lake of thickened putrefying matter. In this Pandora's box, dead cats and dogs were profusely scattered, exhibiting every stage of disgusting decomposition. Leading into this lake was a foul streamlet, very slowly flowing, and from it another, which widened and expanded into a large ditch, before it disappeared in the open end of a sewer. Bubbles of carburetted and sulphuretted hydrogen gases, and every pestilential exhalation resulting from putrefaction, were being most abundantly given off from the ditches and the lake. The ripples on the surface of the water occasioned by a shower of rain are not more numerous than were those produced by the bursting of the bubbles of these pestilential gases, which were about to produce disease and death. The construction of the railway has diminished the extent of the lake, but it has concentrated the evil. Now, the concentration of such foci of disease has been proved to be deleterious in a geometrical increasing ratio. What, therefore, must be the effect of this lake of putrescency on the health and lives of those who shall inhabit the houses rapidly springing up all around it? A row of twenty-two new houses, of two flats, with cesspools in front, are being built parallel to, and within ten feet of, this most disgusting and degrading scene, which is an abomination, dangerous even to a casual inspector."

Not far from this foul lake is a place called Newton's Rents, consisting of six houses, held of the manor of Stepney, and each let for one shilling a week. The houses consist of one room, with no back entrance whatever, except those on the left side, which have about two square feet, the breadth of the house. "At one end of these six back yards are open privies; at the other end is a dust-bin. At the further end of this court is a large dust-bin, filled with all sorts of garbage, filth, and refuse. On the right side is a most filthy double open privy, in a state of decay, with ordure strewed all around. On the left

are two open privies, in so beastly a state that they are utterly unfit for use. The court, which is about ten feet wide, has a grating in the centre, leading to a drain, which is always stopped up; there is, consequently, in dry weather a little lake of most putrid mud and fluid filth; and in wet weather the court is a foul marsh. The scavenger never enters this court; and the inhabitants never attempt to cleanse it. There is no water laid on in this court; and to my inquiries as to how they obtained water, it was replied, that they 'begged, borrowed, or stole it.'"

The existence of such things is a disgrace to the parish of Stepney; and there is no doubt the inhabitants pay pretty dearly, in the shape of rates, for the sick poor, of whom there is constantly a large number on the books. Here the cholera formerly committed dreadful havoc, and in the churchyard a particular space was laid out for the victims, and they were buried in trenches. The parochial officers should now begin to prepare fresh ground for the numbers who will doubtless fall a prey to the plague: for if the work of reformation were to be commenced immediately, it could not be completed in sufficient time to effectually check the Eastern scourge.

The burying-grounds of the metropolis are also in a most disgraceful condition. There is scarcely a churchyard that is not saturated with animal matter, and graves cannot be dug without chopping through coffins and dead bodies. The vaults, also, are crammed full, many of them; and it is required very frequently to take out some of the bodies which have been longest placed there, and they are then put into some deep hole, dug expressly for the purpose. The public know not a tithe of the brutalizing transactions which take place in the churchyards of London, though they occasionally hear of doings at which humanity shudders. Attention has been recently directed to the condition of the dead buried under Eton Chapel, Clement's-lane, Strand. Mr. G. A. Walker, and other members of the Metropolitan Society for the Abolition of Burials in Cities and Towns, visited this place a short time ago. The trustees procured lights, and accompanied the gentlemen into a cellar, fifty-nine feet by twenty-nine, and less than five feet high, under the chapel. Here, on all sides, lay human remains, and broken coffins were scattered in confused heaps. At the extreme end were seventy or eighty empty coffins. To the right were several, in which lay half-decomposed carcases, and the whole cellar was crammed with bodies under the surface, which was not a foot deep. This cellar was only separated from the chapel by a boarded floor, the joints not being protected by lath and plaster. This horrible charnel-house is in a most densely-populated neighbourhood, and within fifty yards of the most crowded thoroughfare in the City.

That the improvement of the sanitary condition of large towns will not only promote the health, but also the morals, of the people, should stimulate the members of the medical profession to increased exertion to accomplish it. They have hitherto laboured apparently in vain; ignorance and avarice have resisted to their utmost, but they are not much longer to be successful. The cholera may work reform in a few months which, without its advent, would have taken years to accomplish; then, with clean and well-ventilated cities, the Registrar-General's report will very seldom tell of thousands prematurely hurried to the grave by causes which it is in the power of man to annihilate.

CONVENTION OF POOR-LAW UNION OFFICERS.

Owing to the shortness of the time allowed last week for preparing our full report of the Convention, some inaccuracies occurred. The following gentlemen form the committee:—

Jas. Heygate, M.D., F.R.S., President of the Provincial Medical and Surgical Association.
John Burton, M.D., Walsall.
T. Hodgkin, M.D., London.
G. J. Guthrie, Esq., London.
Ed. Daniell, Esq., Newport Pagnell.
T. Martin, Esq., Reigate.
J. A. Pearson, Esq., Woolton.
A. Ebsworth, Esq., Bulwell.
H. W. Livett, Esq., Wells.
R. T. Tasker, Esq., Melbourne.
W. Cantrell, Esq., Wirksworth.
T. H. Smith, Esq., St. Mary Cray.
G. Stedman, Esq., Guildford.
G. C. Dale, Esq., Tower Hamlets.
J. Liddle, Esq., London.
E. White, Esq., London.
C. F. Lord, Esq.
G. Ross, Esq.

The dinner should have been reported as having taken place at the *Craven*—not at the *Crown*—Hotel.

At a meeting of medical officers of unions, held at Cambridge on Monday, Oct. 25, the following resolutions were unanimously agreed to:—

1st. That, in the opinion of this meeting, the public services of medical men are neither properly understood nor duly appreciated, and the award made to them is on a scale wholly incommensurate with the amount and the importance of the duties they have to perform. That the smallness of the stipends now awarded makes it clear that the medical relief of the poor falls, not on the board of guardians, but, very unjustly, on the hard-worked medical officers.

2nd. That as it would be useless, and only productive of ill feeling, to apply for a remedy to our local boards, this meeting considers the poor-law commissioners and the Secretary of State for the Home Department the proper quarters in which to make known the grievance, and to seek a remedy; and that a memorial be presented to them, setting forth the inequality and injustice of the present state of professional remuneration, and requesting that some fixed principle be laid down, by which more adequate salaries may be regulated; and that this memorial be signed by the whole body of poor-law medical officers.

3rd. That copies of the returns furnished to this meeting by the several medical officers be forwarded to the poor-law commissioners, with the view of inducing them, at the earliest possible period, to remove the grievances under which the medical officers of the different unions are now suffering.

4th. That this meeting is of opinion that a commission (a moiety consisting of medical men acquainted with poor-law-union practice) should be issued by Government, to inquire into the subject of the duties and remuneration of medical officers.

5th. That this meeting condemns the exclusion of burns, scalds, and other long-protracted and dangerous surgical cases from article 177 of the present poor-law regulations; and they are of opinion that the article 181 should have been more defined and made imperative.

6th. That this meeting is of opinion that the present fees allowed for vaccination in the different unions are so low as to render the Vaccination Extension Act almost a nullity; and that no fee less than two shillings and sixpence will cause the act to be carried out in the spirit in which the Legislature intended.

7th. That this meeting unanimously request Mr. Ramsey to attend the Convention as our delegate to present these resolutions.

(Signed)

Charles Newby, Medical Officer of the Cambridge Union.

John Prince, do., Linton Union.
 Francis C. Howard, do., Linton Union.
 Allen Ramsey, do., Chesterton Union.
 C. P. Daniel, do., St. Ives Union.
 Charles J. Edmonds, do., St. Ives Union.
 Arthur W. Thurnall, do., Chesterton Union.
 Thomas Green, do., Chesterton Union.
 Frederick R. Hitch, do., Chesterton Union.
 Robert Ransom, do., Cambridge Union.

Letters were also received from the following union medical officers, stating their regret at being unable to attend the meeting, but fully coinciding with the various resolutions:—

John Deighton, Medical Officer of the Cambridge Union.

G. L. Girling, do., St. Ives Union.

Robert Ellis, do., Chesterton Union.

The Balsam district of the Linton Union contains six parishes, with a population of 4000; and the medical officer of this union receives for his services the salary of £75 per annum. He is constantly employed for two hours every morning in the dispensing of medicines, and rides on an average ten miles a day, exposed to contagion of every kind. He (the medical officer) reckons that the drugs consumed in the course of twelve months for his union patients only amounts to £30, and the expense of keeping an extra horse to £25; this leaves him £20 per annum for his labours—being one shilling and a fraction only per day.

The medical officer of the Chesterton Union-house, and parish of Chesterton, the house capable of containing 300, and the parish a population of 2000, receives the salary of £42 for his services. Drugs, &c., for his paupers alone cost £20 per annum.

The medical officer of the first district of the Cambridge Union, which contains a population of about 14,000, receives at the present time a salary of £90 per annum. The salary was formerly only £75 per annum, but has lately been increased £15 per annum. The number of cases attended from Christmas to Lady Day, 1847, was 444, and the number of attendances upon the patients was 2250.

The following is the report from the medical officer of the second district of the Cambridge Union, which contains nine parishes, with a population of 12,000. The salary at the present time is £85 per annum, formerly being £75 per annum. The total number of paupers attended in the Cambridge Union in the year 1838 was 1027. The salary of the medical officers (there being only two at that time) was £100 each. It was afterwards thought necessary to have a third medical officer to attend to the union-house alone, his salary being £50 per annum. To make up which sum of £50, £25 was deducted from each of the district officers' salaries. In the year 1846, the gross number of pauper patients attended in the two districts was 2137; being more than double that of 1838, when the house was included, the medical officers at that time receiving the reduced salary of £75 per annum.

The great increase of medicines and attendances required induced the medical officers to lay these facts before the board of guardians. The subject was for more than three hours warmly discussed; and what was the result? The salaries were increased: the first district, £15; second district, £10; and the house, £10 per annum. It was proposed by one guardian and seconded by another, that the salaries be increased one farden (meaning, it is supposed, one farthing) per annum. The amounts of increase in the salaries were carried only by a majority of two. At the next board meeting the same guardians who, at the previous meeting, had proposed that the salaries be increased one farden per annum, gave notice that they should, next board day, move that the increase of salary be altogether rescinded. The number of visits paid at the residences of the patients in the first quarter, 1837, was 2301; the number of attendances at surgery, 500. The weekly number of medicines dispensed was as under:—60 mixtures, 108 pills, 6 powders, 5 lotions, 5 liniments; making altogether in one

year, taking this as the average, 3068 mixtures, 5316 pills, 312 powders, 280 lotions, 260 liniments; and for this the total amount of salary was £75. This sum reduced to numbers gives 14d. and a fraction for each visit and requisite medicines. Medical relief is given by the relieving officers to parties earning from £1 to £1. 10s. per week, and this is in some instances sanctioned by the board.

Surely these remarks sufficiently prove that the remuneration of union medical officers should no longer remain in the hands of boards of guardians, but be vested in those of Government, when the medical men might be fairly remunerated, and the poor reap the benefit in the attendance.

Nantwich, Cheshire, Oct. 26.

At a meeting of the medical officers of the Nantwich Union, called by circular, to consider the present movement among the poor-law medical officers, and co-operate for the amelioration of poor-law medical relief, it was this day resolved—

1st. That the medical officers in the said union feel that a change in the present system is required: that the remuneration is inadequate.

2nd. That, under the present system, there is in some cases an unequal division of salaries; the adjustment in certain cases having been made upon false premises; regard having been had to population only, and not to population and extent of district.

3rd. That in a large but thinly populated district the medical officer is, under those circumstances, most inadequately remunerated, much of his time being required, and horse expenses unavoidable.

4th. That the only equitable mode of remunerating the medical officers is by taking extent of district, together with population, into the elements of computation, and allowing horse expenses.

5th. That the vaccination fee, when fixed at one shilling for each successful case, is too low.

6th. That the remuneration of ten shillings for labours (in ordinary cases) is too small, when the board of guardians have passed a by-law, making no difference for the distance of the patient. That, while ten shillings may be received as the minimum remuneration, there should be an increasing scale of fees, proportioned to the distance of the patient from the residence of the medical officer.

(Signed) THOMAS WILLIAMSON.

WILLIAM WALLLEY.

DAVID P. THOMSON, M.D., Medical Officer for the Wrenbury District.

JAMES H. ROWCLIFFE.

J. K. SLATER.

JOHN TURNELLO.

Oswestry, Oct. 25.

GENTLEMEN,—We, the undersigned, surgeons of the Oswestry Union, desire to express our heartfelt concurrence in the objects of the meeting of union surgeons, to be held on the 27th instant.

We are satisfied that no improved remuneration for professional services is to be expected from the board of guardians, who, as ratepayers, are more interested in keeping down any expenditure than in improving the efficiency of the establishment, and embracing the comforts and well-being of the poor under their control.

We beg to express our readiness to co-operate with those gentlemen who attend the meeting in carrying out any plan or resolutions that may be determined upon for the amelioration of the interest of the profession, and for the general benefit of the sick poor.

(Signed)

PELTON CARTWRIGHT.

JOHN WYNNE.

WILLIAM GRIFFITH.

R. PERKINS.

At a meeting of the medical officers of the Ross Union, held on Saturday, Oct. 23, 1847, it was resolved—"That this meeting, appreciating

the present inadequate rate of remuneration paid to the medical officers of the poor-law unions, and heartily concurring in the objects for the attainment of which a Convention of 'Union Surgeons' is about to be held in London, pledges itself to support the furtherance of those objects to the best of its power and ability."

(Signed)

C. E. THOMSON, District No. 1.

EDMUND JONES, M.D., District No. 2.

W. SYMONDS ROOTES, M.D., District No. 3.

ABRAHAM T. WILLMOTT, District No. 4.

In the Great Shelford district of the Chesterton Union, containing nine parishes, with a population of 5000, the medical officer, Mr. Ramsey, receives for his services the sum of £55—one of the parishes distant five miles from his residence. During the last twelvemonths he has attended 309 cases, nearly one-third of which cases (typhus) extending over periods varying from a month to three months, and requiring constant attendance. Cost for drugs and horse expenses, being compelled to keep one for union practice, £40; leaving £15 for the trouble of dispensing medicines and attendance upon the sick—not labourer's wages, for it does not amount to one shilling per diem, or even one shilling per case. During the prevalence of typhus fever, the board of guardians, after having been memorialized by the respectable inhabitants of one of the parishes, agreed that a gratuity of ten pounds should be given; but that ten pounds was raised by a subscription from three of the parishes in his district, and not paid by the board. The other officers of the Chesterton Union have an equal amount of labour, and receive the same salary each. Vaccination is paid for at 1s. per case; in an adjoining union, 2s. per case is paid; in others, 2s. 6d.

WALSALL UNION.

At a meeting of the union medical officers and others, medical practitioners within the union of Walsall, held at Walsall, on Monday, 25th October, 1847;—

Present—

Francis P. Palmer, Surgeon, Walsall.

John H. Thornhill, M.D., Darlaston.

David S. Moore, M.D., Walsall Burgh Deal.

George H. Whympie, M.D., Bloxwell Deal.

John F. Hulbert, Surgeon, Walsall.

John Burton, M.D., Walsall Workhouse.

And apologies were received from—

H. W. Hare, M.D., Aldridge.

Chas. Somerville, Surgeon, Bloxwell.

Francis P. Palmer in the Chair;

it was resolved unanimously,

1st. That it is the opinion of this meeting that the present mode of payment, and the present amount of the salaries of the union medical officers of England, are incorrect in principle, unjust to the medical officers, ruinous of any attempt to carry out an effective system of medical relief to the poor; and, in consequence of the defects in the system of medical relief therefrom arising, it is oppressive to the poor, and ultimately expensive to the ratepayers.

Moved by Dr. Burton, seconded by Mr. Thornhill,

2nd. That the defects of the present system of payment for medical relief are—1. It is speculative, and not proportionate to the amount of qualification required or work done. 2. It is inadequate, under the most favourable circumstances known to this meeting, to remunerate the medical officer for even a meagre attendance upon the sick poor, and entails a considerable pecuniary loss on those who give that abundant attendance, and that quality and selection of medicine, most appropriate for the successful treatment of disease in any class of society, and which is usually considered to be indispensable amongst the wealthy and independent classes. 3. The inability of boards of guardians and the commissioners, from the very nature of the medical officer's duties, to form any accurate judgment of their extent and proper performance, and conse-

quently to judge correctly as to the amount of the medical officer's expenses and trouble, or of the salary he ought to have. 4. It places the health of the pauper in one scale, the interest of the medical officer being in the other, and therefore in many cases it makes it better and cheaper for the medical officer, as such, that the pauper should die than that he should live, that he should become infirm or permanently disabled than that he should be cured and become a useful member of society. 5. It places the medical officer, the nature of whose services renders him, if not the most important, at least a very principal, officer in the union economy, subordinate and subject in such a measure to the relieving officers as often entails upon him the performance of the duties of the latter.

Moved by Mr. Moore, seconded by Mr.

Whympie,

3rd. That, for these and several other reasons, this meeting is of opinion that the present amount of salaries of medical officers and their mode of payment ought to be altered at once for a system acknowledging as its basis that nothing short of a full and proper care of the sick pauper will satisfy his just claims as acknowledged by the laws of England; and that nothing can, without a remunerating payment to the union medical officer (and an admission that his importance in the union economy entitles him to rank high in the opinion of the commissioners and guardians, and to enjoy their confidence in all matters appertaining to his department in the union), ensure such proper care.

Moved by Mr. Thornhill, seconded by Mr.

Hulbert,

4th. That, considering the difficulties surrounding a system of payment per case, and especially that such a mode would in all probability limit the amount and alter the nature of medical relief to the poor, this meeting is of opinion that, instead of that mode, one equally just and less objectionable might be adopted, because a reference to the registers of sickness and mortality in the several unions since 1837 would enable one to form a correct idea of the annual amount and nature of the work done; and from that might be deducted the annual amount of salary to be fixed in each district, workhouse, or union, as the case may be, as the salary to be paid therefor in that district, workhouse, or union, until, by new averages taken at stated periods, it could be shown that the salary was disproportionate to the duties.

Moved by Dr. Burton, seconded by Mr. Moore,

5th. That, if the above mode of calculating the annual amount of salary of the medical officer is adopted, it would be better to make that amount liberal enough to suffice to remunerate every medical service likely to be required, than, as at present, to have a supplementary table of fees, which, imperfect as it is, rather serves to show the conviction, on the part of those who offer them, that the medical salaries are inadequate than to answer the purpose for which they were said to be intended. But if, for the reasons stated by the commissioners, it is thought desirable to continue such supplemental table of fees, then this meeting is of opinion that such a table should be arranged as would embrace all the cases which are likely to require a prompt attendance, unusual exercise of surgical skill and energy, or to involve the medical officer in an unusually long or expensive attendance; and that, in order that these fees may bear some proportion to the relative importance of the accidents and operations for which they are given, this meeting is of opinion that they should be fixed by the Councils of the College of Surgeons and Society of Apothecaries in London, or a committee formed of members of those bodies.

Moved by Mr. Thornhill, seconded by Mr.

Whympie,

6th. That the system adopted in this and other unions, of affording childbed relief to the poor—viz., that of allowing small sums of money to the applicants for such relief, instead of medical orders to the medical officer—is illegal, and a very great evil, in so far as that such a system is

eminently calculated to defraud the medical officer, and to place the parturient pauper in a very dangerous situation, by subjecting her to the necessity of calling in unskilful persons to her assistance; and is, moreover, not economical, because it gives rise to that order of midwifery cases which involve long attendance and the exercise of great skill, and infer the larger amount of fee allowed; therefore, and consequently, this evil should be summarily determined.

Moved by Mr. Moore, seconded by Mr.

Thornhill,

7th. That, as a means needful to the end supposed to be in view—namely, the proper relief of the poor, this meeting is of opinion that all medical officers should be allowed to give orders for certain extra articles of diet required in cases of sickness or emergency, and that such orders should be made payable by the proper officer, and should be charged in his quarterly account in such a manner that the parties supplying such articles on medical officers' orders should have no difficulty in being paid quarterly.

Moved by Dr. Burton, seconded by Mr. Hulbert,

8th. That, with these views of medical relief, and its evils, as affecting the interest of the medical officer, the pauper, and the ratepayers, the present meeting feel it to be a duty they owe to themselves and the public to send a delegate to the Convention of Union Medical Officers to be held in London on Wednesday, the 27th instant, in order that they may co-operate with their professional brethren in bringing the said evils under the notice of her Majesty's advisers, and praying them that they would, in some efficient and summary manner, remedy the said evils.

Moved by Mr. Thornhill, seconded by Mr.

Whympie,

9th. For this purpose this meeting does hereby appoint Dr. Burton as their delegate and representative at such Convention, and authorizes him to vote and act there in such manner and way as to him may seem most fit to carry out the objects of the said Convention.

ASHTON-UNDER-LYNE UNION.

At a meeting of the following gentlemen—Dr. Lees, Mr. Cooke, Mr. Wood, Mr. Pomfret, Mr. Malalieu, and Mr. Massey, medical officers of the Ashton-under-Lyne Union—on the 25th October, Mr. Cooke in the chair,

Moved by Dr. Lees, and seconded by Mr. Pomfret,

1st. That this meeting approves of the Convention of Poor-law Medical Officers to be held in London on the 27th inst., and assures the Convention of its cordial support.

Moved by Mr. Malalieu, and seconded by Mr.

Wood,

2nd. That a copy of the above resolution be forwarded to T. Piers Healey, Esq., Hon. Secretary to the Convention.

At a meeting of the medical officers of the Saffron Walden Union, held at the union-house, on the 26th October, it was unanimously resolved,

"That this meeting cordially agrees with the objects proposed for the Convention's consideration, and, so far as in the power of its members, will endeavour to aid those objects."

BELPER, BAKEWELL, AND ASHBOURNE UNIONS.

At a meeting of the medical officers of the Belper, Bakewell, and Ashbourne Unions, held at the Red Lion Inn, Wirksworth, on the 20th October, Wm. Cantrell, Esq., in the chair, It was proposed by Wm. H. Fletcher, Esq., and seconded by John Adams, Esq.,

"That, considering the present mode of remunerating the services of union medical officers to be unsatisfactory and, in most cases, inadequate, we highly approve of the general meeting about to be held in London, and that Mr. Cantrell do attend such meeting to represent our opinions."

PRESCOT UNION.

[To the Editor of the Medical Times.]

SIR,—I have been directed by the board of guardians of this union to forward to you the enclosed letter, which has been addressed to them by Mr. Tyrer, one of their relieving officers, in consequence of a letter which appeared in your paper of the 4th ult., signed "J. Armitage Pearson," and followed by some remarks of your own thereupon. I send also some other papers in verification of the statements made in Mr. Tyrer's letter; and have to request that you will either give publicity in your columns to the letter itself, or, by such other means as you may think proper, make it known to your readers, that the statements made in Mr. Pearson's letter relative to the case of George Foster are totally without foundation.

I am, Sir, your obedient servant,

J. HAYES,

Clerk to the Board of Guardians of the Prescott Union.

Prescot, Lancashire, Oct. 22.

GENTLEMEN,—On Thursday last my attention was called to a letter published in the London *Medical Times* of the 4th ult., signed "J. Armitage Pearson," in which that gentleman seriously and most unjustly reflects on your character as a board, and by implication on myself, as your officer. Knowing the ill odour of Woolton affairs, from the too frequent occurrence of disagreeable circumstances there, nothing but a strong sense of duty could have induced me to notice this communication, the facts being so decidedly contrary to all the allegations made by Mr. Pearson. It is to me matter of much surprise that he could publish such an account when the real facts were so accessible.

Not to occupy too much time, I will shortly state the circumstances as they arose. The "poor man" referred to is George Foster, an Irishman, for about twenty years resident in Much Woolton, and regularly in the employ of Mr. James Gore, builder, at 16s. per week. He has a pony, an ass, and two carts, with which some of his family cart coals and clothes to Liverpool, and since March last they have received upwards of £4 for removing fever patients to the workhouse. His family, at the time referred to, consisted of himself, wife, and eight children, the daughter, Catherine, seventeen, attending those who were sick.

On the 26th July, at half-past six in the morning, I received (No. 1) a note (if it may be called one) from Mr. Pearson, requesting me to attend to this family. Not considering it a case for my notice, my first thought was to pay no regard to it. I, however, resolved to provide for all contingencies, and wrote (No. 2) to Mr. Rushton, by messenger, the same morning, enclosing 2s. 6d. for Foster, as owing to him for conveying paupers. On my visiting Woolton the following Wednesday, I found that Mr. Rushton had not given this, having learned that Mr. Gore's men had collected 35s. 9d. the previous Saturday evening, and handed it over to the family. During the same week ending July 24, he received 15s. from myself for carting, and 10s. from his club—total £3. 9s. On Wednesday, the 28th, the daughter, in charge of the family, came to my office at Woolton for relief. I went to visit the family, and found Foster convalescent, and one of the boys able to go with the cart. Telling Foster he did not need to be a pauper, and believing that 2s. 6d. was too little for conveying the fever patients, I gave him an extra 7s. 6d., which the board allowed, and have paid 3s. since for each journey. On Wednesday, Aug. 4, I received from Mr. Pearson two papers (Nos. 3 and 4) which I laid before the board on the Thursday following. I heard no more of the case, and saw the man at work soon after. To have placed him on the relief list would have been grossly unjust to a large class of poorer ratepayers around him.

How far Mr. Pearson is right in using the term, "penniless, and in great distress and

actual want, without a morsel of food in the house;" "to be shocked at their destitution;" and, again, to "declare that they were starving"—to speak of all this, coupled with your treatment of it, as a "shameful fact"—I leave it for you to judge; but when the character of a public board and its officer is concerned, it is surely becoming to take care that nothing bearing the semblance of falsehood should creep into published statements. This letter concludes with a general charge of cruelty on your part, most annoying to the clergy, &c. I will answer for it, that in Woolton the ratepayers in general have no such opinion. The benevolence of the Woolton gentry is proverbial. To this is attributable the congregating together of large masses of Irish poor in houses insufficient for their accommodation; the consequent existence and spread of infectious disease, numerous deaths, and more than a treble call on the ratepayers; and it behoves your board in its public capacity, acting on wise principles in giving relief, to protect the ratepayers against undue burdens, by checking that tendency to eleemosynary dependence which creates idleness, paralysis, accretion, and encourages instead of extirpating pauperism. If needful, there are more facts and evidence to prove Mr. Pearson's statement to be a calumny on your board, falling more heavily on the guardians for the township, and myself, as having advised the refusal of relief.

I would recommend that three of your board unconnected with the locality be deputed to investigate this affair, if needful; and I am content to abide by their decision.

I am, Gentlemen, your most obedient servant,
THOMAS TYRER.

The Board of Guardians, Prescott Union.
Prescot, Oct. 21.

(No. 1.)

MR. TYRER.—I request you to attend to and relieve George Foster, wife, and family, ill of typhus fever, living in Rose-street, Woolton.

J. ARMITAGE PEARSON, Surgeon.

Monday morning, July 26.

(No. 2.)

DEAR SIR,—Some person whom I did not see brought a paper from Dr. Pearson this morning, from which it would seem that G. Foster's family are in want of something, though persons who possess ponies, carts, &c., cannot be deemed paupers. I gave them 15s. last week on account of the carting, and if I had had a bill, or been satisfied that the amount was correct, I would have paid the whole (as they say) for nine loads, £1. 2s. 6d. I will thank you, however, to give them (see paper) 7s. 6d. on my account, which I will repay you on Wednesday, and, if over paid, they must cart it out. There was no occasion to have sent to me, as, if relief was required urgently, that could be given at once.

Requesting your kind attention, I am yours respectfully,
THOMAS TYRER.

Mr. Rushton, Prescott, July 26.

(Nos. 3 and 4.)

"Aug. 4.

"Mr. Tyrer, I will thank you for 4s. expended by me, viz.:—George Foster, for meat, 2s. 2d.; ditto, 2lb. of rice, 10d.; carting John Cain to workhouse, 1s.—4s."

Cannot be allowed; no proper person for relief.—J. H.

The father took his own son, and not in a cart.—J. H.

[With reference to this communication we have received from Mr. Pearson, who has been in town on the business of the Convention, the following documents]:—

Woolton-grove, July 27, 1847.

DEAR SIR,—I have the satisfaction to hand to you copies of letters addressed to the Board of Guardians of the Prescott Union, and posted this day to the chairman; and to assure you of the cordial manner in which all the parties named therein, as signing the document, united to

render you this tribute of justice, and of their thanks for your valuable exertions.

I am, dear Sir, yours faithfully,
S. Woods, Jun.

J. A. Pearson, Esq., Woolton.

Much Woolton, July 26, 1847.

GENTLEMEN,—The unhealthy and crowded state of certain tenements in this village, the accumulations of filth, and the want of drainage and ventilation, were brought some months since under the notice or inspection of the undersigned overseers and ratepayers of the township. The danger of contagious fever was but too obvious, and to avert it, in April last we called upon Mr. Pearson and other of the medical gentlemen in this place, to take the measures needful to put in force the act of Parliament for the suppression of nuisances, &c. Mr. Pearson and Mr. Rigge accordingly signed the required certificate; it was delivered to Mr. Rushton, our guardian, and by him to the board of guardians in person. No minute of your proceedings consequent thereupon was sent to Mr. Pearson, and no notice was taken of it, beyond a verbal and undefined message through the relieving officer, instead of furnishing any proper instructions which might be required—a course which appeared to us uncourteous and neglectful of the interests of this portion of the union: for policy alone would have suggested a ready compliance with our wishes, and thus might the spreading infection have been stayed, which has since sent so many fever patients to your workhouse. Two months passed on; the evils multiplied, and, conjointly with Mr. Pearson, we appealed to the bench of magistrates on the 6th instant. This led to the strong remonstrance of the bench against the apathy of your board, under which you felt aggrieved, and you summoned Mr. Pearson before you to pass on him a vote of censure.

We have now obtained some redress through the strenuous exertions of that gentleman, which have throughout been rendered at our request and with our sanction. If, therefore, censure be deserved, we ought to hear it and our purpose in addressing you is; as emphatically to protest against the vote of censure you have passed upon him, as to assure him of the high opinion we, in common with a large and influential body of our ratepayers, entertain of his services and spirited conduct in this matter.—We are, gentlemen, your most obedient servants,

(Signed)

Robert Leicester, M.A., Woolton Parsonage.

Samuel J. Phillips, Woolton Priory.

S. Woods, jun., overseer, Woolton-grove.

Edward Gibbon, jun., overseer, Woolton-hill.

J. Crosthwaite, churchwarden, Woolton-hill.

W. Lassell, Woolton-hill.

Henry Ashton, Woolton-wood.

John Lewes Phipps, Doe-park.

Robert Gill, Knotty-cross, Much Woolton.

To the Chairman and Board of Guardians of the Prescott Union.

(COPY.)

Woolton-grove, July 26, 1847.

SIR,—At the request of the subscribers to the enclosed letter I hand it to you, as chairman of the board of guardians, that you may lay it before the board at their next meeting, on Thursday, the 29th instant.

I am, Sir, your most obedient servant,

S. Woods, Jun.

—Fyles, Esq., Windle, near St. Helen's.

(COPY.)

At a meeting of the board of guardians, held in the Town-hall, in Prescott, this 29th day of July, 1847.

Present,—Mr. Fildes, in the chair,

Mr. Ackers,

Mr. Barker,

Mr. Roscoe,

Mr. E. Brown,

Mr. Rushton,

Mr. Roberts,

Mr. John Birchall

Mr. J. Johnson,

Mr. Glover,

Mr. Halsall,

Mr. Longton,

Mr. Geo. Birchall,

Mr. Lawrenson;

a letter was produced by the chairman, and read by the clerk, under the hands of several gentlemen in Much Woolton, remonstrating against the proceedings of the board, with regard to the Woolton nuisances. It was resolved that the subject had been sufficiently discussed, and should not be again opened.

Before the rising of the board, Mr. Roberts, guardian for Little Woolton, handed in the underwritten protest, against the determination come to by the board respecting the above-recorded remonstrance, from the gentlemen of Much Woolton:—

"Prescot, July 29, 1847.

"DEAR SIR,—Permit me most respectfully to leave in your hands my protest against the course pursued or adopted towards the memorial or remonstrances of the inhabitants of Much Woolton relative to nuisances, and addressed to the chairman of the Prescott Union.

"I remain, your obedient servant,
(Signed) "R. L. ROBERTS."

(COPY.)

"Prescot, Aug. 5, 1847.

"SIR,—By order of the board of guardians, I beg to send you on the other side copies of minutes made at their meeting on Thursday last, respecting the memorial forwarded by you.

"I am, Sir, your obedient servant,
(Signed) "JNO. HAYES,

Clerk to the Board.

"Mr. S. Woods, overseer, &c.,
Much Woolton."

I again distinctly state that the family of George Foster was penniless, in great distress and actual want, and without a morsel of food of anykind in the house; that a public subscription was made for the family by the neighbours—ladies and gentlemen; the day after I relieved them with three shillings, and I procured a poor woman to wash their clothes, for which I paid her 6s.; and this I am ready to prove.

As to the annoyance to the clergy and gentlemen, &c., I send you a copy of thanks from them for my services.

I have since obtained the three shillings from the guardian, who states he has never been repaid.

The daughter Catherine was sent twice to the workhouse, and the poor people made to pay three shillings a week for her maintenance whilst there; that receipts were given to the guardian for the three shillings, and the one shilling for carting the poor man remains unpaid by anyone to me; that Thomas Tyrer tried to extort this three shillings from the wife, but I requested her not to pay it, and to say that I told her. As to facts, I challenge not three, but the whole board of guardians to the investigation of the truth—the truth of every word I have written; and I will appeal to the whole of Woolton as to my veracity. So much for Thomas Tyrer's statements.

I fearlessly state that there is not a gentleman in Woolton but will rejoice when the said relieving officer is removed.

JOHN ARMITAGE PEARSON.

WELLS UNION.

[To the Editor of the Medical Times.]

SIR,—Allow me a little of your valuable space for the following remarks.

The meeting of union officers, so ably presided over by Dr. Burton, on the 27th, was an extremely satisfactory one; but, because it was so, we must not relax in our exertions, and think that the matter in question is settled.

Doubtless the committee then appointed will request from every union some statistical account of medical relief. The Local Association of Union Surgeons, to which I act as secretary, will meet next week, in order to consider and determine upon the best means for obtaining the requisite information; and I purpose submitting to it, when met, a table (as under), to be filled up in

each union by each medical officer, and sent to me, for the use of the central committee.

Thinking that our example, if known, would be followed elsewhere, and thereby the labour of the committee lessened, while our cause would be advanced, I am induced to make our proposed plan public through your means. I have filled up the enclosed table, *exempli gratia*, with returns of my own union.

To show the interest excited in this part of the world, I may add that our Local Association of Union Surgeons now numbers forty members, resident in fifteen unions—with two exceptions, all in Somersetshire.

Yours faithfully,

HENRY W. LIVETT.

Wells, Somerset, Nov. 2.

WELLS UNION.

Name of district.	Chapman of district.	Name of medical officer.	Population of district.	Average.	Distance, in miles, of farthest parish from medical officer.	Annual salary.	Amount of extra fees last year.	Number of cases reported last year.	Average per case.	Without extra fees.	With extra fees.	Vaccination fee, per case.	Observations.
Wells Workhouse.	—	H. W. Livett.	300	—	1 mile.	£40	£810s.	240	3s. 9d.	4s. 6d.	1s. 6d.		
No. 1 District.	Mixed.	H. W. Livett.	6368	11,138	6½	£55	£15	405	2s. 8d.	3s. 4½d.	1s. 6d.		Salary raised lately; formerly £40.
No. 2 District.	Mixed.	Thos. Purnell.	4856	94,470	6½	£70	£10	361	3s. 10½d.	4s. 5d.	1s. 6d.		Salary raised lately; formerly £60.
No. 3 District.	Mixed.	F. R. Stradling.	9341	31,512	6	£90		No return.			1s. 6d.		This district is now divided.

LETTER FROM A DOCTOR'S BOY.

[To the Editor of the Medical Times.]

HONOURABLE SIR,—Although I am but a doctor's boy, yet am I a constant reader of your delightful paper. You see, Sir, master takes in your valuable periodical every week, and while he and the dispenser are up at dinner I have an opportunity of reading it. Your leaders for the last few weeks back have filled me with admiration. I can plainly see, Sir, that you are the poor-law doctors' best friend, and that you are trying your utmost to improve their condition, and get them more money for their labour. It is your great benevolence towards them that has encouraged me to write you this letter, which, if it meet with your approbation, I should like to see inserted in an early number of the *Times* for the good of myself, and that of my numerous brethren who carry out physis. I feel certain that a few words from you would greatly aid our cause, and gain us an increase of pay. I assure you, Sir, our wages are very low, and that we have to work a great many hours for our money. We have to take out physis at all hours, and in all weathers. Why, Sir, the other evening, after I had been my rounds, and shut up shop, I was walking towards home, very compassedly, when, who should I meet, but a professional brother walking slowly along with his basket on his arm; so I says to him, "Squirts."—(You see, Sir, we always greet each other by that title)—"Squirts," says I, "where are you going to at this unreasonable hour of the night?" With that he began telling me a long story about his only having 4s. a week, and that he had then a good deal of medicine to take out, before he would be allowed to go home. I advised him to walk fast and to count his steps, by which means he would keep his head employed as well as his feet, and so make the journey appear much shorter. You see, Sir, what a useful class of beings we are, and yet how shamefully we are imposed upon.

Should you consider this letter worthy a place in your valuable columns, you would be the means of greatly improving our social position, and also of getting us an increase of wages from our hard-hearted masters.—With great respect, I subscribe myself, Sir, your very humble servant,
A HARD-WORKED AND BADLY-PAID
DOCTOR'S BOY.

CHLORIDE OF LIME AND PHTHISIS.

[To the Editor of the Medical Times.]

SIR,—In "The Cyclopædia of Practical Medicine" Dr. A. T. Thompson states, that chlorine

is prophylactic and curative of phthisis, and exemplifies this statement by its effects on the labourers employed in the manufacture of chloride of lime at St. Rollox chemical works, at Glasgow; and by the assertion that consumptive invalids take lodgings in the immediate vicinity of those works, for the supposed benefit derived from the surrounding atmosphere being impregnated with chlorine. That a physician of Dr. Thompson's pretensions should give an opinion so contrary to what reason and analogy lead us to expect is surprising, and inclines me to suspect that he is more distinguished for verbose compilation than sound judgment.

The labourers employed in the manufacture of the chloride of lime are necessitated to fasten several thick folds of cloth over their mouths and nostrils, in order to prevent present suffocation; and when they are disengaged from work, those robust Highlanders and Irishmen are reduced to such a state of debility as to reach their dwellings with difficulty, and to be compelled to throw their exhausted bodies on bed. Inflammation of the mucous membrane of the bronchi, trachea, larynx, nasal fossæ, and eyes, affects them to a considerable degree almost habitually; and after a greater exposure to the gas than usual, which is a frequent occurrence, the inflammation is greatly increased, and sometimes requires medical treatment to abate it; the conjunctiva is then occasionally so much inflamed as to blind the workmen for a time, so that they require to be led home. The gas is diffused through the whole of the works to so great an extent as to render it almost impossible for a man whose lungs are at all diseased to work in any part of them. The gases occasionally issue from the work—notwithstanding the chimney, famed for its height, which was built a few years ago, and which is already cracked, and threatens the neighbouring inhabitants with destruction—to so great an extent as to darken the air, and to excite cough in any one who may chance to pass, however healthy the lungs may be. From the constant inhalation of the gas, phthisis and other pulmonary diseases occur frequently among the workmen, who are also exposed to the greatest vicissitudes of temperature; when engaged at work the sweat trickles from every pore—their shoes are filled with perspiration. During the intervals of labour and their return home, they are necessarily subjected to the inclemency of the weather. Who could think that men constantly subjected to those two powerful exciting causes of phthisis are unusually exempt from it?

A robust Highlander, after a short residence

in Glasgow, was employed as a labourer in the works; in a few months he was seized with slight cough, which increased, was attended with slight perspiration through the night, and debility, which soon rendered him unable to work. In the hope of benefit, he returned to the place of his nativity, but no melioration followed. "*Haeret lateri lethalis arundo*," the fatal shaft had "found his manly breast."

A boy, from the province of Connaught, in Ireland, was taken by his parents from a manufactory where he enjoyed health and vigour. He went to work at the branch of the works situated at Dalmuir, on the western bank of the river Clyde, a few miles distant from Glasgow. He was shortly afterwards attacked with symptoms of phthisis pulmonalis, for which he was soon dismissed from the work. The boy, as well as his parents, correctly attributed the disease to the baneful influence of the gaseous inhalation. The disease ran its usual course. "*Cætera de genere hoc (adeo sunt multa) loquarum delassare valent fabium*."

With regard to Professor Thompson's other statement—that consumptive persons take lodgings in the immediate neighbourhood of St. Rollox chemical works, on account of a popular opinion of the beneficial effect of the air there—though such an opinion could not be popular without being heard by me, yet I have neither heard it myself nor known any one who has. I never knew any invalid lodge in the vicinity of those works for the sake of the air; I have inquired of the oldest of the workmen who have resided in that quarter many years, and they never knew nor heard of one taking lodgings there with that intention. On the contrary, it is notorious that the universal opinion of the unwholesomeness of the atmosphere, polluted by the emanations from those works, hinders villas from being built in the adjacent rural district, and has diminished the value of those few formerly built. There is almost no house built there except for the working class employed in the factories round about. The labourers themselves consider the part of the works devoted to the manufacture of the chloride of lime to be the most unhealthy; their opinion coinciding with my own; that all the departments of St. Rollox chemical works destroy prematurely those employed in them; and that none of them shall arrive at the senile euthanasia.

The above observations, which are deduced from personal experience, unfettered by bias to theory or private interest, decide those important points in pathology and therapeutics, and may have a beneficial influence on many of the human race.

Glasgow, Oct. 19.

IATROS.

CHOLERA.

[To the Editor of the Medical Times.]

SIR,—In your remarks on "Asiatic cholera" in the last number of the *Times*, you observe that, in its invasion of a locality, its procedure resembles that of the plague, "rapidly increasing its virulence till it reaches its acme, and then declining." My acquaintance with plague is too limited to authorize me to venture an opinion as to the correctness of the statement of its law of intensity implied in the above passage; but of cholera I have seen enough to justify me in asserting that it is ever most fatal on its first appearance, and gradually assumes a milder character till, at length, the constitutional disturbances caused by the morbid agency (be that what it may) are not to be distinguished from ordinary diarrhoeas, colics, and general *malaise*.

The number of seizures undoubtedly do continue to increase for some time—it may be days or weeks—reach their maximum, and then diminish; but the per centage of fatal cases is, I believe, always greatest during the earlier period of the epidemic. At first, almost every patient goes out; ere long, the disease assumes a milder and more tractable form; and afterwards the ratio of recoveries continues to increase till, as I have said, the epidemic fairly wears itself out. Me-

dical officers who are anxious to establish a cholera reputation avail themselves of this well-known law to exhibit in their returns a marvelously successful result. They continue to admit and register, as cholera cases, what their more conscientious brother officers docket under the less alarming titles of "diarrhoea," "colic," "hepatic congestion," &c. &c. But, wherever a scrupulously honest register is kept, you will find that the average mortality of the epidemic during its entire duration is one-third of the cases admitted. Nor does this result appear to be at all influenced by the treatment adopted, or the climate of the country invaded by the disease. Two recoveries to each fatal case is the ratio observed in India: it is that which Persian *hakems* tell us follows their practice; and it is that which has obtained in the Russian army of the Caucasus. When cholera assumes the collapsed form, it is of course more fatal than when accompanied by the more distressing, but less dangerous, spasmodic symptoms. And it is easy to see why it is so.

When cholera last visited Britain, it was, I believe, in the spasmodic form. The disease which now threatens us will, I suspect, be the collapsed kind, in which neither vomiting nor purging are very marked features, the patient complaining of little inconvenience save that resulting from a fierce and insatiable thirst, but becoming, from the first, cold and pulseless, and rapidly sinking, in spite of all efforts to rouse him.

I remain, Sir, yours faithfully,

H.E.I.C.S.

Edinburgh, Oct. 20.

THE LATE MEETING.

We have barely room in the present number for a very brief allusion to the meeting of Union Medical Officers, which took place on Wednesday last, at the Hanover-square Rooms. As far as the proceedings are concerned, it is scarcely more than necessary to refer to the report which we give elsewhere. It is sufficient to say that the meeting itself was a highly satisfactory one, most respectable in its character, and, considering the time of year, the prevalence of sickness in many parts of the country, and the wide distances which a very large number of those interested had to traverse, far more numerously attended than could have been anticipated. Satisfactory, however, as was this meeting, we quite agree in the opinion that a single meeting will not do the work. That which has just been held can only be considered as breaking the way. The entire subject must now be well sifted, and the necessary information in all its branches collected and digested. Statistical facts and records such as have been already furnished by Mr. Garlick, of Halifax, and other gentlemen, must be generally sought for and obtained from all parts of the country. It will, however, be the duty of the intelligent committee appointed at the meeting to draw up instructions adapted for the attainment of the objects in view, and to suggest to the profession that course of action best calculated to bring the question to a successful termination. We have no doubt they will soon be in active operation, and earnestly do we hope that a reward, commensurate with the exertions which we feel assured they will bestow, may speedily crown their efforts.—*Provincial Medical and Surgical Journal*.

GOSSIP OF THE WEEK.

WAR-OFFICE, Oct. 29.—Hospital-Staff: Assist.-Surg. John Thomas Watson Bacot, from the 39th Foot, to be Assist.-Surg. to the Forces.

NAVAL APPOINTMENTS.—Surgeons: David Lyall, to the *Acheron*; James Patrick (acting), to the *Nerbudda*.—Assistant-Surgeons: Dr. William Tasker, to the *Bellerophon*; W. M. Ogilvie, to the *San Josef*; John Cotton and R. P. Power, to the *Vindictive*; Thomas B. Forster and Christopher K. Ord, to the *Victory*.

Last week an inquest was held by Mr. W. Payne and a jury of eighteen inhabitants of St. Giles's, Cripplegate, of whom Mr. Flowers, one of the church wardens, was foreman, assembled at the Fountain Hotel, Whitecross-street, to inquire into the death of Mr. John Henry Deffell, aged seventy years, lately residing at 38, Upper Harley-street, and carrying on business as a West India merchant in Billiter-court, City.—John Richardson, assistant to Mr. Batley, chemist, of 32, Redcross-street, said, that about half-past eleven o'clock on Thursday morning, the deceased came into Mr. Batley's shop, and inquired how Mr. Batley was, and whether he was at home? Witness replied, that he was in the counting-house. The deceased said, "Oh! never mind; pray don't disturb him. I have known Mr. Batley many years; my name is Dr. Randall." He then said he wanted an ounce of hydrocyanic acid, of Scheele's strength, remarking, that before witness gave it to him he should wish to see the bottle, as the strength and qualities of the acid varied so much. Witness, feeling confident that the deceased was a medical man, reached down the bottle containing the acid. The deceased asked witness to allow him to smell it. Witness took out the stopper and remarked that the deceased would find the acid quite strong enough. At this moment the deceased knocked the stopper out of witness's hand, and, seizing the neck of the bottle, said he knew well enough what hydrocyanic acid was. Witness struggled hard to get the bottle back, on observing which the deceased gave it a sudden jerk, and in so doing scattered the acid about his face and over witness's arm and clothes. The deceased then left go of the bottle, and witness said, "My good Sir, you have done for yourself." The deceased replied hurriedly, "I wanted, I wanted," and hastened out of the shop. Witness gave an alarm, and various persons were instantly despatched in different directions to seek the deceased. In a few moments Mr. Batley's porter returned, having discovered him in a baker's shop, within a few paces distance. Witness immediately went there, taking with him some solution of ammonia, which he administered to the deceased under the direction of a medical gentleman. Witness could not say that the deceased had not swallowed some few drops of the acid, but he believed that the sprinkling over his face and inhalation of the vapour by deceased would alone have been sufficient to cause death. The deceased was perfectly collected in his manner while talking to witness in the first instance.

—Mr. Edw. Jolliffe accompanied the last witness to superintend the administration of the ammonia. The deceased lived for ten minutes or a quarter of an hour, and from that circumstance witness was of opinion that very little, if any, acid had been taken internally. If there had been, the deceased could not have lived so long.—Elizabeth Barrett, shopwoman to Mrs. Henderson, baker, of Redcross-street, deposed to the fact of deceased having rushed into her mistress's shop. On doing so he immediately seized a chair and sat down. Several persons from Mr. Batley's came shortly afterwards.—Mr. Southwood, surgeon, of Fore-street, to whose surgery the deceased was removed from Mrs. Henderson's shop, said that on removing the contents of the stomach by the stomach-pump a strong smell of prussic acid was perceptible. On analysis, however, no poison could be detected, and witness was of opinion that very little, if any, acid had been swallowed by the deceased. Witness had never heard of death resulting from the inhalation of the vapour of prussic acid, but believed that it might do so under certain circumstances.—James Alder, butler in the service of the deceased, said he last saw his master alive on Thursday morning, at half-past nine o'clock. He was then leaving Harley-street for the City, and, as was his usual habit, he remarked, "Alder, I am going." Witness had noticed the deceased to have been in a very nervous and agitated state on several occasions lately, but was not aware of any cause for it.—Mr. William Charles Simms, clerk in the service of the deceased, said he had

observed a vast difference in the deceased's manner during the past few weeks, and his answers to business questions were such as frequently to excite witness's surprise. Witness was not aware of anything having occurred calculated to vex deceased's mind. He knew that deceased had a large balance in his banker's hands. The deceased was a man of very temperate and regular habits generally. Of late he had appeared completely bewildered while transacting business in his office.—Mr. George H. Deffell, son of the deceased, said his father had been particularly afflicted by the commercial embarrassments and difficulties which had prevailed for some time past. On Saturday last he remarked to witness that it was dreadful to think of the state of affairs. The fallacies which had occurred among the deceased's friends and neighbours distressed him very much, and he himself, of course, suffered from the general depreciation which had taken place in colonial produce. On Wednesday last witness particularly observed that he was very much changed in his manner, his strength appearing to have failed him altogether.—There being no other evidence, the coroner summed up, remarking on the melancholy nature of the case; and the jury, having consulted for a few moments, returned a verdict of "Temporary insanity."

FEVER IN EDINBURGH.—The fever is still keeping ahead of all efforts to check it. The infirmary is crammed in every corner, and beds are bespoken before hand in anticipation of the death or convalescence of the occupants. Surgeon-square is full. The Industrial School will hold one hundred and twenty patients; it is expected to be full in a short time. The City Board have seventy-four patients at their own houses, and the cry of the officials is still for more room. We have no returns of the disease from other parishes, but it is not difficult to conjecture the dismal truth. Still the epidemic increases, and no man can predict a termination to its ravages. Many in the more comfortable ranks have fallen victims; among them, the surgeon of the police establishment; but the virulence of the typhus principally exhausts itself on the industrial classes—on those who maintain themselves by the labour of their hands. This is not the first nor the second time that those who can least sustain the shock have been exposed to its dreadful violence. Year after year they have been decimated by fever. Their wives, their children, their relatives have been engulfed or swept away. True, they have emitted no cry, and that is the most awful feature of the case. Either they must be ignorant of the poisonous influences under which they live, or they must be too demoralised to struggle against them, or they must be hopeless of the will of the state to succour them. Any of these suppositions is sufficiently deplorable. It is difficult to say whether the ignorance, or the apathy, or the distrust be the most lamentable symptom. Surely they must soon learn to feel the blush of shame, when Southwood Smith and other men, not personally exposed to their condition, stand alone and unaided by them in their efforts to better it. This silence is not endurable by a manly and intelligent people. Surely they who suffer have tongues to tell what they suffer, and that, too, with irresistible eloquence. Why should they always speak through those who have no personal experience of their circumstances? Now that fever is raging among them, how impressive would be their appeal to the Legislature! There are men among them who could draw up an infinitely better report of the deteriorating influences by which they are surrounded than could be drawn by those of a different class, and who could suggest more practical and immediate mitigations. Such a report would most assuredly have a powerful influence in hastening the enactment of sanitary measures and the increase of their own comforts. The Lord Provost might find individuals among them most serviceable in revising his own bill, and supplying him with suggestions and with information.

THE EMIGRANT FEVER IN CANADA.—The pestilence appears to be gradually subsiding. *The Montreal Pilot* of the 15th of October says, "The health of this city remains much in the same state as it did several weeks ago. There are some cases of typhus fever among our citizens, but at the emigrant sheds the daily number of deaths is gradually decreasing, if the reports are to be relied on. The Right Rev. Dr. Power, Bishop of Toronto, died at the Palace in Toronto on the 1st instant. The disease to which his lordship fell a victim was typhus fever, contracted in the faithful and assiduous performance of his ministerial duties at the Emigrant Hospital. His funeral took place on the 5th, and was attended by an immense concourse, not only of his own flock, but of those professing other creeds, who came to pay their last tribute of respect to the esteemed and revered prelate, whose loss is universally deplored. The funeral train, it is said, extended more than half a mile. Two more ministers of the Church of England—the Rev. Mr. Morris and the Rev. Mr. Anderson—have fallen victims to the emigrant fever, contracted during their ministrations at Grosse Isle. It will be observed that the number of vessels arrived at Quebec to the 12th inst. falls short of those last year by 266, and not more than 100 are expected, which will make the deficiency for the whole year even more than that number. At the port of Montreal there is an increase to the same period in favour of this year of 33 vessels and 4417 tons. The number of emigrants arrived at Quebec up to Saturday last was 91,892, being an increase of 60,889 over the corresponding period of last year."

FEVER AND PHYSICIANS.—The Edinburgh police surgeon and one of the infirmary physicians have both been seized with typhus. Such is the overstocking of the medical profession, and the eagerness for position, that the duties of the latter office are performed gratuitously. Matters are certainly come to a strange pass, when we find gentlemen, at the end of an expensive and laborious education, daily ministering in pest-houses, where the chances of infection are a hundred to one, and all for nothing. In the military profession, the risk would not be much greater, while at the very least a drum-boy's pay would be certain. If physicians were true to themselves, such anomalies could not exist.—*Daily News.*

THE SANITARY STATE OF WESTMINSTER.—A meeting was held at the Carpenters' Arms Tavern, Pimlico, for the purpose of considering the frightful state of the streets adjacent to Buckingham Palace, in consequence of the want of every sort of sewerage or draining. Charles Lushington, Esq., M.P., took the chair amidst great cheering.—The Secretary, Mr. Portwine, said that a memorial had been sent to the commissioners of sewers, as to the frightful state of disease to which the inhabitants of the districts of William-street, Buckingham-street, Catherine-street, and part of Palace-street, were exposed by the putrid matter either lying in or passing through those localities, calling the attention of the commissioners to the astounding fact that no sewer existed within two hundred yards of the place. The memorial further called the respectful notice of the court to the fact, and prayed for their interference. To this the commissioners sent an answer by their clerk, that the memorial should have their earliest attention: an announcement that was received with cheers.—Mr. Lushington, M.P., then addressed the meeting: the delay that night had not been his, for he was there punctually at eight o'clock, but they had been waiting in hopes of the attendance of Alderman Johnson, whose advice, from his experience and great local knowledge, would have been invaluable. For himself, he could only say that all he had to offer in the cause they had met to promote, to provide for the wants of the poor in their infected dwellings, was but good will in place of substantial information.—On the motion of Captain Houghton, a memorial was agreed to be sent to the commissioners of Woods and Forests as ground landlords.—A com-

mittee was appointed to carry out the objects of the meeting, and after a vote of thanks to the chairman the assembly broke up.

NEGRO RACE EXEMPT FROM YELLOW FEVER.—Dr. Nott says that he has seen yellow fever prevail five times in Mobile, and has attended several hundred cases amongst the whites, but not a well-marked one in a pure-blooded negro, and not more than two or three in mulattoes; although there was a great number of unacclimated negroes and mulattoes in the district at the time. The smallest mixture of African blood, even though the subject be brought from a northerly state, seems to be a potent antidote against this morbid poison.

YELLOW FEVER IN NEW ORLEANS.—Letters from New Orleans inform us that the yellow fever is still raging there, and the mortality is so great that business is nearly suspended. We trust that the appearance of cold weather will entirely put a stop to this scourge.

There have been fresh accounts of yellow fever in New Orleans. The first week in September, out of 533 deaths, 427 were yellow fever; in the preceding week, out of 442 deaths, 311 were fever. In the Hôpital de la Charité, out of 446 invalids, 128 died. Several doctors have fallen victims to this scourge.

PRACTICE OF CHEMISTS.—On Tuesday an inquest was held by Mr. Mills, at the Seymour Arms, Seymour-street, Bryanstone-square, by adjournment, on the body of Emma Elizabeth Turner, aged two years, the child of a dairyman in Adam-street West. The case at first appeared to be an ordinary death from scarlatina, which was proved to be present in the house, some other children of the same family being afflicted with it; but it assumed a new feature in consequence of the assertion of Mr. Moat, a surgeon in the neighbourhood, that, on a *post-mortem* examination, he had found a considerable portion of morphia (the principle of opium) in the fluid contents of the stomach. This, involving as it did the character of a chemist named Squire, who had prescribed a powder for the child, led to the adjournment of the inquest, in order to apply further chemical tests. Mr. Theophilus Redwood, professor of chemistry to the Pharmaceutical Society, analyzed the remainder of the fluid found in the child's stomach, and found morphia present, but in such very minute portions as scarcely to be distinguishable. This opinion led to a long discussion between the two gentlemen, Mr. Redwood declaring that iodic acid was a very uncertain test of the presence of morphia if putrescence had commenced, while Mr. Moat contended that poisoning by the means of opium would, for a time, preserve the body from decomposition, and thus enable a fair test to be made by that acid. Amidst the difference of chemical opinion, the jury retired for a considerable period, and then returned a verdict, "That the child was found dead, with certain indications in the heart and brain, but whether from the effects of morphia, or from natural causes, there was not sufficient evidence before the jurors to show," accompanied with a strong expression of opinion by the jury of the danger and illegality of the practice of chemists in prescribing for ailing persons without seeing them.

SEA-MOSS AS A BANDAGE FOR FRACTURES.—Cochino is a small island only a few miles distant from the island of Chiloe. Near the shore the moss is so thick that boats frequently stick so fast in it as to require great exertion to get them out. The poor inhabitants boil this sea-moss and eat it. Among the people of Chiloe it occupies a most important place in surgery. When a leg or arm is broken, after being brought into a proper position, a broad layer of the moss is bound round the fractured limb. In drying, the slime causes it to adhere to the skin, and thus it forms a fast bandage which cannot be ruffled or shifted. After the lapse of a few weeks, when the bones have become firmly united, the bandage is loosened by being bathed with tepid water, and it is then easily removed. The Indians of Chiloe were acquainted long before the French surgeons with the use of the paste bandage.

PHARMACY IN CHINA.—The Emperor of China gave the following orders last May:—1. Every apothecary was to be provided with a diploma signed by three competent judges, members of the Academy of Medicine.—2. Every apothecary must have a supply of camphor and rhubarb.—3. Salts, calomel, laudanum, arsenic, and all such drugs must not be sold without a prescription from a physician or an order from a magistrate.—4. Every apothecary ought to have a sufficient quantity of ginseng-root, and to watch the growth of this plant, which is so much esteemed by the Chinese.

ADVANCE OF THE CHOLERA WESTWARD.—A letter from Kiel (Holstein) of the 23rd ult. announces the death of a peasant named Hingst, aged thirty, residing at the village of Warnau, near Preetz, from a severe attack of virulent Asiatic cholera. Nature yielded to the contest after thirty hours of the most excruciating agony.

The *Augsburg Gazette* informs us that during last month the smallpox raged fearfully at La Ville de Foix, in Ariège. An apothecary has arrived there from Augsburg to restore vaccination, finding in the precinct of Foix, on the udder of a cow, the cowpox discovered by Jenner. Also, in the commencement of the same month, there has been a great malady in Roanne, among children; by the registry the average was, that out of seventeen deaths thirteen were children under eleven years of age.

APOTHECARIES' HALL.—Gentlemen admitted members on Oct. 28: Mallalieu Taylor, John Beach, and Charles Wise Hollis.

M. le Docteur Richard des Brus has been re-elected deputy by the College of Puy.

A school for pharmacy is to be established at Algiers. The intention of this is the instruction of those whose means are very limited.

OBITUARY.—On Aug. 5, at sea, on board the steamer Cambria, from Halifax for Liverpool, aged about 50, Daniel King, Esq., M.D., Deputy Inspector of Hospitals, late of her Majesty's ship *Vindictive*.—On the 19th ult., of typhus fever, in the county of Tipperary, Valentine Flood, M.D., formerly of Blessington-street, Dublin.—Oct. 7, at Cashel, aged 36, of fever, Dr. C. Minchin.

MORTALITY TABLE.

For the Week ending Saturday, Oct. 30, 1847.

Causes of Death.	Total.	Average of 5 Summers.
ALL CAUSES.....	945	1046
SPECIFIED CAUSES...	943	1039
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	276	211
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat.....	90	104
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A COURSE OF LECTURES ON SURGERY.

BY
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Consulting Surgeon to London University Hospital, &c.

LECTURE XVII.

GENTLEMEN.—A few remarks will conclude the subject of erysipelas, which was left unfinished in the last lecture. Diffuse inflammation of the cellular tissue differs from phlegmonous erysipelas in the temperature of the part affected and the absence of heat, the skin, in fact, being colder than natural. It agrees with that form of inflammation in its tendency to suppurate: sometimes this process takes place without any redness; and in cases where the skin is inflamed such inflammation is secondary. It frequently follows the bites of venomous reptiles, as the rattlesnake; and from the cuts and pricks of dissection, and often arises from fever. It is extensive in its character, often occupying the cellular membrane of an entire limb, and sometimes shifts from one side of the body to the other. In the treatment of this disease, which is common, your plan must have reference to the exciting cause; thus, in diffuse inflammation of the texture, arising from the bites of venomous reptiles, it will be necessary to employ constitutional remedies, not called for in other cases. Where depletion is resorted to, venesection must be avoided, and leeches and cold lotions are the best applications in the early stage, and fomentations afterwards. Where abscesses have formed, you must make early and free incisions—a rule which I should say applies also to phlegmonous erysipelas; matter should never be allowed to accumulate. Blisters, as promoting an abundant discharge of serum, are valuable; and the rule given above will teach you to make an early opening.

Edematous erysipelas is the last form of that class of diseases that I shall have to notice; it occurs chiefly in persons disposed to oedema, and attacks those parts most abounding in cellular tissue: thus, the scrotum, the labia pudendi, and the legs of dropsical persons, are frequently its seat; it causes a great accumulation of serum. The skin and subcutaneous cellular tissue swell very gradually, and wants that firmness to the touch which belongs to phlegmonous erysipelas. When you put your finger on the smooth and shining skin, it pits, and the hollow thus made is slowly effaced. The colour of the skin is generally a pale red with a yellowish tinge, and there is little heat or pain. In severe cases the integuments slough, the pulse is quick and irregular, typhoid symptoms are presented with vomiting and delirium, ending in death. The state of the constitution in this disease forbids any loss of blood; aperient and tonic medicines are advantageous; and the part should be fomented with a decoction of chamomile flowers,

to which may be added a proportion of camphorated spirit. If suppuration render an opening necessary, it must be accomplished by making small punctures, which should be done with a very finely-pointed lancet. Incisions must be avoided: they expose the patient to great risk of gangrene.

We proceed now to consider ulcers, and the process by which they are produced. They are a class of sores met with in our hospitals, perhaps, more frequently than any other. Care will be necessary in treating of them, on account of the great variety. Ulceration is a process in which the absorbent vessels seem more prominently concerned than the arteries. John Hunter uses the terms *ulceration* and *ulcerative absorption* synonymously; and, in his philosophical way of looking at things, he regarded it as a process established to supercede the necessity of sloughing in the diseased part. He divided absorption into two kinds—*interstitial* absorption, by which the bulk of a part is diminished by the removal of the tissue in the interstices of parts which themselves remain entire; and *ulcerative absorption*, by which a chasm is formed, and not only loss of substance takes place, but a solution of continuity. Although much attention has been paid to the subject, as yet no satisfactory theory of ulceration has been arrived at. It is observed that when a part is about to ulcerate its vascularity is increased, while the lymphatics appear to be unchanged. In some experiments, instituted for the purpose of proving the increasing vascularity of ulcerating parts, an injection was made into the veins where ulceration was going on, which showed a great increase of circulation in the veins and arteries. Another similar case was taken, and the lymphatics were injected, and upon this occasion no change was observable in the action of the absorbents. Another point affecting the Hunterian doctrine is this:—If all ulceration consists in absorption, then every person who has a chancre must have constitutional affection from that chancre; whereas it is known that many have chancres and are without secondary symptoms; and where there is a bubo, it is not in the early stage of the disease, nor till granulations have formed somewhere. There may be ulceration over two-thirds of the body, and in the other parts granulation may be going on; and not till these last take place will a bubo be found. As Mr. Key says, if ulceration were a process of absorption, the bubo ought to form in the early stage of the disease. Some have conceived that the veins are alone concerned in this process; but this theory is liable to the same objection as is applicable to the one which ascribes all to the exclusive action of the absorbents.

Whatever may be the agents of absorption on this occasion, whether lymphatics or veins, or both, we may say with John Hunter, that not only must the agents of absorption be stimulated, but the tissue about to be absorbed must be put into a state to yield to their operation.

An ulcer may be defined to be a chasm produced in some part of the body on one of its ex-

ternal or internal surfaces, and attended with suppuration, or formation of matter. One exception appears to exist to this definition of an ulcer, with respect to ulcers of the cornea, in which we do not meet with the formation of matter. Ulcers occur, as you already know, in a great variety of forms, and they may also arise from many causes: some are acute, and others chronic; some are very painful, and others have very little pain; some are superficial, and others are deep.

The textures most exposed to the attacks of ulceration are those most highly organized: the skin and mucous membrane are consequently very liable; whereas those textures of the body where there is a lower organization are far less susceptible of ulceration, as the fibrous textures. In the cartilage covering the synovial membrane, it not unfrequently occurs, although the organization is low; but here, as in other similar cases where it may sometimes occur, the parts are passive; the synovial membrane, at the part where it comes into contact, gets highly organized, and it is by this membrane that the cartilage is absorbed; and, as Mr. Key says, where ligaments ulcerate, they become highly organized before fibres are removed. When an ulcer is about to form in a part, signs of inflammation exhibit themselves there; redness and swelling, with a pricking or lancinating pain, are present, especially if the ulcerative absorption is of the quick kind. In many cases there is a loosening of the cuticle; a little vesicle is formed, and on its bursting a breach is seen in the subjacent surface; sometimes several small excavations join to form in large sores. Before granulation takes place, the edges of the chasm are rough, sharp, red, and often jagged. The colour of the ulcer is dirty white, or nearly yellow, the surface presenting an appearance of shreds upon it as if the destroyed parts had not been completely removed. A thin discharge takes place, often tinged with blood. While ulceration is extending itself, the margin of the skin adjoining is hot, red, and painful; but when the healing process commences, this state ceases.

The progress and extent of ulceration vary according to many circumstances, local and constitutional. With respect to the causes of ulcers, Andral refers them to acute and chronic inflammations; some morbid secretions, as pus; and a bad state of constitution. Many specific diseases, as scrofula and syphilis, show themselves in ulcers. Then many ulcers follow diseases of the bones and joints. From what has been stated you will see that the classification of ulcers must be founded upon a division into constitutional and local; but, in admitting this classification, you must understand that many ulcers, constitutional at first, arising from impaired health and other like causes, before leaving become local in their character: the state of health is improved, and the disease confined to the particular locality where the sore is situated; and so again, on the other hand, a local sore may, through changes in the state of health, become constitutional; nothing is more certain than that the state of ulcers

fluctuates with the changes in the constitution. One day, on visiting your patient you find the part sore, red, florid, and granulations forming—in the night, fever or diarrhoea comes on, or he receives some unfavourable intelligence; you look in next day, and the florid appearance is gone, the matter is suppressed and altered in quality—it has become thin, and perhaps tinged with blood. From these circumstances it is impossible to fix definitely the character of an ulcer, except as it is in a particular state at the time. No two are precisely alike; and, indeed, as no two constitutions are alike, this is not wonderful. Besides this classification, you must remember that some ulcers are called specific, as syphilis. In venereal diseases the ulcers are first local, and afterwards become constitutional. Scrofulous and scorbutic ulcers are of course specific. You must have heard the term, *vicarious* ulcers; these are so called, because they happen in consequence of the suspension of some ordinary periodical discharge, which they in some sort supply, as the menstrual discharge. Thus, in women, the discharge will take place at the ulcer instead of the uterus. Some ulcers depend on gastric, some on uterine, derangement, and some are connected with a luo-phlegmatic or dropsical state of constitution, which circumstances you will do well to remark. It is noticed that some ulcers have a disposition to attack certain parts of the body: thus, secondary venereal sores attack the throat; callous, *chronic*, or *indolent* ulcers are found on the lower extremities; the legs are often found to have varicose veins—a condition of extreme liability to inflammation of the skin, and to ulceration. In the treatment of ulcers you must endeavour to remove the exciting cause; this part of the subject you must already understand, from the many occasions on which I have had to refer to it. The disease may, for instance, depend on the presence of dead bone, or some foreign body, the removal of which is essential to a cure. Another point in the treatment is to apply proper dressing, and endeavour, by suitable applications, to facilitate the healing process. You must also be careful to attend to whatever is wrong in the general state of the constitution. The patient may be suffering from constipation, or the gastric organs may be in a deranged state, or the uterine functions irregular in their action. No sores are more difficult to deal with than those originating in uterine derangement, unless you attend to the exciting cause; which being done by proper medicines, you can heal the sore. I have seen many of these sores which have been kept up by irregularities of the menstrual discharge, which, when the usual means of promoting the ordinary functions of the uterus have been employed, have rapidly disappeared. Again, you must take care to give the part proper rest, and pay attention to the position, so as to promote the return of blood. In ulcers of the lower extremities you may put the patient in bed, unless such a course would on other grounds be objectionable; a good supply of fresh air, proper diet, and attention to cleanliness, are of first-rate importance. I have told you that the healthy ulcer, or simple ulcer, is known by its appearance: the granulations are small, firm, pointed, and concave; the colour is red, and the sore discharges good pus of a white or yellowish colour, and rather thick, and not too profuse. You see the edges of such a sore covered with a delicate light blue or purple semi-transparent film, on the outside of which you observe a whitish ring, showing the presence of the new cuticle; these granulations are not disposed to be too high, so as to be an impediment to cicatrization. If, however, they do after a time become too luxuriant, you will check them by means of dressing according to circumstances. There is no constitutional disturbance, but, as the appearance indicates, it is a healthy one free from any disease except ulceration itself. It is not a case requiring medicine, and the dressing should be of a simple kind; this is a rule which has been observed here with great success in simple ulcers. Some, however, will not keep in bed or in a state of rest; either their

habit or temper leads them to move about, or, perhaps, business allows them no choice; you must then either fold bandages over the leg, or employ straps of adhesive plaster so as to go quite round it, and to leave a few inches to spare. By means of this bandage, the patient will find he is able to put his foot to the ground and walk about. By these means you support the veins, and also prevent the texture from undergoing that change which makes motion in other respects undesirable. Supposing you have a patient with healthy sores, and the granulations rise too high, you may reduce them by using the zinc lotion, or touch them with nitrate of silver, and afterwards apply lint over the part touched; but, if you employ nitrate of silver or sulphate of copper, you must remember not to touch the transparent blue film on the edge. Noscientific surgeon touches that film, though I have seen some, generally young and inexperienced persons, touch that quite as freely as the other. Also, if you apply lint, you should keep it from the film, as it has a tendency to adhere to the film, and drag off a portion.

Then another form of ulcer is that called indolent, quite a different kind of ulcer from the one we have been considering; it is that which is seen so much in hospitals in London, being most common in the working classes. These take place almost always in the lower extremities: the granulations are large, pale, and flabby, and the circulation sluggish. You find them very much upon old subjects, and particularly where much poulticing has been practised. The discharge is then fetid, and often blended with coagulated albumen; the edges are thick and callous, often surrounded by thick cellular tissue; the skin is often raised up round the edges, and, by repeated poulticing, gets white, thick, and flabby, and to these the term *callous* is applied; these peculiarities you will often find in hospitals, in chronic sores of the legs. The treatment of these is, as you might expect from the description of their character: the strapping, adhesive plaster, answers well in many of these sores, to bring the skin into a better state; it is not necessary to take the strapping off every day in common cases. You will often find it desirable to use in addition stimulating local applications. The red dressing was used very much once; the yellow basilicon ointment, also, is used by many practitioners to promote the greater activity of absorption. You must not be too free in the use of mercurial applications, or of belladonna. Sulphate of copper and sulphate of zinc you may use in lotion.

DUMAS ON ORGANIC CHEMISTRY.

No. XXXII.

(Continued from vol. xvi., p. 644.)

ON THE FABRICATION OF MANURES, INCLUDING CORRECTIVE AND STIMULANT APPLICATIONS FOR THE SOIL.

In the full acceptance of the word, we designate by the name of manures, all the solid, the liquid, and even the gaseous substances which are capable of serving as aliments to plants. Considered in this general point of view, we may say that manures are very varied. In fact, every substance containing one or more of the elements which enter into the constitution of the vegetable, and which is susceptible of being assimilated to it in the act of vegetation, whether wholly or in part, may be considered as a manure. Sooner or later the plants, when brought into contact with such matters, will assimilate to themselves some of its elements, that is to say, the hydrogen, the oxygen, the carbon, the nitrogen, the water of combination, or even the different calcareous, earthy, or metallic salts, which enter into the composition of almost all plants.

A corrective, on the contrary, is a substance of which the object is to ameliorate the physical constitution of the soil: to render it permeable, where it is too compact; to give it body, if it be too light or sandy; lastly, to change in part its

nature, should it be composed of substances which might prove hurtful to vegetation: hence, we can understand that there may exist a host of matters capable of enjoying, at the same time, the character of a corrective as well as that of a manure.

Finally, we give the name of stimulants to those solid or liquid substances which excite vegetation, whether by imparting more activity to the manure, or by stimulating the organs of the vegetable to seize upon the elements which constitute it. Sometimes the stimulants are assimilated wholly or in part by the plants; but their chief office is to render the manures more active, and especially azotized manures. In earths completely devoid of these latter, stimulants would have no action over vegetation; they would impoverish the soil, unless care were taken to repair its strength by fresh azotized matters. The sulphate of lime, lime, and chloride of sodium, when employed in suitable proportions, are energetic stimulants.

Every substance which is capable of furnishing one of the elements which enter into the composition of vegetables, may be considered, rigorously speaking, as a manure; but it is chiefly those matters which can give to the plant the nitrogen necessary to vegetation, the earthy or alkaline phosphates, the alkalis themselves, or those salts which the soil is incapable of yielding to it, that merit more especially this name, in a practical point of view. In fact, matters which can furnish carbon, hydrogen, and oxygen, are found in abundance in nature, and a Supreme Intelligence administers them in suitable proportions, by means of the air or of the water. That which is wanting to the agriculturist, and which he is often obliged to buy at a great cost, consists of the azotized materials, which can alone furnish abundant crops. Since this grand truth has been discovered—since modern chemistry has brought to light the important character of nitrogen—we have seen arise and flourish veritable manufactories of manure, whereas, we find the agriculturist turning to advantage those impurities and refuse matters which, formerly, were entirely lost, or which even engendered causes of disease to the inhabitants of our towns.

We shall divide the nitrogenized manures into two classes; in the one we shall range all those manures which are employed just as Nature or adventitious circumstances present them to us; in the other, on the contrary, we shall place those azotized manures which undergo a certain preparation before being employed—in one word, those manures which are furnished to us by a true process of manufacture.

Every liquid or solid azotized substance, which is employed directly and without preparation, whether it arise from the animal, the vegetable, or the mineral kingdom, constitutes a natural manure. Among the animal manures, we reckon all the *debris* or refuse matters of the animal, such as the blood, the flesh, and all waste matter in a fresh condition. All these substances, in their rough state, should be employed immediately; otherwise they rapidly putrefy and give rise to a tainted odour; they can, therefore, only be made use of in the environs of large towns, where they are found in great abundance. We shall see, when we come to study the prepared manures, the mode by which we may succeed in preserving them for any length of time, and whereby we may reduce them to a form which will allow of their transportation to a distance, at the same time that we render their action even more regular and lasting.

The herbaceous vegetables, buried in the soil, present one of the most frequently-employed natural manures, especially in hot countries, where, besides furnishing the necessary nitrogen, they maintain a degree of moisture very favourable to vegetation. Without lauding this practice, we may mention that, in the south of France and in Italy, it is the custom to cultivate some plants, as lupins, beans, and even maize, for the purpose of burying them in the green state, before fructification. For cold and damp lands, it

is better to employ these plants in the dry state. In this case we may advantageously make use of the stalks of maize or of rye, damaged hay, &c. The leaves of trees may also be thus employed; they contain, as numerous analyses have proved, much more nitrogen than the other parts of the tree. There are many places, as the environs of forests, where we might procure this manure at but little expense.

The herbaceous vegetables are not the only ones which we use as manure. Sometimes we employ for this purpose small shrubs or branches of trees: the broom, furze, &c., come under this class. When we wish to use them in the natural state, we bury the branches while ploughing up the ground. They are applied in this way for the purpose of rendering vines more fruitful, without injuring the quality of the grape. In such case, between each row of vines, we dig a trench from two to three *decimètres* in width, and, after having filled it up with branches, cover them over by means of the earth removed from the succeeding trench. These materials decompose but very slowly, and consequently their effects are maintained for a great number of years. Besides the organic products which they are capable of furnishing to the soil, we must likewise take into account the salts of every description which they restore to it.

We may, however, obtain much more speedy results by macerating these substances beforehand, a practice which is adopted with the prepared manures; but what we thus gain in promptitude of action, we fully lose in durability.

The seeds and fruits of plants and trees are often employed as manures. In Italy they use with great success the seeds of the lupin for manuring orange and olive trees; before employing them they carefully destroy their germinative faculty by torrefying them in ovens. Lupin-seeds contain as much as four per cent. of nitrogen; their use is thus readily explained, as also is that of other seeds which are sometimes employed under similar circumstances, since it is well known that this is the part of the vegetable which most abounds in nitrogen. For the same reason the husks of fruits and of malt, as well as those of the oleaginous seeds or fruits—forming what is known by the name of oilcake—the skins of olives, &c. &c., will produce analogous, and frequently much more energetic, effects, since, while losing a great part of their weight, they still preserve almost the whole of the azotized and albuminous matters which constitute their value as manures. In fact, the cakes formed from linseed, rapeseed, the *arachis hypogæa*, *madia sativa*, &c. &c., contain from five to eight per cent. of nitrogen—an enormous quantity, and which closely approximates to that of dried animal matters.

Lastly, among the natural manures arising from the vegetable kingdom, we must also rank the aquatic plants derived from running waters, or from the sea. The green herbs which are extracted from marshy grounds may be employed in their natural state for the fertilization of the soil: we have, in such case, merely to cover them over with the earth when ploughing. Sometimes they are not used until the process of fermentation has commenced within them. The turfy mass resulting from the decomposition of these plants under water should never be employed without some previous preparation, for the acid reaction which it presents is very injurious to vegetation. It is therefore rendered available for agricultural purposes by saturating the free acids by lime, or, better still, by provoking a process of fermentation, which destroys these acids, or which saturates them by the formation of ammonia. In some localities they burn the turf and spread the ashes over the surface of the field; but we may at once understand that, by this process we destroy the fertilizing part, that is to say, the ammonia or azotized matters of the turf; however, there remains a tolerably energetic stimulant constituted by the salts contained in these ashes.

The marine plants, such as the *fuci*, the *algæ*, the *conferve*, &c., are much sought after, espe-

cially where they can be procured without great expense; they contain, besides a certain amount of nitrogen, a little sea salt, which undoubtedly aids their fecundating properties. In Normandy and Brittany, they have made use of these plants from time immemorial; sometimes they at once bury them under the ground which it is intended to fertilize; at other times they merely spread them over its surface; while, lastly, they occasionally mix their *debris* with other kinds of dung, or else stratify them with earth for the purpose of reducing them into manure. This latter proceeding evidently destroys a portion of their efficacy, for the fermentation which is established in the mass invariably sets free some azotized gases; and, moreover, these marine plants are decomposed with such rapidity in the ground that any previous process of disaggregation may, in the generality of cases, be dispensed with.

The mineral kingdom likewise furnishes to the agriculturist some substances which may be regarded as natural manures, and which, consequently, contain a certain proportion of nitrogen; but, in general, they possess highly stimulant and corrective properties. The red or black pyrites, as those of Picardy, in the form of ashes, are largely employed by the agriculturists of the North, and may be considered as an example of an energetic stimulant manure. This substance, which also serves for the manufacture of copperas and of the sulphate of alumina, is found in a great number of localities under the form of a black powder, in which we often meet with shells, the *debris* of vegetables, and bituminous woods in a more or less decomposed state. When formed into a heap it becomes gradually heated, or may even take fire, and thus undergoes a process of slow combustion. After fifteen days or a month of this treatment, the ashes will have partly changed in nature and in colour; from black they will have become red, the iron having passed to the state of peroxide.

According to MM. Girardin and Bibard de Rouen, there exist in the environs of Forges-lez-Eaux, on the surface of the soil, layers of a black, aluminous, ligneous pyrites, of greater or less thickness, and which have long been worked for the manufacture of copperas. These pyritous earths, after having been washed in some lee, are usually mixed with a fourth part of their weight of incinerated vegetable matter, and thus employed throughout the greater part of the province of Bray as a very powerful stimulant manure; they are altogether analogous to the black ashes of Picardy.

MM. Girardin and Bibard give the following as the composition of this substance: 100 parts of the ashes, after being subjected to the action of the lee-wash, contain 24 parts of water. One hundred parts of the dried ashes contain:—

Matters soluble in water, 4.53	Organic matter, or so- luble <i>humus</i> ..	2.74
	Sulphate of the pro- toxic oxide of iron	1.79
	Sulphate of peroxide	
	Matters inso- luble in water, 95.47	Fine sand ..
Insoluble <i>humus</i> ..		49.83
Sulphuret of iron		6.72
Peroxide of iron		

The nitrogen in these ashes rises as high as 2.72 per cent.—a quantity which appears very considerable. MM. Boussingault and Payen found in the ashes of Picardy but 0.65 per cent. of this element.

The black ashes of Picardy act then, probably, as a manure, by reason of the large proportion of *humus* which they contain, as evidenced by the above analysis; and as a stimulant, owing to the presence of salts, and more especially of the salts of iron. There is also another action which may have some influence over the rapidity of vegetation, and that is, the heat maintained in the soil by the slow combustion of the sulphuret of iron.

Some of the mixed manures may be employed without any preparation; these are chiefly formed of the refuse matter of large towns, and the excretions of certain animals. The fecal

matters, as well as the urine, either pure or diluted with water, are often employed without any preparation, and, in such case, we have merely to spread them over the land which we wish to fertilize. This plan yields very good results, but it also presents serious inconveniences. In fact, the expense of transport being considerable, we can only employ these manures in the environs of towns, or at least at short distances from the habitations which produce them; and, as the large centres of populations always furnish more than is required for the surrounding country, we lose a great part of these matters if we attempt to employ them in the natural state. In this form, also, they have another grave inconvenience, namely, that they communicate to the plants a taste savouring strongly of the origin of the manure. A further consideration, which we ought not to overlook, is the injurious odour which these matters give out, whether during their transport, or at the moment of their being spread over the field. The air becomes infected by them—a circumstance which does not occur with the manures prepared according to the different methods that have been invented to obviate these inconveniences.

The human excrements constitute one of the best manures. They are employed, in the fresh state, under the form of nightsoil, or as a dry powder obtained by the desiccation of the moist excrements. In many localities, as China, Tuscany, Holland, Belgium, and Alsace, they are used in the fresh state. Sometimes they are dissolved in water or in urine, for the purpose of manuring the ground. In China, they are solidified with argillaceous earth, and the dried mixture is then reduced to powder. In Flanders, where this manure is applied to the culture of the flax, rapeseed, tobacco, &c., the farmers have a custom of collecting the fecal matters in large and deep cisterns, in close proximity to the fields which require manuring. Here they are left for several months, and undergo a species of fermentation which renders them somewhat more viscous. In this state they constitute what is called *Flemish manure*. Frequently they add to the matters contained in the cisterns some seed-cakes reduced to powder. The azotized substances contained in these cakes quickly become themselves decomposed, and thus contribute to the efficacy of the manure. The addition of these solid matters has also another object. By diminishing the fluidity of the soil, and becoming themselves strongly impregnated with all its liquid particles, they prevent the latter from spreading with too great facility, and thus prolong the fertilizing action of the manure. This never, however, extends beyond a year, action at the furthest.

A hectolitre of Flemish manure is equivalent to about 250 kilogrammes of horse dung.

Let us hope that those countries, which are in these respects less advanced, will take example from Belgium and Flanders, where agriculture has made such rapid strides, and where such care is taken to preserve those matters which can be rendered available to the cultivation of the soil. When thus enclosed in the earth and protected from contact with the air, these matters are less exposed to the abrupt changes of the temperature; they ferment less, and consequently may be preserved for a long time without losing their good qualities.

Where we wish to make use of the liquid manure, we draw a given quantity from the cistern; we dilute it with five or six times its weight of water, so that its action be not too energetic, and thus prove injurious to the plants; then we sprinkle it over the field just after the sowing has been finished, or upon the meadow lands when these have been recently mown. Sometimes we pour a spoonful of *Flemish manure*, undiluted, at the foot of each plant—that is to say, where this plan can be adopted without too much labour; but, in such case, we must be careful not to touch the stems, which would be injured thereby.

In the environs of Lille, the expense of a cask of Flemish manure of 125 litres may be set down

at 1fr. 20c.—to wit, fr. 0.30 prime cost, 0.30 expense of transport, and 0.60 hand labour in watering the ground.

The excrements of birds constitute a manure much richer in nitrogen, and, consequently, even more powerful than Flemish manure; they contain, in fact, as much as eight or nine per cent. of nitrogen. These form, without contradiction, the richest of the mixed manures, as also they are the hottest and the most readily changeable. In the departments of the North, where this manure is very much valued, they make especial use of pigeons' dung, which will fetch as much as 100fr. the load—a quantity, however, which is capable of manuring about eighty *ares* (French measure). This rich manure is especially employed in the cultivation of the flax, tobacco, rape, &c.

We have merely to cast our eyes over the analyses of guano already cited, to convince ourselves how rich are the excrements of birds in materials useful for vegetation. They contain, in fact, besides feathers and other animal matters accidentally introduced, uric acid, ammonia, coagulated albumen, and phosphate of lime.

In Flanders and some of our northern departments they carefully collect the dung of pigeons, or *colombine*, as it is sometimes called. In these localities the pigeon-houses are numerous and well stocked, and it is the custom to contract for the dung in the proportion of 100fr. per annum for every six or seven hundred pigeons. With this dung the manuring of a *hectare* (French measure) costs from 125 to 200fr.

The excrements of the fowl, which have been designated by the name of *poullaitte*, are held in less estimation than *colombine*.

In general we employ this species of manure in its natural state, and without mixing it with other dungs. It is used especially for raising the seeds of the cerealia in moist and compact grounds, where it is found to be of excellent service. Moreover, we may apply it with great success in the cultivation of the trefoils by mixing it with ashes. In Flanders it is employed at the rate of 2000 kilogrammes per *hectare*, for the purpose of producing copious crops of flax.

We have already remarked that the manures owe their efficacy in part to the urine with which they are impregnated. In fact, we know that this liquid is capable of furnishing, by the decomposition of one of its principal elements—urea—a remarkable quantity of carbonate of ammonia, a body which has been shown to be so necessary to the act of vegetation.

But, independently of the urine absorbed by the dung, there will also be found a portion which escapes, and which we may conceive is capable of being turned to profitable account. In Switzerland it is the custom to collect the urine into cisterns, where it is allowed to remain a certain time before irrigating the land with it. In Belgium they adopt a plan of absorbing it by means of straw, and then adding the latter to ordinary dung. It may even be mixed with marl, clay, sand, or plaster.

That which is commercially known by the name of *urate* is a mixture in equal proportions of plaster and of urine. It is reduced to a powder after having been thoroughly dried, and it is then carefully preserved from moisture. A question here naturally presents itself to us, namely, whether it is better to employ, as manure, the fresh urine; or, ought we rather to prefer that which has undergone a more or less advanced degree of putrefaction? If, with the view of resolving this important question, we allow ourselves to be guided by the generally-adopted practice, we should recommend the employment of putrified urine. But here, as in many other cases, custom may lead us into error, for the course of proceeding usually followed rests on principles which have a rather uncertain foundation.

We know, in fact, that the carbonate of ammonia produced by the fermentation of urine is a very volatile salt, and that thus the principle, most active in exciting vegetation, is in great art dissipated if the urine be preserved too long.

To give an idea of the injury which is done to agriculture by this false practice, we may here state that each kilogramme of ammonia which becomes evaporated is equivalent to a loss of sixty kilogrammes of corn, and that with one kilogramme of urine we may reproduce a kilogramme of wheat. We should, then, in all cases, fix the ammonia by adding to the urine some gypsum or sulphate of iron, or else by sprinkling the land with these substances. We thus form a sulphate of ammonia, which is of a more fixed character than the carbonate, and is not less efficacious. Some agriculturists, however, consider it preferable to employ the urine in a fresh state, and suitably diluted with water—a recommendation which we give with some reserve.

A host of other substances analogous to the excrements of birds may be advantageously employed in agriculture, and without any previous preparation. The excrements of the bat, collected in the caves inhabited by these animals, are among this class. So also with the mixed manure produced in sheepfolds or on grazing lands; this is evidently a very simple means of furnishing to the soil the manure which is necessary to it, at the same time that we are giving nourishment to the animals, and also avoiding the cost of transport and other losses which these kinds of manure experience before they are capable of being spread upon the land.

ORIGINAL CONTRIBUTIONS.

GENERAL REMARKS ON ANOMALIES OF THE VENOUS SYSTEM.—PART II.

By C. H. HALLETT,

Demonstrator of Anatomy in the University of Edinburgh.

(Continued from p. 62.)

In a former number of the *Medical Times* I gave a brief account of the general laws appertaining to irregularities of the venous system, and attempted to reconcile, as far as possible, the contradictory statements of the older anatomists respecting their frequency in relation to those of the arterial system, by distinguishing between those which could and those which could not be compared with one another. In this number I intend to describe briefly the more striking and important anomalies which have been noticed in the dissecting-room of the University of Edinburgh during the last winter and summer sessions. Some of these have been noticed and recorded by others, but the greater number, I believe, have not yet been formally brought under the attention of anatomists, or considered in their general relations.

Beginning with the irregularities presented by the veins of the head and neck, I shall first describe those of the sinuses of the dura mater, which are more than usually interesting.

Congenital Deficiency of the Torcular Herophili.

This was by no means an unfrequent anomaly of the sinuses of the dura mater, it having been observed thrice in ninety-three subjects, that is, in the proportion of one to thirty. It consisted essentially in the divergence of the superior longitudinal sinus to one side, as it approached the internal occipital protuberance, whereby the lateral sinus on the side from which it diverged and the occipital and straight sinuses had no connection with it; and consequently the posterior confluence of the sinuses, or, as it is called, the torcular iterophili, did not exist, the sinuses normally entering into it having, in general, the following abnormal arrangement:—The superior longitudinal sinus, on approaching within an inch of the internal occipital protuberance, suddenly diverged from the median line, ran obliquely downwards, forwards, and outwards, and became continuous with, or rather opened into, one or other of the lateral sinuses, most frequently the right, near the commencement of the middle third of its horizontal portion. The lateral sinus, continuous with or receiving the superior longi-

tudinal sinus, followed its normal course, and, becoming smaller and smaller as it approached the internal occipital protuberance, terminated on it in a caecal extremity, which received the straight sinus at a right angle. The opposite lateral sinus—that from which the superior longitudinal sinus had diverged—pursued its normal course to the foramen lacerum posterius; but at the occipital protuberance it curved downwards and became continuous with another sinus, placed a little on one side of the median line, and, on being traced to the inner and posterior border of the foramen magnum, was found to be formed by the convergence and union of the two occipital sinuses. This lateral sinus was invariably very small, its calibre being to all appearance not more than one third of that of the opposite sinus. The occipital sinus on the same side as the enlarged lateral sinus communicated with it in one instance, but not in the other two, near the foramen lacerum posterius; its normal dimensions, however, were preserved. The opposite occipital sinus was greatly enlarged in all, and opened into the corresponding sinus at the foramen lacerum posterius, where an unusual dilatation existed. In consequence of this peculiar arrangement, the occipital sinus and the lateral sinus formed a complete venous circle, of nearly equal dimensions throughout, which encircled one of the cerebral-fossae of the occipital bone.

The only variation in this arrangement of the sinuses consisted in the existence of a communicating branch passing between the common trunk of the occipital sinuses and the straight sinus, through the falc cerebelli, which thus gave rise to a more free communication between the sinuses of opposite sides of the cranium. This was observed in one subject only.

The remaining sinuses of the dura mater invariably presented alterations in their relative dimensions, corresponding in some degree to those found in the sinuses entering normally into the formation of the torcular iterophili. The superior and inferior petrosal sinuses on the side corresponding to the small lateral sinus were much smaller than ordinary, although they terminated in their usual places; they were so small that they would scarcely admit the stilette of a small blowpipe within them. The petrosal sinuses on the opposite side were considerably enlarged; the lower, in consequence of a slight displacement, appeared to receive directly the transverse sinus, the cavernous, and the circular sinuses, all of which were greatly increased in size. A curious circumstance connected with this anomaly was, that the transverse sinus, instead of running in the dura mater, was found coursing obliquely under a bony arch formed in the basilar process of the occipital bone: this is occasionally seen in the normal state, but not to such an extent.

This anomaly necessarily gave rise to anomalous markings of the bones of the cranium, and more especially of the occipital bone. It appears to be more frequently found in females than in males; and, in connection with this, I might mention again that the deficiency and displacement, which evidently cause the anomaly, more frequently existed on the left than on the right side of the cranium. A tendency to its production may be observed in every subject, in the divergence of the superior longitudinal sinus from the median line, and consequent greater size of one of the lateral sinuses—a circumstance which has been long known to anatomists, and may be readily accounted for on general principles of formation.

Congenital Deficiency of a Lateral Sinus (Horizontal Portion of).—This, which appears to be an unfrequent anomaly, is seemingly a modification of the preceding. It was only observed once, and in that instance the whole of the horizontal portion of the left lateral sinus was deficient from the torcular herophili to the petrous portion of the temporal bone. The perpendicular portion was extremely small, and appeared to be a mere continuation downwards of the left superior petrosal sinus. It was not larger than a goosequill, and had no connection with the oc-

occipital vein, the mastoid vein not existing. Near the foramen lacerum posterius it received the inferior petrosal sinus; and the left occipital sinus, which was enlarged considerably, pursued a nearly direct course from the torcular iterophili to the foramen lacerum posterius, and appeared in some measure like a lateral sinus displaced downwards. Such a displacement of the lateral sinus has been described; but I am inclined to believe that the so-called lateral sinus was nothing more than an enlarged occipital sinus, and that the lateral sinus itself was partly or wholly deficient. In consequence of the deficiency of the horizontal portion of the lateral sinus, the outer margin of the tentorium cerebelli did not bifurcate, but was single, and attached to a slightly elevated ridge in the situation of the horizontal groove which normally receives the corresponding portion of the lateral sinus.

Double Lateral Sinus on One Side.—This is a very uncommon anomaly. Like the preceding, it appears to affect the horizontal portion of the sinus only, the perpendicular portion in two instances in which I observed the anomaly having been normal. In those two instances it was found to originate in the development of a horizontal fibrous septum, stretching across the sinus from the point of division of the outer margin of the tentorium cerebelli to the centre of the horizontal groove of the occipital bone, where, in one instance, a slight ridge existed. This septum may be developed on either side of the cranium, and, although I have not yet seen it on both sides in the same individual, it is more than probable that it will be observed hereafter. I often found an imperfect septum floating in the sinus, and I believe that it is represented in the normal state by a slight projection inwards of the inner angle of the sinus, which projection almost invariably exists, especially at its anterior part.

Anomalies of the External, Anterior, and Internal Jugular Veins.

The external jugular vein is extremely liable to variation in point of size and number. Indeed, its variations are innumerable and seldom alike. Being one of the veins accessory to the internal jugular, as might have been expected, it was found to vary in size with it; and, having a very free anastomosis with the anterior jugular vein, which is in some measure accessory to it, its size generally bore an inverse ratio to that vein. It was not an unfrequent thing to find the veins of opposite sides of the neck of different sizes, the left being, in general, smaller than the right; in fact, this was by far the most common irregularity of the external jugular vein. The differences in size depended on the number and magnitude of the branches it received, and particularly of that from the temporo-maxillary vein.

It was occasionally found deficient on one side only, and in one instance on both sides: in all these cases the temporo-maxillary vein and the facial vein united together, and the common trunk formed by their union, after sending a branch to the anterior jugular vein, dipped into the anterior superior triangle of the neck, and entered into the internal jugular vein, opposite to the thyroid cartilage. The branches and twigs usually passing into it in the neck proceeded partly to the anterior jugular vein and partly to the subclavian vein, the latter generally uniting with the supra-scapular and posterior scapular veins, and receiving the communicating branch from the cephalic vein before entering into the subclavian vein. In some few cases a mere trace of the external jugular was found. When the veins forming the external jugular vein had the arrangement just described, which I found to be the case about once in every fifteen subjects, the superior trunk and the branches connected with it represented very closely the external carotid artery and its branches: consequently, this anomaly causes the veins and arteries in the head and neck to correspond more closely in their arrangement than they do in the normal state.

Another irregularity, which occurred nearly as often as the preceding, consisted in the doubling of the vein. This I found to arise from various

causes. It sometimes resulted from the non-union of the temporo-maxillary and facial veins, which then passed down the neck parallel to, but slightly distant from, each other, in the normal position of the external jugular vein, and terminated separately in the subclavian vein. It most frequently originated, however, from the greater number of the occipital veins, both superficial and deep, passing down the neck after uniting about half an inch from the external jugular vein, which was always smaller than ordinary, and receiving all the lateral and posterior veins of the neck in its course downwards. In some subjects the trunk so formed entered into the communicating branch from the cephalic vein, but in most of them in which it was observed, it entered into the subclavian vein. This anomaly, also, appeared to me to have proceeded sometimes from a longitudinal splitting of the trunk of the external jugular vein during development, for it was not uncommon to meet with a more or less complete division of it at its lower part, the two portions passing separately into the subclavian vein, or having other connections. This I considered to indicate that the vein may be doubled by splitting from below upwards, as well as by the non-union of its upper and great branches of origin. Nothing could be more variable than the mode of termination of the lower portions of the external jugular vein, when it was either partially or completely double. It would be useless to mention all the variations in their mode of terminating, as most of them were without any interest; but I may notice one or two which, from their rarity, may not be undeserving of mention. In one subject, where it was completely double, the continuation of the temporo-maxillary vein passed through a foramen in the clavicle, and entered the cephalic vein about an inch and a half down the arm: there was no communication between the cephalic vein and the other division of the external jugular vein. I another subject, I observed what may be called the continuation of the facial vein, receive the supra-scapular and posterior scapular veins, which usually opened into the outer trunk, and also the internal mammary vein, and, after dilating into a kind of sinus, enter by a small aperture in the angle of union of the subclavian and internal jugular veins. I think it proper to state that, where the external jugular vein appeared to be doubled in the manner first alluded to above, both the temporo-maxillary and the facial veins were also connected with the internal jugular vein.

It may not be improper to point out that all these irregularities caused some variation in the contents of the subclavian space; that in dissecting that space, in some subjects, no external jugular vein was met with; while in others, a small vein was found running close to the anterior border of the trapezius muscle; and that, in several other subjects, the reverse was found, two veins of nearly equal size having been found coursing at some short distance from each other through the very centre of the space.

The anterior jugular vein presented numerous variations in size and number. The variations in size depended on the number and magnitude of the branches it received, and, more especially, on the magnitude of the communicating branch from the external jugular vein. It was extremely large in one subject, in which the whole of the facial vein entered into it. It was sometimes deficient, but more frequently was very small and scarcely discernible when empty.

The internal jugular vein varied in size according to the number of branches it received, and, consequently, according to the magnitude of its accessory trunks. In those subjects in which the external jugular vein was deficient, it was unusually large, in consequence of all the larger veins in the head and upper part of the neck entering into it. The right vein was most frequently the larger of the two, which depended partly on the right lateral sinus being in general larger than the left, and partly on a corresponding irregularity in the calibre of its tributary trunks.

Passing over, for the present, the numerous

and for the most part uninteresting irregularities in the other veins of the head and neck—some of which have been mentioned incidentally in describing the anomalies of the jugular veins; and those observed in the veins of the trunk, most of which are noticed in works on anatomy—for the reason that I intend to record them at some future period in a statistical form, which of all others I consider to be the most useful, I have now to notice two interesting anomalies in the veins of the pectoral extremity.

Congenital Deficiency of the Cephalic Vein.—This is a rare anomaly, although the cephalic vein is not unfrequently found exceedingly small. It was observed twice, and, what is very remarkable, both times in very muscular male subjects. All the superficial veins of the forearm and the greater number of those of the arm entered into the basilic vein, which was consequently greatly enlarged. Without entering into a detail of all the irregularities of the veins at the bend of the elbow, I may state here that the greater number, if not all of them, tend or exhibit a tendency towards the production of this anomaly. The cephalic vein appears to be almost invariably smaller than the basilic vein in the normal state, and it is usually rendered still more so by the loss of one or more of its tributary branches, when the arrangement of the veins is abnormal. The anomaly is interesting in a physiological point of view, inasmuch as it causes the superficial veins of the pectoral extremity to correspond very closely to those of the pelvic extremity.

Displacement of the Axillary Vein.—In three subjects the axillary vein was observed to pursue an abnormal course in relation to the corresponding artery, in consequence of a very slight irregularity in the junction of the basilic and brachial veins. The veins on the inner side of the brachial artery had passed behind it and united with the outer brachial vein near the lower border of the axilla, and thus the relative position of the axillary vein and artery was materially altered. The vein, in its course upwards, pursued an oblique direction from without inwards, and had three different relations with the artery. In the lower third of the axillary the vein, instead of being on the inner side, was situated on the outer side of the artery; in the middle third of the space, it crossed in front of the artery, and was, therefore, anterior to it; and in the upper third it had nearly regained its normal position. The occurrence of this anomaly about once in every thirty subjects, and the change in the relative position of the artery and vein in that part of the axilla where the artery can be most easily reached, render it an object of interest to the surgeon.

OBSERVATIONS ON OPHTHALMIC SURGERY.

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

(Continued from p. 53.)

According to my promise in my last paper, I communicate the following case from S. Browne, Esq., surgeon to the Belfast Ophthalmic Infirmary. I leave it to my readers to compare it with my own case: I shall not, therefore, make comments or point out any conformity.

CONGENITAL CATARACT.—OPERATION.—RESULT.—REMARKS.

William H., aged thirty, applied at the Ophthalmic Institution on the 6th of September, 1846. "He came," he said, "to consult me relative to a defective state of sight, under which he had laboured since earliest infancy." Before he addressed me, I had observed, as he advanced across the room, that he carried his face inclined downwards, shading his eyes with lowering contracted brows, and walked with that peculiar unsteady gait which is characteristic of certain affections of the organs of vision; consequently I at once inferred the case as likely to be one of incipient cataract. Upon examining the eyes, which were remarkably

Prominent, I observed in each, in the axis of vision, behind the pupil, and deep in the posterior chamber of the aqueous humour, a small spherical dark amber-coloured body, seemingly about one line and a half in diameter, having the marginal outline well defined, and standing out from the dark space beyond it, distinct, like the appearance presented by a hydatid when seen in the anterior chamber. This little body was apparently, from the equality of colour, of equal density throughout.

The irides were of a mixed grey and hazel shade; the radiating fibres remarkably distinct, and in a strong light acted very rapidly, contracting the pupils to a minute size. The pupils, when examined in a subdued light, seemed rather larger than are usually seen in healthy eyes, but quite circular and regular in the margins.

The cornea were clear and very prominent, giving to the anterior chambers unusually large antero-posterior dimensions, as was observed when viewed obliquely, by having the patient's eyes directed downwards and inwards.

The history of the case, as detailed by the patient, a remarkably intelligent man, left no doubt upon my mind that the cataract was one of congenital origin, and that the defect had undergone little change subsequent to his birth. In boyhood he had been enabled to learn to read by the use of very large print; but was prevented from acquiring any trade, vision being too imperfect for that purpose. Since his earliest impressions, he distinctly remembers that his sight was always greatly confused, never enabling him to clearly see any objects distant from him a few feet. At the time of applying to me he could read large Roman type by holding the book within three inches of the eyes. He could distinguish a person with whom he was well acquainted at the distance of about eight feet, but exceeding that, everything became confused and indistinct, with the increasing space, till, at the interval of about twenty yards, every object was lost in the general mist that, beyond the distance mentioned, completely limited his sphere of vision.

Under these circumstances, he was most anxious to have something done, especially as every kind of artificial lens—concave and convex—failed to improve his sight.

Seeing his anxiety to have an operation performed, and as I also believed that the removal of the opaque body would materially improve his sight, especially in eyes having the peculiarity of structure already referred to, I determined to afford him the benefits likely to result from an operation, at the same time pointing out to him the possible chance of his losing an eye by the trial.

On Sept. 8, having selected the left eye, which had, he stated, less perfect sight, and having dilated the pupil by one drop of the solution of atropia applied to the conjunctiva—which application, I may here remark, did not increase the power of vision in that eye—I introduced a very fine straight needle through the cornea, one line from its circumference, and carried it obliquely back to the atrophied lens, tearing through the apparently *puckered* capsule with one light vertical touch of its point. Upon withdrawing the needle, I observed that the substance of the lens was soft, and as if advancing a little through the ruptured capsule, a small shred of which membrane had been drawn by the needle in its exit to the puncture in the cornea and adhering in the wound, thus prevented the loss of more than a drop or two of the aqueous humour. A little thinned extract of belladonna was then smeared around the lids, and a soft compress and bandage lightly applied. Next morning, Sept. 9, I found that my patient had suffered greatly during the night from irritability of stomach, which still continued. He felt some pain and fulness in the eye operated on, with headache, and intolerance of light in the sound eye; these he attributed to the incessant retching he had since the preceding evening. On examining the eye, the

subject of operation, I found the conjunctiva greatly injected, along with a constant flow of tears, which he described as "hot and scalding." The pupil was pretty well, though not fully dilated; and filling up its entire space, and a little more advanced into the anterior chamber, was the lens, that had changed into a whitish shade, and had expanded its hitherto shrivelled capsule, along the front of which could be seen the incision made by the needle. The iris was not apparently inflamed in substance, but there was a slightly turbid state of the aqueous humour, indicating the presence of some aquo-capsulitis. To allay the irritability of stomach, I ordered a draught, composed of a drachm each of tinctures of hyoscinum and laurel-water, in one ounce of cinnamon-water; this to be repeated every two hours until the stomach became composed: so soon as this was attained, I desired five grains of calomel and one of opium to be given every three hours. Warm fomentations of poppy-head decoction, containing a drachm of extract of belladonna in each pint, were also directed to be kept constantly applied to the eye. At the evening visit, nine P.M., I found that the second draught had quieted the stomach, and that he had taken two doses of the calomel, which acted freely upon the bowels. The headache was nearly gone, and the feeling of pain and fulness in the eye much less. Three grains of calomel and half a grain of opium were ordered to be given every three hours during the night. A fold of lint dipped in the decoction of belladonna and poppy capsule was directed to be applied to the eye, and to be covered with oiled silk, and renewed occasionally.

Following morning, Sept. 10, seven A.M., I found that my patient had passed a good night, having had some quiet sleep; the pain of the eye was much diminished, but he still experienced a feeling of fulness; the injection of the conjunctiva and lachrymation still continued; the headache quite gone. The internal aspect of the eye was much the same as on the preceding day, but the pupil was somewhat more dilated, the margin of the cataract being visible immediately behind it. Aqueous humour still a little turbid. The calomel and opium were ordered to be continued, but exhibited only every fifth hour. The lotion of belladonna to be kept applied.

Sept. 11, eight A.M. The patient complained of soreness of gums and a very unpleasant taste in the mouth; the eye seemed very much improved in every respect. The medicine, as ordered, to be given only night and morning; the lotion still to be applied. A smart purgative was also exhibited.

From Sept. 12 till the 28th of same month, the eyes continued gradually to improve; at the latter date, all traces of the previous inflammation disappeared, though the vision of objects was quite lost. He described the light as being "strong and white, as if seen through a mass of snow."

On Oct. 1, I desired him to return to his employment—turning a wheel for a glasscutter—and to call occasionally at the dispensary.

During the succeeding three months, absorption of the lens proceeded very slowly; the rent in the capsule had opened a little at its edges, and appeared inverted or curled inwards.

On Jan. 6, having applied the solution of atropia, I again introduced the needle as before, and freely lacerated the then semi-opaque capsule, and passed the needle through the then pultaceous mass of the lens. No disturbance followed, and on the 28th of the same month, nothing of the lens was to be seen, the opaque portions of capsule hanging down like double curtains, and alone impeding sight, "preventing him," as he remarked, "from seeing as well as any one."

The following day I introduced a fine curved needle through the sclerotics at the usual point, and, having transfixed the capsule in two places, I gave a rotatory motion to the needle, and carried the thus-rolled-up substance backwards and downwards into the vitreous humour, where it remained out of the axis of vision. A few days

after, when the eye had quite recovered from the slight irritation produced by the operation, the patient read a full type at the distance of fourteen inches, and could distinctly see a large iron railing at the distance of fully two hundred yards. A convex glass of a moderate power, about ten-inch focus, somewhat improved the sight, both near and distant.

At that time he was most anxious to have the right eye also operated on, but I preferred waiting the arrival of a more genial season: in the meantime severe illness prevented my attendance at the institute for about two months. Upon resuming the charge of my patients, I found that the subject of this report had called early in the month of May to see me; he was then on his way to England, where he had obtained a situation; he was in high spirits, his sight, he imagined, daily improving; but the pressure of a family's wants prevented him from having his right eye attended to "till a more convenient season."

REMARKS.

The case I have just detailed is instructive in some respects—such a one, I imagine, being very rarely met with; indeed I have never seen any very like it in character, nor have I read of any case bearing a strict resemblance to it; though, it is true, the central capsulo-lenticular cataract, usually of congenital origin, and the alliquose capsulo-lenticular or membranous cataract, present something of the same appearance. In my case the capsule was nearly transparent until after the inflammatory attack; the lens, as I have already noticed, of a deep amber colour and of soft consistence. The capsule was thrown into minute folds, as if it were attached to the lens at some parts and were free at others; it seemed altogether, indeed, a "loose fit," like a capsule originally intended for a perfect lens, but, on finding it too large for the enclosed body, Nature seemed to have made the best adaptation of the covering that the relative conditions of the parts permitted. I think there is every probability that the atrophy, or arrest of growth of the lens, occurred before birth; for the patient was quite certain that his parents observed "something astray about his eyes," as he expressed it, "at the time when children usually begin to take notice of surrounding objects." Besides, the exact conformity in the eyes helps to the belief that the disease was congenital in its origin.

Had I not been urged to it by the patient, I would not have operated on eyes having the amount of vision he possessed; but when he seemed quite bent upon having something done, and as I knew that the anterior operation for selection was not usually attended by much risk, I consented to give one eye a trial. The amount of irritation and inflammation that followed the operation in this case does not usually ensue upon the use of the needle alone, especially when passed through the cornea; indeed, I rarely see any unpleasant consequences on any of my needle cases. The calomel, along with the soothing effects of the opium, and the external application of the warm lotion of poppy-head decoction with extract of belladonna, subdued the existing excitement without any depletory measures having been required; indeed, I seldom find it necessary to resort to the active depletion. I occasionally see mentioned in some of the published cases of the ophthalmic practice of the day. The irritability of the stomach that occurred is by no means an unusual sequence after needle operations, but is seldom so great as in this instance. Why such a seemingly simple operation should produce this effect I cannot explain, especially when we see much more serious wounds inflicted in the various tissues of the eye without any such unpleasant result. I have found that nothing so soon allays this distressing affection as the combination of tincture of hyoscinum and laurel-water, which certainly has had, in my hands, a much more rapidly sedative effect than either opium or hydrocyanic acid.

It will have been observed that absorption or solution proceeded very slowly during the first four months: this I partly attribute to not having

used the needle more freely in my first operation; for when, upon its second introduction, I tore the capsule completely, and passed the needle through the mass of the lens, a very few days sufficed to entirely remove the whole substance, except a portion of the lacerated capsule. I would not, however, in such cases recommend a very free use of the needle at first, for in the case under consideration, had I completely tore away the anterior part of the capsule, it is very likely that the loosened lens would have been thrown, by the stress of the vomiting that occurred, into the anterior chambers, and have produced, in an eye evidently very irritable and predisposed to inflame, a much greater amount of inflammation than actually ensued. This accident, it is true, is not always followed by bad results, for I have seen it happen in four instances without any consequent evil; in one of them, indeed, the result was most satisfactory, as the entire mass of a soft congenital cataract was removed by absorption within nine days from the first operation. But then, again, I have seen, in some other instances, where the nucleus of a hard lens has slipped forward, and where extraction was forbidden by the nature of the case, the most violent inflammation occur, followed either by closure of the pupil or disorganization of the eye. The amount of vision enjoyed by the eye operated on over the other will be easily understood when the peculiar construction of the eyes in this patient is remembered. They were very large and prominent, with unusually convex corneæ, such as with perfect lenses would have probably been *myopic*. The removal then of the central opaque body, that not only intercepted the straight rays of light, but also impeded the progress to the retina of the oblique rays, which had been greatly refracted in passing through the convex corneæ, and thus, confusing the outlines of all save objects very near, at once permitted the rays reflected from surrounding objects to fall upon the retina at almost the point of correct vision, and at the proper angle of incidence, producing nearly as distinct an impression, unless when viewing very minute or very distant things, as is observed by an eye of normal mechanism and healthy structure. And that, after the removal of the opaque medium, this very remarkable distinctness of vision in an eye without any crystalline humour was caused by the powerfully refractive corneæ is quite evident—first, that in no other way could such perfect sight have existed independent of an artificial lens; and secondly, from the fact that belladonna, by dilating the pupil, did not improve the vision, though in ordinary cases, with such a small central opacity, it would have been very much improved by the application; besides, the position I assume is fortified by the fact that the artificial lens required to make the eye a really good *mediocopic* one was not of a high magnifying power, having only a ten-inch focus.

The operation, undertaken contrary to the usual inculcations of authors, has been fully justified in the issue; and, although the present result must be satisfactory to the patient, he will naturally regret that something similar was not done for him in infancy, which probably would have been the means of placing him in a very different position from that in which he had so long and cheerlessly been obliged to toil.

CONTRIBUTIONS TO THE MEDICAL TOPOGRAPHY OF THE MEDITERRANEAN.

By WILLIAM THOMPSON KAY, Esq., Assistant-Surgeon of the Plymouth Division of Royal Marines.

"THE GRAND OBJECT OF ALL TRAVELLING IS TO SEE THE SHORES OF THE MEDITERRANEAN: ON THESE SHORES WERE THE FOUR GREAT EMPIRES OF THE WORLD—THE ASSYRIAN, THE PERSIAN, THE GREEK, AND THE ROMAN. ALL OUR RELIGION, ALMOST ALL OUR LAWS, ALMOST ALL THAT SETS US ABOVE SAVAGES, HAS COME TO US FROM THE SHORES OF THE MEDITERRANEAN."—*Samuel Johnson*.

SYRIA.—Its Situation, Name, Extent; Divisions,

Ancient and Modern; Physical Characters; Productive Industry; Manufactures; Civil and Social State; Climate; Diseases; State of Medicine and Surgery; Works on the Topography, Natural History, &c., of Syria.

(Continued from p. 35.)

Turners.—The workman is seated in the Oriental fashion before his rude lathe, formed by driving two stakes into the ground, a short distance apart, on which he rests an iron spindle, or by placing two blocks of wood, with the required space between, on which a bar of iron is placed as a rest for his tool; and, taking his bow, he twists the string round the object to be turned, then fixes it, and, working the bow backwards and forwards, rests the chisel on the iron bar, and gives those touches to the wood, &c., which he considers necessary to complete the design. By means of such a rude machine, the Syrian manufactures spinning-wheels, bowls, plates, lattice-work, distaffs, boxes, staircase balustrades, &c.

Coffee, roasting and preparing.—The coffee-beans are thrown into a pan, which, being placed over a charcoal fire, is kept in a constant state of agitation until the coffee is sufficiently roasted. It is then fit for the Oriental process of pounding, which is performed either by mills constructed for that purpose, or by a man standing upon a low platform, who holds a wooden pestle, with a handle nearly six feet long, with both his hands, and pounds the charred coffee in a marble mortar placed on the floor, grunting forth a "Yah! yah!" at every stroke, forcibly reminding one of our London paviors. It is afterwards sifted. To prepare the decoction, three tablespoonfuls of coffee are put into a small tin, copper, or brass pan, holding about three ounces, and boiling water poured on it. In about a minute after it is placed over the fire it is fit for use, which is indicated by boiling over. The decoction is then poured into small cups.

Confectioners.—The Syrians manufacture their confectionary after the same manner, and employ the same names, as the Turks, viz.:—

Badem halosasy, made of almond-flour, honey, and rose-water.

Gubeh sheeker, made of plum-jam flavoured with roses.

Gulkand, which is sugar-candy *à la rose*.

Halva, made with sesame flour (*Sesamum orientale*) and honey, flavoured by rose-water, lemon, or white grape-must. In this, sweet almonds, pistaccio nuts, peach kernels, filberts, or apricot kernels are introduced.

Hashlanmask is Indian corn, parboiled in vinegar and water.

Kabûb is Indian corn roasted.

Kaimak resembles the clotted cream of Devonshire, and is prepared in nearly the same manner.

Kataif, composed of sifted wheaten flour, butter, milk, sugar, and eggs, in the middle of which lumps of kaimak are placed.

Levzinah, made of flour, butter, honey, and almonds.

Lokmah-cake, sugar, milk, butter, eggs, and sifted wheaten flour are made fluid with rose-water, and poured into a tin tube with a bottom perforated like a sieve. This is waved to and fro over a heated slab, the mixture drying quickly in long shreds.

Moohabydee, composed of rice-flour boiled to the consistence of a jelly, sweetened with honey, sugar, or treacle, and flavoured with rose, peach, or cherry-water.

Rahallacoom consists of sifted wheaten flour, honey or sugar, rose-water, the pulp of white grapes, and the kernels of apricots.

Shakerleb, a species of sugar-candy.

Tahorek, made of flour, sugar, eggs, and oil or butter.

Yahoort, literally sour milk, is made thus:—Put into a basin a spoonful of beer-yeast or wine-yeast; pour on it a quart of boiling milk: when it is formed into a curd, and is become sour, take of it a tablespoonful and a half to serve for a fresh quart of milk, in the same manner as the yeast. This, after a few repetitions, will become

yahoort, and lose the taste of the yeast by degrees.

Corn-grinding.—The very primitive process of grinding corn by the handmill is performed by means of two small circular millstones. The lower one is fixed when in use, and the upper is turned round by means of a wooden handle projecting obliquely from the upper surface; the mill being replenished through a hole in the upper stone. The meal falls out at the edges, and is received in a cloth. This labour is generally performed early in the morning by women, (a) who beguile the time by singing, thus warning the indolent that it is time to rise. The water-mill is very simple. The stream, conducted by a channel to an earthen pipe, falls upon the water-wheel, which is connected by means of a cog-wheel with the beam of the upper millstone, causing it to revolve horizontally upon the nether one. A wooden box, resembling an inverted pyramid, contains the grain. This is slung to a beam over the upper millstone, and has a piece of wood loosely attached to the side by one end, the other resting on the millstone, which, as it revolves, jerks the wood, and by this means shakes the grain out of the box; after the corn is ground it falls into a trough in front of the stone. Windmills are very seldom used, and resemble our own so nearly that a description is not needed.

Corn-threshing.—A level spot is selected for the threshing, or, to write more correctly, the treading-floor, which is beaten down in the form of a circle. Upon this the sheaves are spread out very thickly—about a foot deep; and the grain is trodden out by animals tethered to a stake driven in the centre; or a plank (b) three feet wide, and four or five feet long, the lower surface of which is set with sharp flint-stones, is driven over it, thus forcing out the grain, and cutting up the straw into chaff. (c) On this

Damascus Blades.—Damascus sabres manufactured prior to 1600 are seldom seen, but modern blades of less pure temper and lighter colour are common. Their form is nearly similar to the khorassan; but the latter, when of extraordinary temper, will cut through the former as would a knife through a bean-stalk. Modern Syrian blades are more charged with gilded inscriptions than those of Persia. These inscriptions consist in most instances of the *Mashallah* (as God wills it) on one side, and upon the other is the name of the reigning monarch, and that of the maker and date near the guard. The finest Syrian sabres are those of the thirteenth and fourteenth centuries. Some of these, as well as battle-axes and maces of the same epoch, are now and then met with, bearing the date of 755 of the Hegira. A full-sized khorassan, or ancient Damascus sabre, should measure about thirty-five inches from guard to point; the back should be free from flaws; the watering even and distinct throughout the whole length; the colour a bluish grey. It should not be overcharged with inscriptions, as they were more frequently added to conceal defects than denote excellence. A perfect sabre should consist of forty compartments of watered circles, diminishing in diameter as they reach the point. The old Damascus manufactory ceased to exist in 1400. When the victorious Tamerlane conquered Syria he removed the armourers to Ispahan, where the fabric not only flourished, but soon excelled the original. This is the reason why the khorassan blades of the last four centuries are preferred to those of Syria. Good Damascus blades, with plain scabbards of seal-skin, and copper-gilt mountings, may be had from 800 to 1200 piastres (£8. 6s. 8d. to

(a) "Two women shall be grinding at the mill; the one shall be taken, and the other left."—Matt. xxiv. 41.

(b) "Tribulaque, trahæque, et iniquo pondere rastri."—*Virgil Georg.*, lib. i., line 164.

(c) "Behold, I will make thee a new sharp threshing instrument having teeth."—Isa. xli. 16. plank stands the man who drives the oxen harnessed to it.

£20. 16s. 8d.); others, defective, for much less. (a) I have known as much as £40 paid for one.

Distillers.—The still employed is very simple in its construction, consisting generally of a copper retort placed over a furnace, connected to which is a long, straight tube, passing through a tub of water, similar to that described by Dioscorides. Used for distilling *agua ardente*.

Druggists will be described in another portion of this chapter.—See "State of Medicine and Surgery."

Dyers.—The Arabs have great difficulty in producing a good green dye, but their blue is excellent. They make a hot solution of the colour, in which they steep the article to be dyed, adding wood ashes; eight or ten days are sufficient to complete the process. For red, they employ madder, Brazil wood, safflower, and logwood. For yellow, fustic, turmeric, sumach, and saffron. For blue, woad, indigo, and orchil. For brown, walnut-root raspings, and sumach bark. For black, gall-nuts, oak-bark, and valonia; with red oxide of iron.

Embroiderers.—The chief articles manufactured by these people are tobacco-bags; long scarfs embroidered on muslin, merino, or shawl-stuffs; handkerchiefs, dresses, coverlets, praying-carpet, napkins, waist-girdles, jackets, &c.; in the embellishment of which they employ coloured silks and velvets, gold and silver thread, pearls, and precious stones, executing most elaborate devices. The most common designs are wreaths, palm-leaves, stars, crescents, the sultan's cipher, and flowers; and are generally worked on the hand.

Engravers.—Those who practise this art are strictly forbidden by edict to engrave two seals exactly similar for the same person, to cut moulds for coin of any description, and ciphers or plates resembling writing, lest they should be used for fraudulent purposes. For signet-rings and seals, silver is generally used, but bloodstones set in silver are also much employed. Those who engrave stones as well as metals display their different specimens, consisting of bloodstone, cornelian, onyx, agate, and pebble seals, arranged in saucers kept under a glass case placed before them while at work. If a purchaser apply, the engraver produces a piece of black-looking beeswax, moulds it into a cone, and, moistening the apex, presses it on the seal; he then hands the impression to the customer for approval.

Farriers and Blacksmiths.—The blacksmith employs charcoal instead of coal, (b) and stands to his work when it requires to be heated; but, in finishing the articles, sits on the ground.—The forge in simple: a small mud or clay wall is built about eighteen inches high, with a wall on one side to prevent the bellows being injured by the heat: a hole is made level with the ground, and an iron pipe introduced, to one end of which is attached the bellows, the other being under the fire.—The bellows is formed from two skins attached to the iron pipe, opened at the upper part by means of two spikes, having a small leather handle to each; the thumb is passed through one of them, and the fingers through the other: so that the hand easily opens and shuts the skin. The mouth being closed, the skin is pressed down and throws the current of air through the pipe. It is again opened and lifted up, when it is once more ready. Thus, alternately with each hand, the current of air is kept up to the fire over the pipe.—The anvil is a small square-ended piece of iron, sunk in a log of wood, and partly buried in the earth. An ordinary hammer, a pair or two of pincers, and a drill complete the apparatus.—The Arab horseshoes turn up behind, and are formed out of a flat piece of iron with a hole in it; and are generally so badly put on that most horses' feet are injured by them.

Jewellers.—These men manufacture all the fine flagree-work for earrings, necklaces, coffee-cup holders, frames for looking-glasses, talisman-

cases, crescents, stars, and a variety of articles in gold and silver. Rings in which are set diamonds, rubies, emeralds, aquamarines, amethysts, carbuncles, and sapphires; bracelets and anklets, with jewel clasps; the *tantour*, or long horn worn by the female mountaineers of Lebanon, usually made of silver, adorned with raised figures of stars and various other ornaments; and the *topelik*, or skull-plate, studded with diamonds, rubies, pearls, &c.

Kaboob-makers.—Kaboobs are made of meat chopped up like sausage-meat and highly seasoned with salt, pepper, onions, and other spices, with some sour vegetable. The minced mixture is daubed upon a piece of wood or a flat iron skewer until it assumes the appearance of an oblong cake about half an inch thick and two long. In this form they are suspended over a clear charcoal fire, and in a few minutes assume a brown crisped appearance. The skewer is then withdrawn, and the kaboo wrapped up in a cake of the thin flexible bread described before.

Lapidaries.—These men grind and polish various kinds of stone by means of a wheel (rotated by a bow and string), the edge of which is covered with emery or fine sand mixed with gum-lac. They obtain the rough stones from pilgrims, merchants, or the regular Arab dealers, and dispose of them after they are cut and polished to the engravers.

Marquetry.—The Egyptians have carried this art to a greater perfection than the Syrians, yet there are many very beautiful specimens extant in Damascus. The groundwork is generally composed of fir, pine, or well-dried oak secured from warping, and on this is veneered the various kinds of wood employed in executing the design. The veneer having been cut to the requisite thickness, the pattern is sketched upon its surface; it is then fixed in a vice and cut through by means of a saw working horizontally. When the pieces are all properly formed with the saw, they are finished so as to fit exactly by files, fish-skin, &c., and then fixed down to the foundation by means of strong glue, being retained by a press until they are dry. The last stage of the process consists in smoothing and polishing them, which is done by rough fish-skin, sand-paper, and scrapers, followed by continual friction with oiled rushes, palm-pith, or rags. This work is principally employed to decorate ceilings, the panels of doors and windows, floors, and some of the household furniture. The woods chiefly used consist of sycamore, fig, walnut, olive, oak, ebony, mountain-ash, cedar, and pine-knots. Rosewood, mahogany, and such woods are seldom employed but in the houses of the wealthy.

Masons and Quarrymen.—Gravestones, mill-stones, fountains, and a few other articles constitute the chief work of the stonemason, or mason. As in other trades, so he likewise sits upon the ground, and with his rude mason irons (pointed and chisel-shaped), picks, hammer, and saw, slowly fashions the stone to the required form. (a)—**Quarrymen**, in boring the stone, use an iron rod about four or five feet long, steeled at the end, which is grooved: they keep the hole full of water during the operation, turning the rod gradually round two or three times previous to ramming it down, or striking it with the hammer. After boring it is blasted with gunpowder in the usual manner.

Merchants.—The travelling merchant has few expenses: he lodges without cost, and from his frugal habits is enabled to keep his expenditure far below his profits.—The resident merchant (I mean the native) has no books, save one of common entry: no credits are given, no bills discounted, no bonds, nor even receipts; no fictitious capital exists, it is all ready money; he has no clerk, unless very wealthy; the box on which he rests his elbow contains at once his bank and counting-house. The office in which he carries on a large commercial business is but a shed.

Millers.—See "Corn Grinding and Threshing."

Money-changers.—The exchange fluctuates more than in Europe, and is influenced by large exportations of grain, bad crops, and disease among the silkworms. The average exchange is about 105 piastres to the pound sterling at Beirut; I have known it as low as 95 and as high as 117. When receiving or paying money, the money-changer employs a flat triangular board, having a rim on three sides, with the apex of the angle left open for the money to pass out.

Mosaic.—This art is seldom exercised by the modern Syrians, except in its rudest form, or else in the execution of those elaborate scriptural illustrations which ornament the walls of the wealthy Christians, and the geometric designs so often seen in the audience-chambers of the sheiks and pashas. The foundation for the picture is formed of some durable stone, such as marble, or of several united by cement. The centre is hollowed out, so as to leave a depth of three or four inches, with a border or frame of the same width. The excavated surface is traversed by grooves, which vary from an inch and a half to two inches, being wider at the base than the apex; these, intersecting each other, form right angles, which are of infinite utility to the artisan. In this space the cement is poured in.—The cement used by the ancients consisted of one part of slaked lime and three parts of pounded marble; these were incorporated with water and white of egg. The moderns, considering that this cement hardens too quickly, have employed one part of slaked lime with three of powdered Travertin stone mixed up with linseed-oil, which is stirred and worked every day with a trowel. When first laid on, the mass is level, but soon swells up and requires the addition of more oil from day to day, to prevent it from becoming dry and useless. In the winter it is ready in about thirty days; in the summer, twenty days are sufficient to render it smooth and fit for use. The design having been chosen and sketched, the materials employed (which consist of glass, agate, cornelian, lapis lazuli, enamel, marbles, and pastes of different colours; various kinds of pebbles, crystal, &c.) are cut, and ground to the proper shapes and sizes by the usual lapidary's tools, and then imbedded in the cement, after which they are reduced to a level with the frame or border, and then polished in the usual manner.—The enamel mosaics (chiefly used for walls, ceilings, &c.), being formed into the requisite sizes and assorted into shades, are laid on in the following manner:—The cement is spread on the groundwork to the required thickness smoothly, and of the required size; the design is then transferred to the cement by means of the coloured enamel squares, or whatever shapes they may be, and struck with a small wooden mallet until their surfaces are level. As the cement remains soft for some time—fourteen to twenty days—the design can be altered at the pleasure of the artist. Any crevices that may exist between the pieces of enamel are filled up with pounded marble or enamel, mixed with wax, which penetrates by passing a hot iron over it. When the enamel has remained in its position for two months or ten weeks, so as to allow the cement to harden, the upper surface is ground down and polished by means of a flat stone and emery: this requires a very long time to accomplish, and is exceedingly laborious.

Patten-makers.—These men manufacture wooden pattens to protect the feet of bathers and their attendants from the heat of the bath floor, and also to keep the feet of the women from being soiled when engaged in their domestic duties. They are usually made of elm, walnut, or mulberry, with a plain leather strap to attach them to the feet. Those for the wealthy are often very costly, being inlaid with various woods, studded with silver nails, and having gold-embroidered straps studded with pearls and turquoises.

Pipe-bowls.—The manufacturer of *tchibouk*-bowls employs in their formation only a few wires, some small round sticks, and a pair of tweezers. Seated in the Oriental fashion, with a lump of moist and well-worked clay at his side

(a) Condensed from "Three Years in Constantinople," by C. White. 1846. vol. ii.

(b) When charcoal cannot be procured, they employ dried camels' dung.

(covered with a damp cloth when not in use), he takes a piece of it, and, by a few dexterous turns on his thumb, fashions the mouth and shoulder of the bowl; it is then pierced by one of the sticks, rounded off with a wire, pinched with the tweezers, and, finally scratched or marked with a sharp-pointed wire, is set aside to harden in the sun. Having remained until they have acquired a slight degree of hardness, they are baked in a kiln. Some bowls are richly gilt and embossed, but in that case are made of finer clay, and require more care in the baking.

Pottery-ware.—The manufacture of this ware is confined chiefly to such articles as water-jugs, which contain from a gallon to a gallon and a half, and water-coolers, which are permeable, and resemble the biscuit of our own potteries. The tools employed are nearly the same as those used at Jerusalem, in the time of the Prophet Jeremiah, (a) and the process of manufacture very similar. As it so nearly resembles our own method I shall not occupy space by describing it.

Saddlers.—The Arab saddle is of various shapes, altering with the time and place, from the hard wooden saddle of the mountain, to the soft and more common pack-saddle for old men. The saddler manufactures everything connected with horse-furniture, bridles, cruppers, stirrups, &c., and forgets not to bedizen them with fantastic designs in gaudy-coloured leather, cloth, or silk, and glass beads, shells, metal buttons, &c. Then there are certain amulets, or charms, against the evil eye, made of leather highly ornamented with glass, embroidery, or stones, and the charm written upon a piece of paper; saddle-bags for wearing apparel; leathern bottles for water or other liquids; waist-belts to contain four or five pistols, with straps for sabres attached; and, last but not least, the courbash, or rhinoceros' hide whip.

Scribes (b) are men who gain a livelihood by copying edicts, accounts, records, proclamations, &c., or keeping the books of merchants; and are generally men of tolerable education, capable of writing and speaking five or six languages. They are distinguished by the inkstand, which is carried in the girdle. When writing, they are seated in the Oriental manner, and, holding the paper with the left hand, resting it on their knees, write from right to left. They bear the same relation there that a secretary does in England.

Shoemakers.—The soft, yellow sheepskin boots and slippers, or *papoush*; the thick-soled shoes; heavy, thick, leather riding-boots; the elegant pearl-embroidered slipper for ladies of rank; and the black or red flat-soled shoes worn by labourers; are all manufactured by the Syrian votary of St. Crispin.

Soapmakers.—The soap manufactured at Damascus and Aleppo is a very inferior kind. Kelp mixed with lime is employed for the ley, and olive oil is added.

Sponge-fishery.—Beyond Djebail, or Jubeil, by the coast, there is a sponge-fishery, whence a great number of sponges of a fine quality are collected every year by some Greek sailors, who come from Syria, and are generally under French protection. A few are sometimes obtained off the town of Beirut, and another to the south of Beirut, between it and Sidon. The sponges are collected by means of a long iron fork, which the fisherman plunges into the sea, detaching them from the rocks; they are then dried on the beach.

Tanners.—The Syrian tanners dress the hides with *album græcum* and lime, and employ the bark of the sumach and valonia to complete the

conversion of the skin into leather. Olive oil gives the last finish to the process.

Tobacco-merchants.—Latakia produces the most celebrated tobacco in the East, which undergoes a certain process there (that will be described hereafter when that town comes under consideration), and is then forwarded to the merchant, who sorts it into three classes:—1. That picked from the centre of the bales; 2. The next best in colour; 3. A mixture comprising the refuse of both. When tobacco is cut it is wetted and placed in an instrument resembling our chaff-cutting-machines, but very much smaller. It is then packed in waxed cloth bags, ready for use. This tobacco is used for smoking in pipes; but there is another species which is imported from Persia, called *tumbeky*, used for the *narguillas*, or water-pipes; it is, when pure, of a bright yellow colour, and in flakes.

Water-carriers.—These men, when employed in distributing water to the passengers in the streets, chant a short cry, lauding their orange-flower-water, raisin-sherbet, or plain water, as it may be, and accompany it with a ringing noise produced by striking the two metal drinking-basins together. Over their backs they have a pig's skin slung, containing the water; if it be sherbet, it is contained in a jar with a bunch of flowers or herbs at the top, the drinking-vessel being porous.

Water-skin Manufacturers.—The skins of goats or pigs, but generally the former, are stripped off whole except at the neck, and the holes at the legs and tail sewn up; they are stuffed out full, and strained by driving in small billets of oak wood, and then filled with a strong decoction of oak-bark or valonia for seven or eight days; the hair then becomes fixed, and the skin sufficiently tanned.

Weavers.—This trade will be described under the head of "Beirut," as it more particularly relates to that neighbourhood and Damascus.

ON THE TREATMENT OF ERYSIPELAS AND OTHER FORMS OF CUTANEOUS DISEASE, BY A STRONG SOLUTION OF THE NITRATE OF SILVER.

By T. W. GARLICK, Esq., Rickmansworth.

In bringing the present subject before the medical public I lay no claim to originality. The treatment of erysipelas by caustics or their aqueous solutions has been in vogue for many years past, both in Europe and America. In the year 1841 M. Velpeau recommended the use of a solution of the sulphate of iron to erysipelatous surfaces, and the acid nitrate of mercury has been tried by MM. Bielt and Cazenave; but these remedies, like Baron Dupuytren's blisters, have not succeeded generally in the hands of the practitioner. At a late meeting of the Provincial Medical Association Mr. Higginbotham read a paper "On the Treatment of Erysipelas by a Saturated Solution of Nitrate of Silver," and has so ably handled his subject, that it is with much diffidence I approach the same path; however, as one remedy is not always equally efficacious in all hands, and as the cool English practitioner receives all bold and unpopular methods of healing with distrust or reserve, I shall confine myself to the practical bearing of the subject, and endeavour more particularly to impress my readers with the necessity for observing certain cautions in the use of this active application.

The remarks I have to make naturally resolve themselves into four divisions:—

1. The cases in which the solution of the nitrate will be found useful.
2. The cautions to be observed in the use of the remedy.
3. The method of preparing and applying the solution.
4. The physiological principles upon which the use of the caustic solution is advocated.

The Cases in which the Solution is useful.—I have found the strong solution of the nitrate of silver of eminent service in every case of

erysipelas which has been confined to the skin, whether it has arisen epidemically or otherwise; nor is the influence of the remedy affected by the external circumstances under which it is applied: the idiopathic or traumatic origin of the disease being a question of no importance in determining the propriety of using the solution. It will also be found equally effective under certain restrictions in the plethoric and adynamic temperament; yet, perhaps, in no instance will its effects appear so manifestly in the light of a "specific" as in the wide-spreading idiogenic erysipelas of children: here the disease will frequently become arrested as if by the secret agency of a magic wand.

I have seen an acute epidemic sore throat, an inflammation involving the posterior fauces and soft palate, yield in a few hours after the application of the caustic.

With regard to the use of the argent. nitrat. in what, for distinction's sake, may be called the "chronic" eruptions of the skin, my practice warrants my recommending it in porrigo, erythema, psoriasis; certain anomalous tetter-like patches, scales, &c.; in the inflamed condition of skin surrounding the indolent ulcers of old people, and in tinea. The last-mentioned disease has been described by M. Gruby, a young Hungarian physician, as the development of a cryptogamous fungus in the skin, and which he calls "micoderme." Should his theory with respect to this peculiar ring-like tetter be verified by future observation, the caustic would naturally suggest itself to the surgeon as the proper treatment.

The Cautions to be observed in the Use of the Remedy.—It is not to be wondered at that the sober practitioner feels heavy disappointment and dismay at the bedside of the patient when a favourite remedy, which has been vaunted as of universal power, is found wanting in its utopian attributes. Such has been the impression given at the failure of many excellent ways in treatment whose original advocates have been mere theorists, or, perhaps, young physicians unskilled in the practical part of their art. I now propose to bring before my readers certain circumstances which have attracted my attention in using this active application, and have served as guides to me in the sick-room.

When we regard the functional analogy which exists between the skin and mucous membranes it does not seem improbable that a metastasis should take place between these surfaces; accordingly I have frequently known a gastro-enteric affection suddenly appear on the cessation of the external inflammation, and this has been the case occasionally in other tissues; but I must here add, that such metastasis have ever been of a mild and yielding kind. In erysipelas of the head it is well known that delirium is not an unfrequent concomitant, and, however successful the caustic may have been in subduing the erysipelas, it will not always follow that the delirium vanishes simultaneously; in this instance the effect will survive the cause, and yet the mental affection will exhibit no increase when the cutaneous phlegmon has been overcome.

The solution of the lunar caustic is decidedly inadmissible in phlegmonous cellular inflammation; its use has always appeared to me to stimulate the already irritated vessels which lie below its reach to an increased morbid action.

It is scarcely necessary that I should urge the propriety of associating with the plan a vigilant constitutional treatment. I may still observe that certain idiosyncrasies are to be kept in view, and that the asthenic patient will be found more amenable to one comprehensive system of cure than the plethoric.

The Method of preparing and applying the Solution.—On this head my directions will be few and concise. I immerse a drachm of the argentum nitratum in an ounce of distilled water, the phial being covered with paper to prevent decomposition by light; a few drops of nitric acid will facilitate the solution. The water being fully charged with the salt, the application is made in the usual way with a camel-hair brush, care

(a) "Then I went down to the potter's house; and, behold, he wrought a work on the wheels. And the vessel that he made of clay," &c. Jer. xviii. 3, 4.

(b) "Then wrote Rehum the chancellor, and Shimshai the scribe," &c.—Ezra iv. 9. "Now, when the copy of King Artaxerxes' letter was read," &c.—Ezra iv. 25; Ezra vii. 6; Matthew xvi. 10; Mark xii. 28.

being taken to cover the entire diseased surface, and even the skin beyond the erysipelatous blush. Let the painting be repeated every night and morning until the whole disease is under its influence.

The Physiological Principles upon which the Use of the Caustic Solution is advocated.—The single coat of a capillary vessel closely resembles in its structure the muscular tunic of an intestine, and so far as its vital or functional energy is concerned is dependent on a *tonicity*, or elastic force within it, for the duties which it has to perform (a). When the plasma of the blood has been thrust during the inflammatory stage into the sensitive capillary, and the tone of the vessel has become exhausted by the repeated irritation of an abnormal exudation, a dilatation of the vessel follows, and this relaxed condition so completely suspends action that it has been very aptly called a state of paralysis. What diminishes the motor or sensitive nerves exercise reciprocally over such morbid processes, it is somewhat difficult to determine, yet the question has been well and confidently treated by Henle, Billing, Wharton, Jones, and others. It only remains, however, for me to state that the capillary vessel is possessed of a vital contractility, analogous to that of involuntary muscular fibre; and that it is of the first importance to bear this physiological truth in mind in our estimate of the value of the remedy of which I am treating. Neither should it be forgotten in this place that our remedial agent has already been said to apply only to certain inflammatory effects on the thin cutaneous or mucous textures of the body. Immediate proximity, if not positive contact, with the affected tissue is necessary to ensure success: for the deeper cellular structures, however much they may sometimes have appeared to participate in the happy result, are really out of the certain reach of any such local application.

M. Desmarres (*Medical Gazette*, March 10, 1843) has aptly compared the action of caustics to that of intense cold; and, thus carrying out the analogy, it is easy to conceive that the effect of a weak solution of nitrate of silver might resemble that of cold water, the application of which to inflamed surfaces would, if its astringent properties were not sufficiently strong, leave the vessels more powerless than before. It is, therefore, obvious, when acting on these principles, that we should raise our solution of the caustic to a point of strength capable of stimulating the languid energies of the vessels; since our efforts are, as I conceive on physiological grounds, to be directed to the restoration of vital tonicity; and while, on the one hand, we avoid the minimum of astringency, we should be equally cautious on the other of approaching the maximum of caustic power, for the establishment of an eschar would be fatal to our purpose.

CASE OF ENORMOUS CALCULUS IN THE COLON PRODUCING DEATH BY PERFORATION OF THE INTESTINE.

Communicated by R. F. SNAPE, M.R.C.S.E. and L.A.C. Lond.; Honorary Surgeon to the Bolton Infirmary and Dispensary.

John Rushton, aged 20, admitted into the hospital of the Bolton Workhouse on Wednesday, Oct. 6. Piecer; of steady habits; has been ill since last March, during which time he has more than once been in the above hospital for a week or two, and then again able to resume his work. Previous to March had always enjoyed good health, though often troubled with a constipated state of the bowels, requiring the frequent use of purgative medicine; a more obstinate attack of which than usual occurring at the above time, attended with considerable pain, led him to apply for medical aid. He states that he was soon relieved under a course of cathartic treatment, but had again and again to apply, owing to his attacks becoming more frequent and severe.

(a) "Dr. J. Hughes Bennett on Inflammation," 1844.

This state of things continued until I saw him on Oct. 6, when he was complaining of the obstinate state of his bowels, attended as before with pain, and drew my attention to a large hard tumour, situated in the *left hypochondriac* region, which was quite immovable. There was no tenderness on pressing the abdomen generally; tongue clean; pulse 80; appetite good; no thirst; urine natural in quantity, but depositing a sediment of lithic acid. I ordered a farinaceous diet, a bran poultice to be applied to the abdomen, and exhibited castor-oil emulsion, with a little hyoscyamus, every four hours. On visiting him the next day, I found my treatment had had the desired effect: the bowels had been freely relieved; pain had vanished, and he stated that he felt better than he had done for six months. Upon examining his abdomen I could not now find even a trace of the tumour, which led me to hope that it had been simply a collection of hardened feces, which were now got rid of. For several days he continued taking the emulsion once or twice, which had the effect of keeping him (as he said) quite well.

About a fortnight after his admission he again complained to me of not being so well, having for some days given up taking his medicine. Upon examining his abdomen now, I again felt the tumour of the same size and hardness as before, but situated in the *umbilical* region. I resorted to the same treatment which had succeeded before, giving, in addition, hyd. c. cret. gr. v., om nocte. The next day I discovered the tumour in the right hypochondriac region, but his bowels had acted properly, and he stated that he felt quite well. Day after day I found the tumour in some fresh spot corresponding to the course of the colon, until Thursday, the 28th ult., when again it was not to be felt, and my patient expressed a desire to go out and resume his work. I advised him to stay a few days longer, to which he assented, although he said "he felt quite well and able to do anything." On visiting the hospital on Monday, Nov. 1, I found him in the most imminent danger; countenance collapsed, and bedewed with a cold clammy perspiration; lips livid; pulse small, and very rapid; abdomen highly tympanitic, but could bear a considerable amount of pressure; he complained of pain, but not to any great extent; no sickness; tongue dry, and coated with a thick fur; urine scanty, and containing a quantity of blood. It was evident that perforation of some viscus had taken place; and, upon inquiry, the nurse told me that he had begun to be worse that morning about eight or nine o'clock, and the symptoms had been rapidly increasing in intensity up to the usual hour of my visit, which was twelve o'clock. I ordered turpentine to the abdomen, and gr. ss. doses of opium every hour, &c.; but the poor fellow never recovered from the collapse, and died at three o'clock the same day.

Section Cadaveris sixteen hours after Death.—On exposing the cavity of the abdomen, I found evidences of the most intense inflammation of the entire peritoneum; the omentum and bowels were closely matted together by albuminous fibrine, and the parts highly injected; there was a copious effusion of sero-purulent matter, with flatus of albumino-fibrine, in the cavity of the peritoneum, mixed with feculent matter. Upon tracing the intestines, I found marks of long-standing disease in the duodenum and colon, but especially in the latter, which was much thickened and ulcerated through its whole course, and at the commencement of which I discovered a large circular opening through which the feces had escaped. Just above its sigmoid flexure I found lodged an enormous calculus, measuring 10½ inches in its long diameter and 8½ inches in its short, and which with difficulty could be moved along the course of the colon; the other intestines only bore signs of recent inflammation, as before stated. The liver was congested, and the ductus communis choleochus enormously distended; the gall-bladder full of thin bile; the kidneys were very much

congested, but natural in size, and healthy in structure; the spleen healthy; the bladder healthy and empty. I have not yet analyzed the calculus, but I think I may fairly conclude, from the foregoing examination, that it first proceeded from the gall-bladder, through the duct, to the duodenum, and thence ulcerated its way direct through to the colon, in the position where these two bowels lie in contact, and, being detained in the colon from some obscure cause, reached its enormous size from depositions of phosphatic matter effused by the diseased mucous membrane. I could not demonstrate this satisfactorily, owing to these two intestines giving way upon the most delicate handling. There are many interesting and extraordinary features in this case. The easy and complete manner in which the bowels obeyed the action of medicine, for, notwithstanding the obstruction, no hardened feces were found in the intestinal canal, and none had escaped into the cavity of the peritoneum—the curious transition of the calculus from one portion of the colon to the other, frequently in a contrary direction to the vermicular action of the intestines—the slight constitutional irritation and comparative absence from pain which the presence of so large a foreign body, and so much disease consequent thereupon, occasioned—the inability to point out any period when he had suffered from an attack of biliary calculi, which he must have done, if I may judge from the enormous size of the ductus com. choled., into which I could with ease introduce three fingers, and the retention of the calculus in the colon—are all points worthy of observation.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF SCIENCES.

Meeting of Oct. 25; M. BRONGNIART in the Chair.

TREATMENT OF TYPHOID FEVER.—The readers of the *Medical Times* may recollect that some weeks since a communication was made to the Institute by Professor Serres, relative to the good effects of the black sulphuret of mercury in the treatment of typhoid fever. (*Vide Med. Times*, vol. xvi., p. 595.) M. Serres had observed the complication of this disorder by smallpox, and, in his remarks to the academy, stated that he had employed his method in such cases of complication with signal success—a test of its value which the learned professor considered as very important. In answer to these observations, Dr. Tessier forwarded some propositions tending to show that typhoid fever is an essential malady, which never coincides with smallpox in the same subject; also, that no disease can be admitted to exist, constituted by two such elements as typhoid fever and variola; this pathological compound was a mere chimera. Dr. Tessier further stated that the treatment of typhoid fever by the black sulphuret of mercury, or by mercurial inunctions, was based upon no positive indication, and constituted merely an empirical method. At the same meeting Dr. Masade, of Anduze, presented the history of four cases of typhoid fever successfully treated by mercurial inunctions, which had, according to the author, produced a remarkable improvement upon the patients in the space of two days.

EXTERNAL HÆMORRHAGE.—ERGOTINE.—In a case of gangrene of the dorsal aspect of the foot, attended with hemorrhage, M. Petrequin applied ergotine with complete success. In a second instance, hemorrhage having followed a plastic operation performed upon the face by M. Bonnet, a solution of the same substance was applied with the same result.

ACTION OF CHLORIDE OF SODA UPON THE STOMACH.—M. Bardeleben, professor at the University of Giessen, presented some remarks on the local action of common salt upon the gastric mucous membrane. This memoir not being completed, we will postpone its analysis until M. Bardeleben forwards its termination.

ACADEMY OF MEDICINE.

Meeting of Oct. 26; M. BROWN in the Chair.

M. Dubois, of Amiens, read a report in answer to a letter from the Minister of Public Instruction, inquiring into the utility of a publication of "A Library of the Greek and Latin Physicians," under the direction of M. d'Arenberg. The reporter recommended strongly to the academy to approve of the projected work.

M. Malgaigne strenuously urged the utility of the publication, and deprecated the great vacuum existing on the subject in the public libraries.—The report was adopted.

LITHOTRITY.

The adjourned debate was resumed, and M. Ségales read a paper in answer to M. Roux's remarks. The same arguments already laid before the academy were again repeated. An extraordinary meeting having taken place on Saturday, Oct. 30, M. Civiale endeavoured to establish the accuracy of his statistical tables, contested by M. Velpeau. He concluded his paper by stating that the discussion had attained one great object, namely, that of proving that, whatever might be the opinions dictated by private interest, the medical public at large was now completely convinced of the advantages of lithotripsy.

M. Leroy d'Etiolles, a stranger to the academy, obtained permission to make some remarks upon lithotripsy. The great question at issue, since the beginning of this interminable discussion, was the value to be attributed to the statistics brought forward. Now, they might be considered under two very different aspects. M. Civiale, rejecting all the cases which had terminated fatally after exploration of the bladder with lithotriptic instruments, contended that those cases only should be taken into account in which the operation had been completed. The academy, on the contrary, seemed disposed to adopt another view, and to throw into the balance of mortality, also, the cases in which death had resulted from exploration of the bladder for diagnostic purposes, with the instruments of crushing. In the first instance, M. Civiale acknowledged only a mortality of two per cent.; in the second, his academical adversaries found it amounted to twenty per cent. Now, M. Leroy was of opinion that M. Civiale's method of establishing his tables was not fair, inasmuch as it was not right or proper to introduce lithotriptic instruments into the bladder merely to examine its cavity and the calculus. To ascertain the presence of the latter, its shape, density, &c., M. Leroy asserted that a common metallic catheter was far preferable to the lithoclast, and that, if the latter instrument was used, the surgeon who improperly employed this method of diagnosis, should be justly considered answerable for the ill consequences which were likely to follow.

The meeting adjourned after five o'clock.

POISONING BY ARSENIC.

Notwithstanding all that has been said of the diagnosis and treatment of the "Praslin" case, we deem that the following observations, together with the severe but just editorial remarks in "Les Annales de Thérapeutique" may still be found deserving of notice.

CASE.—On June 18, 1847, Dr. Linoli, of Pietra Santa, was called upon to attend a girl, aged fourteen years, who was labouring under violent abdominal pain, obstinate vomiting, cramps, and syncope. The matter rejected from the stomach was of a greenish colour, which led at first to the belief that the patient was suffering from the ingestion of a salt of copper. After much difficulty the young lady explained that, four hours previously to the first appearance of the gastric symptoms, she had swallowed a considerable quantity of green wafers, some of which were still lying upon a table in the room. Some olive oil having been exhibited, the vomiting of green matter returned. It was then ascertained that these wafers were coloured with arsenite of copper, which communicated to them its grass-green hue. Syncope, cold perspiration, and cramps continuing with obstinacy, Dr. Linoli prescribed 3j. of liquid laudanum, in ʒj. of cinnamon-water, which was swallowed in the space

of ten minutes. An immediate improvement took place; but soon after the symptoms again made their appearance in an alarming manner; and the same mixture was again exhibited, ʒss. of laudanum having been taken within three hours; at the expiration of that time the effects of the poison had totally vanished. The following night was tranquil, but, arsenite of copper existing in the motions, it was thought advisable to prescribe some castor oil. Solid food and cordial wine were also ordered, and from that time forward the patient gradually recovered, no return of the symptoms being observed.

EDITORIAL REMARKS.—This sublime observation, published in the month of July, and, therefore, previously to the deplorable events of the "Praslin" case, honours equally humanity, science, and the imperishable genius of the two great founders of the Italian school: glory, therefore, be rendered to their successors, who have manfully broken through the wretched "routine" which still cruelly enslaves the profession in other countries, and who have raised themselves to the highest pinnacle by this cure, which is little short of resurrection. Nothing but the most profound conviction, based upon experience and knowledge, could have given Dr. Linoli the courage to exhibit, in the space of a few hours, half an ounce of laudanum, together with four ounces of cinnamon-water, to say nothing of the small quantity of alcoholic fluid and of cordial wine, which were also given to the patient. It is owing to this noble boldness, inspired by true science, that another victim was snatched from the jaws of death. In this paper ("Les Annales de Thérapeutique") we have already recorded a large number of cases of the same nature; and now-a-days none but ignorant mountebanks and unworthy flatterers can still continue to sacrifice the life of poisoned persons to the criminal system of chemical neutralization, of antipathological treatment, and of "so-called" diuretics—a system brought forth by men foreign to the clinical art, and the consequences of which have hitherto been equally fatal to mankind and to medicine. Let this observation be compared with the analogous, but less severe, case of the Duc de Praslin, and it will be acknowledged that we were right in asserting that this case also might have been certainly cured (if properly treated); it must be also admitted that the treatment employed constituted, clinically speaking, a second intoxication, having brought about a fatal issue which, in all probability, would not have occurred had the patient been left to the efforts of nature.

LIGATURE OF THE OESOPHAGUS.—M. Sédillot, of Strasbourg, relates the following interesting experiment:—In a dog, when a ligature has been placed around the oesophagus, the external wound being united, in a few days the thread falls into the stomach, and the oesophagian tube is restored to its functions spontaneously by the effusion of plastic lymph around the ligature. A stricture of the tube persists, but food can be conveyed into the stomach a few days after the operation. Mr. Lawrence had already shown that this occurs also in the small intestine of the dog; and M. Sédillot inquires if the ligature of the oesophagus might not with some chances of success be applied to man in the removal of certain tumours or strictures of the duct.—*Strasbourg Medical Gazette.*

TREATMENT OF CHOREA (St. VITUS'S DANCE).—A little girl, aged three years, became suddenly affected with symptoms of chorea immediately after a fright; the disease persisted until the age of nine, with an interruption of six months, which could not be accounted for. The morbid symptoms consisted in an invincible tendency to run, which ceased only when, the legs becoming crossed, further progress was impossible. The patient then would bend backwards and forwards, in a manner closely resembling the varieties of tetanus called opisthotonos and emprostotonos. These phenomena recurred several times each day in the form of short but violent attacks. Valerian, oxide of zinc, and cold baths

had been used without success. The patient was then admitted into the Hospital of Dijon, and Dr. Salgues again gave a fruitless trial to the oxide of zinc; cold effusions on the spine, barèges, baths, and other measures were also unsuccessfully tried. Tartar emetic was afterwards exhibited in doses of six grains daily; the first dose of the medicine produced abundant vomiting and diarrhoea, but from that time forward it was perfectly tolerated by the stomach, no other effect being noticed except loss of appetite, and the total cessation of the choreic symptoms. This treatment was continued for one week, and on the fourth day ten leeches were applied to the neck for the purpose of removing slight headaches. The patient recovered completely.—*Revue Méd. de Dijon.*

ARTHRITIS.—The treatment of apyretic arthritis, affecting one joint only, is often surrounded with considerable difficulties, on account of the insufficiency of the measures resorted to during the chronic stage of the complaint; thus we have seen M. M. S., physician of Hôpital Beaujon, recently confined during more than two years with a rheumatic arthritis of the knee, which at last has terminated in partial ankylosis. Similar instances are daily observed, both in medical and in surgical wards. The emptiness of ideas on this subject has even been carried to that degree, that, by one surgeon, immobility of the extremity has been proclaimed the sovereign remedy: a method equally ancient and inefficient, and which is only the translation of that ridiculous system of "expectation," i. e., starvation and water. Immobility does not, rigorously speaking, constitute a remedy; it is a negative measure, a condition which facilitates the use of appropriate treatment. Such are the first remarks with which the editor of the "Annales de Thérapeutique" ushers in an article on the treatment of chronic arthritis by frictions upon the skin with the nitrate of silver ointment. M. Jobert has been for the last few years in the habit of using this ointment in various diseases with the greatest benefit. In erysipelas, and also in arthritis, he recommends powder of nitrate of silver to be incorporated into a certain quantity of lead (4, 8, 12 grammes to 32), and the ointment thus formed he looks upon as a revulsive, which produces its good effects very much after the fashion of blisters. In a paper published by M. Biéchy, of Schélestadt, it is experimentally proved that, if the cauterizing power be taken from the nitrate of silver by dissolving it before its addition to the lead, its action will be increased, because the drug will be more easily absorbed. This is entirely a different view of the case from that taken by M. Jobert and others. The proportion recommended by M. Biéchy is one-eighth; but the same method is used at the Hôtel Dieu with much success by M. Guérard, and his ointment contains a fourth part of its weight of nitrate of silver. Each diseased joint is covered with four or six grammes of this compound, and a large poultice is afterwards placed upon it in order to facilitate absorption. The epidermis blackens in a few days, but the treatment is continued until a cure has been obtained. This method constitutes a valuable resource in many instances where other remedies cannot be employed, and deserves the confidence of the profession.—*Annales de Thérapeutique.*

On Wednesday, November 3, the opening meeting of the Faculty of Medicine of Paris will take place. The address will be delivered by Professor Bérard, and we hope in our next communication to be enabled to give a sketch of his discourse. M. Andral will also, during the week, resume the lectures on general pathology, the first part of which we published last winter. We will continue to forward them to the readers of the *Medical Times*, as they present a complete view of the state of general pathology in France at the present day.

CHOLERA.—Dr. Bruno Taron, a physician of Marseilles, states in the *Gazette des Hôpitaux* that, having been seized with the symptoms of cholera during the second epidemic at Marseilles, he was completely relieved by the inhalation of ether.

The *Impartial du Nord* asserts that a case of cholera has been recently observed near Valenciennes, but the news requires further confirmation. The Minister of Commerce has commissioned three physicians to study the progress of the cholera in Moscow, Odessa, and Trebizonde. The gentlemen appointed are Drs. Beau, Contour, and Monncret.

Vinné (de Nevus), a quack dentist, accused of having abused the persons of two young women whom he had first rendered insensible by the inhalation of ether, was found guilty by the Cour d'Assises de la Seine, and condemned to the hulks for six years.

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

American Statistics in Midwifery.—Dr. George Metcalf, of Massachusetts, has published the following interesting facts in reference to the proportion of marriages of females who bear children, their ages at the time of marriage, and the manner in which they severally passed through the period of childbirth. The number of deliveries recorded are 927, which gave birth to 932, there being five cases of twins. Of the 927 mothers, 914 were married, and thirteen were not; thus furnishing a ratio of 1·4 for every illegitimate to every 100 children born in wedlock. Of the mothers having illegitimate children, two were widows, each with a family of five children—one belonging to the upper, the other to the lower, ten thousand in society. Of the others, one was forty-three, and the remaining ten were all under twenty-three years of age. Of the whole number of mothers their ages, when married, were ascertained in 568 instances.

AGES OF MOTHERS WHEN MARRIED.

Age	14	15	16	17	18	19	20	21
No. of mothers..	3	3	23	61	70	56	73	58
Age	22	23	24	25	26	27	28	29
No. of mothers..	43	41	40	29	23	14	10	4
Age	30	31	32	33	35	36	38	41
No. of mothers..	6	4	2	1	1	1	1	1

The united ages of 568 mothers amount to the sum of 11,991 years; thus furnishing the sum of twenty-one years and eleven-hundredths as their average age when married. The perpendicular lines divide the preceding table into six equal periods of four years each. The number of women married in each of the periods was:—In the first, 90; in the second, 257; third, 153; fourth, 51; fifth, 13; sixth, 4. The chances of marriage during the six periods were:—in the first, 16 per cent.; second, 45 per cent.; third, 27; fourth, 9; fifth, 2·3; sixth 7 per cent. Of the 927 cases, the age of the patient when delivered was noted 591 times. The ages of the different women extended over a period from fourteen to forty-six years.

AGES OF 591 MOTHERS WHEN DELIVERED.

Age	14	15	17	18	19	20	21	22
No. delivered ..	1	1	6	20	25	28	29	40
Age	23	24	25	26	27	28	29	30
No. delivered ..	32	34	25	35	44	26	20	36
Age	31	32	33	34	35	36	37	38
No. delivered ..	18	22	20	18	17	24	14	13
Age	39	40	41	42	43	44	45	46
No. delivered ..	11	11	4	7	4	5	1	2

The number of deliveries in each of these eight periods were:—28 in the first; 120 in the second; 126 in the third; 126 in the fourth; 78 in the fifth; 68 in the sixth; 33 in the seventh; 12 in the eighth period. The chances of pregnancy were:—5 in the first period; 20 in the second; 21 in the third; 21 in the fourth; 14 in the fifth; 12 in the sixth; 5 in the seventh; 2 in the eighth. The whole number of times which each patient had been pregnant was ascertained in 916 cases. 244 were first pregnancies; 197, second; 141, third; 111, fourth; 80, fifth; 56, sixth; 28, seventh; 17, eighth; 13, ninth; 10, tenth; 8, eleventh; 4, twelfth; 2, thirteenth; 2, fourteenth; 1, sixteenth; 1, seventeenth; 1, twentieth. Thus the average pregnancy of each were three and a fraction. In 924 instances the duration of labour was noted—

98 were one hour in labour; 38, two hours; 24, three hours; 33, four hours; 29, five hours; 74, six hours; 29, seven hours; 63, eight hours; 29, nine hours; 39, ten hours; 10, eleven hours; 149, twelve hours; 20, thirteen hours; 12, fourteen hours; 12, fifteen hours; 13, sixteen hours; 17, seventeen hours; 28, eighteen hours; 5, nineteen hours; 12, twenty hours; 4, twenty-one hours; 9, twenty-two hours; 5, twenty-three hours; 136, twenty-four hours; 4, twenty-five hours; 2, twenty-six hours; 3, twenty-seven hours; 7, twenty-eight hours; 4, twenty-nine hours; 13, thirty hours; 1, thirty-one hours; 5, thirty-two hours; 2, thirty-three hours; 3, thirty-four hours; 32, thirty-five hours; 1, thirty-seven hours; 11, forty hours; 1, forty-one hours; 4, forty-two hours; 2, forty-seven hours; 17, forty-eight hours; 1, forty-nine hours; 2, fifty hours; 5, fifty-six hours; 4, sixty hours; 2, sixty-five hours; 1, sixty-six hours; 1, sixty-seven hours; 1, sixty-nine hours; 1, seventy hours; 2, seventy-two hours; 1, eighty-five hours; 1, ninety hours; 1, ninety-six hours. Of 838 cases noted, flooding occurred in 27 cases only:—Of these 27 cases, five occurred during labour and before the birth of the child; fifteen after the birth of the child and before the delivery of placenta; and seven after the delivery of the placenta. The flooding before the birth of the child ceased upon the rupture of the membranes. That after the birth of the child and before the expulsion of the placenta, was speedily checked by the delivery of the placenta, or soon after, by the use of opium, acetate of lead, ergot of rye, &c. In no case was the hemorrhage excessive. Convulsions only occurred in two instances, and puerperal fever in twelve patients. In 23 cases of protracted labour the presentations were—of the vertex 69·6 per cent.; 4·3 per cent., one foot; 8·7 per cent., both feet; 8·7 per cent., breech; 4·3 per cent., face; 4·3 per cent., face to pubis. In 912 instances—874 were vertex presentations; 13, breech; 9, feet; 1, foot and knee; 1, knee; 2, face; 8, face to pubis; 1, placenta; 3, funis; 20, unknown.

Ratio of Instrumental Deliveries by different Accoucheurs.

—In one case in every thirteen, Dr. Caus, of Dresden, used instruments; one in nine, Dr. Ritgen, Giessen; one in fifteen, Dr. Kluge, Berlin; one in twelve, Drs. Minden and Merrem, Cologne; one in thirty-five, Prof. Andree, Breslau; one in twenty-eight, Dr. Naegle, Heidelberg; one in five, Dr. Voigtel, Magdenburg; one in thirty-six, Dr. Kustner, Breslau; one in nine, Dr. Siebold, Marburg; one in ninety-six, Dr. Boer, Vienna; one in 183, Madame Boivin, Paris; one in ninety-eight, Dr. Merriam, London; one in 158, Dr. Bland (West. Gen. Dispens.), London; one in eighty, Dr. A. B. Granville, do. do.; one in ninety-nine, Dr. Beatty (New Hospital), Dublin; one in 162, Dr. Clarke, Dublin; one in 114, Dr. Collins, Dublin; one in 187, Dr. Metcalf, Mendon, Massachusetts.

A very early Human Ovum.—Dr. Middleton Michel was consulted by a gentleman on behalf of his wife, in consequence of her having a slight sanguineous discharge, attended with much pain, which had greatly inconvenienced her, then nursing a child at the breast. A clot of blood of singular appearance, that had been eliminated, had also been discharged, which excited considerable curiosity. This was supposed to be an ovum not more than three weeks old, and was submitted to a careful examination. A very short contact with alcohol brought the condition of this little ovum very plainly to view, and at once pointed out the fairest resemblance to the ovum in the uterus of a rabbit. Indeed, a blastodermic formation had already taken place. The vitelline membrane had disappeared; the chorion, which must have somewhat advanced, had been left behind, for around the ovum hung an araneous structure, which appeared to be the incipient bonds of connection with the chorionic covering, from which, in all probability, it had been removed. Though this flocculent film existed more particularly on one side, it is not certain whether this corresponded to a part of the

chorion. Through the transparency of the ovum could be distinguished the inner layer of the blastodermis, as an encased sphere, forming the umbilical vesicle. In turning over the ovum, there appeared to be on one side a thickening of its structure, as if a bit of organizable lymph was connected with it just at this spot; but on cutting through and reversing the outer layer, the appearance proved to correspond with the first and earliest condition of the embryo. The umbilical vesicle towards the embryo was but slightly constructed; this was its principal feature, no vascularity being perceptible. The embryo had advanced in development further than the *nota primitiva*, or *tache embryonnaire*, as it exhibited a cephalic and caudal extremity. The umbilical vesicle extended widely on the anterior surface of the embryo, but nothing could be discovered which indicated the presence of an alimentary canal; consequently, no allantois was yet found. On the lateral surfaces no sign of thoracic or abdominal tubercles was discoverable. The ovum was evidently at that period of development in which the outer layer of the germinal membrane begins to fold itself over the back of the embryo to constitute the amnion. It was at first supposed not to have commenced, but on "tilting" the membrane upwards with the point of a needle, to bring the light to bear on the cephalic extremity, a nebulous outline could then be observed following its convexity a little distance backwards, which was plainly the fold in question. It had advanced so little over the embryo, that much of its back laid bare against the coagulum of lymph already mentioned; the head of a small pin could here pass beneath the cephalic hood. The caudal hood adhered to the coagulum, and consequently was not interfered with, lest the specimen might be injured. Here is the most beautiful example of human development ever seen—unexceptionably similar to other species of ova at the same period of their changes. From the rapidity of development after the egg reaches the uterus, the present ovum could not have sojourned more than from sixty to eighty hours in that cavity, as it had advanced but little further than the unfolding of the blastodermis.

Amputation above the Shoulder-Joint.—Dr. David Gilbert, of Pennsylvania College, Philadelphia, was called to attend the Hon. J. Wagon-seller, M.D., in consequence of enlargement of the left shoulder and parts adjacent. Eleven months previously he had been thrown off a wagon, and the whole force of the fall was expended on the shoulder. The effect was severe contusion, without fracture or dislocation. The tumefaction was never entirely subdued; the remaining enlargement and inflammation resembling ordinary chronic rheumatism. The functions of the limb became gradually impaired. After a violent effort to use the arm on one particular occasion, great tumefaction and inflammation succeeded, which, however, yielded after a few weeks of local and general treatment. Shortly after, the shoulder began gradually to enlarge, till it attained an enormous size. As no local applications appeared to produce any benefit, amputation was resolved on, and performed in the following manner:—The patient was placed on his right side on a large dining-table, with the leaves down. An assistant holding the arm, the operator standing above and behind the diseased shoulder, commenced an incision at the posterior border of the axilla, using a large-sized scalpel, and extending it upwards one inch above the highest portion of the spine of the scapula. The next incision commenced where the first crossed the spine of the scapula, and extended downwards and forwards to the point of the shoulder, thence upwards and inwards along the lower edge of the clavicle to the extent of the outer third of the latter, and then upwards one inch above its superior margin. The triangular flap thus formed above the shoulder was dissected upwards, and the clavicle, inside of its outer third, isolated. A retractor was passed under it, and the bone thus exposed was divided with the straight edge of Hey's saw. The skin, posterior to the first

incision, covering the process of tumour which extended backwards over the dorsum of the scapula, was now reflected backwards, and the latissimus dorsi and teres major muscles divided beyond the limits of the posterior extension of the disease. The infra and supra spinati muscles were next cut across, and the spinous immediately behind the acromion process, and the neck and body of the scapula exposed. The spinous process was cut obliquely from behind, forwards and inwards to the neck of the scapula, with the common amputating saw. The neck, with part of the body of the scapula, was then sawn through close to the spinous process, with a long narrow instrument provided for the purpose. All the bony connections being now severed, an incision with a small catlin was commenced at the axilla, and carried forwards and upwards through the skin and pectoralis major, so as to expose the axillary artery, which was promptly secured; then upwards under the clavicle, and outwards under the coracoid process, and head and neck of the scapula, dividing all the remaining attachments; and the operation was concluded. The external mammary was the only artery requiring ligature besides the axillary. The bleeding from the wound was principally venous, and was about ten ounces. The surface of the wound was carefully examined, and all suspicious tissues and remaining lymphatic glands were removed. The operation lasted fourteen minutes, and at its commencement the axillary artery was compressed, where it passes over the first rib, with a compress and letter-seal of a large size. The integuments were brought together and secured with five sutures and straps of adhesive plaster, over which lint, wet with cold water, was placed, and secured by a roller. The pulse, at the conclusion, was 120. The patient recovered without unfavourable symptoms.

Osteo-sarcoma of the Lower Jaw.—Operation.—Dr. Sims operated upon a negro man, sixty-eight years of age, in consequence of a tumour which had appeared two or three years before at the symphysis, just at the junction of the lip and gum. It was painless, grew very slowly, till it embraced nearly the entire body of the bone; the third molar tooth bounding its limits on the right, while it extended quite the angle on the left side. The teeth were loose and greatly displaced. The mouth of the patient being of enormous size suggested the idea of removing the bone in the following manner:—With a long narrow sharp-pointed bistoury a puncture was made at the base of the jaw, immediately under the place of the second molar, on the right side, running the knife flatwise into the cavity of the mouth, between the cheek and the bone, and as close to the latter as possible. One end of the chain-saw was now passed along the blade of the knife, or rather an eyed tube armed with a ligature previously attached to the saw, and the knife withdrawn. It was again introduced through the same external opening, but was now carried into the cavity of the mouth by thrusting it up on the inside of the bone between it and the tongue. Through the new channel, the outer end of the chain-saw was passed, and both ends drawn till the middle of the saw rested against the base of the bone, while the ends hung out at the left corner of the mouth. Thus the saw was fitting snugly around the bone at the expense of a puncture of not more than a quarter of an inch long. The jaws were now opened to their fullest extent, and the left angle of the mouth widely retracted, while the saw was brought across the dorsum of the tongue, and the bone quickly severed by sawing from without inwards, and slightly upwards. As soon as the bone was divided the instrument was liberated by clipping the superimposed gum with scissors. In like manner the bone was divided on the left side; but, as it had to be cut at the angle, to get clear of diseased structure, the saw had to be passed from within, outwards and downwards, its two ends hanging out at the external opening just under the angle, and thus the bone was easily divided from above, downwards, and backwards. The

next step was to dissect the lip, chin, and cheeks, from this loose diseased mass, turning the lip down under the base of the bone. After liberating the right side of the bone, getting it on the outside of the angle of the mouth, so that a lever was made of it, the operation was finished with great care. By rotating it inwards on the axis of the left side, it was easy to separate the attachments from the outer surface; and by reversing this movement it facilitated greatly the dissection from the muscles of the tongue and throat, while traction brought it so far out that it was with facility separated from the soft parts at the angle. The cavity lately occupied by the diseased parts was then filled with pledgets of lint wetted with creosote-water. The only dressing used was a piece of paste-board, soaked in warm water, and moulded on to the chin of a healthy man, so as to form a perfect encasement of the whole inferior maxillary region, which, being applied, was sustained *in situ* with a proper bandage. The patient speedily recovered.

Incision of the Os Uteri during Parturition.—Dr. Buckingham attended a woman of large frame, somewhat fleshy, during her confinement, which was her third. Her two previous ones had been protracted and difficult—the last attended with hemorrhage. In this, her third labour, the pains were so severe as to prevent satisfactory auscultation. The fetal head presented with the occiput to the pubes, the left parietal protuberance being towards the os uteri. This was unyielding near the vulva, and dilated to nearly the size of a crownpiece. At the right anterior part there appeared to be a cicatrix extending upwards and outwards. The vagina was perfectly moist and distensible. All attempts to bring the head in a more favourable position was unavailing. The head advanced slowly, the pains being very forcing, when the head eventually passed through the outlet, bringing before it the anterior part of the uterus, and resting upon the distended vulva. The perineum was stretched to the utmost. The pains continued forcibly, and there was evidently no time to be lost. The head of the child was pressed back with one hand of the operator during violent pains, and with the other the blade of a lancet was slid sideways within the os uteri, and, slightly turning it, incised the posterior part to the depth of about one-eighth of an inch. The wound instantly enlarged itself, and shortly after the child was born. The cord was twisted twice about its neck and round between the thighs. The placenta was soon after expelled, and the uterus contracted firmly. The patient recovered, after having suffered occasionally tenderness over the uterine region, which was relieved by the use of aperients, with calomel and castor-oil.

Radical Cure of Hernia.—The patient was sixty years of age, under the care of Dr. Hicklin, of Mobile. He had been for many years troubled with scrotal hernia in the right side, which of late years had been considerably complicated with enlargement of the testicle on the same side. Extirpation of the testicle was proposed, and the operation was also intended to effect a radical cure of the hernia. The incision through the integuments, extending from the external ring to the lower part of the scrotum, was made; the spermatic artery laid bare and tied; the cord divided and taken out in the usual way. The incision was then extended, so as more fully to lay bare the external ring, which was cleared of cellular tissue. The hernial sack had already been opened, and a considerable portion removed with the testicle, to which it was adherent. A lead wire was then passed through the internal column of the ring, two or three lines from its margin, and about four above the pubis, continued down under the neck of the sack, between the latter and the pubis, and brought out through the external column, at a point opposite to the perforation in the other column, the object being so to place it as, when tied, the effect should be to draw together the two columns of the ring, and, at the same time, to compress the neck of the sack. A single knot was made, and

with a pair of forceps the wire was twisted as tightly as so weak a material would permit. The opening was large enough to admit three fingers into the abdomen, and it was not reduced more than one half. The integuments were brought together with interrupted suture and dressings applied in the usual way. Secondary hemorrhage occurred in the night, and it was necessary to remove the dressings; the bleeding seemed to come from the veins of the scrotum, and was relieved by cutting the ligatures. The wound suppurated very profusely, and was six weeks in healing. There was afterwards no appearance of the return of hernia—a hard insensible lump occupied the seat of the external ring, where the lead wire was placed, and there is every reason to believe a radical cure was effected.

LINNEAN SOCIETY OF LONDON.

Reported by Dr. W. H. BROWN, F.R.S.

This society held its first meeting for the present session at its house in Soho-square on the evening of Nov. 2; E. Forster, Esq., V.P., in the chair. Among the distinguished literary and scientific men present were Mr. Yarrell, Mr. Westwood, Mr. Solly, Professor Forbes, Mr. Dou, Mr. Inghen, Mr. Doubleday, Mr. Bennett, Mr. Ogilby; and among the visitors the Rev. J. Hamilton, and Colonel Harsey. Many valuable biblical contributions were announced:—"Translations of Royal Society of Edinburgh," "Journal of the Geological Society," "Proceedings of the Zoological Society," "Proceedings of the Geographical Society," "Proceedings of the Agricultural Society," "Report of the Meeting of the British Association for the Advancement of Science;" "Observations sur quelques Plantes rares observées aux Environs de Charbourg," par M. Auguste Le Jolis; "Documents relatifs à la faculté germinative conservée par quelques Graines antiques," par M. Charles des Moulins, &c. &c.

Mr. G. Newport, the eminent comparative anatomist, read the commencement of a third memoir "On the Natural History, Anatomy, and Development of the Oil Beetle *Meloe*." The general object of this memoir was to examine the entire anatomy of the insect with reference to the principles of development which regulate the formation of organized bodies, and to show the universality of the laws of life. This examination commenced with the tegumentary system of the very young *meloe*, which was traced from its formation in the ovum, and announced by the author to be the foundation-structure of the organized body. Its analogy of structure in the earlier state with the earlier structure of plants, in being formed entirely of cells, was pointed out; and it was shown to be the structure in which the organs of locomotion originate, the method of formation of which was very clearly pointed out. The principles which regulate the origin of the dermis in the egg were shown to be precisely those which control its growth in the living animal.

The changes which take place in the cells of the tegument, and the secretion of earthy matter in them, were shown to approach very closely to those by which true bone is found in vertebrate animals, and were actually those to which the hardness of the dermo-skeleton of the insect was due. The chief earthy constituents of the cells were stated to be phosphate of lime, with carbonate of potash and lime. The mode of formation of the external skeleton of insects, and the internal skeleton or bone of vertebrates, was thus shown to be almost identical. Taking this view of the subject, Mr. Newport considers that we must regard the tegument of the insect as entirely of one structure—that is, of layers of cells in different stages of growth and development, and not as being formed of three separate structures—epidermis, mucous layer, and dermis. The hairs and spines were regarded as the excessive growth of the nuclei of the cells, and the tegument itself was shown to grow by the fissiparous division of the nuclei of the cells; and the sub-

sequent development of these into distinct cells. The spiracles were also shown to be very similar to the stomata of plants; and that the respiratory organs seem to commence in a follicle of the granular tissue of the tegument, which up to that period had performed their function, these being the last formed of the essential structures of the embryo. A curious and interesting fact was pointed out with reference to the cornea of the eye in the young melle, which, although a single organ, has its cornea formed of layers of dermal cells.

The author proposed to continue his paper (the reading of which elicited loud and general applause) on a future occasion.

After the reading of some proposition papers, for the admission of new fellows, and the transaction of some ordinary business, the meeting was adjourned to the 16th inst., and the members betook themselves to the library.

REVIEWS.

A Guide to the Examination of the Urine in Health and Disease, for the Use of Students. By ALFRED MARKWICK, Surgeon to the Western German Dispensary, &c. London: John Churchill, Princes-street, Soho, 1847. Pp. 155. Mr. Markwick is well known to the readers of the *Medical Times* as the translator of various interesting papers on Diabetes, &c., from the French. He has also contributed still further to English medical literature by a translation of "Bell's Essay on Diabetes," which received from the press high encomiums. The present work on the urinary secretion is intended for the use of students, that they may be furnished with a pocket companion, useful to them while prosecuting their hospital studies. Pathology is a most important branch of professional studies, and chemical science has done good service in assisting the solution of many problems which, to within a very short time, were considered incapable of demonstration.

The urinary secretion is one of the most important in the animal economy; and chemical philosophers have taken no small pains to elucidate some of the mysteries connected with its formation, and the changes which it undergoes. From the remotest antiquity, physicians directed their attention to the urine, and endeavoured to draw certain conclusions, according as it presented different appearances. As far back as the time of Hippocrates it was used as a criterion by which to judge whether a disease would be severe or mild in its character—long or short in its duration. It is not to be expected, however, that the ancients possessed any scientific knowledge, in reference to its constituent principles; appearances, with them, were everything; and with this little help they managed to make some very correct diagnoses of internal maladies. Rouelle, in the seventeenth century, appears to have been the first who examined the urine with anything like scientific accuracy, and to him must be accorded the merit of having discovered urea in it. The researches of Scheele did not go unrewarded; and Wollaston made such progress as to be able to give an accurate account of the various calculous deposits. Cruikshank examined healthy and diabetic urine, in which latter he discovered sugar. Within the last few years, however, the most important advances have been made, and since a new impulse has been given to chemistry, this science has really become the handmaid of medicine.

Mr. Markwick's "Guide" contains one hundred and sixty paragraphs, the first sixty-six of which embrace the properties and composition of healthy urine, and the various modifications it is liable to undergo, both in health and disease; the remaining number describe the mode of analyzing it. Healthy urine of adults is described as a limpid liquid, of a colour varying from an amber to a yellowish brown; of a temperature varying from 86° to 100° F.; of a peculiar odour, liable, however, to alteration from certain articles of food.

The colour depends in a great measure on the degree of concentration of the secretion. It is also modified by particular states of the system, by certain articles of food, and some medicines: thus in febrile affections it is deep coloured; in nervous complaints, pale; in bilious disorders, yellowish, or of a dirty brown. Prout and Simon have also met with instances in which it was of a dark blue, owing to the presence of indigo, which, in all probability, had become generated in the system. Pus, blood, and bile alter its colour. Dr. Prout is of opinion that the colour of the urine is due to the presence of two colouring principles—one closely allied to lithic acid and lithate of ammonia, and gives them their yellow colour; and the other to some modification of the colouring matter of the bile; and he believes both to be intimately connected one with the other, from the circumstance that lithic acid and the biliary-colouring principle are similarly affected by nitric acid. A discrepancy of opinion exists respecting the pigment which gives to the urine and its lithic deposits that peculiar rose and purple tint in certain cases of derangement of the portal circulation. Scherer considers the colouring matter of urine allied to both that of the blood and bile; that it is formed from the hæmatin of arterial blood, and that its formation is analogous to that of the urea and lithic acid. The excess of this matter in the urine may be considered as an evidence of the kidneys performing a compensating function for the lungs and liver. A non-nitrogenized diet likewise increases, though not in equal proportions, the quantity of carbon and hydrogen passed with the urine.

The quantity evacuated in twenty-four hours averages between thirty and forty ounces; it is, however, influenced by various circumstances. The transparency of healthy urine is affected when its proper relative proportions are altered, or when it contains foreign matter. There is what is called a *pellicle*, a *cloud*, and a *sediment*. Its consistence varies with its density, and with the presence of foreign matters. Thus, the greater the specific gravity, the more consistent the urine. The specific gravity is subject to much variation—1.020 is, however, about the correct average. It also differs according to the specimen of urine examined—whether passed on rising in the morning, or excreted after copious liquid potations, or voided after a meal. Hence the division of the urine into three different kinds:—1. The URINE SANGUINE, the urine of the blood, or morning urine; 2. The URINE POTUS; and 3. The URINE CRYLI, or of digestion.

Dr. Schweig states that there is a constant rate of increase and decrease in the density of the urine throughout the day; and that the specific gravity of the night urine passes through certain limits in a cycle of six days, attaining a maximum twice in that period; four of these cycles occur in each lunar month, the night previously to the new moon being counted as the second day of one of the cycles.

In consequence of this variation in the density of urine, it is necessary, for the sake of accuracy, that the whole urine evacuated in twenty-four hours should be collected, when it is to be examined; then to ascertain the quantity of its watery portion; and afterwards to examine its temperature, for Simon found that urine of specific gravity 1020.75, at 59° F., became reduced to 1019.85 when the temperature was increased to 64°, and increased to 1021.46 when it was lowered to 53° F.

Becquerel's analyses of urine, corrected by Dr. Prout, is generally considered as correct in this country, and is as follows:—(See Table).

Lehmann states the average amount of solid ingredients to be as follows:—

After a mixed diet	1.047.000
„ an animal diet	1.349.898
„ a vegetable diet	914.541
„ a non-nitrogenous diet	643.455

Its solid contents, however, become greatly diminished in debilitated states of the system, and when the blood corpuscles are decreased in number.

Quantity of urine	Urine in twenty-four hours.	Composition of 1000 parts.
Specific gravity	35.8d. oz.	1000
General composition	1.020	967
Water	14807 grs.	28
„ Solid matters	505	
Water	14807 grs.	967
Urea	226.802	14.230
Lithic acid	7.190	468
Organic matters inseparable from each other		
Lactic acid		
Lactate ammonia		
Colouring matters		
Extractive matters		
Muriate ammonia		
Fixed salts indecomposable at red heat.		
Chlorides		
Phosphates		
Sulphates		
Lime		
Soda		
Potash		
Magnesia		
	(a) 124.541	(b) 8.135
	15312.000	1000.000

COMPOSITION OF THE ENTIRE QUANTITY OF FIXED SALTS VOIDED IN TWENTY-FOUR HOURS.

(a) Fixed salts voided in twenty-four hours.	(b) Fixed salts in 1000 parts.
Chlorine	9.04
Sulphuric acid	15.39
Phosphoric acid	5.73
Potash	23.40
Soda	70.99
Lime	
Magnesia	
	124.54
	8.137

Urea enters more largely than any other substance into the composition of the urine. It is described by Dr. Prout as assuming the form of four-sided, prismatic, colourless, transparent crystals, of a pearly lustre, which leave a sense of coldness on the tongue like nitre. It has a faint and peculiar, but not urinous, smell; is neither acid nor alkaline; undergoes no change on exposure to air, except in very damp weather, when it slightly deliquesces; but does not seem to be decomposed. Mixed with salts containing water of crystallization, it separates the latter. It has also the singular property of altering the crystallization of particular salts. Urea has no neutralizing power, but combines with acids, especially the nitric and oxalic. Its formula is $C^2 O^2 H^2 N^2$. Hence it will be seen to represent either one atom of cyanogen, two of water, and one of amidogen, or two atoms of carbonic oxide and two of amidogen; so that we readily see how cyanate and carbonate of ammonia and oxalic acid are formed in the urine; for, by abstracting one equivalent of water from one of urea, we have the composition of one atom of cyanate of ammonia; and if we add two equivalents of water to one of urea, we have the composition either of two atoms of carbonate of ammonia, or of one equivalent of oxalic acid, two of ammonia, and one of oxygen.

The conversion of urea into carbonate of ammonia occurs much more rapidly in warm than cold weather, and also when the urine contains a good deal of mucus; but it is necessary that oxygen should have free access to the fluid. The metamorphosis is very apt to take place in certain forms of mental derangement. The quantity of urea in the urine is greatly affected by diet and disease, it being increased or diminished apparently in a direct ratio with the globules of the blood. It seems to be generated from the gelatinous tissues during the destructive stage of the secondary assimilating processes. Uric or lithic acid is another important constituent of urine; it has neither taste nor smell, and, when pure, is perfectly white, and crystallizes generally in rhomboid scales. It is converted by heat into hydrocyanic acid, urea, carbonate of ammonia, and an empyreumatic oil. Its formula is $C^2 O^2 N^2 H^2 O^2$. It is subject to changes, which produce various new products. When it exists in excess in the urine, it either becomes deposited as the uric cools, or on the addition of an acid. The natural acidity of healthy urine has lately been accounted for by Liebig and Bird, by the uric and hippuric acids acting on the alkaline

phosphates, and either setting free a portion of these acids or converting them into acid salts. In the urine, also, is formed hippuric acid, extractive matters, mucus, &c.

In speaking of the process by which the nature of the different natural and unnatural urinary constituents can be ascertained, the author remarks, "We should begin by making ourselves acquainted with the colour, odour, transparency, and consistency of the urine, and then with its density, and chemical reaction on test paper. By its *colour* we judge, *first*, of its degree of concentration or dilution, and, consequently, of the amount of solid ingredients; *secondly*, of the presence of certain foreign matters; and *thirdly*, of certain morbid states of the system. By its *odour* we not only ascertain whether decomposition has taken place, or whether some foreign odoriferous principles are present, but we are also enabled to suspect the existence of certain diseases. By a *deviation from its natural transparency*, we discover either that some of its natural constituents are in excess; that it contains some abnormal element; or that some change has taken place in it by decomposition. By an *increase in its consistence* we detect the presence of mucus, pus, albumen, sugar, and even, in some cases, of oxalate of lime. By its *density* and *quantity* we are not only enabled to ascertain the amount of solid matters present in a given specimen, and the quantity excreted in a certain time, but are also led to infer either that certain elements are diminished or in excess, or that some abnormal ingredient is present, or even the existence of some particular malady. Lastly, by its acid, neutral, or alkaline reaction, our former suspicions respecting the cause of the change in its colour, odour, transparency, and consistence become in a great measure confirmed."

To ascertain the chemical reaction of the urine, blue or red litmus-paper should be employed. The density may be obtained in two ways: either with the specific-gravity bottle, which is the most correct; or with, what is more commonly used, the urinometer—an instrument consisting of a stem graduated from 0 to 60°, and two bulbs, the lower one being partially or quite filled with mercury, in order to increase the weight of the instrument—a cylindrical glass vessel—in which the urine to be examined is to be placed. In using it all that is required to be done is to place it in the urine contained in the glass, and then to carefully note the figure corresponding to the surface of the fluid, which will be the density of the latter. In estimating the specific gravity it is necessary for the urine to be perfectly clear and free from impurities.

The chemical processes recommended are simple, yet scientific; and the work will be very useful to the medical *alumni* for whom it is intended, and not to them only, but to those practitioners in the country who have not had those opportunities of cultivating chemical pathology which their more favoured brethren of the metropolis enjoy.

THE MEDICAL TIMES.

SATURDAY, NOVEMBER 13, 1847.

THE POOR-LAW CONVENTION.

THERE have been three meetings of the committee during the last fortnight. The attendance was full, and the interest in the subject exhibited by each gentleman was cheering in the extreme. Dr. Burton attended from Walsall on one of the occasions, and occupied the chair. On the other occasions the chairmen were Mr. Clifton and Dr. Hodgkin. The latter gentleman has been chosen perpetual chairman of the committee, with Mr. Martin, of Reigate, as vice-chairman.

During the last two meetings several gentlemen have been added to the committee: among them are Messrs. Smith, St. Mary Cray; Mr. Boulger, Bletchingly; Mr. Bottomley, Croydon; Mr. Vallance, Stratford; Mr. Byles, Hackney-road; Dr. Barnett, Limehouse; and Mr. Lobb, Aldersgate-street—all union medical officers. Several communications were read from union surgeons in the provinces—all of a very interesting character; and the treasurer, among several subscriptions of smaller amount, announced the receipt of £10 from R. R. Pennington, Esq., of Cavendish-square, the venerable president of the National Institute.

The committee on more than one occasion, and by more than one vote, expressed their desire of securing the services, as members, of Messrs. Bird and Ancell. But these gentlemen, while expressing their warm interest in the cause of the committee, have found themselves obliged, by other engagements, to decline the additional responsibility.

The subjects which have principally occupied the attention of the committee during its last two sittings have been the ascertaining the names and addresses of all union surgeons; the preparation of documents, to be submitted to them as to the objects of the committee, with printed forms, to be filled up, on the statistics of poor-law medical relief; and thirdly, the making arrangements for communicating with the different corporate bodies, and with the Government, on the grievances of poor-law surgeons.

MEDICAL REFORM.

THE mutual charges by Lincoln's-inn and St. Andrew's of the utter worthlessness of each other's examinations offer strong proof, from a new quarter, of the necessity of speedy and effective legislation. The diploma of St. Andrew's, says Mr. Lawrence, is no evidence of professional competency: yet it is *proved* by Dr. Reid to be twenty per cent. better than the diploma of the English College of Surgeons! It is infamous, and a public cruelty, says the amiable and consistent ex-President, to tolerate the practice of a St. Andrew's graduate. What is it, then, responds Dr. Reid, to legalize the doings of practitioners who are every way so inferior?

It would be charitable, as indeed it is natural, to fancy that there is something extravagant in these mutual recriminations. For a little temper in Dr. Reid there were sufficient provocatives; and the early associations of Mr. Wm. Lawrence would have been plainly impossible if there had been that sort of stuff in his composition which could allow him to treat a rival establishment with gentlemanly fairness and good feeling. But, with every disposition to abate from the intensity of their mutual censures, we are compelled to bow down to the evidence of facts, to the extent even of accepting the ex-President in his new character of an unimpeachable authority. There is, unfortunately, very little doubt that the diplomas are as bad as they have been represented; and the greater regret remains—that what is true of these two institutions is true of several others. We must not disguise the truth from ourselves: *the doctor-making of this empire is a money-making speculation in the hands of a few private individuals*. The want of funds among the examiners decides the number of doctors admitted to the public. There are a great many establishments to be kept up: a great many examiners to be paid: and a fierce rivalry to be fought against: is it wonderful then, that without legal check or

surveillance, men become surgeons and physicians who are unacquainted with the very elements of their own language? or that the pastrycook of one Twelfth Night is the surgeon of the next? or that our great metropolitan College, reduced to straits by bad legislation, becomes twenty per cent. worse in its admissions than even the University of St. Andrew's?

Now, this is the state of things that wants alteration. No profession can exist under so baneful a *regime*. If there be a spirit of trade and huckstering among the corporations, that spirit will inevitably descend upon the members. The vile mammon competition of the Colleges begets a viler mammon competition among practitioners, and by a most natural parentage: for, unquestionably, if the *sanctum sanctorum* of the most sacred of professions be turned into a den of mercenary adventurers, where worth is sneered at and genius laughed to scorn, the outer courts will not fail to be filled with men imbued with the pernicious influence, using science as hypocrites do virtue, and, in the guise of humanity's apostles, playing mischief's most active missionaries.

THE MODEST COLLEGE IN PALL-MALL.

"Mellora speramus; crescit sub pondere virtus."

IF we were to believe the testimony of the officers of the English College of Physicians, who were examined before the Select Parliamentary Committee on the Medical Registration Bill, we should arrive at the conclusion, that it is the best medical institution that was ever incorporated, and had connected with it the best men that ever engaged in the practice of the healing art. Moreover, the melancholy conviction would be forced on our minds that this peerless college has been so neglected by successive governments as to leave it without the power of enforcing those regulations which have been promulgated for the good of the profession and the especial advantage of the College funds. It is rather a singular circumstance, however, that, while the corporation has appeared such a perfect beauty in the eyes of those who belong to her household, the general opinion in reference to her is, that she is in nothing better than a decrepit old woman, so tight-laced as to be very stiff in all her movements, and bedizened with very showy ornaments, which, instead of being diamonds of the first water, are only paste. Grey hairs, they say, are always honourable, and the old lady's knowledge-box having been considerably frosted by time, we suppose that to her also must be accorded those marks of respect due to length of days.

The recent exhibitions of vanity, however, in the old lass, brings to remembrance her sins, and they range themselves under those two divisions which theologians have pointed out as including all the aberrations of mind and conduct in the sons of men. Our charity prevents us now from specifying the several items contained in the two long, black catalogues, to which reference has just been made; and we shall only select a few of those "sins of commission" which have been wantonly committed against general practitioners. The College has manifested towards these, on all occasions, the most ineffable contempt, denominating them an "inferior grade," whose social position, general education, and professional skill utterly disqualify them from being placed for a moment in the same rank with its own members. The bold corporation has, with brazen effrontery, declared before the

British House of Commons that the surgeons of England, practising the three branches of medicine, are utterly guiltless of having perpetrated anything, at any time, in the shape of professional literature, and that this has only been done by those who are medical or surgical "puritans." "There are," said one of the College representatives, "a certain proportion of clever men (among the general practitioners) who avail themselves of their opportunities of observation, and afterwards become able practitioners; but you do not find that they are the men who add to the science of their profession, however skilful they may be in the treatment of disease. You do not find that advances in science are made by these men." The worthy gentleman who made this statement must have been accommodated at the moment with a very short memory, not to have called to mind the names of some men who flourished within the last century as general practitioners only, who have enriched science and blessed mankind by their discoveries. It is the practice, we know, of this cunning old College to endeavour to kidnap from the "lowest grade" any who may have made brilliant discoveries in the healing art, to dub them with the title of M.D., to immerse their heads in trencher caps, to hang upon their shoulders black gowns, and then to publish in the College lists the names of such individuals as fellows or members of the corporation. The crazy foundations of the institution would long ere this have let down the superstructure if there had not been fastened in some lively stones taken from amongst that very body which the College functionaries affected to treat with so much contempt before the House of Commons. There were men there, however, not so easily to be imposed upon as might have been expected, and who, seeing through the crafty attempt at corporate deception, would not have a higher opinion of the brotherhood by the effort made to elevate it upon the shoulders of "Apothecaries." Some malicious infidels, we are told, two centuries ago, would believe none Protestants but those who wore little bands and cropped hair; and the Pall-mall corporation would have it understood that, without its academic gown and cap, none are capable of scientifically treating disease or of writing a respectable medical work.

Scarcely, indeed, is this to be wondered at, if, as the College stated through its representatives, the unincorporated general practitioners are so inferior in point of education, professional and general, to the members of the Physicians' Corporation. Dr. Burrows said, "The body of physicians is but a small body; they are most of them men who commenced their profession at a mature age, having gone through an extended education. They are submitted to protracted examinations before they are admitted as members of the College. At the present moment there are very few who enter into practice in this metropolis who have not continued their studies up to six or seven and twenty years of age; they continue their education at hospitals or the public institutions for six, or seven, or eight years; they expect, at the end of that time, to be able to take a certain position in the profession and in society. I should think it is very difficult to appreciate the great advantages which result to society from there being an order of men in the profession who have had an education with the members of other learned professions; from a certain class of the medical profession having been educated with the gentry of the country, and having thereby acquired a

tone of feeling which is very beneficial to the profession as a whole, and which is reflected from those who have had the good fortune to have enjoyed those advantages, upon others who come in contact with them in professional intercourse in after life." And how, we ask, does it come to pass that these advantages are confined to a few favoured individuals, and not extended to the whole medical commonwealth? If a university education carries with it a power of influencing rightly the morals of the whole profession, why is it that any of its members are so trammelled, as to be unable, without an extra expenditure of time and money, to be made partakers of the same? To the disgrace of the College of Physicians be it said, that, through the influence which it has exerted in former times with the Executive, the youth destined to practise the three branches of the medical art are compelled to pass the first years of their professional life in the bonds of a lengthened apprenticeship, instead of being permitted to pursue their studies in those seats of learning where they would come in contact with the "gentry of the country." Last week we exposed the double dealing of the College, which so mutilated the Apothecaries' Act of 1815 as to prevent it effecting all that good for the profession which it would have done if the bill first proposed had been passed into a law. Let Dr. Burrows and his fellows, if they possess that high moral feeling of which they boast, come forward immediately as advocates for the enfranchisement of those whom they have charged with being men of inferior education to themselves, or for ever after hold their peace upon the subject of morality.

But, while it may be admitted that the College of Physicians requires of the candidates for its diploma a better general education than what the surgeon-apothecaries usually possess, we cannot allow that their professional education is at all inferior to that which is demanded by the College for its future members to undergo. Looking over the regulations of the College, we find that the medical education of those who seek the licence must comprise anatomy, the theory and practice of medicine, forensic medicine, chemistry, materia medica, natural history (principally botany), midwifery, and the principles of surgery, and must extend over the period of five years. Practical medicine must be studied for three years in a hospital containing at least 100 beds, and having a complete staff of physicians and surgeons. What more have we here than that which is required by the Society of Apothecaries of those who intend to become candidates for their licence? Men may pride themselves of their connection with Oxford and Cambridge, but, as medical schools, they are admitted by those who are capable of judging as possessing slender means of imparting instruction. Dr. Burrows spoke of Cambridge as being his *alma mater*; and doubtless he enjoyed wonderful opportunities of acquiring professional knowledge in the classic halls of Downing College and the sick wards of Addenbrook Hospital. This latter institution possesses the unspeakable advantage of having rather more than eighty beds for the accommodation of patients, is adorned with a nice green plat in front, and is separated from the street by a narrow ditch filled with turbid water. We have no room at present to enlarge upon the merits of this university as a medical school, but will with pleasure on some future occasion, if the officers of the College of Physicians should wish us; and it would then be seen that,

if young physicians did not become pilgrims in search of knowledge, the "inferior grade" would certainly be their masters in the sick-chamber.

It is a most unfortunate circumstance for the ancient corporation in Pall-mall, that, while it has endeavoured to impress upon the public the superior wisdom of those who are taken under its patronage, there have been individuals from time immemorial who have looked upon the College as neither endowed with constitutional perfection nor professional superiority. We have a curious book, written by one Dr. Gideon Harvey, physician in ordinary to his Majesty, and published in the year 1686, entitled "The Conclave of Physicians," &c. In reference to this "Conclave" he says, that it is "the eldest quack synagogue, consisting of a physic-pope or patriarch, and a competent number of medical cardinals, who, being grown ancient, covetous, and, through forgetfulness, ignorant, are to govern the rest; and whenever they are consulted they are to impose upon the juniors their pretended long experience, which they are to embrace with the same implicit faith as the Turks do their Alcoran. But, if refractory, they are to be convened before *il Consiglio piccolo*, which is their purgatory, whence they may be received again into the bosom of the conclave; but, if afterwards they prove incorrigible, then the whole conclave sits upon them (which is their inquisition), and there they are damned, and utterly expelled without redemption. Thus in my time I have known several poor wretches damned, going about streets like dogs without tails. Against those who refuse being admitted into their conclave they send forth their bulls and anathemas, declaring them mountebanks, quacks, chemists, barbers, ignorants, &c.; and, if such should at any time have a patient die under their hands of an incurable disease, they thunder out he killed the patient, poisoned him, applied wrong medicines, and the like." Now, these are the declarations of a court physician in reference to his own fraternity, and we may learn from them that the corporation was guilty of endeavouring to excite the admiration of the public, on its behalf, by scandalizing individuals who did not acknowledge its authority.

Comparing the statements of the College functionaries in reference to general practitioners with the regulation which proposes to admit them to examination after forty years of age, we cannot help thinking that such a clause was never intended to accomplish all that which appears on the face of it. The examiners, from the power given them to examine either in Latin or English, evidently possess the means of rejecting at will very many candidates. Few men, who have been in practice some fifteen or twenty years, would retain sufficient knowledge of a dead language to converse in it without sharp grinding prior to examination. It would appear far more liberal if the candidate had the option of being examined either in Latin or English; not for the examiners to decide in which language the questions shall be asked and answered. A knowledge of disease ought certainly to be more highly esteemed than the ancient Roman tongue, and hard-earned experience than the hard words of the Father of Physic.

Let the general practitioners see, from the statements of the officers of the College of Physicians before the select committee of the House of Commons, how earnest certain parties are to depreciate their worth, and to make them

subservient to their own purposes. Let them, in self-defence, seek an incorporation for themselves; and let the first efforts of the New College be directed to the great subject of education. In the mean time the aristocratic old body of Pall-mall must be carefully watched, so that they may have no opportunity of making brass pass current for gold, or mere paste for genuine diamonds.

THE SCIENCE OF METEOROLOGY, AND ITS BEARING UPON THE PUBLIC HEALTH.

"Nec frustra signorum obitus speculamur et ortus,
Temporibusque parem diversis quatuor annum."

VIRG.

A DISCOVERY of the causes which give rise to the various diseases invading the human frame will always aid the intelligent medical practitioner in their treatment, and in devising means to accomplish their extirpation. Within the last few years much has been done to improve the health of the people, while much remains to be accomplished in order to effectually secure to the population a freedom from those diseases which result from causes over which control can be exercised. The Government has done well in ascertaining, so far as circumstances will admit, the sanitary condition of the people; and the members of the medical profession have acted in their usual enlightened and liberal spirit by rendering all the assistance in their power that correct returns may be made of the amount of disease existing amongst the people, and of the causes of mortality.

We adverted last week to the quarterly return of the Registrar-General, and the document is worthy the attention of all medical men. During the last three months, we learn from it that there were 1948 deaths less than the corresponding quarter of 1846, though the average amount of mortality still remains very high. That the state of the weather has much to do with the health of the people, there can be no doubt; hence there is very properly appended to the "return" remarks on the weather during the last quarter, by James Glaisher, Esq., of the Royal Observatory, Greenwich. The profession has scarcely devoted sufficient attention, we think, to atmospherical vicissitudes as influencing disease, in consequence, doubtless, of the zeal with which they have been animated in putting down the nuisances of large towns. These are evils, it is true, which call for immediate abolition, but we hope that, at the same time, the science of meteorology will be cultivated with an amount of diligence which so important a subject demands. The observations of scientific men, in various parts of the kingdom, cannot fail of advancing the science, and there is every reason to hope that, as knowledge is increased, good will result to the people.

Mr. Glaisher's report says—"The depression of temperature below the average, which took place from the 7th of June to the end of the month, continued till the 4th of July. On the 5th a period of hot weather set in, and from this time to the end of the month the average daily temperature was, with very slight exceptions, above that of the season. The daily temperature during the first and last weeks of August was at or below the average, and above the average during the remainder of the month. The month of September was cold, the temperature being nearly every day throughout the month below that of the season. The mean temperature of July at Greenwich was 65°4, which is 0°9 above

that of 1846; 5°6 above that of 1845; 4°0 above that of 1844; 4°5 above that of 1843; 5°2 above that of 1842; 7°6 above that of 1841; and 4°6 above the average of those six years. The mean temperature of August at Greenwich was 62°1, which is 1°1 above the average for the six preceding years. The mean temperature for September at Greenwich was 52°3, which is 3°1 below the average of the six preceding years. The low temperature of this month is very remarkable. The mean temperature of the quarter at Greenwich was 60°6, which is 1°9 above that for 1844; 3°7 above that for 1845; 2°0 below that for 1846; and 1°4 above the average for the quarter for the six preceding years. The mean temperature of evaporation for the quarter at Greenwich was 57°0, which is 2°1 above that for 1844; 2°7 above that for 1845; and 1°9 below that for 1846. The mean temperature of the dew-point for the quarter was 54°1, which is 0°7 above that for 1844; 1°9 above that for 1845; 2°2 below that for 1846; and very nearly the same as the average for the six preceding years. The mean weight of water in a cubic foot of air for the quarter was 4·8 grains, which is 0·1 grain less than the average for the six preceding years. The additional weight of water required to saturate a cubic foot of air was 1·1 grain; the average for the six preceding years was 1·0 grain. The mean degree of humidity of the atmosphere for the quarter was 0·814, which is very nearly the average value, as deduced from the six preceding years. The mean elastic force of vapour for the quarter was 0·429 inches, which is nearly the average for the six preceding years. The average weight of a cubic foot of air under the average temperature, humidity, and pressure, was 527 grains, and the average weight for the six preceding years was 526 grains. The rain fallen at Greenwich within the quarter was 4·7 inches in depth; this quantity is about one half of the usual amount collected. The horizontal movement of the air was about 840 miles weekly, being somewhat less than the average amount. The temperature of the Thames water was 65°2 by day, and 62°9 by night. The water on an average was 3°5 warmer than the air. The highest and lowest readings of the thermometer in air at the height of four feet above the ground, and protected as much as possible from the effects of radiation and rain, were 86°0 and 38°5, as taken from the two-hourly observations; those readings, therefore, are not the true maximum and minimum readings, unless such happened at the times of observation. The average daily range of the readings of thermometers in air at the height of four feet was 18°5, which is about 2° above the average amount. In July the reading of the thermometer on grass was below 40° on five nights; the lowest reading was 36°5. In August it was below 40° on five nights, and the lowest reading was 32°. In September it was below 40° on seventeen nights, on ten of which it was below 32°, and the lowest reading was 24°. On Sept. 24, an aurora was seen at many places in the south of England, and particularly in Cornwall. During the whole of this day the magnetic instruments at Greenwich were very much disturbed. The several instruments changed their positions very frequently, and to large amounts. At Greenwich several streamers of the aurora were seen."

It is a well-ascertained fact, that under certain conditions of the atmosphere, particular diseases manifest themselves with especial intensity—these are of the zymotic class, such as smallpox,

measles, scarlatina, typhus, influenza, and cholera. "After certain intervals of time," says the report, "in which they are fatal to a smaller or greater number of persons in different places and seasons, great multitudes are suddenly attacked and destroyed in a given locality; the disease in this intense form involves the neighbouring population, spreads around the whole region, and sometimes travels over the tracks of human intercourse through the world. Little is known of the immediate chemical or vital causes of epidemics; but in given circumstances, where many are immersed in an atmosphere of decaying organic matter, some zymotic disease is invariably produced: where there is starvation, it is most frequently typhus; cold, influenza; heat, it is cholera, yellow fever, plague. At the mouths of the Ganges, of the Nile, of the Niger; in London, particularly up to the seventeenth century; in camps, in barracks, in ships, in prisons, formerly; in Ireland, in Liverpool, in all our towns, now: the circumstances in which zymotic diseases become epidemic may be witnessed."

We sincerely hope that, while the subject of sanitary reform is vigorously advocated, as the means of promoting the public health, the investigation of phenomena resulting from certain conditions of the earth and atmosphere will also be carried on with vigour. Here are unexplored tracts which will amply repay the diligent seeker after truth in this particular science; and there are good reasons for hoping that, as facts become known, increased benefit will accrue to the healing art.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE present session of the Royal Medical and Chirurgical Society has opened with unusual *clat*. The meeting was the largest and most distinguished we have ever witnessed in those rooms—every hospital seemed to have poured forth its contingent; and to judge from the encomiums which were passed on it by the different speakers—among others by the President of the College of Surgeons, Dr. Bright, and others—we cannot but conclude that the paper of the evening was worthy of the occasion. It was by Mr. B. Phillips, F.R.S., and was entitled "Observations on the Diagnosis and the Treatment of Intestinal Obstructions depending on Internal Mechanical Causes." It contained an estimate of the comparative frequency of such cases; the difficulties of diagnosis; the impossibility in many cases of ascertaining the cause and the seat of the obstruction: usual fatal result of ordinary treatment; and an elaborate discussion of the question—Are we justified in resorting to surgical operation for the purpose of procuring relief? These are the general heads of this very excellent and much-commended paper, of which the proper abstract will be published at the usual time.

New, a few words as to this society, unquestionably the most prosperous in this metropolis, for its numbers have doubled in the last seven years. It has nothing to fear from any rival, if it be but true to itself; it numbers among its fellows all the *élite* of the profession; and its library promises to be the best of its kind in London.

With those attractions, and such meetings as the last, its popularity must increase. Still the sun has its spots; and this society is said not to be free from them. There are complaints of the exclusion of papers from the "Transactions." We do not profess to know whether the council

is right, or the disappointed candidates for admission; but this we do know, that when the question of publication is a matter left in doubt by the referees, the author of the paper, if a young man, should have the benefit of the doubt; if an old one and distinguished, he will certainly. It is often a serious thing to snub a meritorious young man by returning his paper. Instead of inducing him to write a better, it often crows him, and prevents him from further exertion. Any unjust complaints it may safely disregard; but we fear that certain papers, quite worthy of publication, have been sent back to their authors with thanks.

STATE OF THE PUBLIC HEALTH IN THE THIRD QUARTER OF THE YEAR 1847.

The quarterly returns are obtained from 117 districts, subdivided into 582 sub-districts. Thirty-six districts are in the metropolis, and the remaining 81 comprise, with some agricultural districts, the principal towns and cities of England. The population was 6,612,800 in 1841.

The deaths registered in this quarter were 49,479; a number less by 1948 than were registered in the corresponding quarter of 1846; but 7007 more than the corrected average of the September quarters of 1838—46. Upon the whole there is a slight improvement in the health of the country.

The relative salubrity of the summer season of the ten years, 1838—1847, is displayed in the subjoined table.

	1838.	1839.	1840.	1841.	1842.	1843.	1844.	1845.	1846.	1847.
Deaths registered in the September Quarters of 10 years	34,752	37,317	39,498	36,058	39,409	36,953	38,933	36,139	51,427	49,479
Deaths which would have been registered if the mortality had been uniform, and the numbers had increased from 1838 at the rate of 1.75 per cent. annually. Deduced from the average of 1838—46	36,333	36,968	37,615	38,273	38,943	39,615	40,318	41,023	41,741	42,479
UNHEALTHY SEASONS. Difference above the calculated number	..	349	1,883	..	466	..	..	..	9,686	7,007
HEALTHY SEASONS. Difference below the calculated number	1,580	..	..	9,215	..	2,672	1,385	4,884	..	..

From the next table of the deaths returned in each quarter since 1838, it will be seen that a small rise in the mortality took place in the spring after the mild winter of 1846—that a sud-

den advance occurred in summer—that the mortality reached the maximum (66,105) in the winter of 1847, and has since slowly subsided.

DEATHS REGISTERED in the Four Quarters of the Eight Years 1839—1846, and Three Quarters of 1847, in 117 of the DISTRICTS OF ENGLAND AND WALES.

Quarters ending	1839.	1840.	1841.	1842.	1843.	1844.	1845.	1846.	1847.
March ..	42,410	46,376	46,967	44,903	43,748	46,136	49,949	43,850	56,105
June ..	41,244	42,074	39,133	38,569	40,343	38,977	40,847	43,734	51,585
September ..	37,317	39,498	36,058	39,409	36,953	38,933	36,139	51,427	49,479
December ..	41,740	44,186	39,292	39,662	42,607	44,081	39,321	53,093	..
TOTAL ..	162,711	172,134	161,450	162,543	163,651	168,127	166,256	192,104	..

The Mortality of the District of Lewisham, and Sub-district of Hampstead, is included in this Table throughout.

In London there has been no sign of improvement. 10,987, 12,601, and 13,187 deaths were registered in the September quarters of 1845, 1846, and 1847. The deaths in the summer quarters of the three years from smallpox were 76, 51, and 320; measles, 688, 78, and 521; scarlatina, 194, 208, and 316; diarrhoea, 449, 1549, and 1196; cholera, 26, 197, and 98; dysentery, 43, 76, and 143; remittent fever, 8, 12, 23; typhus, 273, 403, and 895; erysipelas, 56, 92, and 126; the zymotic class of diseases generally, 2409, 3234, and 4061. The deaths from diseases of the respiratory organs were nearly stationary; 1558, 1784, and 1581 persons died of consumption; 1111, 977, and 1071 persons of inflammatory and other diseases of the lungs. Two, three, and sixteen deaths were directly ascribed to various kinds of privation in the three last September quarters. The increase in the deaths by external violence, which were 342, 403, and 425, may have arisen from erysipelas, and other affections supervening on accidents, in an unusual proportion.

In the first nine weeks of the quarter the mean temperature of the atmosphere, and of the waters of the Thames, was above 60°; the mortality in London from diarrhoea, dysentery, and cholera, rose from 17 on the first to 188 on the seventh week of the quarter, and gradually fell to 107 on the last week. Typhus raged with unusual virulence. The weekly deaths were never below 50, and in the third week of September 111 persons died of this disease. The weekly average was 30 for the same quarter of five preceding years.

The epidemic of fever has been more fatal in Lancashire than in London. In Manchester, Salford, and Chorlton, 4154 deaths were registered from all causes. Diarrhoea and fever were the prevalent diseases. Typhus carries off men and women in the prime of life. Diarrhoea destroys more children, and becomes dangerous to adults in the form of cholera. The Registrar of Deansgate, Manchester, says:—

"More children have died in the district during the last quarter under the age of five years, than in most other quarters there have been deaths at all ages. This is an astounding fact, yet perfectly consistent with prior observation; if the general mortality be large, the infant mortality will ever be found to bear its due proportion, and the causes, in such a district as this, are perfectly obvious. In the calamitous season just passed, manufactures have been almost at a stand-still; food has been unobtainable by the poor, for employment they had none; famine made her dwelling in their homes, and her attendant horror, Typhus, relentlessly swept his victims to the grave. During the sickness, which either terminated in death, or rendered the removal of the poor to the fever hospitals necessary, their offspring have been neglected and uncared for; some have sunk under the malady of their parents—others, deprived of the nourishment nature had supplied, have pined and wasted away, the victims of inanition, their glands diseased, and incapable of assimilating the incongruous food supplied to them. The disease of autumn has also done its work fearfully amongst them, no less than 103 deaths, almost

entirely of children, being recorded from diarrhoea, under the drain of which the exhausted frames of the little sufferers rapidly sunk. In the close, ill-ventilated, and densely-crowded rooms where the poor live together, contagious disorders make rapid progress, extending from one to another, and acquiring increased virulence from the filth and noisomeness with which they are nourished."

Liverpool, created in haste by commerce—by men too intent on immediate gain; reared without any very tender regard for flesh or blood; and flourishing, while her working population was rotting in cellars—has been severely taught the lesson, that a part of the population—whether in cellars or on distant shores—cannot suffer without involving the whole community in calamity. In itself one of the unhealthiest towns of the kingdom, Liverpool has for a year been the hospital and cemetery of Ireland. The deaths registered in the four quarters of 1846 were 1934, 2098, 2946, and 2735; in the three quarters of 1847 ending in September last, 3068, 4809, and 5669! The population of Liverpool was 223,054 at the last census. It is impossible to represent more correctly than is done by the short notes of the registrars, the piteous spectacle which this great town presented—with the floating lazarettoes on the Mersey—the workhouses crowded with destitute paupers—the three large "sheds which will hold 300 persons, nearly full of patients at the present time"—and the fever "getting more prevalent among the upper classes."

"Sub-district.—Saint Martin.—Deaths 1026: this return shows a fearful increase of mortality in this district. Fever, diarrhoea, and dysentery, as in the last quarter, have been the prevailing diseases, but to a far greater extent. In the corresponding quarter last year, there were 700 deaths, which was the greatest number ever registered by me, but the present return shows an increase on that quarter of 326. The deaths from fever are 291, diarrhoea 174, dysentery 82."

"Great Howard-street.—Deaths 1253: this return shows an increase of 183 over the last quarter. It may be accounted for by the fact, that the floating fever hospitals have been given up by the select vestry, and consequently more patients are sent to the north fever shed. The fever is now getting more prevalent in the upper classes in the town, though not of that fatal character which has destroyed so many indigent Irish. Diarrhoea and dysentery still prevail."

"Dale-street.—Deaths 747: being 67 less than in the preceding quarter. This may be accounted for in great measure by the removal of the lower Irish from the cellars, besides many being sent back to Ireland by the authorities; otherwise, the mortality would have been greater than in the preceding quarter.—Fever cases, 260; diarrhoea, 111; dysentery, 20; smallpox, 16; measles, 11; cholera, 6."

"Saint Thomas.—Deaths 915; which include 301 who died on board the lazarettoes on the river Mersey. Typhus and dysentery have been the prevailing diseases. The former is very much on the decrease, and the district has begun to assume a more healthy state."

"Mount-pleasant.—Deaths 956: including 630 in the workhouse, and 33 at the infirmary. There is attached to the workhouse a large fever hospital, which will hold about 128 persons; and there has also been very recently erected (for the reception of the Irish paupers) three large buildings or sheds, which will hold about 300 persons; also other buildings, all of which are nearly full of patients at the present time. The deaths this quarter are 51 less than in the last quarter.—There were 324 fatal cases of fever; 18 of dysentery; 73 of diarrhoea; and 22 of phthisis in the workhouse. There have also been 51 fatal cases of fever in this district, independently of those in the above public institutions."

"Islington.—Deaths 524: the largest quarterly number I have ever registered, principally to be attributed to fever, diarrhoea, and dysentery; from fever in July, 38; August, 42; September, 25—105. Diarrhoea, 78; dysentery, 37."

It will require all the energy of the inhabitants of Liverpool, and the utmost resources of science, to place the health of the town in a satisfactory condition.

The mortality remains high in Birmingham, Dudley, Wolverhampton, Shrewsbury—in many of the towns of Lancashire—in Leeds, Hull, York, and Sunderland. The returns from the other towns of the kingdom present nothing unusual, the mortality being much the same as in previous years. This refers to the relative mortality. The absolute mortality is always higher by from 10 to 50 per cent. in towns, than in open country districts. This is illustrated by a comparison of the deaths registered in London during the last thirteen weeks, and of the deaths which would have happened if the rate of mortality had been the same as in Dorsetshire—one of the agricultural counties—in which the wages are low, and in which the condition of the labourer is far from what it is desirable that it should be.

MEDICAL ASSISTANTS.

[To the Editor of the Medical Times.]

SIR,—Perceiving by your invaluable and widely-circulated Journal, that you are indefatigable in vindicating the character, and in endeavouring to uphold the rank and respect, of the medical profession, I beg leave most respectfully to submit to your perusal a case which is both disgraceful and shameful, and most unprofessional-like to the parties concerned; the particulars of which are briefly as follows:—

Surgeons T— and J—, who are in co-partnership, and the principal practitioners in this part of Yorkshire, have conducting their business, as a dispensing and visiting assistant, a young man taken from behind a druggist's counter, who in his lifetime never saw either College or Hall, and I may venture to say, never opened a classical book. Now, Mr. Editor, this is really painful and highly provoking to witness, as it is keeping the duly qualified and legitimate assistant out of his legal berth, and I may say taking the dearly-bought and well-earned bread out of his mouth; independent of those facts, it is absolutely undermining and degrading the profession to allow such illiterate beings to creep into it. I am not surprised that the respectability of the profession should be plunged into the abyss of degradation and quackery if every general practitioner acts in a similar manner. You may naturally ask me, what reason can I assign for such a violation of professional conduct and respect? It is simply this, because they get him a few pounds cheaper in the year. I ask you, Sir, should not, in fairness, every practitioner recompense and remunerate his assistant according to his labours? for even scripture tells us that every labourer is worthy of his hire, which is an axiom of natural as well as of revealed religion; and to do to others as you wish to be done by. This is a golden standard of Christian morality and honour; but such sordid, parsimonious, and mammon-loving beings, whom I am most happy to find are the fewer in number, look not at it in this light, but more in a niggardly point of view. This professional conduct would not be half so heinous if their medical practice were on a humble scale, but it is *vice versa*. They send him!!! and he has the audacity to go and attend midwifery cases as if duly instructed and qualified in that art. I suppose and make no doubt, when he has scraped together a few pounds, that he will set up on his own responsibility.

In conclusion, I cannot but add that I am beginning to be fully and thoroughly convinced, from what I have read from time to time in your admirable Journal, and from self-experience, that the apothecaries' and surgical diplomas are a mere delusion, a mockery, and a snare.

I am, Sir, &c.,
LIMERICKENS.

Barnsley, Yorkshire, Nov. 5.

POOR-LAW SURGEONS.

[To the Editor of the Medical Times.]

SIR,—The conventional meeting of Poor-law Union Surgeons will tend, by its publicity, to draw the attention of Government to the fact of their inadequate remuneration; and also, from the extent of mileage into which the districts are formed, the riding by other practitioners may be altered by dividing it into smaller apportionments. But would it not be also

advisable to ascertain the root of all this dissension in the profession; the cause of the loss of self-respect felt by its members; and the consequent contempt with which the man of cash regards them? There is nothing but a general unanimity—a union with the National Institute of Medicine and Surgery—by which it may be accomplished, and a pressure forward of the mass to legislative acknowledgment. The whole of the mischief is chargeable to the College of Surgeons not being recognised by the Legislature of our country, and leaving it optional to the members of the profession joining it or not. That has led to the bickerings, the slanderings with which young men who have joined this body have assailed every private family they have access to, against men their superiors in every respect. This conduct now recoils on themselves, and in their enmity they will eat the bread of want sooner than their fellow-labourers shall earn that of respectability.

I was led to these remarks by what occurred in my own neighbourhood last Friday. The Clifton Union have built a large poorhouse at Stapleton; the number of inmates it contains is 673; and the guardians fixed the sum of £80 per annum for an attendance at the house twice daily, and providing medicines, &c.; moreover, there is a 6d. tollgate to pass through, which will deduct £9. 2s. 6d. a year from this salary; and the distance at which the two surgeons who offered themselves as candidates for it live is about three miles from the house.

Mr. Mayor, a gentleman of respectability and good practice, by dint of bowing and scraping, and bringing up every *ex-officio* guardian, had a fortunate majority to accept that which in the discharge of its duties must be at least a £50 loss.

That same *malis Ades* towards each other has caused many to fall into the other snare of the rate-payers—the district clubs at 2s. and 2s. 6d. per head a year; and this despite the distance: for some are attended, to my knowledge, seven miles from the surgeon's house; and the clubs at the different parish inns, after the same ratio, are sought and made bones of contention by the same class of men. To what are they reducing the profession? To learn to live on a common journeyman's wages. Let us, my professional brethren, join fellowship, gain a legislative acknowledgment, and then unanimously throw up every situation in the kingdom where a proper reward is not given for services performed; and let the salaries at which the appointments shall be filled be under the control of an appointed committee of medical men, and that, being approved by them, gain it who can; and that gentleman that will not be conformable, let us not acknowledge, assist, or meet him in consultation. Things are now at that pass, that half measures will not do; and we shall find that good will to each other will be the *finis operis*.
J. R. MONDAY.

Olveston, near Bristol, Nov. 1.

TRIUMPHS OF MODERN SURGERY.

[We extract the following surgical cases "of striking importance" from one of the daily papers].

EXTRAORDINARY OPERATIONS UNDER THE INFLUENCE OF ETHER.—Two cases which have attracted the notice of the medical profession have just occurred at the Royal Free Hospital, Gray's-inn-lane. In both cases disease of the arm existed which required amputation. In the first the limb was removed above the elbow; in the other case the severe operation of amputation at the shoulder-joint was resorted to. The extraordinary effects of ether were manifested in both cases. The name of the first patient is William Stokes, who became insensible to pain on the first administration of ether, and amputation was performed by Mr. Wakley, jun., one of the surgeons of the hospital. When told that the operation was completed, the patient expressed the utmost surprise. The second case (that of Wm. Russell, a shoemaker) is one of still more striking importance. The arm was amputated at the shoulder-joint by Mr. Wakley, jun., in the presence of his colleagues and several other hospital surgeons, the patient being insensible to pain, but conscious of what was going on. This severe operation was completed in the short space of fifty seconds. Both patients are doing well; and the cases furnish additional evidence of the value of the inhalation of ether before the performance of painful operations.

[This is only one of several such statements that have met the public's eye from the same quarter. Are we, for the future, to look on such advertisements as an ordinary and legitimate appendage to (Free) Hospital surgeons?—Ed.]

GOSSIP OF THE WEEK.

WAR-OFFICE, Nov. 5.—38th Foot: Surgeon Frederick Foaker, from the 97th Foot, to be Surgeon, vice M'Ilree, who exchanges.—97th Foot: Surgeon John Drope M'Ilree, from the 38th Foot, to be Surgeon, vice Foaker, who exchanges.

NAVAL APPOINTMENTS.—Surgeons: John Clarke, to the Meander; John Stirling, to the Terrible.—Assistant-Surgeons: W. M'Dermott, M.D., from the Albion, to the Vanguard, vice E. Elliott, to the Albion; John C. Austen, to the Petrel; W. H. Fitzpatrick, to the Seagull; John Simpson, to the Meander; W. M'Mahon, to the Blazer; W. Cook, to the Caledonia; John B. Ricardo, to the Victory.

ROYAL COLLEGE OF SURGEONS.—Gentlemen admitted members on the 5th of November:—F. H. Wardlaw, G. C. Hyde, H. J. Hinxman, A. J. Payne, R. Jones, C. A. Dalgairns, S. Jones, and G. C. Phillips.

THE CHOLERA.—The accounts from Russia relative to the cholera are somewhat contradictory, but the general impression seemed to be that it was decreasing. From Sept. 24, it is stated that no new case had occurred in the town of Saratov. In the other parts of the government of that name the epidemic had decreased considerably, also at Waronesch. Up to Sept. 21, 3558 persons of that town had felt its rage, and 1437 had fallen victims to it. In the province of Tambow the cholera morbus had been slightly felt. At Kasan, up to Sept. 28, there were forty cases and twenty deaths. The news of the cholera having broken out anew in Persia is confirmed by official reports. It was raging with great violence at Hoja and at Tabris, and was advancing towards the provinces of Turkey in Asia. At Berlin a privy council was held on the 21st, in which the measures to check the advance of the Asiatic cholera were taken into consideration. It appears that the Government has given up the idea of stopping the fatal enemy by military force, as it tried to do in 1832. The plan of drawing a military cordon along the frontier is given up, and nothing but a more severe execution of the already very severe Prussian quarantine laws is to be adopted.

CHOLERA.—Trebisonde has a population of 40,000; 32,000 quitted the suburbs when the report that the cholera was approaching arrived; out of the 8000 that remained, 3000 were struck with the disease, and 1000 sank under it. Great eulogies are passed on the courage and disinterestedness of the two medical men, MM. Sassy and Bogg; their attendance was unremitting, without fear of danger or fatigue.

THE CHOLERA.—The *Universal Gazette* of Prussia publishes the following letter of the 17th from St. Petersburg:—"The cholera makes fresh progress in the two directions which it is following in Russia. It has just broken out in the Governments of Simbirsk, Kasan, Nijni-Novgorod, Riasan, Poltova, and Tamboff. Thus far, it does not appear disposed to spread on the side of Podolia and Galicia, and it even appears to have very little intensity in that neighbourhood. In that direction it has only shown itself on one point—at Iekaterinof, where it traversed the Dneiper. Without counting Georgia, Caucasus, and the country of the Cossacks of the Black Sea, it already reigns in sixteen governments. On the 30th ult. it broke out at Moscow."

We read in the *Augsburg Gazette*, dated Trieste, Oct. 17:—"The cholera has broken out at Perecop, fifty miles from Odessa, but not at Odessa; it has entirely disappeared from Tangarok and Marcanopol, ports on the Sea of Azof."

A Marseilles paper states that the last news from Constantinople is the decrease of the cholera at Trebisonde.

POISONED WEAPONS OF THE PERUVIAN INDIANS.—Among many Indians, particularly in the western and northern districts of the Pampa del Sacramento, the *poena* is a weapon much used in hunting. It is made of a long reed, and measures eight or ten feet in length. The arrows

are not more than two inches long, and are made of a strong cactus stem. These are generally poisoned; but the art of preparing the ingredients is little known to Europeans. The elements are obtained from several plants not yet defined botanically, among which the *apihuasca* and poison capicum are much resorted to. It is asserted, also, by a modern traveller, upon the authority of an Indian who has often made the poison, that not only the black and poisonous emmet (*Cryptaerose atrato affinis*), but also the teeth of the formidable serpent known to the Indians by the name of minumaru, or jergon (*Lachesis pitta*), are used for that purpose. The wound of the poisoned arrow is fatal and rapid: men and large mammalia dying in four or five minutes after receiving a wound. No antidote has been discovered.

FEVER IN BELFAST.—We are happy to observe that the materials of the fever camp, which is now empty, are to be disposed of by suction on Thursday, and we are also gratified to learn that there has been a decrease in the week of fever and dysentery patients of 102. We understand that the board of guardians of this union intend purchasing a number of the tents, so that, should the epidemic again increase, the tents will be available. All the articles of bedding will also be retained. We learn that the expenditure rendered essential in order to meet the exigencies of the epidemic amounts to very nearly £13,000.

SURGICAL OPERATION.—We understand that Henry Ridler, of Newern, near Lydney, a fine young man, who met with a compound dislocation of the ankle-joint on his way from the nomination at Dursley by the overturning of an omnibus, has recently undergone amputation of the limb. It appears he was conveyed to the Gloucester Infirmary at the time of the accident, where he remained for ten weeks with the large bone forming the inner ankle exposed and dislocated. His friends, beginning to feel dissatisfied, had him removed home, and in three days afterwards the operation was performed by Mr. Batten, of Coleford, and borne with the highest courage and firmness by the unfortunate sufferer, who seems altogether a fine spirited young man; and we are glad to learn that he is almost recovered. —*Correspondent of Gloucester Journal.*—[There must be something wrong here. The Gloucester Infirmary is one of the first in the kingdom. Such statements should not be published without an explanation.—Ed.]

Professor Serres commenced his course of lectures "On the Anatomy and Natural History of Man" on Saturday, Oct. 30, at half-past one o'clock precisely; and he will continue them every Tuesday and Saturday, at the Amphitheatre of Anatomy.

The Medical Society of Bolbec, which was re-assembled under the presidency of M. Huet, has protested strongly against the Government measure, and declared that it will adhere firmly to the acts of the Medical Congress.

OBITUARY.—On the 5th inst., in Gordon-street, Gordon-square, Robert Richardson, Esq., M.D., aged 68.—Mr. Nathan Kennicott, surgeon, of Houghton-le-Spring, in the county of Durham, died on the 8th inst. of typhus, contracted while discharging his duties as surgeon to the poor-law union of that place. Here is another victim added to the fearful catalogue of professional sacrifices; another example of a valued life fatally risked for the advantage of the many, who little appreciate their devotion.—On the 28th ult., at Warrington, aged 25, John Hinde Gandy, of typhus fever, caught in the discharge of his duties as house-surgeon to that dispensary. He had prosecuted his professional studies at King's College, London, with uncommon zeal and assiduity. He was a young man of great promise, and possessed naturally of the best of dispositions. His late teachers and former fellow-students will grieve over his untimely loss; but for those who knew him more intimately, there will still remain higher and better consolations.

MORTALITY TABLE.

For the Week ending Saturday, Nov. 6, 1847.

Causes of Death.	Total.	Average of 5 Summers.
ALL CAUSES.....	1052	1046
SPECIFIED CAUSES...	1051	1039
Zymotic (or Epidemic, Endemic, and Contagious) Diseases.....	326	211
SPORADIC DISEASES.		
Dropsy, Cancer, and other Diseases of uncertain or variable Seat.....	105	104
Diseases of the Brain, Spinal Marrow, Nerves, and Senses.....	120	157
Diseases of the Lungs, and of the other Organs of Respiration.....	281	333
Diseases of the Heart and Blood-vessels.....	40	34
Diseases of the Stomach, Liver, and other organs of Digestion.....	85	74
Diseases of the Kidneys, &c. Childbirth, Diseases of the Uterus, &c.....	17	9
Rheumatism, Diseases of the Bones, Joints, &c.....	13	14
Diseases of the Skin, Cellular Tissue, &c.....	11	7
Old Age.....	8	2
Violence, Privation, Cold, and Intemperance.....	42	65
	8	29

TO CORRESPONDENTS.

"Dr. Breton."—The paper in reference to the defunct periodical is respectfully declined. "De mortuis nil, nisi bonum," is our maxim.

"Senex."—We are sorry that so many papers which are considered respectable should admit quack advertisements, as they are decidedly injurious, not only to the morals of those who read them, but to the health of those who are silly enough to try their nostrums.

"Mr. Sans."—The paper duly reached us, but, as the facts had already appeared in our columns, we did not consider it necessary again to advert to them.

"A Reader and Contributor."—We regret our correspondent's disappointment. Were we to publish all the articles received, the *Medical Times* would be increased to double its present size. A well-written article on the subject mentioned shall, however, obtain an early insertion.

"Tyro."—The mismanagement of the hospital tells sadly against its usefulness, not only to patients but medical pupils. The entrance-money would have been laid out to greater advantage elsewhere.

"An Old Reformer."—We shall not lose sight of the party and their doings. Sound reform has been too long perilled by the conduct of unprincipled individuals.

"Lector, Brighton."—The case was published about two months ago, and was considered not only singular, but as presenting many points of special interest.

"Medicus."—The new mode of treating cholera we do not consider exactly adapted to our pages; "the theory and practice" being too much opposed to well-known facts.

"A Country Practitioner."—There is a course of microscopical demonstrations delivered by Mr. Queekett, in the theatre of the Royal College of Surgeons, to which all members of the College are admitted gratuitously.

"Amicus Justicie."—We cannot admit anonymous attacks upon the characters of individuals. If our correspondent has stated the truth he will not hesitate to transmit us his name, in confidence, without which his paper will be returned according to request.

"Zeta."—The communication has been received, and will be inserted shortly.

"Inquirer."—The questions are not within the province of the editor of a medical journal to answer. They had better be sent to some respectable newspaper.

"M. F. F."—The governors of the Norwich Hospital have had a meeting upon the subject of the abuses in the institution, and we have little doubt that some amendment will take place in the management.

"Beta."—We fear there are great difficulties in the way of securing the appointment. We think it both necessary and advisable to undergo the examination referred to.

"A Non-medical Reader."—There is no doubt that the gentleman referred to cannot recover for medicine and attendance in cases not surgical. If the case be a surgical one, then a fair sum may be obtained at law for work and labour done.

"D. M."—We shall be happy to receive the articles on the cholera promised by our correspondent.

"Mr. Thomas Brown, Castle Donnington."—We are aware that large towns are not the only places which require sanitary reform. Villages often suffer from diseases evidently produced by inefficient drainage, and ill-constructed

and badly-ventilated cottages. Our correspondent says, "Within the last three months I have witnessed the sad effects of a pestilential effluvia (arising from a drain fronting the dwelling) in a family of nine individuals, six of whom have been under my care for typhus fever; and though, happily, only one fell a victim, still the constant escape of this poisoned atmosphere has seriously retarded recovery, and seldom falls in giving rise to disorders of a minor character, which will eventually undermine the constitution, and bring its victims to a premature grave." The evils of the slab system shall receive an early notice.

"Mr. P. Brady."—The request shall be attended to.

"N. G."—A member of the Edinburgh College can legally sign a certificate for placing a patient in a lunatic asylum.

"Mr. Bellamy, Hammersmith."—We shall be glad of the papers, and will attend to the requests made.

"A Member of the Institute."—We cannot say what is the exact state of the funds. We believe they are in a flourishing condition.

"A Poor-law Guardian."—The communication is inadmissible, reflecting, as it does, on the character of the poor-law medical attendant, who is evidently very badly paid, and very scurvily treated. We would advise our correspondent to exhibit a better spirit, and a greater anxiety to do justice.

"T. C. D., Dublin."—The numbers requested shall be sent without delay.

"Chemicus" had better apply to the Editor of the *Pharmaceutical Times*.

"A Subscriber to the Medical and Pharmaceutical, Crown-street, Manchester."—Our arrangements are such, that we hope shortly to publish the proposed course. The other suggestions contained in our correspondent's letter will be attended to.

"Mr. W. S. Masterman, Wine-office-court, Fleet-street."—The communication in reference to poor-law union surgeons has been received, and will probably be inserted next week. The movement is progressing advantageously.

"Mr. John Jackson, Long Clawson, Melton Mowbray."—The communication has come to hand, and, if possible, we will comply with the request of our correspondent.

"A Country Subscriber."—We think, that when a general practitioner is summoned to attend before magistrates to give evidence in cases where a culprit is sentenced to imprisonment, he cannot recover a fee. It is, indeed, a great hardship to ride many miles, and neglect other duties, without the prospect of a fair remuneration.

"Dr. Nicholson's" paper on Lunatic Asylums will probably appear next week.

"Iatros."—The prices are various at which electro-galvanic apparatus are sold.

"Sigma."—We would recommend Chelius's work, edited by Mr. South.

"Pro Bono Publico, County Down, Ireland." writes, "It would be for the advantage of the profession, and also the public, if the Dublin Apothecaries' Company would exercise their right in suppressing non-licensed medicine-vendors, who infest the north to a fearful extent, and other parts of Ireland. It would be well, also, if the Irish medical publications would take a lesson from your *Times* in supporting the dignity of the profession."

"Not a Parish Surgeon" would suggest "the propriety of forwarding to quarters where it is likely to meet with attention, a list of the members of the profession, more particularly union surgeons who, during the past twelve months, have fallen victims to their humane zeal." "It is dreadful," he writes, "to reflect upon the numbers who are at this time exposing themselves to imminent peril for the paltry and degrading stipend doled out by men who would be ashamed to offer the same sum to a mechanic for his weekly wages; who are ignorant of the services they attempt to forward, and who would shrink from the duties they award. It is literally men's lives they rent—nay, almost demand gratuitously; and it remains for the profession to assert their rank and social position, as well as to perform a duty sacred and imperative—the providing for those who may be left behind, helpless and dependent, to mourn their loss."

"A Poor Doctor."—In a very short time every union surgeon will be communicated with by the Committees. We have no doubt that an effectual result will be secured.

"Philo-Denman" must excuse our omission of his long paper. Dr. T. Smith scarcely justifies an obstetric potholer. We refer to his authority on "Stuttering," but would reluctantly dedicate a line to his opinions on midwifery.

"A Country Practitioner."—The National Institute was never more useful than it will be during the coming season. The Council, we understand, is at this moment in communication with Sir G. Grey.

Letters and communications have also been received from Pro Bono Publico, County Down, Ireland; Not a Parish Surgeon; Sigma; Iatros; Dr. Nicholson; A Country Subscriber; Mr. John Jackson, Long Clawson, Melton Mowbray; Mr. W. S. Masterman, Wine-office-court; A Subscriber to the Medical and Pharmaceutical, Crown-street, Manchester; Chemicus; T. C. D., Dublin; A Poor-law Guardian; A Member of the Institute; Mr. Bellamy, Hammersmith; N. G.; Mr. P. Brady; Mr. Thomas Brown, Castle Donnington; D. M.; A Non-Medical Reader; Beta; M. F. F.; Inquirer; Zeta; Amicus Justicie; A Country Practitioner; Medicus; Lector, Brighton; An Old Reformer; Tyro; A Reader and Contributor; Mr. Sans; Senex; Argus; Philo-Denman.

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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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 XVIII.

In my last lecture I told you that indolent ulcers were very much benefited by pressure well regulated, and I mentioned the plan introduced by Mr. Baynton, of making it by means of adhesive plaster or strapping. You may attain the same end by the use of the common bandage or, still better, by the stocking bandage. The part must then be overlaid with soft linen, and the whole evenly covered with a calico roller. The plaster will not require changing oftener than every other day, unless the discharge should be very profuse. You will find that indolent ulcers, when first brought into the hospital, are generally in a very foul condition; and under those circumstances it is good to apply poultices and emollient applications. Generally speaking, emollient applications are injurious; but, from the bad condition under which they come under your treatment, it is well, for the sake of cleaning the sore, to poultice it for the first twenty-four hours, then to rub the thick callous skin round the edges of the sore, and likewise the ulcer, with nitrate of silver, and afterwards to apply strapping so as to cover the entire surface of the ulcer. When the ulcer is on the nether part of the leg, or on the foot, you may divide your plaster into straps of fifteen inches long and two wide, and apply them thus—the foot being placed in its natural position relative to the leg, one of the straps is applied to the great toe, along the inner edge of the foot, round the os calcis to the first joint of the little toe; the middle of another strap is placed under the heel, and its ends carried up perpendicularly on both sides of the leg; in this way the circular and perpendicular straps are applied alternately until the foot and ankle are completely covered; the foot and ankle are kept perfectly quiet, while the necessary pressure is also ensured. The kind of treatment I hear mention is, I believe, for many ulcers, but especially for those on the leg, the best that can be adopted. Sores of this character occur much too often in hospitals—that is to say, they take up by far too much accommodation, as room, beds, &c., which is required for other purposes.

I need hardly tell you that, where a sore of this character has existed for a length of time, it is very difficult to heal; after it appears to have progressed towards a healthy state, upon a very slight constitutional derangement, it will be very apt to break out again and soon become as bad as ever. At St. Bartholomew's Hospital laudanum was tried in the treatment of these old sores, but I do not hear much of it at present. I therefore suppose that, like that of many other

modern introductions, its employment is on the decline.

The next description of these sores which we shall consider is the *irritable ulcer*, a very severe kind, always difficult to heal, and sometimes fatal. I have already explained to you that ulcers partake very much of the nature of the constitution of the subjects in whom they occur; if, therefore, the state of the system is irritable, the ulcer will partake of that character also. The irritable ulcer has sometimes been thought not to be distinguishable from the inflammatory ulcer, but the fact is they are very different. The irritable ulcer is very liable to attacks of inflammation, but every inflammation is not irritable. Sir Everard Home corroborates this view by observing that you cannot always know the irritable ulcer by its appearance, and not till you apply some gentle stimulating application as to make pressure, does its true character become manifest; whereas the inflamed ulcer is always to be known by its aspect. Mostly there is imperfect granulation or none at all; the sore is reddish, with sometimes a yellowish tinge; the discharge is thin and bloody, and the surface, if only touched in the gentlest manner with the probe, bleeds readily. The patient complains of pain, not only in the ulcer but also in other parts of the limb. Many patients under the action of these ulcers have derangement of general health, are restless, or cannot sleep at night; complain of loss of appetite, have a hot skin, white tongue, and feel pain about the epigastrium. The digestive organs suffer derangement, and in women the menstrual functions. Many of these ulcers are brought on by intemperance, and, as far as my experience has gone, they occur chiefly among the rich and middle-aged; seldom in persons under forty. Where a great variety of causes are concerned in bringing about a disorder, you must at once perceive that a great difference may very well exist in the methods of treatment. A person may have at first a common ulcer, healthy or indolent, but, in consequence derangement of one kind or another, it may put on the irritable form; another patient may have an irritable ulcer from the first, from constitution or other causes; I have attended many of such a constitution. In the treatment you must endeavour to remove the exciting cause: where you have, for instance, great biliary derangement, you must clear the stomach and follow up with brisk stimulants and purgatives; afterwards, disulphate of quinine, sulphuric acid, or bark with bichlorate of soda, are to be employed. When the menstrual functions are deranged, and the usual discharge is suspended, you must use means to restore the action of the uterus. Often you have to do with plethoric subjects; the patient has too much blood, and you find from his history that he indulges in the pleasures of the table; here you have recourse to depletion, local and general bleeding, followed in a day or two by calomel and saline aperients; but all these require, after a time, to be followed by tonic medicines, which come in with great efficiency; opium too, as an

internal medicine, is not to be forgotten in irritable sores. Ipecacuanha or hydro-chlorate of morphia, in half-grain doses, may be administered, and often do great good. The local treatment is generally best begun with soothing applications, avoiding pressure; if you produce pressure on an irritable sore, you turn it into a sloughing ulcer; you must, therefore, do all you can to remove pressure on the sore, and sooth the part by proper applications. You may begin with tepid water, or bathe it in a decoction of poppy-heads.

A warm, soft poultice, made with the lotion of the acetate of lead, or with water diluted with solution of hyosciamus or opium, is added. A dressing of lint steeped in tepid water, and covered with oiled silk to keep it moist, will generally be beneficial.

Another thing of importance to be attended to is the position of the limb; this must be placed in a posture most favourable to the return of blood; this, it may be remarked, is a rule applicable to all wounds of the lower extremities. After a time you may venture on the use of gentle stimulants. Some practitioners are in favour of using nitrate of silver, which is believed to have the property of lessening the irritability of the parts; and we know that in strictures of the urethra it is used to reduce the tendency to spasm, and formerly it was used much more than at present; now, in irritable sores many, after beginning with soothing applications, touch them gently with nitrate of silver, and also the skin adjoining, as freely as in the indolent ulcer. I told you that, in applying the caustic to healthy sores after granulations had begun to form, you were not to touch the new film or pellicle; but in the cure of indolent and irritable ulcers you must follow a different plan, and apply the nitrate of silver immediately to the edge, and afterwards cover the whole with a soft, well-made poultice. A lotion composed of from five to ten grains of opium in an ounce of distilled water, or of two to five drops of nitric acid, is a very useful application. The black wash or lotion, consisting of eight or ten grains of calomel to one ounce of lime-water, is sometimes employed with great benefit.

Sir Astley Cooper had tried, in several cases where he was concerned, a lotion composed of a pint of distilled water and twenty-five drops of nitric acid. I was one summer passing through Southampton, and was requested by a practitioner of that town to visit with him a gentleman under his care who had an irritable ulcer of four or five months' standing, which had been treated in a great variety of ways unsuccessfully; the last-mentioned dressing was used, and it rapidly cured the patient without internal treatment. I have generally found that the internal treatment is as essential as the application, and must be directed against the peculiar cause of the ulcer. One case of this description which I attended was in a member of our profession, the late Mr. Upton, who had a most irritable ulcer on the shin, and he was also of a very irritable temperament; every means had been tried with scarcely

any success, and one thing which made the treatment fail was that he would not be kept in bed. It has often been said that surgeons do not make good patients, and certainly he was one who did not. Although the sore was an irritable one, the adhesive plaster was employed, but put on not very tightly, and it proved more useful in his case than any other that could be found, while he was walking about.

The situation of ulcers, and the local circumstances under which they form, have much to do with their subsequent progress; where they form near the elbow or other joints, the motion of such joints hinders healing; I have, therefore, very often made use of a splint to prevent any injury from this cause, and have found it to be of great service.

The next division of ulcers which we shall notice is that of ulcers arising from a varicose state of the veins of the lower extremities—sometimes, on that account, called varicose ulcers, but, more properly, they may be called ulcers depending on varicose veins. When the veins are varicose, all the capillary veins connected with them become distended with blood, the circulation becomes obstructed, and thus gives rise to chronic inflammation of the skin in ulcers; these sores are mostly situate on the inner side of the leg, often near the ankle, and sometimes also on the instep. Their shape is mostly oval, with the long diameter downwards; their colour is a darkish red, which is what you might expect when you consider that the return of venous blood is obstructed. This, also, makes plain one of the means to be used for curing the ulcer, namely, the promotion of the return of the venous blood, sometimes by placing the limb on an inclined plane. When persons come into hospitals, you often find the sores have been very much neglected; under these circumstances, you not only then place the limb favourably for the return of blood, but also apply leeches and simple dressing, administer purgative medicines, and keep the patient in bed. In connection with this treatment, you will also have to employ the cold evaporating lotions, or, as the case may require, fomentations, which agree with some ulcers better than the former. Afterwards, with a view to reduce the varicose state of the veins, you must apply equable pressure, by means of bandages carried up to the knee; and in this way you will generally be able at least to free the patient for some time from any annoyance of the ulcer.

Some ulcers will not yield to this treatment, but soon after the patient quits his room they break out again. You will then be justified in certain proceedings having for their object the obliteration of these veins, so as to excite arterial blood to take another course.

Another sore to be described, is called *phagedenic*. This name has been given to it on account of its presenting a great irregularity of surface, as if the parts had been gnawed away. We see in this country that it principally arises from syphilis. I have witnessed the most horrible cases of this kind of disease; I have seen the femoral artery exposed; I have seen the soft parts of the arm, from the hand to the axilla, even utterly destroyed; they are more generally found consequent upon the abuse of mercury than from any other circumstance. Then it is well known in some of the great hospitals of this town; amongst a certain class of subjects—the lowest order of prostitutes—it prevails to a remarkable extent in one particular spot. I do not at all suppose you know the place—near St. Katharine's Dock, I do not know just where, called Swan-alley; and so notorious is this place that it has given name to this phagedena, which is called the Swan-alley sore. It occurs in these girls from the particular manner in which they live; they exist in a constant state of excitement, they live in a contaminated air, and have allowed them very little fresh meat, but are kept alive by bad fish and gin; they are maintained by Jews and Jewesses, and live as many as twelve in a house, and have to serve the foreign sailors as well as the English. You cannot wonder that, when their constitution has been

so utterly ruined by such early vice, even a small pimple should assume a phagedenic character. It occurs in the cleft of the nates, in the folds of the groin, and on the thigh, and destroys all the soft parts. A severe darting pain, at first remittent but afterwards incessant, attends the disease; the exposed substance is covered with a straw-coloured flocculent substance and a viscid secretion. The edges of the sore are strongly defined, and connected with a mass of swollen, rugged integuments. Hemorrhage soon comes on, and, constantly recurring, exhausts the patient's strength. The fetidness of the discharge is of that nature as to render the ward almost insufferable, and to indicate to a man of experience the character of the disease.

ORIGINAL CONTRIBUTIONS.

DISCOVERY OF A NEW ANÆSTHETIC AGENT MORE EFFICIENT THAN SULPHURIC ETHER.

By J. Y. SIMPSON, M.D.,

Professor of Midwifery in the University of Edinburgh, Physician-Accoucheur to her Majesty in Scotland, &c.

At the first winter meeting of the Medico-Chirurgical Society of Edinburgh, held on the 10th Nov. last, I had an opportunity of directing the attention of the members to a new agent which I had been using for some time previously for the purpose of producing insensibility to pain in surgical and obstetric practice.

This new anæsthetic agent is chloroform, chloroformyle, or perchloride of formyle. (a) Its composition is expressed by the chemical formula C^3HCl_3 . It can be procured by various processes, as by making milk of lime or an aqueous solution of caustic alkali act upon chloral; by distilling alcohol, pyroxylic spirit, or acetone with chloride of lime; by leading a stream of chlorine gas into a solution of caustic potass in spirit of wine, &c. The resulting chloroform obtained by these processes is a heavy, clear, transparent liquid, with a specific gravity as high as 1.480. It is not inflammable. It evaporates readily, and boils at 141° . It possesses an agreeable, fragrant, fruit-like odour, and a saccharine, pleasant taste.

As an inhaled anæsthetic agent, it possesses, I believe, all the advantages of sulphuric ether, without its principal disadvantages.

1. A greatly less quantity of chloroform than of ether is requisite to produce the anæsthetic effect, usually from a hundred to a hundred and twenty drops of chloroform being sufficient, and with some patients much less. I have seen a strong person rendered completely insensible by seven inspirations of thirty drops only of the liquid.

2. Its action is much more rapid and complete, and generally more persistent. I have almost always seen from ten to twenty inspirations suffice, sometimes fewer. Hence the time of the surgeon is saved; and that preliminary stage of excitement which pertains to all narcotizing agents being curtailed, or, indeed, practically abolished, the patient has not the same degree of tendency to exhilaration and talking.

3. Most of those who know from previous experience the sensations produced by ether inhalation and who have subsequently breathed the chloroform, have strongly declared the inhalation and influence of chloroform to be far more agreeable and pleasant than those of ether.

(a) In making a variety of experiments upon the inhalation of different volatile chemical liquids, I have, in addition to perchloride of formyle, breathed chloride of hydro-carbon, acetone, nitrate of oxide of ethyle, benzin, the vapour of iodoform, &c. I may probably take another opportunity of describing the results. It is, perhaps, worthy of remark, that, in performing his experiments upon inhalation, Sir Humphrey Davy confined his attention to the inspiration of gases, and does not seem to have breathed any volatile liquid.

4. I believe that, considering the small quantity requisite as compared with ether, the use of chloroform will be less expensive than that of ether, more especially as there is every prospect that the means of forming it may be simplified and cheapened.

5. Its perfume is not unpleasant, but the reverse; and the odour of it does not remain for any length of time attached to the clothes of the attendant, or exhaling in a disagreeable form from the lungs of the patient, as so generally happens with sulphuric ether.

6. Being required in much less quantity, it is much more portable and transmissible than sulphuric ether.

7. No special kind of inhaler or instrument is necessary for its exhibition. A little of the liquid diffused upon the interior of a hollow-shaped sponge, or a pocket-handkerchief, or a piece of linen or paper, and held over the mouth and nostrils so as to be fully inhaled, generally suffices in about a minute or two to produce the desired effect.

I have had an opportunity of using chloroform with perfect success in several surgical operations (removal of tumours, of necrosed bone, partial amputation of the great toe), and in tooth-drawing, (a) opening abscesses, for annulling the pain of dysmenorrhœa and of neuralgia; in two or three cases where I was using deep and otherwise very painful galvano-puncture for the treatment of ovarian dropsy; in removing a very large fibrous tumour from the posterior wall of the uterus by enucleation, &c. (b)

I have employed it also in obstetric practice with entire success. The lady to whom it was first exhibited during parturition had been previously delivered in the country by craniotomy, after a labour of three days' duration. In this, her second confinement, pains supervened a fortnight before the full time. Three hours and a half after they commenced, and ere the dilatation of the os uteri was completed, I placed her under the influence of the chloroform by moistening, with half a teaspoonful of the liquid, a pocket-handkerchief rolled up in a funnel shape, and with the broad or open end of the funnel placed over her mouth and nostrils. In consequence of the evaporation of the fluid it was once more renewed in about ten or twelve minutes. The child was expelled in about twenty-five minutes after the inhalation was begun. The mother subsequently remained longer soporose than commonly happens after ether. The squalling of the child did not, as usual, rouse her; and some minutes elapsed after the placenta was expelled, and after the child was removed by the nurse into another room, before the patient awoke. She then turned round, and observed to me that

(a) A young dentist, who has himself had two teeth extracted lately—one under the influence of ether, and the other under the influence of chloroform—writes me the following statement of the results:—"About six months ago I had an upper molar tooth extracted whilst under the influence of ether, by Mr. Imlach. The inhalation was continued for several minutes before I presented the usual appearance of complete etherization; the tooth was extracted, and, although I did not feel the least pain, yet I was conscious of the operation being performed, and was quite aware when the crash took place. Some days ago I required another molar extracted on account of toothache, and this operation was again performed by the same gentleman. I inhaled the vapour of chloroform, half a drachm being poured upon a handkerchief for that purpose, and held to my nose and mouth. Insensibility took place in a few seconds; but I was so completely dead this time that I was not in the very slightest degree aware of anything that took place. The subsequent stupefying effects of chloroform went off more rapidly than those of ether, and I was perfectly well and able for my work in a few minutes."

(b) I have now exhibited chloroform to about fifty individuals, and in not one has the slightest bad effect of any kind resulted.

she had "enjoyed a very comfortable sleep, and, indeed, required it, as she was so tired, (a) but would now be more able for the work before her." I evaded entering into conversation with her, believing, as I do, that the most complete possible quietude forms one of the principal secrets for the successful employment of either ether or chloroform. In a little time she again remarked that she was afraid her "sleep had stopped the pains." Shortly afterwards her infant was brought in by the nurse from the adjoining room, and it was a matter of no small difficulty to convince the astonished mother that the labour was entirely over, and that the child presented to her was really her "own living baby."

Perhaps I may be excused from adding that, since publishing on the subject of ether inhalation in midwifery, seven or eight months ago, (b) and then for the first time directing the attention of the profession to its great use and importance in natural and morbid parturition, I have employed it, with few and rare exceptions, in every case of labour that I have attended, and with the most delightful results; and I have no doubt whatever that some years hence the practice will be general. Obstetricians may oppose it, but I believe our patients themselves will force the use of it upon the profession. (c) I have never had the pleasure of watching over a series of better and more rapid recoveries; nor once witnessed any disagreeable result follow either to mother or child; whilst I have now seen an immense amount of maternal pain and agony saved by its employment. And I most conscientiously believe that the proud mission of the physician is distinctly twofold, namely, to alleviate human suffering, as well as to preserve human life.

In some remarks which I published in "The Monthly Journal of Medical Science" for Sept., p. 154, relative to the conditions for ensuring successful etherization in surgery, I took occasion to insist upon the three following leading points:—"First, the patient ought to be left, as far as possible, in a state of absolute quietude and freedom from mental excitement, both during the induction of etherization, and during his recovery from it. All talking and all questioning should be strictly prohibited. In this way any tendency to excitement is eschewed, and the proper effect of the ether inhalation more speedily and certainly induced. And secondly, with the same view, the primary state of exhilaration should be entirely avoided, or at least reduced to the shortest possible limit, by impregnating the respired air as fully with the ether-vapour as the patient can bear, and by allowing it to pass into the lungs, both by the mouth and nostrils, so as rapidly and at once to induce its complete and anæsthetic effect." A very common, but certainly a very unpardonable, error being to exhibit an imperfect and exciting, instead of a perfect and narcotizing, dose of the vapour. Many of the alleged failures and misadventures are doubtless entirely attributable to the neglect of this simple rule; not the principle of etherization, but the mode of putting it in practice being altogether to blame. But, thirdly, whatever means or mode of etherization is adopted, the most important of the conditions required for procuring a satisfactory and successful result from its employment in surgery, consists in obstinately determining to avoid the commencement of the operation itself, and never

(a) In consequence of extreme anxiety at the unfortunate result of her previous confinement, she had slept little or none for one or two nights preceding the commencement of her present accouchement.

(b) See "The Monthly Journal of Medical Science" for Feb., p. 639; March, p. 721, &c.

(c) I am told that the London physicians, with two or three exceptions only, have never yet employed ether inhalation in midwifery practice. Three weeks ago I was informed in a letter from Professor Montgomery, of Dublin, that he believed that in that city, up to that date, it had not been used in a single case of labour.

venturing to apply the knife, until the patient is under the full influence of the ether-vapour, and thoroughly and indubitably soporized by it."

In fulfilling all these indications the employment of chloroform evidently offers great and decided advantages in rapidity, facility, and efficiency over the employment of ether. When used for surgical purposes, I would advise it to be given upon a handkerchief, gathered up into a cup-like form, in the hand of the exhibitor, and the open end of the cup placed over the mouth and nostrils of the patient. For the first inspiration or two it should be held at the distance of an inch or so from the face; and then more and more closely applied to it. To ensure a full and perfect anæsthetic effect—more especially when the operation is to be severe—a teaspoonful of the chloroform should at once be placed upon the hollow of the handkerchief, and immediately held to the face of the patient. Generally a snoring sleep very speedily supervenes; and when it does it is a perfect test of the superinduction of complete insensibility. But many patients are quite anæsthetic without this symptom.

As an illustration of the influence of this new anæsthetic agent, I will select and append notes of two operations performed with it on Friday last by Professor Miller—the first in the Royal Infirmary of Edinburgh (a); the other in private practice. The notes and remarks are in Mr. Miller's own words.

CASE I.—"A boy, four or five years old, with necrosis of one of the bones of the forearm. Could speak nothing but Gaelic. No means, consequently, of explaining to him what he was required to do. On holding a handkerchief, on which some chloroform had been sprinkled, to his face, he became frightened, and wrestled to be away. He was held gently, however, by Dr. Simpson, and obliged to inhale. After a few inspirations he ceased to cry or move, and fell into a sound snoring sleep. A deep incision was now made down to the diseased bone; and, by the use of the forceps, nearly the whole of the radius, in the state of sequestrum, was extracted. During this operation, and the subsequent examination of the wound by the finger, not the slightest evidence of the suffering of pain was given. He still slept soundly, and was carried back to his ward in that state. Half an hour afterwards he was found in bed, like a child newly awakened from a refreshing sleep, with a clear merry eye, and placid expression of countenance, wholly unlike what is found to obtain after ordinary etherization. On being questioned by a Gaelic interpreter who was found among the students, he stated that he had never felt any pain, and that he felt none now. On being shown his wounded arm, he looked much surprised, but neither cried nor otherwise expressed the slightest alarm."

CASE II.—"A young lady wished to have a tumour (encysted) dissected out from beneath the angle of the jaw. The chloroform was used in small quantity, sprinkled upon a common operation sponge. In considerably less than a minute she was sound asleep, sitting easily in a chair, with her eyes shut, and with her ordinary expression of countenance. The tumour was extirpated, and a stitch inserted, without any pain having been either shown or felt. Her sensations throughout, as she subsequently stated, had been of the most pleasing nature; and her manageableness during the operation was as perfect as if she had been a wax doll or a lay figure."

"No sickness, vomiting, headache, salivation, uneasiness of chest, in any of the cases. Once or twice a tickling cough took place in the first breathings."

Edinburgh, Nov. 15.

(a) Professor Dumas (of Paris), Mr. Milne Edwards, Dr. Christison, Sir George Ballingall, and a large collection of professional gentlemen and students witnessed this operation and two others performed with similar success by Professor Miller and Dr. Duncan.

ON THE APPLICATION OF CHEMISTRY TO THE DETECTION OF CRIME, AND TO THE PRESERVATION OF THE PUBLIC HEALTH.

By H. LETHEBY, Esq., M.B., &c.,
Lecturer on Chemistry at the London Hospital.

An Abstract of a Lecture delivered at Sussex-hall and other Literary and Scientific Institutions.

Dr. Letheby commenced by referring to the important and onerous duties which the medical man was too often called upon to perform; that in almost every case of sudden death, in every instance of murder, and upon the visitation of every contagious malady and scourge, he was looked to as the interpreter of death; upon his judgment rested the most important of all the evidence which related to the question. How necessary, therefore, was it that he should enlist every faculty of observation, and every well-ascertained principle of science, to help him in this judgment. The frequent appeals thus made to him had led to the foundation of a science denominated "Medical Jurisprudence": in it the experience of ages had been brought together so as to qualify him for his work, and to make medicine and its collateral branches subservient to the construction, elucidation, and administration of the law, and to the preservation of the public health. One especial and very important division of this science is "Toxicology": it is devoted to the detection of poisons, whether lurking unseen amidst the natural elements, and slowly but surely working man's destruction; or whether moving, with an assassin's swiftness, home to his life at once: in both cases the whole duty of its discovery rested with the chemist. It is hardly necessary (continued the lecturer) that we should dwell upon the momentous character of this duty, or upon the influence which it has over the well-being of society; in these times, as in all other times, the secret agent of the poisoner had become the terror of all; no power could be more fearful, no agent more certain in its results; its influence was with all classes of society; there was no privacy beyond its reach; and no precaution, or hardihood, or bravery, a sufficient protection. Was it necessary to ask how far might be the extent of his practices, if the efforts of the chemist had not succeeded in bringing them to the light, and in furnishing a means of exhibiting the undoubted evidence of his guilt? It is strange, however, considering the important character of this question, that it is hardly twenty years since science was appealed to, to lend her aid to the law in thus tracking the footsteps of the unseen murderer; and it is the more strange, when we remember that, from days long gone by, it was believed that an accomplished poisoner was not only able to ensure the death of his victim through the most secret and least suspicious agents, but that he was able also to measure out his allotted moments with the nicest precision, and to cause his death at any period and in any way best suited to the objects of the assassination: so says Dr. Paris; and he tells us that the writings of Plutarch, Tacitus, Theophrastus, Quintilian, Livy, and others abound with instances of slow and occult poisoning. Livy has informed us of the immense extent to which it was practised even as far back as 300 years before the Christian era, and that too by parties who were above all suspicion; it must have been common, indeed, when during the consulate of Fabius Maximus, such a number of Roman ladies could have framed that monstrous conspiracy for the destruction of their husbands, when so many as 170 of them should have been detected and publicly executed. One noble damsel of the name of Locusta had, in fact, become so expert in the preparation of her drugs, that, after having poisoned some hundreds of her fellow-creatures, she was convicted and condemned to die; but her talents were considered of so excellent a nature, she was saved in order that she might become a state engine, and be numbered, as Tacitus expresses it, *inter instrumenta regni*; and her powers were not suffered to lie dormant. The records, also, of more modern

times furnish examples of no less atrocious practices. Tophana, a woman who resided first at Palermo, and afterwards at Naples, was quite equal to Locusta: she invented and sold those poison-drops which were the horror of all Europe. They were known by the several names of *acqua Toffania*, *acqua della Toffana*, *acquetta de Napoli*, or simply *acquetta*; and sometimes they bore the pious name of the *manna of Saint Nicholas*, because the bottles containing the drops were frequently ornamented with a figure of that saint. This Stygian liquor she distributed with much charity and consideration to such wives as wanted other husbands; and there can be no doubt that she sent thousands to their last account. About this time some of her pupils made their way into France, and secret poisoning got to be practised there also to a fearful extent. Saint Croix and the Marchioness of Brinvilliers were two of the most celebrated adepts: the latter poisoned her two brothers, through the medium of a dish at table; she prepared poisoned biscuits, and to try their strength distributed them herself to the poor at the Hôtel Dieu; her own maid was likewise the subject of her experiments. To her father she gave poisoned broth; and, in fact, there is no knowing how many of her relatives and friends were sacrificed to her ignominy. The practice of secret poisoning in France, however, was not limited to these individuals; it was so common and frightful in the year 1679 that it was found necessary to establish a particular court for the detection and trial of such offenders; and in our own country, too, efforts were made to put it down, and Henry VIII. passed a law that persons convicted of poisoning should be boiled to death. But (continued the doctor), to pass over a world of the terrible instances of those times, and to come to our own, let us ask how is it with us? We shall have no difficulty in answering this question: every man of experience and observation will tell you that secret poisoning is carried on to as great an extent as it ever was. I have but to refer to the public press for daily instances of it, and my own experience also tells me that it is a common crime. Even during this last week I have been engaged in eight cases of poisoning, and I look upon it that these are but mere glimpses at the demon who is abroad; we have not yet seen him in all his magnitude, nor shall we, unless power is given to us to hunt him down; he is with us, too, in another shape, lurking amidst the filth and wretchedness of the poor, tainting the atmosphere they breathe, poisoning the food they eat, preying upon human health and life, and now beckoning to our shores the other revellers of his court; and soon they will be among us. It is strange, I say, considering the magnitude of these evils, that science has not been appealed to earlier and oftener to put them down; nor can I leave this point of our subject without directing attention to the great sources of so much mischief. Here is one of them; and it is the cover under which the assassin glides. It frequently happens in cases of sudden death that no judicial inquiry of any kind is instituted, or, if there is, it is too often performed in the most hasty and slovenly manner, without taking any of those measures which are requisite for the detection of crime; or, as I have known this to be the case, and have known it often too within my own practice, that when the cause of death has been discovered, and the act of the poisoner laid bare, the whole business has been smothered up, either on account of some irregularity in the coroner's proceedings, or for fear of the expense which a prosecution might entail upon the state or county. Look at the exposures which so many cases of poisoning have exhibited during the last year; what do they show but the farcical proceedings of our country coroners; the sanctity of the grave violated; bodies exhumed years after death; tortured again, and made to tell this tale, that they had come by an untimely end; that their murderers had been loose upon society for years, practising their hellish tricks with more and more success; and that he whose duty it was to learn all this, had slunk it over to save himself

from trouble and the country from some poor fee. Why, where is the use of such an officer? Jurors are made to let him have such power. Well may I point to him as one great source of all this mischief; and look you, here is another—here in the literature, as it is misnamed, of our day; here, in the worst of books written by the worst of men. Turn to your Eugene Sue, to your Lucretias, to your stories of Saint Croix, Brinvilliers, Laffarge, and see there the worst of crimes extolled, villains made heroes, and every action of their lives detailed in so much grandeur that it gives the impulse to a morbid mind, and makes it go and do so likewise. It is in this way that your Borgias, and your Medicis, and your other demons of past time are decked in all the finery of language, and held up for public sympathy and pattern; it is in this way that your popular novels have become hand-books of murder, and their writers traders in crime. Let me give you this precious specimen from one of them, and I will merely read a single sentence of a conversation between a count who professes to teach the art of poisoning, and a lady who is anxious to learn it; he is finding fault with the bunglings of us Northerners, and he says, they do it better in the South:—"But go beyond France; go to Aleppo, to Cairo, to Naples, to Rome; and then you shall see, passing in the street, fine, tall, upright men, fresh-coloured and hearty; and you would never dream that those men have been poisoned for three weeks, and will be quite dead in a month." I can read no more than this to you; I turn from it appalled and ask myself, as I regard the mischievous stupidity of these writings,

"Can such things be,
And pass us like a summer cloud,
Without our special wonder?"

It is my duty, however, to tell you that these are impossibilities; they are the fictions of a villain's brain; and, would it were not so! they are the prolific begetters of a like villainous offspring.

Let me turn now to the remedy; let me show that it is within the power of science to unmask every instance of foul dealing, and that it wants but the opportunity to show that

"Murder, though it hath no tongue,
Can speak with most miraculous organ."

Dr. Letehy then proceeded to pass in review the several poisons, and to illustrate the manner in which they might be detected; he pointed out the certainty of his results, and the extreme smallness of the quantity which the chemist was enabled to detect. He dwelt considerably upon the influence of those poisons which were occasioning disease and death in the crowded and filthy districts, and he adverted to the remedy which lay within our reach; he alluded to the necessity which there was to inquire into every case of sudden death; how that inquiry should be conducted, what principles of science and observation should be made to bear upon it; how, in short, we may proceed to establish the truthful saying of our old Bard, that

"Foul deeds will rise,
Though all the world o'erwhelm them, to men's eyes."

STRYCHNINE IN PARALYTIC AFFECTIONS.

By FREDERICK LOWES, Esq., Gosport.

During the month of August I had four cases of apoplexy accompanied by hemiplegia. After subduing the acute symptoms by bleeding, blistering, mercury, &c., I found total loss of power on one side still remaining; I immediately had recourse to strychnine (having previously exhibited it with good effect), and, commencing with 1-12th of a grain, gradually increased it to 1-6th three times a day. In each case I observed marked benefit after the first ten days, and in less than six weeks three of the patients were able to walk without any assistance; the fourth has only the power of standing at present, but is evidently improving.

The above cases tend to prove that strychnine may be advantageously administered in paralytic affections, not only dependent on disease of spinal marrow, but also in those in which disordered function of the brain is the primary cause.

CASE IN WHICH TWO FETUSES WERE UNITED AT THE STERNUM, &c.

By R. U. WEST, Esq., Hogsthorpe, Lincolnshire.

I was sent for on Sunday evening, August 18, at about six o'clock, to attend the wife of Robert Garfit, a coach-painter, residing in this village. It was her fifth confinement, and she had always had easy labours. She stated that she had had alight pains the whole of the day. Having ascertained, on examination, that the os uteri was well dilated, and having felt through the membranes one knee presenting, I at once directed my patient to go to bed.

When I came up stairs again, on examining again, I found a set of membranes still presenting, which I ruptured, and then I felt, besides the knee above mentioned, two feet, neither of which belonged to it; and, passing the finger higher up, I made out the foot belonging to the knee, and higher still, the toes of a fourth foot. My conclusion, of course, was that this was a case of twins, in which all the four feet had got down together; and that it was the other set that I myself had ruptured. Taking this view of the nature of the case, I did not anticipate the slightest difficulty; I passed my hand into the uterus till I reached the perineum of one foetus, and, thus making sure that the two legs I proposed to bring down first belonged to the same body, I proceeded with the delivery of foetus No. 1. These two legs came down with no more than the usual very gentle traction, till the knees had cleared the vulva—the toes being turned towards the os pubis, when I perceived that a greater amount of traction was gradually becoming necessary. As I could still feel the legs of the other child near the perineum, I considered that this unusual bulk by the side of, or rather behind, the buttocks of the one I was attempting to bring down, was sufficient to account for a little increase of difficulty, particularly as the body of the second foetus appeared to be in front of the first, and had therefore crossed it. All attempts to push these feet out of the way were unavailing, for the obvious reason, as I thought, that there was no sufficient prominence which could hold them back. I continued accordingly to use more and more force, until I was well able to grasp both thighs with a cloth.

What was the cause of the difficulty that was now beginning to be of serious amount? I was forced to conclude that the foetuses, by lying across each other, were somehow entangled.

I now passed my left hand (the mother lying on her left side) along the back of the child, to reach, if possible, the cause of entanglement. I had hitherto been using the right. With considerable difficulty I succeeded in reaching the left shoulder, but could not feel anything unusual there. I, however, managed to bring down the arm. After this, by grasping the thighs with both hands, and using very considerable force in traction, I brought the foetus so low that the crista of the iliac bones were all but external to the vulva; but all my efforts to bring the child any further down were fruitless.

I went to the foot of the bed, and introducing the left hand again by way of the perineum, I tried what I could do by grasping the body of the child above its pelvis, while with the other hand I pulled at the legs; but it was useless; and, although my thumb and fingers seemed to pass nearly round the child, I felt nothing unusual. The two foetuses seemed jammed together.

I began to think it would be necessary to let the other two feet come, in order to bring the cause of entanglement, whatever it might be, more within reach; but I durst not venture upon such a bold plan; for supposing the foetuses to be separate ones, as was most probable, it would be unjustifiable, I thought, to do a thing so out of course as to allow the bodies of two full-grown children to occupy the pelvis at once. I was altogether so puzzled in mind and exhausted in body (my hands, with nearly three hours' incessant exertion, being so much cramped, that now and then I could hardly grasp anything), that I determined on having the benefit of a con-

sultation and of a second pair of hands. I felt also that a divided responsibility would be very desirable.

I therefore desisted from any further interference beyond an occasional examination during a pain, while a messenger fetched Mr. Gilby from Alford, a distance of seven miles. We then proceeded as follows:—

While my friend held the legs of the *fœtus* enveloped in a napkin, drawn down as far as he could, I passed the blunt-hook up along the back and endeavoured to get a hold somewhere. As it would not hold by the shoulder, I forced it through the back close to the spine, and got a firm hold by one of the ribs. I may mention that the funis had been prolapsed more than an hour, and had long ceased to pulsate. By this plan—Mr. Gilby pulling at the legs, while I pulled by the blunt-hook—we, by using very considerable force, brought the body a little lower down, but we could not bring it away. The blunt-hook, having dislocated the spine and broken two or three ribs, began to tear out. It was therefore withdrawn, and I was searching for another place to fix it by, when I felt what, without sufficient consideration, I took to be the second arm attached to the body of the child already half born. Without giving myself time to reflect that it was too thick, down I pulled it. This was a leg. I could not have been deceived—it was certainly attached in some way to the same body of which the two proper legs had for some time been external to the vulva. I examined again and made out this time plainly enough that the two *fœtuses* were united, and as far as I could reach I could not find out where they separated again. I directed Mr. Gilby's attention to this most extraordinary circumstance, which at once explained the immense difficulty we had experienced. There was nothing else for it now but to let both the bodies come together. They were united at the navel, abdomen to abdomen; and there was but one funis, which passed upwards into the two bellies at the point where the union commenced. Both were females.

We made several attempts with the flat hand passed along the united bodies to feel the neck, or, if there were two heads, the necks, with the division between them; for we could not tell whether there would prove to be but one head and one neck, or two. But until we had drawn both bodies down a little lower, we could not pass our hands high enough up. To make a little more room, while Mr. Gilby held the *fœtuses* as low down as he could, I passed my right hand up the back of the second *fœtus*, which, it will be understood, was lying next the os pubis, and with much difficulty succeeded in getting down its left arm, though I fractured the humerus in doing it. This done, we were enabled to draw down the bodies so low, that we could ascertain that there were in reality two necks, and consequently two heads. We now decided on separating the *fœtuses*. I therefore passed a bistoury, guarded by the forefinger of my left hand, as high up the union as I could do with safety to the mother, and, plunging it in, brought it out again at the united umbilicus. We perceived that a large mass of liver had been cut into. This we tore away along with nearly the whole of the intestines belonging to both children. By so doing we diminished the bulk occupying the pelvis so much that we were enabled to draw the bodies down a good way further. I have said the blunt-hook had divided the spine, and made a considerable hole in the back of the first *fœtus*; and now that an incision had been made, which opened its abdominal cavity, this child was so nearly in two, that at any rate it was not likely to be of any further use for traction; so it was cut off and laid aside.

It was now our object to bring the bodies low enough to enable us to complete the separation, and afterwards open one of the heads if it should be necessary. I therefore passed the blunt hook up between the children, and got a firm hold at the top of the junction, and while Mr. Gilby, again grasping the pelvis of the second child, made

powerful traction with both hands, I made equally powerful traction with the blunt-hook. After two or three efforts of this kind, a violent expulsive pain coming to our assistance, the two heads, to our great delight, came suddenly away together, and complete delivery was effected.

Now, it has been mentioned that there was only the body of the second child left to pull by. This kind of traction brought the head of that *fœtus* below the chin of the other, the extent to which they had been divided having enabled the remaining undivided portion to stretch sufficiently to admit of this favourable change of position. Thus the heads, in point of fact, passed through the pelvis one after the other.

There was a good deal of hemorrhage after the birth of the children, and in two or three minutes the one placenta was without any difficulty extracted. The labour was over a little before midnight. The perineum was uninjured, and the mother has recovered without a single bad symptom.

The appearance presented was that of two perfectly formed and well-developed female children united from the umbilicus to the necks. They weighed, without the enormous liver and those portions of the intestines which were torn away, 11½ lb. *avirdupois*; and estimating the weight of the parts removed, and of the blood that was lost, at a pound and three-quarters, I think we may safely assume that they would have weighed, if entire, 13½ lb., which is two pounds more than the average weight of twins, according to Burns. The union at the top was formed by a common sternum, or rather by the clavicular extremities of two sterna united end to end, and passing nearly straight across. This double sternum was very short, and would, if removed, have presented the appearance of a nearly square piece of bone with a clavicle at each of the four corners. A kind of *raphé* could be felt at the point where the bits of sternum joined each other. Below the sternum, on both sides, the true ribs were united by short pieces of cartilage which ran straight across from the ribs of one child to the corresponding ribs of the other. The cartilages of the false ribs turned upwards, and were attached to the under part of the cartilages of the lowest true ribs.

The liver having been cut nearly in two, and torn away along with nearly all the intestines, it was impossible to ascertain the relative position of the parts in that portion of the abdominal cavity in which the sac of the peritoneum was common to both *fœtuses*. There was but one umbilical chord, and, as that was not at all thicker than the average, I imagined it possible that the children might each supply only one umbilical artery; but, on examining the iliacs in one of them, I found that each iliac sent off its artery in the usual way. The aorta of the other *fœtus*, having been cut in two in the situation where the blunt-hook had divided the spine, had been torn away along with both kidneys; but there could be no doubt that this child supplied two umbilical arteries as well as the other. The chord must, therefore, have contained four umbilical arteries; but for various reasons, which which will be more apparent when I come to the description of the heart, I think it probable that there was but one umbilical vein. I regret that, when I was searching into these matters the day after the delivery, the whole of the funis, as well as the placenta, had been made away with by the nurse.

Attached to the under part of the *raphé* of the common sternum, which formed a kind of roof to the two chests, was a membranous bag extending across from side to side, and down to the diaphragm. On cutting into this, I found it was a pericardium containing a curiously-shaped heart, common to both *fœtuses*. Passing the finger along the top of this heart, I found that its only attachments were at each side, the middle part for the space of about two inches being free. Flat and shaped like a kidney, it seemed to lie evenly between the two chests; but by stretching it downwards it assumed some obliquity, which I found was occasioned by the

circumstance that each upper corner of the heart was connected with the right side of each *fœtus*. Each child had a complete pair of lungs, three lobes on each right side, and two on each left, the mediastina extending backwards from the centre of the common pericardium. Two thymus glands were attached to the under part of the sternum, separated from one another by the pericardium. Each *fœtus* had two kidneys, and the pelvic viscera in both were perfect and well developed. Although the liver was much torn and nearly cut in two, I was yet enabled to make out distinctly that it was a large one, common to both children. I could not find any gall-bladders, but probably there would be two; at any rate there must have been two ducts, one for each duodenum. The diaphragm was torn to shreds.

The heart itself is shaped like a kidney, and weighs exactly one ounce *avirdupois*. On external examination, it is found to possess the following peculiarities:—One enormous large auricular sinus having two openings into it at one corner, supposed to be the openings for a common superior and inferior *vena cava*; with five auricular appendages—one very large under the openings for the *cavæ*, two at the other corner looking like another large one split in two, and two smaller ones near to each other, hanging down on the other front of the heart between the roots of the two *aortæ*—all these appendages communicating internally with the large auricular sinus. An aorta at each side of the heart, and a single pulmonary artery having its root near, and passing under, that aorta which is situated nearest the openings for the *cavæ*. These three vessels all furnished with semilunar valves. No traces of pulmonary veins can be found.

Thus this heart may be said to consist of but one auricle for the admission of blood, and one ventricle for its expulsion by means of three arteries. It is evident, therefore, that though it might do very well to support *fœtal* life, even for both children, it could not have supported extra-uterine life for more than a few minutes.

Now, as there appears to be but one common auricle and one common pulmonary artery, it is not probable that the ascending *cava* of each *fœtus*, if they could have been examined, would have been found to have united in a common trunk before passing through the diaphragm? Is it not also probable that there was but one portal system? And one ganglionic system? But speculations of this kind, resting on probabilities, can hardly add to the interest of a case, in which the facts capable of demonstration are quite strange enough in themselves.

ANTHROPOPHAGISM.—This practice was almost universal in Egypt as late as the thirteenth century. During a scarcity the poor began to eat human flesh; this at first caused general horror: which, however, gradually subsided, until the rich began also to make use of the same food, and the fashion spread throughout the country. The most criminal means were used to entrap victims. Among others, physicians were frequently sent for under the pretence of visiting sick persons, and were murdered.

TOULOUSE.—We hear the melancholy news from this city of the death of M. Amédée de Clausade, physician, member of the General Council of Tarn, general secretary of the Medical Association of Toulouse, &c., which happened on the 22nd Oct. last, at the age of thirty-eight, after a long illness. His brilliant talents and honourable conduct were duly appreciated by his medical brethren. We sincerely sympathize with his numerous friends on the severe loss they have sustained.

A painter at Lubersac, named Michaud, has lost his life by poison lately. His death was occasioned by salts of lead and arsenic, which were part of the composition used by this unfortunate painter. The effects of the poison were so rapid that this unfortunate man had scarcely time to reach his home, where he expired with dreadful groans and convulsions.

PROGRESS OF MEDICAL SCIENCE.

ACADEMY OF MEDICINE.

Meeting of Nov. 2; M. BROIN in the Chair.

THE PLAGUE.

The French Government, adopting the views emitted in the report of the academy on the plague, has appointed MM. Prus, Fauvel, and Burguières as resident physicians at Alexandria, Constantinople, and Smyrna. The emoluments of these various situations are fixed at 12,000 f. annually; and the academy was now called upon to decide upon the instructions to be given to these medical agents. Before the instructions were read a communication on the same subject was received from Dr. Aubert Roche, expressing a wish that the "médecins sanitaires," appointed by Government be positively forbidden to practise in their respective residences. The motives for this interdiction were, the hostility which would be created against the institution amongst the professional men already established in the East; the loss of time occasioned by private practice, and the difficulty of following attentively an epidemic of plague breaking out at some distance from their residences, together with the patients under their care for different diseases. The two first paragraphs of the instructions were then read and adopted by the academy.

Section 1. Investigation of the sanitary condition of the foreign country.

1. Immediately upon their arrival into the port confided to their vigilance, each of the physicians shall establish an attentive and incessant inquest into the state of health of the surrounding population. They shall belong *ex officio* to the consular committees of health already existing in the Levant; they shall place themselves in correspondence with the physicians, apothecaries, and other well-informed residents; and frequently visit the hospitals and the poor quarters of the city.

2. They shall keep an official document, and a monthly account of deaths and births.

3. They shall endeavour to ascertain the sanitary conditions of the ships entering the harbour, and of the caravans from the interior.

4. They shall never forget that in Eastern ports the plague may be sporadic or epidemic; and that in the latter case it is occasionally the result of local causes, and sometimes brought from more or less distant lands by the atmosphere, by ships, by pestiferous patients, and perhaps even by goods. They shall constantly apply themselves to inquire into these various circumstances.

Section 2. Visit of the vessels, crew, and passengers homeward bound.

5. Whenever the sanitary physician shall have been requested by the French consul to deliver the certificate, upon which will be prepared the bill of health of a ship, he shall proceed as follows in the investigations necessary to enlighten his judgment on the facts to be made known, at the same time with the sanitary state of the country:—

6. He shall, in the first place, take cognizance of the written declaration of the captain, which the consul will place in his hands. In that declaration shall be stated the nature and quantity of the goods on board; the number of the passengers, together with the indication of the places they come from; the list of the crew; the history of the last passage; the stations of the ship during the three months which preceded her putting into harbour; the date of the last diseases observed on board, their issue, and the absence or actual existence of any cases of illness in the ship. With this certificate the sanitary physician shall go on board.

7. Never losing sight of the circumstances which may favour the production of a centre of infection, he will examine if the places destined for habitation are sufficiently spacious and ventilated; he shall inquire into the number of persons on board, the degree of humidity of the atmosphere of the ship, and the means of ventilation.

8. After the ship, he shall examine the crew and passengers; he shall remember that the plague, even in its incipient stage, generally betrays its presence by some exterior sign. His attention shall successively be carried upon the characters of the pulse, the state of the tongue, the appearance of the eyes, the more or less firm step of the person examined. The palpation of the axillary and inguinal regions shall take place only when some symptoms will form legitimate grounds of suspicion, and shall always be performed with due delicacy.

9. In ordinary times, when no epidemic shall be present, the above-prescribed operations will suffice. In case of an epidemic, special precautions may become necessary, when the physician shall have sojourned some time in the room of a pestiferous patient, or shall have been personally compromised in any other manner. The visit of the ship, crew, and passengers shall be made upon the mail-packets and all ships of H.F.M.'s service, by the surgeons of the ship; and for all commercial vessels, not furnished with a medical officer, by a physician of the city named by the sanitary physician, and appointed by the French consul.

CURIOUS FACT OF NATURAL HISTORY.—M. Duméril, at a late meeting of the institute, reported upon a memoir of M. Boursier, relative to the singular fact of silkworms' eggs, which were not fecundated, and still were fertile. M. Duméril observed that this was not an isolated, or even an uncommon, circumstance; he had remarked that the females of insects of very different kinds, but particularly amongst the nocturnal lepidoptera, produced occasionally fertile eggs soon after breaking through their chrysalis. The insects of this species found in summer upon plants are all females and fecundated; it is only in autumn that the males appear. They couple, and the females bring forth eggs which produce in spring female individuals, who do not require to be fecundated to be fruitful; this may continue for several generations, even as far as ten successive births of female individuals, without fecundation.

FACULTY OF MEDICINE.

OPENING MEETING—THE ADDRESS.

The recess of the faculty was closed on the 3rd of November, and at one o'clock the opening address was delivered by the professor of physiology, M. Bérard. The subject chosen by the orator was the panegyric of Haller, and an appreciation of the illustrious physiologist's researches. We translate the following passages:—

" What! a panegyric of Haller in the year 1847! Have not all the learned bodies to which he belonged paid one century ago the tribute due to his memory? Can you hope to interest us more to the history of his youth than his countryman Tcherner? Have you the pretension of expounding his doctrines after Vicq d'Azyr, or his politics after Condorcet? Let me say a few words of the panegyrics of Haller. He was one of those few individuals to whom no branch of human knowledge is foreign. *Philologists* may well be surprised to find him composing for his own use, at the age of nine years, a Hebrew grammar and a Chaldean dictionary, or translating into Greek, in play, a theme which he had to write in Latin. *Poets* will quote with enthusiasm the noble verses in which he celebrated the sublimity of Alpine scenery, or the highest aspirations of the heart. More than one naturalist has founded his reputation on less important botanical researches than those of Haller. *Commentators* look upon his exposition of Boerhaave's doctrines as a model; and the learned can hardly conceive how he found time for other labours after the publication of a work which required the perusal of upwards of six thousand volumes. *Political writers* have not disdained to examine his observations on the best form of government. Carrying into more abstruse matters his thirst of knowledge, Haller writes upon *theology*; with Bernoulli, his master, he sounds the depths

of integral and differential calculation; he publishes a dissertation on *numismatology*; and all these various claims upon glory are in some degree obscured by the immense *débat* of his anatomical and physiological labours! Haller's panegyrists have endeavoured to represent him under all his aspects, to describe his various talents; and for that very reason they have, one and all, been doomed to sketch but an imperfect portraiture, the eulogium of such a man being a theme far beyond the circumscribed proportions of academical oratory. I will not, doubtless, do better than they have done, but I will do otherwise. In Haller I will describe only the physiologist, and in that still considerable field of study I will not follow the same path as my predecessors: for, in 1847, we may be justified in modifying some of the judgments passed upon Haller's doctrines by the physiologists of the eighteenth century.

"The illustrious Chancellor Bacon who pointed out the method to which modern sciences are indebted for their progress, expressed a wish that, from time to time, a sort of inventory of positively acquired knowledge be drawn up for each branch of human knowledge, so as to serve as a basis to future labour and further progress. The middle of the eighteenth century was a period highly favourable to the realization of this desire for physiology.

"Since one hundred years, physiology affected the perhaps exaggerated pretensions of being the only basis of the etiology and treatment of diseases. Medical practice had successively obeyed the sway of iatro-chemists, iatro-mechanicians, and of animists. Their reign was over, it is true; but each had brought forward, in support of his doctrines, facts which called for a more satisfactory interpretation, and materials to be put to a proper use. All had left some traces of their passage, and physiology presented a singular mixture of opinions borrowed from the bad chemistry of Sylvius or Willis; from mechanics, the more exact and, therefore, more seducing applications of which had not been less abused; from Stahl's doctrines, which had the merit of pointing out at last the difference between living bodies and inorganic matter, but which, refusing the assistance of physical sciences, had proscribed their use instead of merely forbidding abuse, and disdained too much the matter, to understand properly its functions. The romance of life had been composed; it was time to write its history, a task facilitated by the progress of anatomy. The time was, therefore, come when Bacon's wish could be realized. At great epochs great men are seldom wanting; for the illustration of this period Haller was born. Although he had poured out upon various subjects that intellectual activity with which his mind overflowed, he had always shown a marked preference for anatomical studies and the science of life. In Holland, at the age of eighteen, he had followed the lectures of the celebrated Albinus. He had seen with no less admiration that other illustrious anatomist, Ruysch, that *bonus senex*, as he often calls him, pursuing at the age of ninety, with juvenile ardour, those anatomical practices which had rendered his name popular in Europe. In France, Winslow—in England, Douglass—had been his masters. Professor of anatomy at Göttingen, he dissected no less than 360 human subjects in the space of seventeen years, noting each day the results of his observations, and comparing them with the remarks of his contemporaries and predecessors; his desire of serving the cause of science made him overcome his natural repugnancy to torture animals, and he multiplied his vivisections. He had neglected no occasion of improving his knowledge of comparative anatomy. His reading was immense, and his memory wonderful. Such was the man who undertook to write the history of physiology from its origin up to the middle of the eighteenth century. He resigned his chair, and, resisting the handsome offers of the Kings of England, of Prussia, and of the Czar, he retired to Berne, at the age of forty-five, there to

divide his time between the reduction of his "Elementa Physiologiae," new experiments on the development of birds, and the public affairs of his country. Does it not seem to you, gentlemen, that the soul is gently reposed by the recital of such facts? Do they not console the mind grieved by the aspect of ambitious rivalry, and of that uncured avidity which values the professor's gown only as a more remarkable advertisement destined to increase the activity of the pecuniary offerings of the public? I will now speak of the labours of Haller, and a little of the physiology of his age; with that double view, I will run rapidly through the circle of the functions.

"To take from, and to reject, incessantly materials into the external world is one of the most important conditions of the life of an organized being. What is the component matter of that animated whirlpool in which, at every instant, are admitted fresh atoms, to be carried away soon after, having for a moment participated in its life? This important problem could not be solved in the days of Haller. . . . Thanks to modern chemistry—a science which is become almost a branch of physiology—those elementary bodies fit to form living matter have been pointed out. To what would, even lately, have been considered as a bright fiction, chemistry has given the character of a rigorously-demonstrated fact. . . . Seldom does any discovery become domesticated in science without some preparatory ideas being discernible in the writings which have preceded it. If Haller did not and could not know the elementary composition of organic matter, he perceived some degree of analogy between certain vegetable substances and the flesh of animals. He was not ignorant of the fact that Beccari had mentioned the existence in flowers of a substance not very remotely connected with animal matter, and susceptible of putrefaction. That fact, which would, perhaps, have escaped another man, is fully understood by Haller in its physiological bearings; and he gives the name of gluten to muscular flesh, to modern fibrin, which chemists now-a-days consider as identical with gluten in its elementary composition and chemical properties. . . . A Belgian, Van Bocharte, read, in 1781, to the Academy of Sciences of Brussels, a series of papers, in which he endeavoured to prove that animal matter is composed in 'the vegetable economy' (such are his words), and that it passes ready formed into the body of animals for the purposes of nutrition; he does not except fatty matter, the origin of which in animals has caused amongst the most illustrious chemists and agriculturists of our own age polemical debates which are not yet drawing to a close. Let us applaud these researches without exaggerating their results. When it shall have been demonstrated that animals incapable of forming organic matter receive it ready-made from the vegetable kingdom, the chemical problem will be solved; but the problem of organism will remain unravell'd. We will not yet know how fibrin, at rest in the plant, becomes, when assimilated to the animal, obedient to his will; how albumen, dissolved in the fluids of the plant, and in the animal arranged in longitudinal stræ, transmits impressions and orders with the speed of lightning; nor how it feels light in the retina, sonorous undulations in the auditory pulp, and assists in the brain to the production of thought.

"Haller's first step in medical literature was the refutation of an error which was rapidly becoming popular. During the preceding century, no researches had produced so lively a sensation as those connected with the discovery of an excretory duct. Steno and Wharton had enjoyed the glory of inscribing their names upon the salivary ducts, and, in their enthusiasm, the excellent countrymen of Maurice Hoffman celebrated in a periodic banquet the discovery of the pancreatic duct; thus entering a convivial protest, glass in hand, against the pretensions of the Bavarians, who claimed for Wirsung the signal honour of the discovery. Similar triumphs had, doubtless, disturbed the rest of more than one

anatomist, for every day some new excretory duct made its appearance. The spleen, the thyroid gland, had theirs; nor had the thymus been forgotten. Coechwitz had said that saliva was poured upon the basis of the tongue by an excretory duct, the existence of which was generally admitted. Young Haller carefully injected the vessels of the tongue, and showed that a vein had been mistaken by Coechwitz for an excretory duct. Modern chemists will doubtless smile in perusing the pages in which Haller describes the phenomena of digestion; but the physiologist will again and again read them carefully. The constriction of the glottis during deglutition—a discovery which began the scientific fortune of a modern academician—is positively mentioned and appreciated by Haller, as well as the motion of the larynx, which occasions the falling of the epiglottis. No author ever described so accurately the peristaltic motion of the intestinal tube. The physicians, who some years since brought before the Academy of Medicine a new method of treatment of typhoid fever, will, perhaps, be somewhat surprised at hearing that, with purgatives, Haller was in the habit of arresting putrid fever in its incipient stage. . . . On the history of the chemical elaboration of food in the stomach, Haller left some points to the investigation of his successors. Spallanzani's artificial digestions had not yet been instituted, nor had he shown to his astonished contemporaries, gastric juice dissolving food, out of the body of animals. Modern chemistry only could show that alimentary matter is transformed at the same time that it is dissolved; that the diastasis of saliva, or perhaps the mucous membrane of the mouth, converts starch into dextrine and glucosis; and that in the stomach, fibrin, albumen, gluten, caseum, are by another agent changed into an albuminoid matter, in which albumen, fibrin, and caseum will be again found for the purposes of nutrition. And yet, in some points, Haller's doctrines are not far removed from those of his successors; he admitted the dissolution of the nutriment by the gastric juice; his chapter on the acidification of the bolus in the stomach seems to have been composed only yesterday; but, in his opinion, acidification is an accident of a vicious digestion. Haller believed the acidity to arise from the food, not from the gastric secretions, which he deemed alkaline. On the usages of bile nothing has been written of a more complete nature than Haller's chapter. The combination of fatty matter with water and bile forms an emulsion, which is absorbed under the name of chyle. To those who considered bile an excrement, he very judiciously observed that, if it were an excrement, it would not be poured into the duodenum, where it would taint the chyme. . . . At the period of the discovery of the lymphatics, the immortal Harvey refused to believe in this new system of vessels. . . . His efforts were inefficient, and the lymphatics of the intestine were placed among the agents of the absorption of chyle. So far the subject was in a state of progress; but the learned men of the age did not stop in time. Hunter and his pupils refused to the veins any absorbing power, attributing it exclusively to the lymphatic system. . . . Nothing more was wanting but to invent organized orifices endowed with an elective sensibility, which permitted them to take or to reject at will the substances which came into contact with these mouths. The propagation of this error we are obliged to refer to Bichat and his school, and it may still be traced in the language of modern physicians, who speak of 'absorbing orifices,' and do not make any difficulty to admit the absorption of certain substances suspended in liquids—globules of pus, for instance, or analogous particles. This retrograde period had already begun when Haller wrote his 'Physiology,' Hunter having published his first researches. Notwithstanding the authority of that illustrious name, Haller did not deviate from the right path. He showed that fluids penetrate through the parietes of the veins, and accumulated many proofs in support of his view. . . .

"It will hardly be recollected nowadays that Galen believed in the existence of a mass of air in the pleuræ, which pressed upon the lungs during expiration. But, in Haller's time, many physiologists still admitted its presence, and Hamberger amongst others; Haller demonstrated experimentally the fallacy of the opinion. But this was only one side of the question. He made the action of the two sets of intercostal muscles, and the play of the ribs, the object of a new series of experiments, and of an admirable analysis of the respiratory movements. Haller saw that, when both pleuræ are opened, the lungs collapse and the animal is suffocated; but he carefully avoided the gross mistake of so many ancient surgeons—and, why should I fear to say it, of some honourable physicians who took a part, some years since, in a debate on empyema in the Academy of Medicine? He takes care never to say that the lung collapses on account of the pressure of the atmosphere; he knew full well that this phenomenon is due to the retractility of the viscus. . . . Although Haller carried to a high degree of perfection the description of the mechanical phenomena of respiration, the state of chemistry in his day did not permit him to penetrate the essence of that function. It is necessary to be aware of the strange ideas adopted at the time on the seat and conditions of sensibility, in order to appreciate fully the services which Haller rendered to science on these points. The tendons were considered by contemporary surgeons as exquisitely sensitive, and the seat of that sensibility was placed in the cerebral membranes. In the nerves, the neurilemma alone was sensitive, not the medullary substance; and Mariot had established as a fact that the choroid membrane of the eye received the impression of light. . . . What was not the universal surprise when Haller asserted that tendons, ligaments, articular capsules, bones, cartilages, the dura mater, peritoneum, pleuræ, pericardium, veins, and arteries were insensible! that the knife might be plunged into parenchymatous organs, and that pieces might even be removed from them, without any appearance of pain! . . . The experiments were everywhere repeated, and Nature made in all places the same answer. From all directions Haller received letters confirming his discovery. From Italy particularly, where the vivisections were attended even by clergymen, amongst whom we may name Father V. Patrini, the Rev. Urbano Tossati, Abbati Felice Fontana; all three soon to be eclipsed by the illustrious Abbé Spallanzani. . . . In one solitary instance did the great man, absorbed in the consequences of preconceived views, refuse to admit the evidence of his senses: although he had seen that the brain might be wounded without producing pain, still, preoccupied with the idea that the properties of nervous matter must be everywhere the same, he concluded that the cerebral lobes were sensitive. . . . At the same time that Haller published the results of his experiments on sensibility, he brought forward a discovery of even greater importance—one closely connected with the philosophy of our science. In the body of man and animals, some parts enjoy the property of contracting under the influence of a stimulus. If this notion has now become familiar to you all, gentlemen, it is to Haller you are indebted for it; his masters had taught him nothing of the sort. Can you imagine the chaos of science, at a time when Baglivi considered the dura mater capable of contraction, and of throwing into motion the animal spirits by its movements! when Pacchioni supposed a sort of antagonism between the false cerebri and the false cerebelli, producing successively the compression of the corresponding parts of the brain! Haller appeared, and, discovering the laws of irritability, showed that property belonged to the muscular fibre, and for ever banished from science those absurd explanations founded upon the contractility of fibrous membranes, the shortening of tendons, &c. . . . Haller demonstrated that the stimulus of the external muscular system was the change

produced in the nervous system by the influence of will; and for the hollow muscles, like the heart and digestive tube, the stimulus was found by him to be the fluid contained in their cavities.

This influence of the stimulus Haller was in the habit of demonstrating by a very striking experiment, which consisted, in an agonising animal, to change the succession of phenomena in the heart in such a manner that its left cavities should last cease to live—a result which he readily obtained by retaining the blood in the left cavities.

"What place should be assigned to Haller amongst the men who have endeavoured to systemize our science? Evidently amongst those physiologists who have prepared modern vitalism.

On one essential point, the connection of irritability with nervous power, Haller's doctrines have been revised by modern authors. In the voluntary muscles, does it persist after the section of their nerves, and have the peristaltic motions and rhythmic contractions their source in the intermittence of stimulation, or in the nervous centres? These questions have been re-examined, and have not been answered precisely in the sense of the Hallerian doctrine.

"Finally, gentlemen, the mysterious function of generation fixed Haller's attention: his studies on the impregnated ovum, and the development of the chicken, almost threw into the shade Malpighi's researches; and the conclusions which he drew from his observations fixed for a time the theories of generation. Haller adopted openly the theory of evolution. The embryo is created: impregnation causes the development of existing parts; organs grow, they are not generated. This theory agreed well with that of irritability. The action of the spermatic fluid on the pre-existing embryo was to give up to the immoveable heart; the moment that mainspring of the system was thrown into action, the arteries and veins extend, and, by their pressure upon neighbouring parts, cause them to condense and become more apparent. The most illustrious men adopted Haller's view: Spallanzani believed in it; and Bonnet wrote to Spallanzani to try by experiment if the spermatic fluid might not be replaced by the electric spark. A philosopher's dream! The days of Prometheus were passed, and that fire which some short time after Franklin stole from the heavens, was incapable of animating that germ untouched by the male's spermatic matter. You may, perhaps, inquire what had given so much consistency to the theory of evolution now replaced by that of epigenesis? It was, gentlemen, an anatomical peculiarity, badly observed. The yolk of the chicken is contained in a sac which is continuous with the bird's intestine. The vessels of the sac emanate from the vessels of the chicken. The membrane of the yolk pre-exists, said Haller, *ergo*, the chicken, whose intestine is continuous with that membrane, also pre-exists. The original fact, gentlemen, was badly observed. The sac which contains the yolk is, like the chicken itself, a new formation, organized at the internal face of the primitive membrane. This had been seen and asserted by Haller's antagonist, Wolf, and has been since, with the assistance of our more perfect instruments, recognised most undoubtedly to be the truth. What chiefly attracts in Haller's erudition is not only its extent, but the choice, the intelligent use of the materials amassed by his predecessors, and by his contemporaries: it is, above all, the honest use he makes of these materials. . . His taste for erudition did not make him neglect the book of Nature: he constantly reverts to it: and he has given the most judicious precepts to guide the student in vivisections. His style has the austere form and the lucidity most proper to scientific works, but sometimes shows the touch and the mind of the poet. We may quote the following instances of a rare felicity of expression:—The foetus, bathing in the amniotic fluid, moves its lips and mouth, as if seeking for some unknown good—food or air:—'Capitum quasi bonum ignotum, cibus ne fuerit an aer.' Painting the effects of continence, he compares the

spermatic fluid to a virus, the resorption of which increases the power of body and mind:—'Vitale virus maxime confert ad robur, corporis et animæ.' In what magnificent terms does he speak of the tenuity of light!—'Tanta nempe est tenuitas, ut per acūs ocellum, possis immensum illud dei incogniti templum dimidium auspicere.'

M. Bérard closed his speech with a short peroration, in which he adverted to the advantages opened to the students in the new museum, and resumed his seat in the midst of deafening and prolonged applause.

The following prizes were then awarded:—First Prize of the Faculty.—Divided between M. Frédault, of Paris, and M. Ozanam, of Lyons.

Second Prize.—M. Coffin, of Dijon.

Honourable Mention.—Messrs. Blondeau and Boulland.

The Corvisart Prize.—M. Leudet, of Rouen.

Montyon Prize.—Divided between Dr. Hilairet, of Angoulême, and Dr. Colin, of Poissy.

Prizes of Midwifery (*sages femmes*).—First prize, Miss Laveillon; second prize, Miss Nicaise.

ETHEREAL INHALATION—DEATH.—(From the "Journal des Connaiss. M. Chir.")—On July 10, at the Hôtel Dieu of the city of Auxerre, a man, aged fifty-five, of a robust constitution, was placed under the influence of ether, for the purpose of undergoing an operation for the removal of a cancerous tumour. After an inhalation of two or three minutes, considerable agitation was observed in the face and limbs; during five minutes more, the inhalation was continued, and complete insensibility was established. The first incision was performed; but the dark colour of the countenance having attracted the operator's attention; the pulse was felt, and the patient almost immediately expired. On dissection, the brain, lungs, and heart, the liver, kidneys, and spleen, exhaled a strong smell of ether; the blood was dark and viscid, and the lungs were in their posterior parts the seat of hypostatic congestion.

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

Abscess of the Bladder.—Dr. Lawrence Turnbull, of Philadelphia, narrates the case of a gentleman, seventy-seven years of age, to whom he was summoned in consequence of a supposition that the patient was suffering from gravel. He had been unable for several hours to evacuate his bladder, and in his endeavours to do so could only pass a few drops with great pain. He had suffered previously from similar attacks, and was relieved by the introduction of the catheter. He was now placed in a warm bath, an enema of starch and laudanum given, and a silver catheter introduced, being forced through the projecting part of the prostate gland, which was considerably enlarged. The urine drawn off was considerable, the first portions being mixed with blood, and having a strong ammoniacal odour. It was necessary again to introduce the catheter early the next morning, and an elastic gum catheter was left in the bladder for three days. The urine now became charged with a tenacious mucus of an alkaline character, so thick as to be with difficulty poured from one vessel to another. He was then ordered to drink freely of an infusion of pareira brava, also a suppository of opium and hemlock was given. The alkaline mucus soon ceased to flow, but it was necessary to introduce the catheter three times a day; a few ounces of urine in the bladder being sufficient to cause the most intense pain. For a time his pulse continued steady, and his appetite good: afterwards, however, it became small and thready, the tongue becoming brown and cracked; the urine diminishing in quantity; restlessness and vomiting supervened, and one month after his attack he died. Upon examining the body there were found a hernial tumour and a hydrocele, from which he had suffered several years. The intestines were found glued together with freshly-effused lymph, and their coats injected, forming a true case of peritonitis. Upon raising the intestines a large portion of omentum was found down in the hernial sac, being at-

tached to the walls of the abdomen by the pressure of a truss. Upon raising the bladder there was a quantity of pus found within the pelvic cavity of a dark, grumous character, occasioned by the opening of an abscess situated upon the summit of the bladder. There were also three smaller abscesses on the lateral surface of the organ communicating with its cavity, and a much larger one on the anterior portion of the prostate gland. There was also an opening like that made by a catheter through the third lobe of the prostate, which projected into the cavity like a nipple. Posteriorly to this, in a pouch, there was a large portion of lymph, partly organized and imbedded in which was a mass of white particles of phosphate of lime, forming a kind of mortar. The whole length of the bladder was about five inches and a half, and its width four and a half; the cavity was capable of containing from three to four ounces of urine. Its walls were half an inch in thickness, and the prostate gland, on its lateral side, was two inches and a half long, and two and a quarter in breadth; being about eight times the size of the gland when healthy. The kidney of the left side was very vascular, and the papillæ were ossified upon their margins. There was also a serous cyst upon its surface, not connected with the internal portion of the kidney. The right was vascular, but not ossified, and the ureters very much inflamed in their whole course. The splenic artery was ossified.

Surgical Treatment of Edema of the Glottis.—

Dr. Gordon Beck stated to the New York Medical and Surgical Society that he had long thought that in cases of oedema of the glottis, when suffocation seemed imminent, the patient might be relieved by incising the edges of the glottis and epiglottis. An opportunity occurred in which he had recourse to the practice with decided benefit. The patient, suffering under inflammation of the fauces, became affected with dyspnoea, attended with paroxysms of impending suffocation. On passing the finger into the fauces, the epiglottis could be felt enormously swollen and tense. The swelling of the glottis could likewise be distinguished. In the operation a pair of curved, sharp-pointed scissors was employed, and afterwards a curved, sharp-pointed bistoury guarded to within an inch of the point. The patient expectorated two or three spoonfuls of blood mixed with the secretions of the fauces, and expressed himself decidedly relieved. Besides the operation, the patient was bled, leeches, inhaled aqueous vapour, &c. He recovered.

Animal Ligatures.—Dr. W. T. Wragg, in a paper on the use of animal ligatures, quoted in the *American Journal of the Medical Sciences*, states that he has been in the habit of using these ligatures upwards of ten years, and for a long time he has used none but these. In the course of this period he has tied the arteries of the fingers, hand, forearm, arm, leg, and thigh, and he has never seen any symptom result from which he could infer that the knot had not been removed by absorption. From the facts he has observed he deduces the following inferences:—1. That the deer-sinew ligature, if properly applied, will effectually arrest hemorrhage from vessels even of a large size. 2. That they produce less inflammation of living tissues with which they are placed in contact during the time they remain as foreign bodies in these tissues, than other substances. 3. That they are susceptible of being absorbed and carried away by the action of the living parts in the midst of which they are placed. The substance used is the deer sinew dried, stripped down and twisted so as to form a small round thread of smooth and regular surface, inelastic and strong enough to withstand any degree of force that can be applied to it by the fingers in drawing the knot. The manner of preparing these threads is as follows:—First, the sinew should be well prepared, which is done by dissecting the hamstring tendon carefully out so as to obtain the greatest length of the fibre. The long tendons running down the leg will answer also, but they are not so easily stripped, and, therefore, do not give threads of

as regular size. These tendons are prepared by long and careful drying, and should never be used till all moisture has disappeared from them. To strip them down to the proper size, the process should commence at the middle part of the tendon and proceed towards the ends; by this means the entire length of the fibre is obtained. If any difficulty is experienced in tearing the fibres apart, the tendons should be beaten with a hammer, but not so violently as to destroy them. When reduced to a very small size, the fibres must be moistened in water and twisted, either alone or two more together, so as to prepare a thread of the desired size. This is then held in the fingers a few moments and stretched while drying, so as to retain the twist, which will remain permanent after the sinew becomes dry. Ligatures thus prepared should be kept on hand, for they become more and more adapted to use by time. They should not be very large. The size must vary, in some degree, according to the artery on which it is to be placed.

Congenital Obstacle to Catheterism.—Professor Thelle, of Berne, mentions the case of a man who hanged himself, into whose urethra a probe was introduced, in order to ascertain if ejaculation of the spermatic fluid had accompanied death. The probe, however, could not be made to enter more than an inch; neither could a tube be made to enter when an attempt was made to inflate the bladder. On investigation, a fissure was found in the urethra 6" in length, the greater portion of which lay on the lower surface of the glans, and reached to its posterior border, thus presenting the lowest degree of hypospadias, and a deficiency of the prepuce corresponded to the fissure. When the urethra was cut from the glans along its lower wall, nothing unusual was observed, either in texture or diameter; but about 5" lines behind the summit of the glans there was seen a septum about $\frac{1}{2}$ " thick, running 8 or 9" along the urethra, so as to form a separate canal above the normal passage. This upper tube at its posterior extremity was about 2" in diameter, becoming gradually narrower till it ended in a blind sack. It was lined with mucous membrane throughout. The interior border of the membranous septum being inclined downwards, the upper canal viewed from before had an infundibuliform aspect, while the diameter of the normal canal was narrowed by it so as to be scarcely greater than 1"; thus the probe, as well as the tube for the inflation of the bladder, on being introduced into the urethra, passed into the funnel-shaped opening of the upper canal; and, if a catheter had been tried during life, it would have run into the same abnormal passage.

Ether Enema in Operations.—Dr. Cumming, of Madras, had a boy under his care who, twelve days previously, had fallen from a tree; the right humerus, near the shoulder-joint, was fractured, the forearm completely mortified, and the gangrene had extended considerably beyond the elbow-joint; but no line of demarcation had formed. It was determined to amputate the limb, and to try the effect of the vapour of ether in the form of enema. The instrument consisted of a large bladder, with an enema-pipe attached, an ounce of ether having been poured into it. The patient being unable to sit up, the lower part of his body was supported, the instrument then introduced, and a basinful of boiling water placed under the bladder, so that it was partly immersed in the water, some of which was also repeatedly thrown over it; but, though the latter soon expanded, after seven or eight minutes only a little drowsiness was produced. Shortly after the instrument was removed, and the ether remaining taken out. An ounce of fresh ether was then introduced, and the pipe, by tying a cloth well round its base, was made outwardly, at its attachment, as air-tight as possible. The second attempt succeeded in two minutes; almost immediately after which, perfect insensibility being discovered to exist, the instrument was withdrawn. The arm, about two inches below the level of the axilla, was removed by the double-flap operation, which occupied but two or three minutes; the

vessels were speedily secured, and all the stitches were completed but two, when, while inserting the needle, the patient for the first time awoke, uttering a faint ejaculation. The concluding stitch made him ejaculate slightly again, but it was not till he had been carried to the ward that he knew the operation had been performed. Very little blood was lost during the operation.

Microscopic Examination of a Cancerous Tumour of the Breast.—The patient from whom the scirrhous growth was taken was a female, thirty-seven years of age, under the care of Mr. Syme, in the Edinburgh Royal Infirmary. Last December she observed a swelling of the left mamma, attended with sharp shooting pain, which was thought to be an abscess, and treated by fomentations, &c. Under this treatment it decreased in size, leaving in its place a small tumour the size of a horse-bean, in which she felt a sharp, gnawing pain. It increased rapidly, paroxysms of pain coming on at intervals, attended by swelling of the arm and axillary glands of the same side. On admission into the hospital, the tumour was the size of a small orange, and separable from the true substance of the gland. It was removed by a single incision, and the patient was dismissed with the wound completely healed. The microscopical examination was made by Dr. J. H. Bennett. A thin section was removed from the centre of the tumour by means of Valentine's knife, and examined with a power of 250 diameters linear. It consisted of a mesh-work of fibrous tissue, forming waved bands, arranged here and there in circles varying in size. Some of these were very large (one-fifth of a millimetre in diameter), enclosing other circles, each of which were surrounded by several filaments of the fibrous tissue. Some of these circles contained numerous nucleated corpuscles crowded together, mixed with granules; others contained only a few, or nothing but granules. Here and there were to be seen several compound granular corpuscles. On adding acetic acid to the whole structure it became more transparent. Many of the fibrous filaments became invisible, and such as remained were studded here and there with elongated nuclei. The walls of the corpuscles were partly dissolved, and rendered very transparent; whilst their nuclei were unaffected. The cream-like fluid, which could be squeezed from the surface of the tumour, contained—1, nucleated cells; 2, compound granular corpuscles; 3, numerous granules. The nucleated cells were of a round or oval form, varying in size from the 1-100th to the 1-50th or even 1-40th of a millimetre in diameter. Some contained one nucleus, others two, of an oval form, varying in the longest diameter from 1-100th to 1-75th of a millimetre. Some of these nuclei contained one nucleolus, and others two. On the addition of acetic acid, the cell-wall was rendered more transparent; the nuclei were unaffected, and appeared in consequence very distinct.

Influence of the Periods of the Day on Mortality.—Dr. J. L. Casper, of the University of Berlin, has examined the question respecting the relative rates of mortality at different hours of the day. His data consists of 5595 deaths officially recorded in Berlin, by those who are appointed by Government to verify death, and report the cases. To make the results simple and intelligible, the number of deaths is taken at 100, and the day is divided into four sexhoral periods. It is obvious, if the rate of mortality was the same throughout the day, there would be 25 deaths in each period; but the following are the results:—

From 12 to 6 A.M.	25
" " 12 " "	29
" " 6 P.M.	25
" " 12 " "	21

From this it will be perceived that the maximum amount of mortality occurs in the six hours before noon, while the minimum rate occurs in the six hours after noon. The other two periods of the day appear to be indifferent. It is rather singular as a result to find that the morning hours are those in which the greatest number of deaths occur; but it must not be forgotten that

the period will be in many respects modified by the nature of the disease causing death. The number of deaths from acute diseases is smaller in the morning and larger in the afternoon hours, thus departing from the average results of the total deaths.

Microscopic Examination of Nasal Polypi.—Dr. Gumsburg, in his "Pathological Histology," gives the following:—"The adherent portion or root of the polypus consists of fusiform cells with elongated nuclei, resembling the ordinary primitive cells of muscular fibre; between these are deposited nuclei, in some of which a central nucleolus may be detected. It is from these nuclei that the fibrous cells are formed, and they are in structure identical with the nuclei visible in these cells. In making a section of a nasal polypus we usually find its structural elements arranged in the following order:—Externally there is a layer of polygonal cells of pavement epithelium, forming a protective investment. Below the epithelium is a layer of the round nuclei of the above-mentioned fusiform cells, and in most cases below there is a thick layer of nuclei and cells—the organized product on which depend its shape and firmness. The red vascular structure in the body, at the extremity of a polypus, consists of a loose network of nucleated fibres, and of capillaries filled with blood, and having a diameter not exceeding .005 of a millimetre."

The Opposite Polarity of the Tissues.—Dr. Baumgaertner, of Freiburg, quoted in "The British and Foreign Medical Review," has the following observations in reference to the fact, that if a piece of muscle be separated from the body, together with a portion of its nerve, on repeated stimulation, the irritability is lost, and is only recovered after a period of rest; that the power must have been derived from the muscular tissue itself; and that, in fact, there is a sort of polar or ganglionic action between the two forms of tissue. As an analogous process in ganglionic action, he points out the increase in magnetic power of a magnet induced by an increase in the weight of the iron. It is, therefore, concluded that the terminations of nerves are not simply recipients and conductors, but are also active agents in innervation, and have a polar relation to the tissues in which they terminate. Another curious theory in connection with nutrition, brought forward by Baumgaertner, is the opposite polarity of apparatuses, as of vision and the optic nervous centres. The reaction of cosmic agents within the living body also presents a subject of curious inquiry, especially with reference to sleep. This, he says, is dependent upon the law of alternate activity and repose, and not upon cosmic agents only. There is less stimulation during the night, and consequently the tissues rest to recruit their power or become charged again. During the state of activity in the day there is greater stimulation, and the accumulated power is discharged.

Turning by the Head.—Dr. Heller considers that, while turning by the head is an old operation, it is at present far too seldom performed, as it is applicable in many cases where turning by the feet is practised to the destruction of the child. Turning by the feet is, undoubtedly, in a great number of cross positions, the only method which can be chosen, as in very rapid labours, narrowing of the pelvis, when the liquor amnii has been long discharged, complete absence of pain, &c. But in many cases of crossed position, with prolapsus of the cord, or of an arm, or where the head is not found in the neighbourhood of the os uteri, the case has been brought to a safe conclusion turning by the head, with less danger to the child. Three cases are described. In one of these was complete torpidity, and loss of power in the uterus. The child lay completely across, and was already putrid. The constriction of the os uteri rendered spontaneous delivery impossible, and did not allow turning by the feet, from the probability of producing rupture of the uterus.

Abdominal Pregnancy, Suppuration, and Extrusion of Fetus through the Abdominal Walls.—

Dr. Duckert relates the case of a woman who, during her fourth pregnancy, was attacked by an ox, who thrust his horns under her clothes, lifted her up, and then let her fall on the ground. When seen by the physician, she was pale, cold, and almost pulseless. The abdomen was very painful, swollen on the right side, and the fetus could be very distinctly felt through the abdominal walls. The movements of the child could not be felt after the accident. A considerable quantity of blood flowed from the vagina. Internal examination found the os uteri closed, and the vagina pushed to the right side. The fetus could not be felt. The woman, during her pregnancy, had frequently suffered from abdominal pain, which she had never before experienced. The following day the pain was increased, and was more limited to a particular spot. Leeches were applied to it, and doses of calomel prescribed. On the third day the patient was much the same, and warm fomentations were ordered. An abdominal pregnancy was now diagnosed. The hemorrhage from the vagina became more and more watery, and continued three weeks; and the abdominal pain continued to be more or less strong. An abscess, after about three weeks from the receipt of the injury, was discovered in the abdominal walls below the umbilicus. This was opened, and the incision enlarged, on perceiving that the fetus presented at the opening. It was extracted with the putrid placenta. The cord still adhered to the abdominal walls, but was afterwards separated by ulceration; very little hemorrhage occurred. The wound was brought together by sutures. The discharge at first was considerable, ichorous, and very fetid, but was soon succeeded by that of good pus. In six weeks the wound was nearly closed, so that the patient could leave her bed and walk without difficulty.

Sulphuric Ether in Intermittent Fevers.—Dr. Challeton, of Gannat, has had great success in the treatment of intermittent fevers by administering half a coffee spoon of sulphuric ether in a glass of sugared water, either at the moment of the first shiver, or at intervals of every four hours, on the day preceding that of the attack. The efficacy of the treatment is confirmed by practitioners in the neighbourhood also.

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.

This is, on the whole, an interesting book, and one which on many grounds invites a careful perusal. The author devotes his first chapter to the consideration of the claims of surgery to be considered as a science, and he then proceeds to give his impressions on a variety of subjects, which include a majority of those that are most interesting to the practical surgeon; and this, too, after an experience of half a century in a large metropolitan hospital. Looking at the book abstractedly, there is much in it to confirm the respect which we have always entertained for Mr. Vincent as a sound practical surgeon; regarded as a crop of half a century's growth, in so rich a soil as a public hospital, we cannot consider it as a very abundant harvest. We are sorry to observe that some parts are rendered difficult by an obscurity of style, which may possibly render them repulsive to those readers to whom they would be most useful. We found ourselves occasionally reading the same sentence two or three times, and then passing on uncertain whether we had, or had not caught Mr. Vincent's meaning. We hope, however, to give a correct general impression of our author; and, as our remarks on the chapter on Science will lead us to consider some of the impediments thereto, we shall conclude this week with a few remarks on the "Hospital System," and review

the practical surgery of the work in our next number.

The author thinks that the manner in which men too commonly proceed in scientific investigations is to exercise their *perceptive* ("perceptuousness") to the exclusion of their *intellectual* faculties, and to endeavour to make out by the facts of perceptivity, merely, those relations which can be evolved by the intellect alone ("intellection"); adding, justly enough, that these are distinct powers, and that it is not uncommon to observe a vivacious perceptivity with a very low understanding. "The most perspicacious representation derived from the senses" (observes our author) "can never implant in the mind a single intellectual truth which is to become the starting-point of science. The anatomist prosecutes with zeal and ability the knowledge of the forms of animal structure, and by such labours various observers have given different accounts of the muscular fibre, just as new and improved microscopes have come into use. The fact is that this sort of discovery amounts to nothing until the mind can elicit all the relations existing between objects, and then it really becomes a scientific enunciation." (P. 9.) In conformity with such views the author considers that the chief impediments to the progress of surgical science are to be found, first, in too exclusive a reliance on objects of sense generally, referring more particularly, firstly, to mere anatomical investigation as such; secondly, to a too great disposition to investigate the molecular structure of parts; thirdly, to too great a thirst after rare and curious cases, rather than a careful study of the relations of those of more common occurrence; and lastly, in a disposition to reliance on opinion or authority. These and other causes have, in 1847, after fifty years' experience, led Mr. Vincent to observe that "it may be truly declared that the practice of surgery is little more than a collection of opinions unstable and fleeting, and generally prescribed by those whose position in the surgical society of the day gives them tone." Now, all the causes here mentioned by Mr. Vincent as hindrances to the interpretation of Nature (and many others) were particularly insisted on by Bacon, and the truth and validity of them have long since been demonstrated by experience; but we do not value the less the adhesion thus given to the Baconian method, in relation to a branch of knowledge where it is so much required, by one who has had so ample an opportunity of observing the consequences of a neglect of it. Mr. Vincent's illustrations of his argument from mathematics do not strike us as very happy; but we take this opportunity of observing that there is a very prevailing error (important in regard to natural science), that there is nothing strict or certain in reasoning but in mathematics—as if it were something different from other modes of ratiocination. The steps by which the intellect proceeds are not varied by the science investigated, though they may be sometimes by the particular test which it is the object to apply. Comparatively few men are well versed in logic; fewer still, perhaps, in *strictly* inductive reasoning; yet every man employs both, every day of his life; neither is inductive reasoning, in our view, an *art* of interpreting Nature, so much as it is *the* art, as has been observed in regard to logic by Whately. All modes of ascertaining the truth, and of testing it, involve proceedings the rules of which it is the object of induction and logic to give beforehand, just as grammar is not an art of speaking properly, but the rule to which all correct speaking is reducible. The truth is, there is only one mode of reasoning correctly, and it is very easy for the student in natural science to reason just as soundly as the mathematician; he has only to adopt similar cautions; he will always find that he can command certain *data*, which, if they be disputed, he can prove by exactly the same process as that on which a postulatam in mathematics is to be defended, viz., by showing the absurdity of the opposite supposition; but men will not do this:

they *will* assume, which the mathematician does not; they *will* generalize from insufficient particulars, which the mathematician never does; and, when they find themselves in error, they blame the stubbornness of the material instead of their faulty mode of working it. But we shall probably recur in future to this subject; in the meantime we perfectly agree with our author, in a general sense, as to the very small claim which the prevailing surgery has to be regarded as a science, although we think we perceive the small beginnings of better times. We are glad to see our author quoting Bacon in support of his views; no observation of that extraordinary man, for example, is more necessary to the surgeons of the present day, and particularly those of anatomical schools, than—

"Sensus enim fallunt utique. Testimonium et informatio sensus semper sunt ex analogia hominis; non ex analogia universi; atque prorsus magno errore asseritur, sensum esse mensuram rerum; sensus enim per se res infima est et aberrans."

Now, whilst we agree with Mr. Vincent generally as to the low condition of surgery, and whilst we concur with him as to the operation of the causes which he has mentioned, still there are many others to which these are subordinate; and, bad as matters are, we protest against the surgery of St. Bartholomew's, or of any other hospital where the teachers are similarly constituted, being inferentially or otherwise regarded as a fair representation of the *status* of English surgery; but, as in explaining our objections it will be necessary to examine a little into the "hospital system," we will illustrate our remarks by a few observations on Mr. Vincent's own hospital, St. Bartholomew's. This school was raised from nothing by Mr. Abernethy to be one of the first, if not the best, schools of surgery in England, perhaps in Europe. If Abernethy did nothing else (and we think he did a great deal more), he at least gave a scientific *phases* to modern surgery. We care not whether Mr. Abernethy's views may be allowed to comprise a generalization, or be viewed as axioms or processes leading thereto; but he did this, he enunciated certain clear, definite, intelligible, and easily-tested propositions; and the whole of his practice was a series of as clear, as definite, and as unavoidable consequences from them. Nothing like this had existed in surgery before. Something like a step preparatory had been made in those parts of Mr. Hunter's labours which related more immediately to surgery, in the collection and, still more, in the impressing of numerous *facts*, some of them little, others not at all, observed before. Though scarcely amounting to what we should term *generalization*, they justified the axiom that "the whole sympathized with all its parts;" but this Mr. Abernethy, with the creative spirit of inductive observation, converted into a surgical form of vast import when he enunciated "the constitutional origin of local diseases." Abernethy said that local disease, injury, or irritation, would disturb the *whole* system; and, conversely, that *general* disturbance would influence every local affection. The treatment, therefore, of every so-called local malady, necessarily with him involved attention to the *whole* body; but further, as local requisitions, strictly so called, were for the most part simple and obvious, and consisted so largely in avoiding that which was hurtful, so, they were easily secured. But the care of the general system obviously involved requisitions much more varied, more recondite, more important; so that in every case, however (so called) local, the care of the general system formed in Mr. Abernethy's plan the leading feature of the treatment. It is altogether a mistake to suppose that he thought nothing of so-called local applications; and no error can be more gross than to suppose that he thought of *nothing* but the *stomach*. He did think, however, that the media through which the system was more generally disturbed were the digestive organs, and therefore his chief attention was directed to ensure the tranquillity of them. He also regarded impressions acting on the nervous system

primarily as very important sources of constitutional disturbance; but, as he had little confidence in ministering to this by medicine in a direct sense, so he chiefly addressed his measures to the nervous system mediately through those organs "so wont to disturb it," viz., the digestive organs. Plain and simple as these propositions were, they were, on their first enunciation, met by the inflections so often awarded to advances in science; instead of being carefully examined, they were first disputed, then ridiculed, lastly declared to be what every one knew before, and then universally recognised, *however imperfectly followed*, in all parts of the civilized world. Now, that many medical men were aware of the facts observed by Mr. Abernethy is true; that we see practical recognitions of some such influence in every age, and almost in every family even, may be admitted; and thus (to use a phrase of Dr. Wordsworth on another subject) there might have been a thousand Copernicuses of Mr. Abernethy's views, but he was their only Newton.

Now, to show how little this was due to the hospital system, this man was allowed, under "the system," to be twenty-eight years assistant-surgeon to the hospital of which he had all along been the distinguished ornament, and whose school he had formed. Mr. Abernethy was in many points of view an unusual, in many an extraordinary, man. We think that upon most subjects he had a good deal of the "*non tetigit quoad non ornavit*." However that may be, few would deny him considerable originality, none that he never neglected to add to and adorn his lectures with the inculcation of a sustained morality in our professional relations. He had a most remarkable felicity in simplifying difficult subjects, and placing them before the student in forms most easy and attractive. He had a penetrative sagacity which enabled him to anticipate and sympathize with the student on points which were difficult or repulsive. He had always at command a variety of illustration, and with a changeableness of manner—now serious, now gay, now quaint or humorous—always natural, could at pleasure command the seriousness, sustain the attention, awaken the sympathy, interest the feelings, enliven the fancy, or excite the risibility of his audience; and still he understood so well the *ars est celare artem* that, although nothing was done without its object, yet all seemed to arise from the interest he felt in the subject rather than from any desire to impart that interest to his class. As we have no opportunity in these passing remarks to do Mr. Abernethy justice, we may possibly at some future time return to this subject.

Now, it were to have been wished that the man who thus founded the school should have been succeeded by men who, if not of the same depth, order, or variety of talent, should at least have had kindred minds, as being, one would think, most likely to have sustained, if not the onward movement of the school, at least that *status* which it had derived from its founder. We believe that Mr. Abernethy had formed many surgeons out of the hundreds he had educated who might have been fitted for this purpose; but the hospital system required that the choice should be made theoretically from, it might be, five or six apprentices, but virtually restricted to two; and who were they? Messrs. Lawrence! and Stanley!!—*Rumorem tenetis*, do we hear; nay, reader, this is no subject for laughter or smiles.

Now it appears to us, and we judge from their public acts only, that few men could have been found who were more different from, and we think more antithetical to, Mr. Abernethy than Mr. Lawrence or Mr. Stanley. We beg distinctly to repudiate the smallest intention to offer any opinion, much less to insinuate anything, in disparagement of their qualifications as practical surgeons; we take these for granted. Mr. Lawrence may have peculiarities, characteristics; and who has not? His early quarrel with his friend and master; a remarkable lubricity of conviction, a kind of easy plasticity of opinion, not common even in public matters,

and which have been exemplified scarcely less drolly on points connected with science, than they have on what are called medical politics. His evidence before the first committee of the House of Commons, and numerous other public acts, evince considerable peculiarity, but we fear they are not original. Moreover, Mr. Lawrence has been an industrious and, as long as surgery is to remain the thing of opinion which it now is, he still remains a useful compiler; though, perhaps, in this respect, inferior to Mr. Samuel Cooper; but here, again, we trace no originality: on the contrary, although as boy and man we have, we believe, read the whole of Mr. Lawrence's works, and have often derived pleasure from his nicely correct, clear, level style of writing, yet we cannot charge our recollections with a single original idea. It has seemed to us that, though most men have a dash of everything in their composition, originality is just the thing that Mr. Lawrence has not. Even when he enunciates a new application of some well-known principle, he seems to us to get out of his depth. Any one who will read his paper on Erysipelas, or his treatment of Strangulated Hernia, will at least understand what we mean. Now, originality was in Abernethy a very leading feature; but, again, Mr. Abernethy, in the Postscript to his Lectures at the College, informed the profession that from an early period Mr. Lawrence had been accustomed to "decry and scoff at what he taught as Mr. Hunter's opinions," and that he, Mr. Abernethy, continued to teach them amidst "the controversy and derision of such of his pupils as had become his proselytes." Now, here was evidence of difference of opinion, and upon points, too, somewhat closely connected with the surgery which it was Mr. Abernethy's object to teach, and by which he had founded a school in number and reputation superior to any which had been formed by any single individual in London, or perhaps anywhere else. We are by no means certain that there were not other differences of opinion yet more grave, which, however little they might affect Mr. Lawrence's qualifications in any other way, still had important bearings on his being the most happily chosen successor to Mr. Abernethy. Mr. Abernethy taught definite principles, both in surgical and moral science, which, whether right or wrong, had been severely tried; his school had been founded on them; and we should have thought the onward progress of science, as well as that of the school, had been most auspiciously promoted by the more refined and improved application of those principles on which it had been raised. We should, therefore, have regarded any great differences of opinion as of great consequence, and we think the results have shown such apprehensions to have been well founded. Extensions of Mr. Abernethy's principles have been achieved it is true (as we think), and by those who were his pupils, but not, so far as we know of, by any of the teachers of St. Bartholomew's.

We agree with Mr. Vincent, when he states that the mere possession of information does not constitute a scientific mind, neither does it in our view at all necessarily qualify a man to be a teacher. A man might tell us a number of facts which were to us new or interesting, without our necessarily dreaming even what science was. He might conceivably tell us, for example, a great deal about a country where people put the horse before the cart, and of another where the cart was placed before the horse; that placing a weight on wheels considerably facilitated its locomotion, and thousands of others, without giving us any idea that there existed anything called "mechanics." So a man may give a clear, orderly exposition of everything that every surgeon in the world did in all the diseases under the sun, with the plaisters and potions, and the general results of them, together with such as had been retained and thought best in 1847, and yet never teach a student the first thought that should form a starting-point (as our author observes) for the formation of science. Now, something of this kind suggests itself to us when we

compare one of Mr. Lawrence's lectures with Mr. Abernethy's. Abernethy's lectures had plenty of faults, as regarded details; they were careless, almost slovenly; but he taught principles, and that very clearly, to those who would listen. Now, Mr. Lawrence's lectures appear to be excellent expositions of the ordinary facts and details of surgery, but, as it appears to us, more as an art which had reached the *ultima thule* of his "perceptuousness," or his expectations, rather than as the inductive gatherings dealt out by a philosophical mind—as the first steps only, the humble but necessary beginnings of a beautiful science which was one day to result, in successfully tracing through the relations of surgical maladies those laws on which the health of nations depends; and to the prevention of which maladies, by the light of an inductive philosophy, it was the object to animate and sustain the exertions of the rising generation. Of Mr. Stanley we desire to say but little. We regard it as a great misfortune to any man to be placed in any situation for which his organization appears ill adapted: as demonstrator of anatomy vociferating at nine o'clock punctually the facts of descriptive anatomy. With a zealous *iterum iterumque* always serviceable to the student; with just enough, too, of metropolitan peculiarity and a curious oral gesticulation to suggest the *locus in quo*, the indigenuous origin, and give life and fun to the foggy mornings without exciting ill nature, we think Mr. Stanley was excellent; but, regarded as a successor to any part of Mr. Abernethy's duties, we will only trust ourselves with expressing the opinion that he was unfortunate. But this was the "hospital system," which neither had furnished nor admitted of any other arrangement. Now, so far from being surprised at any arrangement, however infelicitous, arising out of that system which involves so gross an absurdity as restricting hospital appointments to its apprentices as such, we should be surprised at any other consequence. For, even, supposing that giving men a prescriptive right to a provision did not of itself notoriously tend to deprive them of the very best and surest stimuli to exertion; that, therefore, apprentices were to be regarded as equally supplied with motives for exertion; even then they hardly amount to more, perhaps, than one-twentieth of the class: so here the chances are not only as twenty to one, or something like it, against the maximum being obtained in aid of the interest of science, but leaves it actually quite possible that a man may be appointed surgeon whose pupillage was remarkable only for idleness and irregularity. Again, such a system evidently commences a boy's career badly; he pays Mr. A. or B. 500 or 1000 guineas, not because Mr. A. is a man of science or a distinguished teacher, so much as because he is a *surgeon* to an hospital, and therefore gives his pupil the privilege of becoming eligible to the same post, which post he, the master, acquired not from his talents, his industry, or his high character, but because he had grown into the elder apprentice at the time of his election. This mercantile perceptivity is but the commencement of what the practice of the "hospital system" is an unceasing and ubiquitous continuation. To numerous public advertisements, of late years have been added something very like the civil whispers of private solicitation; the money-value of popularity among teachers has, drolly enough, produced certain curious *bicarreries* of position amongst the surgeons themselves, as they are or are not teachers; so that we question whether at this moment there is a hospital in London in which a genuine cordiality exists amongst the whole even of the medical officers. Then for our "author's perceptuousness," everything that new theatres, increasing catalogues of morbid anatomy (too often mis-called pathology), microscopes, collegiate arrangements, are all combined to fill up the imposing externals of a public school. As Mr. Vincent observes, there is a "huddling together" of the greatest quantity of *agenda* in the smallest space. No time or opportunity, much less provision or arrangement, is made for thought; so that, regarded as arena

where the cultivation of science is supposed to be the object of every arrangement, the whole seems very little better than a successful farce. But we said ubiquitous. Yes, because what we have been remarking on as observable in one hospital is merely the type of a system exemplified in most others. The College is but a repetition of the same system under another form, and by the very same men. The Royal Medico-Chirurgical Society is tainted by the same "system." Every avenue, however fairly the word science may be made to grace its entrance, is occupied by the mercantile "perceptivities" of traders in teaching, which have thus spread far and wide under the "hospital system." The appetite for position is so keen that the men who support the system are not even fair to each other, and sometimes find justice only in the higher tone and better feelings of the men they have injured. In the appointment of president to the Medico-Chirurgical Society, some few years since, in which our author (and we beg Mr. Vincent's attention to this, as a system which, if he has not assisted to uphold, he has done, so far as we know, nothing to expose or correct), from not being, we suppose, sufficiently manoeuvring, was passed over, and with the additional indignity of a junior colleague of his own being chosen. We believe that, had he required any, he would have found much sympathy from the very men who had suffered under the "hospital system." Whilst on this subject, and in relation to the cultivation of high and liberal feelings in the profession, we would ask, in virtue of which of those Christian courtesies which should regulate the intercourse of men engaged in what ought to be a holy calling in a public hospital, was it that Mr. Stanley, we will not say intrigued to obtain, but allowed himself to be placed in the chair, in precedence of an older fellow and a senior colleague so unexceptionable as our author, and who had the highest compliment paid him from the founder of the Bartholomew School, who, during his own tenure of office, had been heard to observe that "Mr. Vincent was the best practical surgeon about the hospital." But we must leave this subject for a few hints to Mr. Vincent. Why has Mr. Vincent—who has now, we see, observed the errors—made no effort, *quo ad* the interests of science, to correct them? Why has he not proposed something, if only to register his better perceptions? Would not, for example, the too great cultivation of mere perceptivity have been judiciously opposed by a proposal to the governors of an establishment so enormously rich, who have been so ready to spend thousands in bricks and mortar, to apply a few hundreds in the appointment of a professor of inductive philosophy, and have made it his business to give lectures exemplifying its mode of application, and the mischief of its violation in medical science? Would not throwing open the hospital to *concours* have opened to the apprentices paths to honours, of which, under the present system, the attainment is impossible; and have supplied not only the prospective interests of science, but what is even more to the point, the patients in the hospital with the maximum of the current talent of the school? Does our author not think that the appointment of *hours* for operating would not somewhat repress the appetite for display—possibly, too, the number of operations—and have been quite as useful to the student, and fully as humane to the patients, as appointing one day in the week? These, and many other points, had we space, we would urge on Mr. Vincent, who could, even yet, we think, address a series of letters to the governors, attended with the greatest advantage. To lay open the system in all its bearings will require a few articles devoted specially to it; but we have said enough, for the moment, to show why we should object to the surgery of St. Bartholomew's, and hospitals so constituted, being regarded as representing English surgery: on every side, besides the impediments to which we have referred, we see practical exemplifications of the superiority of surgery out of

the hospital. We will only, in illustration, make two remarks—the one general, the other particular. The only establishment which recognises the necessity of providing pure air for cases specially requiring it, or for convalescents (with the hundreds of thousands of pounds at the disposal of the different hospitals), is a small, very small special charity; let that suffice for a general indication. For particulars, we would consult almost any periodical; but, to name a case, we very much doubt whether, out of the hospitals, six surgeons in England would have sanctioned the ligature of the common iliac in the case where it was had recourse to by Mr. Stanley; and we trust that still, for the honour of English surgery, the case may undergo full public discussion.

There is a good deal in Mr. Vincent's opening chapter which we hail with pleasure. We imagine that there must have been much of the mist of early prejudice to get through before he could have avowed the opinions he there expresses. It may, therefore, seem unkind, almost ungrateful, as lovers of science, to charge on him the very fault which he so justly fastens on others; for certain it is, that, in a much higher sense, Mr. Vincent has rather rested too much on his perceptiveness, for he has perceived, not facts merely, but relations to the interests of science which timidity, irresolution, or something we know not, has withheld him from wresting to their legitimate and best purposes, the improving the plans and correcting the abuses of a great public hospital.

We shall next week proceed to the more agreeable task of reviewing the practical part of our author's book, in which much will be found to interest the practical surgeon—much that we approve of, and some things in regard to which we differ; but we hope to do so in a spirit which would much rather excite the reader to judge for himself than induce him to rest satisfied with our representations.

THE MEDICAL TIMES.

SATURDAY, NOVEMBER 20, 1847.

THE COMMITTEE OF POOR-LAW MEDICAL OFFICERS.

THE meeting of Wednesday last was extremely well attended, and the matters discussed of considerable importance. The most important was the arrangement of a classified series of inquiries, to be addressed to every union surgeon. The value of the returns needs no remark as a basis of legislative or Government intervention; and, after a very diligent and careful discussion, a tabular form was unanimously agreed on, and ordered to be printed. During the consideration of this important document, the Committee had the benefit of several useful suggestions from Mr. Farr, the Deputy Registrar-General.

In the course of a few days the Committee will have communicated with every union surgeon in the kingdom.

MEMBERS OF PARLIAMENT AND THE PROFESSION.

THE early opening of the Parliament gives an opportunity to the Council of the National Institute to bring before the notice of the members of Parliament their claims for incorporation, and to solicit the support and advocacy of those enlightened senators who desire to see the broad principles of truth and justice established among all classes of the community, and who feel that the true destinies of society at large, and of every

section of which it is composed, are to be brought out and perfected through the medium of just laws, enlightened intercourse, and a wise encouragement of moral and intellectual progress.

We need not say that the cause of the general practitioners is identified with the advancement of these sound and universal principles: theirs are the objects with which every intelligent man would sympathize, and every liberal man delight to see realized. It can be no longer tolerated that a body of men whose usefulness to the public surpasses that of any other class of society—whose attainments, despite the covert but no less malignant aspersions of the representatives of the Colleges of Physicians and Surgeons before the Select Committee of the House of Commons, are highly honourable to our profession; and whose station in society, won for themselves by their devotion to their duties, their rectitude of character, and their superior knowledge, is now emulative of that of the more favoured, but, perhaps, less worthy satellites of other institutions—we say it is not to be tolerated that this body of men should be deprived of the benefits and respectability of a legal incorporation, and should by this deprivation be defrauded of their due weight and influence amongst the institutions of the country. Here is a large and useful body of men, who have no name by which they may be known to foreign nations, no authority through which they can treat with and be received by our own Government, and who are unjustly stripped of all the dignity with which an incorporation would invest them before the English public.

Politically, this is their situation; and in the regions of science it can be proved, incontestably, that the governing bodies of the existing incorporations have done all that in them lay to resist the forward impulse which a superior education and the progress of society had created, and, both by positive acts and malicious statements, to limit the acquirements, and to degrade the intellectual character, of this ill-used body of men.

However, day by day they are growing stronger, and are fortifying the position which, at the establishment of the National Association, they took up; and the public, at the same time, are becoming better acquainted with the bearings of the question, and especially with the anomalous and unfair position, in the profession, of their ordinary medical attendants.

Before this number shall be published the Parliament will have met, and the members will have assembled in London for the transaction of their parliamentary duties. It is incumbent on every member of the Institute to obtain an interview with such members of Parliament as his professional duties or other relations may enable him to call on, without intrusion, and submit to their attention such an outline of the principles and objects of the Institute as shall be easily comprehended; so that, when the subject comes again before the Parliament for discussion, the members may be well informed upon the false position and the just claims of the general practitioners, and prepared to give this body their zealous and enlightened advocacy.

It is probable that, during the next session of Parliament, a committee will be appointed to continue the inquiry into the subject of Medical Reform, and we conclude, as a matter of course, that the Council of the Institute will be heard on the part of the general practitioners.

We understand that the Council are assured of their right to be heard, and this is a sufficient answer to the audacious assertions that have

been of late made in the pages of another journal about the Council of the Institute having disgusted the Government, and lost all influence upon this question. Such statements, however, appearing in such a journal, are always understood in a contradictory sense, and, therefore, require no trouble on our part to refute.

It must be borne in mind that the general practitioners were not examined, either individually or by representative agents, before the special committee that sat last session, and, consequently, the House is not in possession of the arguments that the general practitioners might adduce to justify their claims. The evidence that we are now publishing is, therefore, *ex-parte*; and, after all, what a lame and impotent case the College authorities make of their vested interests and their exclusive rights. They do not now appear to have any, or, if they conceive that they have, they make a very pusillanimous defence of them. Conscience makes towards of us all. If the Council of the College of Surgeons and the Censors of the College of Physicians content themselves with such feeble and shallow arguments to sustain their artificial ascendancy, we shall begin to think that the old adage, "Corporations have no conscience," is undergoing a practical refutation; and that the force of public opinion, in our profession, can extract a pang of remorse from the callous insensibility of inveterate self-interest, and bring a blush of shame to the lean, cadaverous, parchment cheeks of the functionaries of an icy-hearted corporate oligarchy.

THE MEDICAL CORPORATIONS AND SANITARY REFORM.

It is a singular circumstance in the history of medical colleges that, while established for the express purpose of guarding the public health, they have scarcely ever been found carrying out the intentions of Government in giving them a corporate existence. The examination of candidates for license to practise seems to be, in their estimation, all that is required of them, and they rejoice in the luxury of good incomes procured with little expenditure of time or talent. Diplomas are intimately related to education, and the value of the former ought only to be estimated by comparison with the latter. If this has been of a high character, there can be little doubt that the majority of those who obtain authority to practise any branch of the healing art will be entitled to public respect and confidence; but if, on the contrary, it has been defective—it matters not what professional titles a man may have conferred upon him—he will be the means of inflicting a vast amount of injury upon his fellow-creatures. The State, therefore, cannot be condemned for acting improperly when it committed into the hands of medical institutions the education of individuals who sought in after life to follow the practice of medicine, and the authority of testing the manner in which they had used their opportunities, by a stringent examination. In conferring these powers upon corporations it acted benignly, and those who have abused them have conducted themselves ungratefully.

But it is evident that the State, in granting charters of incorporation to medical colleges, contemplated something more than the mere act of giving diplomas to worthy candidates, viz., that of promoting by every means in their power the public health: it was but one part of their duty to send forth men skilled in the art of administering the best remedies to the sick members of

the community; it is implied, if not expressed, in the charters of incorporation, that those to whom they were granted should use all the means at command to remove those causes which produce disease and death. If such were the case, then is it evident that, as regards the great question of sanitary improvement, every medical corporation of the three kingdoms has been signally remiss in performing its duty. Public attention has been directed to the fact that the preservation of health greatly depends upon the manner in which houses are constructed and streets laid out, and that the inhabitants actually have in their own hands, to a very great extent, the issues of life and death. This subject was first broached by members of the medical profession, and with great pains and expenditure they have maintained an agitation to the present time, which promises speedily to produce the most desirable results. It is true that, in this great work, they have not laboured alone, but have attracted around them numbers of the laity, without whose assistance they could never expect to accomplish their benevolent intentions. But, we ask, what medical corporation has ever bade the little band of sanitary reformers god-speed, or stretched forth a helping hand when they were struggling against difficulties? We look in vain to England, to Scotland, and to Ireland, to find one who has ever done this. In Edinburgh the fever has swept away multitudes, and causes have been pointed out which have greatly increased its virulence; but the Colleges of "Modern Athens" have been content to look on, unmoved as the Roman Brutus, when he gave his children to the lictors. In London, the College of Surgeons could suffer, without a murmur, the stench of the Portugal-street burying-ground to be constantly under its nose, and seemed so much in love with it as to make no effort for its removal; the Physicians' corporation, influenced by pride, removed from their old establishment in Warwick-lane, which, to their disgrace, has been converted into butchers' shambles, and in Pall-mall they have with singular contentment snuffed the ill-scented gale, occasionally wafted across the Park from the regions of Strutton-ground and Westminster Sanctuary. The Blackfriars Company, bent upon carrying on a thriving trade in drugs, chemicals, and certificates, have never made even a single attempt to benefit their tenants by properly repairing the wretched old houses in which some of them dwell, or of preventing the burial of the dead close against their windows. Public attention has been raised without their assistance, and amongst all the petitions that have been sent to the British Parliament, praying that a measure may be passed which shall render more salubrious densely inhabited cities, none have been found from medical corporations.

At the present time, when the cholera is at our doors, they exhibit the same stupid apathy, and, if we are permitted to form a judgment from their conduct, we must arrive at the conclusion that they care not how many thousands of the population are swept away by the Asiatic scourge when it invades our country. Even now there is time for something to be done which may repair a damaged reputation; and, by entering the vineyard at the eleventh hour, they may obtain rewards with those who "have borne the burden and heat of the day." Doubtless, after the advent of the cholera, the public and the profession will be favoured with reports of meetings on the subject under the roofs of collegiate houses, museums will be enriched with pathological

specimens, and learned dissertations published under the auspices of professional corporations. All these splendid doings will probably leave the matter just as it was found, or, if a small amount of knowledge be obtained, it will be at the expense of much human suffering.

We consider it to be as much the legitimate province of our medical corporate institutions to advocate measures which appear eminently calculated to lessen the amount of disease, as to provide the public with well-educated physicians and surgeons. The undertaking may not be quite so profitable, but it is equally honourable; and, if it had been prosecuted with the same zeal as the traffic in diplomas, it is probable that at the present time our cities in an epidemic might bear some resemblance to cities built of stone in a conflagration.

That our English corporations never dreamt of becoming apostles of health in the manner referred to, is evident from an inspection of their *curricula* of education: in not one is there a command given for the student to devote his attention to the important science of public hygiene. Preventive medicine has been considered by those who have authority in the profession as a thing of no consequence, and hence they have made no provision for its cultivation. The mission of the medical practitioner is supposed only to commence when disease has invaded the human frame, and drugs and chemicals are called in requisition; this, however, is doing an injustice to his high calling—making it little better than a trade by which an individual may obtain a livelihood, not a profession whose principal attribute is benevolence, and whose efforts are as much directed to prevent sickness as to remove it when manifested.

The Colleges are now suffering the consequences of their reprehensible neglect—Government never consulting them in the matter of sanitary improvement, and the public viewing them as institutions in which they have no interest, and from which they cannot possibly derive any advantage. If, then, destruction were threatened, scarcely would there be an effort to avert it, and they are only tolerated with the hope that some means will be adopted by which they may become what they ought to be—the nurseries of science, and the guardians of the profession.

THE FIRST SESSION OF THE NEW PARLIAMENT.

In a few days the Imperial Parliament of Great Britain will assemble to deliberate upon some most important subjects which will be submitted to its consideration. The session will, probably, present many features of interest to the members of the profession, as there is little doubt that the subject of Medical Reform will be again agitated, and tinkering politicians will be all activity to get themselves renowned by the enactment of some measure, without any regard to the future welfare of those whom it is ostensibly intended to benefit. We are compelled to acknowledge that we look upon the present situation of the medical community as particularly critical: for, with a strong conviction that some change is necessary, there is danger of defective measures being enacted into laws, in consequence of sound reform being so long delayed. It is evident that the present order of things amongst us cannot, and ought not, to continue much longer, and patience and perseverance are only required to bring about for the general practitioners a consummation devoutly to be wished for. Any

legislative enactment, however, to benefit the profession must contain in it the means of correcting the abuses of the old corporations, of raising the standard of education, and of incorporating the members who are engaged in practising medicine, surgery, and midwifery.

The Colleges of Physicians and Surgeons, whatever may be their pretensions, are no friends to good government or good medical instruction. They have been proved guilty of misrule, oppression, and avarice, legislating principally for their own interests, and exhibiting no concern for the advancement of science, or the welfare of the profession. In a pamphlet published by Mr. Edward Lee we have the following remarks, quoted from Dr. Grant:—"The ignorance and supineness of our Legislature as to everything connected with medical affairs, the total want of representation of our profession in the government of the state, and the despotic powers granted to our irresponsible corporations, have rendered the medical community of England not only destitute of all redress or appeal against arbitrary oppression, but more disunited, disaffected, and degraded than the subjects of Eastern despots. The irresponsible members of the self-elected juntas, acting collectively in the secrecy and disguise of committees, clubs, and councils, are guilty of acts, as every one knows, which they would not dare to perpetrate on their individual responsibility, and thus they have unblushingly, but notoriously, sunk the standard of medical education and attainments in our country; they have dismembered and disaffected the profession; they have made its contention a proverb of ridicule, and ruined its respectability; they have obstructed every advancement, and especially in such departments as depended more immediately on their influence for support; every improvement introduced has been made, not by their aid, but always in despite of the opposition; they have debased the general practitioner of medicine from a benevolent and charitable philanthropist to an arrogant, contentious, illiberal, avaricious, and selfish misanthrope."

With regard to medical education of candidates for the surgical diploma of the London College, the same author says, "The laxity of examination was such, according to the evidence of Mr. Guthrie (himself a member of the Council), as quoted by Sir J. Clark, that many were allowed to pass who could not spell very common words in their native language. What the requirements of the candidates for the College diploma were before 1836, Mr. Guthrie does not inform us; but such, it seems, is the deplorable ignorance of many who are permitted to pass the Royal College of Surgeons. Is it surprising that quacks and quackery should thrive, when such is the education of many of the regular practitioners? Such a state of things ought not to exist in a civilized country, and would not have existed at the present day, had the institutions intrusted with the regulation of medical education done their duty." A registration like that introduced into Parliament last session would leave these old sinners and enemies of the profession with the same powers as formerly, to benefit their own pockets by unjust legislation and burlesque examinations; with this difference only, that competition would become greater amongst those who trade in diplomas, from an admission of the Scotch Colleges and Universities to the same privileges as English medical corporations now possess. If the bill had proposed tethering the Scotch by a shorter rope, Dr. Burrows and Mr. Lawrence would

never have appeared as antagonists to it. We have said before, and repeat it now, that if the general practitioners do not insist upon a charter of incorporation for themselves as the groundwork of sound medical renovation, they may rest assured they will yet suffer greater indignities than they have hitherto done. The session being about to commence, they should buckle on their armour, and, without delay, vigorously pursue those measures which experience has taught them will alone make them increasingly honourable, useful, and powerful.

Another measure which will occupy the attention of Parliament, and in which the profession is deeply interested, is that of Sanitary Reform. Medical men were among the first to show its necessity, and have been since the most unflinching advocates of it. The principal facts brought forward to show the wretched condition of our large cities, and the sad results to the health and happiness of the population in consequence of it, have been promulgated by the members of our profession. That immediate legislation is required will admit of no doubt, when it is known that, by the neglect of sanitary measures in England and Wales, the lives of 137 persons are forfeited daily. In this metropolis, the mortality from preventible causes is truly frightful. Dr. Hector Garvin, in a pamphlet lately published on the "Healthiness of London," says "In the metropolis there are about 266 deaths every week, nearly 38 deaths a day, or considerably more than one every hour, *over and above* what ought to happen in the common course of nature. Now, it has been calculated, that for every death which takes place, there are twenty-eight causes of sickness which do not end fatally; we have, therefore, 387,296 cases of sickness occurring in the metropolis every year which are unnecessary and preventible: 13,832 lives could be saved—more than a third of a million of cases of sickness could be prevented." The members of the medical profession, in becoming the champions of sanitary reform, have been animated by one motive only, that of benevolence. Here there can be no mistake, when the judgment is rightly exercised; and the public will one day award them an unfading crown for their exertions. It must be very encouraging to those who have long been in the field to know that there is a prospect of their reaping some reward for their toils. During the coming session of Parliament a bill will, in all probability, be passed, which, while it may not remedy every evil, will yet accomplish a large amount of good. The threatened invasion of the cholera will, no doubt, serve to hasten the measure; if so, its advent here will be memorable, not only for the evils which it may inflict, but for the good which it will produce.

It is our fervent hope that the session will not pass away without some important benefits to the profession and the public.

POOR-LAW MEDICAL RELIEF.

Blandford, Nov.

TO THE RIGHT HON. SIR GEORGE GREY, BART., &c. &c., HER MAJESTY'S SECRETARY OF STATE FOR THE HOME DEPARTMENT.

SIR,—The medical relief of the sick poor, under the provisions of the Poor-law Amendment Act, forms a subject of paramount importance to society at large; and the mode in which that relief is afforded, as well as the intrinsic value of it, must greatly influence public opinion, and confidence in the utility and efficiency of the new poor-law itself.

No wise Government will leave this question in

its present unsatisfactory state; and an enlightened Home Secretary like yourself will not be offended or annoyed by a plain and candid exposition of the evils and defects of the present arrangements, as well as a safe and efficient remedy, though it comes from the practical hands of a union surgeon.

Having been seventeen years in daily professional attendance on the sick poor, I have seen much of the working of both the old law and the new. I have acted as medical officer under a considerate and liberal board of guardians, for whom, individually and collectively, I have great respect, and with whom I have gone on comfortably and amicably for twelve years. I have, therefore, no personal complaints to make, and no personal interests to serve. The suggestions which I have to offer are purely for the public good. Many of my professional brethren have not been so fortunately situated, and bitter murmurings from various parts of the country indicate an uneasy and dissatisfied state of the medical body, who are labouring under an ill-judged and bungling system, which calls for great zeal, activity, and expense on the part of the union surgeon, and great forbearance and sense of justice on the part of boards of guardians to render even tolerable. In many instances the medical officer is so miserably remunerated that he may be said to be required to make bricks, as the Hebrews of old, without the necessary allowance of straw; so that no wonder he considers his state analogous to that of Egyptian slavery, and vituperates with unphilosophic asperity the poor-law commissioners, who are not wholly guiltless, and the boards of guardians, who, often too exacting, require "the pound of flesh," which is "written in the bond." It may be supposed by some that these grumbling remonstrances and public meetings, which the newspapers re-echo from one end of the kingdom to the other, are symptoms of irritation without sufficient cause. To prove, then, the system unsound under which medical relief is afforded to the pauper population, I might appeal even to the volumes of annual reports published by the poor-law commissioners themselves. They commenced operations, in their first year of office, very boldly, and avowedly on the "tender system," as it was called. Unions were recommended to advertise for the cheapest doctor. A wretched parsimony was the *beau-ideal* of good management. If the resident practitioners of the district resisted the application of the screw-system, they were to be intimidated by the introduction of youthful aspirants fresh from the dissecting-room. The unsuccessful, the inexperienced, and the bankrupt, were to be invited by boards of guardians to swamp the resistance of those who were established, well known, and respected in their localities.

Bridgwater gained notoriety in this crusade; but I need not enumerate instances of this absurd and tyrannical mode of proceeding, which generally ended disgracefully, and of which the commissioners at last became heartily ashamed.

Nearly all the boards of guardians, however, were tempted by a false economy, to fix the lowest possible salaries for their medical officers, even where they did not advertise for the lowest tender. Medical men were invited to accept their terms, on the assurance that new pauperism was to be a very different thing from old pauperism. In fact, they were informed, that the object of the new law was to extinguish pauperism altogether; and that, of course, the medical relief required would be annually less and less—a sort of "diminuendo" movement, very gratifying to the ratepayers.

I find, by an examination of my own quarterly returns, that the number of cases applying for medical relief became, on the contrary, every year more and more numerous; that the duties involved, and the reports required, became progressively of a more onerous character. Whatever might have become of the pauperism requiring food, the pauperism requiring physic became annually more plethora.

I have no doubt the testimony of the majority of the medical officers of the kingdom will show a similar tidal movement. The silence of the poor-law commissioners, so skilled in statistics, is on this point extremely ominous and suspicious. I have never seen a single general abstract of the number of cases annually attended by the union surgeons, though our regular quarterly returns render such an abstract very easy of computation. Such abstracts are universally published by every hospital in the kingdom, together with its annual expenditure; but the commissioners appear always to have kept the number of paupers thrown on the care of their medical officers in the background.

I do not wish to make any attack upon the commissioners, to whom their work was new, and

mistakes somewhat excusable; but I must mention historically, that various schemes have been from time to time proposed by them, in justification or palliation of their first false steps.

The "tender system" received its deathblow from the various memorials of an indignant profession, and from the instructions of a committee of the House of Commons. It was therefore withdrawn from public recommendation.

"Self-supporting medical clubs" have been gravely proposed to stem the tide of medical pauperism, and here and there have been adopted, where a popular medical practitioner has thrown himself into the movement; but as a general measure they have signally failed.

Dutch auctions and self-supporting medical clubs have been succeeded by the proposal of the payment "per-case" system, which, though formally recommended *ex cathedra* from Somerset-house, has been rarely adopted by boards of guardians. The average number of cases thrown upon their medical officer induced boards of guardians to make certain arithmetical calculations, on the basis recommended, of 6s. or 6s. 6d. per case. There are generally two or three steady calculators in every board, well versed in the rule of three, and for economical reasons the "per-case" system has never been a favourite scheme with them. For similar prudential considerations, the "per-case" system has, indeed, found favour in the eyes of medical officers, more particularly if situated in populous districts; but there has always been a difficulty in calculating the amount per case which is suited to a town population close at hand, and the amount per case suited for remote villages and hamlets some five or six miles distant from the nearest surgeon. The difficulties in the way of adjusting these matters have rendered the "per-case" system abortive. The fixed salary, with a scale of fees for severe surgical and obstetrical cases of a definite character, is now the generally accepted plan, and, after all, is the best method of remunerating the medical officer, and of rendering him prompt and diligent in the performance of his duties. The fees adopted by the commissioners in their last new orders have been recommended on competent surgical authorities, and are generally satisfactory to the profession.

The fixed salaries for the usual routine of work is often, however, ruinously low, and quite disproportionate to the number of cases treated, and the distances which the medical officer has to travel to visit his pauper patients. Now, however anxious the medical profession may be to see this anomaly removed by an adequate increase in their salaries, I do not believe that such a pecuniary addition alone would reach or remedy the whole of the evils connected with the present system. I do not wish to take a mere *ex-parte* and professional view of the subject. The interests of the ratepayers and the welfare of the poor are important elements in the question; and, while I would see the union surgeon raised in public estimation and better remunerated, I am anxious at the same time to see the poor better satisfied, and boards of guardians less liable to the suspicion of driving hard bargains with weak and ill-paid public functionaries. The problem to be solved is not a difficult one, and common honesty and common sense will mightily assist the mathematics of the question. A fair and adequate, though by no means a lucrative, remuneration of the medical staff of the country, combined with well-regulated arrangements under a professional board of management, and an ample and unsuspected supply of the necessary medicines required, can alone reconcile the conflicting interests involved, and must form the basis of any permanently satisfactory plan of medical relief to the pauper population.

It must be allowed by all who have thought much on the subject, or have been engaged practically in the working of the system, that there exists defects and inconveniences in the present mode of affording that medical relief which is now so liberally granted to the millions of sick poor belonging to our pauper population. These defects, so greedily fastened on by the press, are not, unfortunately, mere errors of detail which can be corrected locally, but fundamental errors of principle, beyond the reach of zealous officers or considerate boards of guardians.

First, then, the system is defective in appropriate professional superintendence. Boards of guardians, however well constituted to manage the details of parochial relief, are quite incompetent to solve many of the medical questions which must necessarily come before them.

These questions may touch on the skilful or unskilful performance of the medical officers' duties—the cases which require promptitude, the cases

which admit of delay, or the complaints reasonably or unreasonably alleged by the poor or reiterated by the press. There are many suggestions of an important and instructional character, of vital statistics, and of public health, which might emanate from a superintendent board of medical directors, to whom special reports of the more important cases, and of the rise and progress of epidemic diseases, might be regularly made, and would, no doubt, be rendered available for the advancement of medical science and the safety and welfare of society at large.

It is amusing to hear sometimes of the learned critiques of our boards of guardians, even on the medical terms by which we are obliged to designate diseases, especially in the absence of some amateur doctor or learned conjuror among them, to whom they usually apply as to a medical dictionary. Now, the poor-law commissioners themselves, however well selected for other purposes, can be but imperfectly acquainted with professional subjects, which are intimately connected with those sanitary improvements which the present Administration are considered anxious to accomplish. Either the medical boards of the army and navy are unnecessary, or *d fortiori*, a similar establishment is requisite to regulate and assist the two thousand eight hundred and sixty medical officers employed in the parochial unions of England and Wales.

The unscientific public may not be aware of the professional value of the able and useful reports which have been published under the authority of the army and navy boards; or of those wise regulations by which they have assisted the army-surgeon or the navy-surgeon in actual service, in affording prompt and skilful relief to the poor soldier or sailor, subject to all the accidents of life, and the diseases of all the climates of the globe.

Sir Edmund This and Sir Frankland That may be accomplished gentlemen, and well informed in political economy, but must be quite incapable of mastering the various medical matters connected with the poor-law commission. An efficient board of medical directors, who know well the exigencies of civil practice, is the first step I would propose in the path of further amendment. The second fundamental defect in the present system consists in the mode of supplying the necessary medicines. The "chemicals" and "galenicals" being included in the contract of the medical officer, he is always liable to the suspicion, and is seldom free from the imputation, of a very parsimonious employment of expensive medicines. Those who are most generous and conscientious are sometimes involved in this general suspicion, and there are really no means of meeting such a charge. The notoriously low salaries of the medical men create the general suspicion that justice is not done to the poor. This is not as it should be; but it will ever be quite impossible to produce public or even pauper confidence, while this pernicious system is suffered to continue. I am well aware the medical profession in general do not shrink from necessary expenses attending the care of their pauper patients; and that, in the long run, it is much to their personal interests to expedite recovery by all the means in their power, inasmuch as their attentions then cease. I am well aware, too, that the union surgeons are not a whit behind the other members of our body in devotion to their duties, even where the remuneration is grossly inadequate. By day and by night, in fair weather and in foul, in scattered villages and in crowded dwellings, amidst sickness and privation, and in the poisonous effluvia of fever and of death, they form the great horse and foot patrol of public charity throughout the land. They who risk their lives in unwearying exertions in the chambers of pestilence are not likely to withhold even expensive medicines (if actually within their reach), while they prove by their martyr-deaths, that life itself is not a sacrifice too great for them to make in the cause of benevolence and in the amelioration of human misery. In cases, however, in which the medical officer has neither private property nor private practice to enable him to secure an adequate supply of the proper medicines, I do not see how it is possible for him to do the paupers justice, or to perform his contract with any degree of liberality. In order, then, to ensure the confidence of the pauper and the public, I contend that the medical man's prescriptions, in all questionable cases, should be open to the inspection of a competent medical board; and that he should be as free from personal expense in ordering physic, as he is in ordering mutton and wine. His visits to the sick will be then the safe criterion by which the boards of guardians may satisfy themselves that he has been diligent in the performance of his

duties. To put this question in a proper light, only suppose relieving officers were paid by contract an annual sum, out of which the indefinite and required quantities of articles of food were to be supplied to the pauper—would the relieving officers even be able to satisfy the exigencies of the pauper, or the charitable munificence of "Ladies Bountiful" in the alms which do not come out of their own pockets?

If our army surgeons contracted for the medicines they require in their regiments, or our naval surgeons supplied "chemicals and galenicals" out of their fixed salaries, we should soon hear of grumbings and mutinies.

Even the "per-case" system would not mend matters; and mutual suspicion, dissatisfaction, and distrust would arise among the officers and men. Would the "Admiralty" or the "Commander-in-Chief" be tolerated in saying to the medical officers of their departments, "You made the contract—it was at your option to take or refuse it"? Yet such is the exact position of the medical officers of the unions, and such is the language which the authorities have used. The parish doctor has never yet had fair play. Under the old law the contract system was too general to ensure confidence and respect; and this, one of the worst features of the old law, has been retained in the new, and made the basis of medical relief, under what they call "the Poor-law Amendment Act." Society will never and ought never to be satisfied while such an arrangement is suffered to exist. I will boldly assert, that if any hospital or dispensary in the kingdom were managed in a similar way, it would soon fall into disrepute and suspicion. If the governors of these institutions adopted the plan, and obliged their medical staff to contract for the supply of drugs, I doubt whether the surgical talents of a Lawrence would protect him from the suspicion of parsimony, in such matters as leeches, quinine, and sarsaparilla. Now, we ought to meet this evil, so destructive of mutual confidence, in a fair and honest way; and, if the state really pretends to the medical care of the pauper, it ought certainly, without any subterfuge, to find the physic.

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. The advantages of such an arrangement are obvious. The quality and quantity of the drugs would no longer be dependent on the liberality or parsimony, or even the pecuniary ability, of the party prescribing. There would be no motive for the medical man to order the least efficient medicines because the cheapest; and there would be a check upon extravagant expenditure in the superintendence of the central medical board.

Of course, for cases of immediate emergency, the medical officer could carry in his pocket-case (as he now does) a few suitable medicines; but there would be no hurry, neglect, or forgetfulness, in dispensing when he returns from his daily rounds, which must sometimes unavoidably occur where no assistant is kept. Now, the expense of these dispensaries is the only objection that can be raised against them. Do the governors of our hospitals or infirmaries hesitate on the paltry ground of expense? No, Sir George, they are plain men, and "do justice" while they "love mercy." If they take in poor persons for the treatment of disease, they do not contract with the cheapest doctor to cure them. They employ men of skill, and willingly pay for the medicines they deem necessary.

I will not occupy your time by entering into the statistics of the expense, as less than the fee simple of one of our nobility would suffice, and would purchase at an easy rate the confidence of the public and the poor.

I am sure the salaries and allowance of the union surgeon are not magnificent enough to be touched by the alteration; but, as Government already pays one-half of the medical expenses of the unions, it has the right, as well as the power, to enforce the arrangement through an order of the poor-law commissioners. Let them combine union dispensaries with a central medical board, of which the new sanitary board might be part and parcel, and the poor-law medical relief will be finally settled on a sound basis. The position of the medical officers would be honourably improved, and the sick poor, which no Malthusian system has been able to abolish or extinguish, will be efficiently and promptly relieved on terms of mutual respect and confidence; and, where restoration is practicable, the sick pauper will have a better prospect of being restored to the position of the able-bodied labourer—a class to whom the state is under the deepest and most permanent obligations,